

September 2023 | Draft Environmental Impact Report

GENERAL PLAN UPDATE DRAFT EIR

for the City of Colfax

Prepared for:

City of Colfax

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Acronyms & Abbreviations

ACRONYM/ABBREVIATION	MEANING
AFY	Acre-feet per year
APE	Area of Potential Effects
BLM	Bureau of Land Management
BMP	best management practice
BTU	British Thermal Unit
CAL FIRE	California Department of Forestry and Fire Prevention
CBC	California Building Code
CCA	community choice aggregator
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Conservation, and Liability Act of 1980
CESD	Colfax Elementary School District
CFC	California Fire Code
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CNDDDB	California Natural Diversity Database
CPUC	California Public Utilities Commission
CUPA	Certified Unified Program Agency(cies)
CWPP	Community Wildfire Protection Plan
DOC	California Department of Conservation
DOT	Department of Transportation
EIR	environmental impact report
EPA	Environmental Protection Agency
ESA	Endangered Species Act
EV	electric vehicle
FHSZ	Fire Hazard Severity Zone
GHG	greenhouse gas
HMBP	Hazardous Materials Business Plan
I-	Interstate
JPA	joint powers authority
kWh	kilowatt-hours
LAFCO	Local Agency Formation Commission

ACRONYMS & ABBREVIATIONS

ACRONYM/ABBREVIATION	MEANING
LCFS	Low Carbon Fuel Standard
LHMP	Local Hazard Mitigation Plan
LPG	Liquefied petroleum gas
LRA	Local Responsibility Area
mgd	million gallons per day
MLD	Most Likely Descendant
MMRP	mitigation monitoring and reporting program
MRF	Material Recovery Facility
MRZ	Mineral Resource Zone
MS4	Municipal Separate Storm Sewer Systems
MTP	Metropolitan Transportation Plan
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PCE	Pioneer Community Energy
PCFD	Placer County Fire Department
PCWA	Placer County Water Agency
PG&E	Pacific Gas and Electric Company
PUHSD	Placer Union High School District
RCRA	Resource Conservation and Recovery Act
RPS	Renewables Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Government
SCS	Sustainable Communities Strategy
SOI	Sphere of influence
SRA	State Recreational Area
SWPPP	Stormwater Pollution Prevention Plan
TSG	<i>The County of Placer Transportation Study Guidelines</i>
UCMP	University of California Museum of Paleontology
USFS	United States Forest Service
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
WTP	Wastewater Treatment Plant
WUI	wildland-urban interface

1. Executive Summary

This chapter presents an overview of the proposed Colfax 2040 General Plan Update, herein referred to as the “proposed project.” This executive summary also provides conclusions of the analyses contained in Sections 4.1 through 4.17 of this Draft Environmental Impact Report (Draft EIR), a summary of the alternatives to the proposed project, and issues to be resolved.

This Draft EIR addresses the environmental effects associated with adoption and implementation of the proposed project. An EIR is a public document designed to provide the public, local, and State governmental agency decision makers with an analysis of potential environmental consequences to support informed decision making. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects.

This Draft EIR has been prepared pursuant to the requirements of CEQA (California Public Resources Code, Division 13, Section 21000, et seq.) and the State CEQA Guidelines (Title 14 of the California Code of Regulations (CCR), Division 6, Chapter 3, Section 15000, et seq.) to determine if the proposed project could have a significant impact on the environment. In accordance with Section 15166 of the CEQA Guidelines, the EIR will be included as a chapter in the General Plan as it satisfies the following requirements:

- The General Plan addresses all the points required to be in an EIR by Article 9 of these guidelines.
- The document contains a special section or a cover sheet identifying where the General Plan document addresses each of the points required.

1.1 INTRODUCTION

This EIR has been prepared pursuant to the requirements of CEQA and the City of Colfax’s CEQA procedures. The City of Colfax, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgement, including reliance on City technical personnel from other departments.

Data for this EIR derive from analysis of adopted plans and policies; review of available studies, reports, data, and similar literature; and specialized environmental assessments (aesthetics, agriculture and forestry resources, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, mineral resources, land use and planning, noise, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and service systems, and wildfire).

EXECUTIVE SUMMARY

1.2 ENVIRONMENTAL PROCEDURES

The following objectives for the 2040 General Plan Update will aid decision makers in their review of the project and associated environmental impacts:

- Address the current and future needs of residents, businesses, employees, and visitors of Colfax.
- Comply with the State regulations, including new laws such as climate adaptation.
- Engage community members as key decision makers for adaptation, community resiliency, and public safety.
- Update the General Plan without significant land use changes.
- Address the protection, enhancement, use, and management of natural resources and the environment.
- Promote the public's health, safety, and welfare.
- Play a critical role in establishing a positive environment for economic development.
- Address, identify, and promote ways to maintain or enhance economic opportunity, viability and community well-being while protecting and restoring the natural environment.

An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is one of various decision-making tools used by the City to consider the merits and disadvantages of a project that is subject to its discretionary authority. Before approving a proposed project, the City must consider the information in the EIR, determine whether the EIR was prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.3 PROJECT LOCATION

The City of Colfax is the eastern-most incorporated city in Placer County, located in the Sierra Nevada foothills. Colfax is principally bordered by unincorporated Placer County lands. The city covers an area of 1.3 square miles and is bisected by Interstate 80 (I-80). Colfax is a few miles outside the Tahoe National Forest as I-80 begins its climb into the Sierra Nevada. The City of Colfax is in the western part of Placer County, approximately 46 miles northeast of Sacramento and 68 miles southwest of Reno. Interstate and regional access to Colfax is provided by I-80 and Union Pacific Railroad, which runs in a general north-south direction and bisects the city. Rail freight access is provided by the Union Pacific Railroad; Amtrak provides daily passenger service north and south of Colfax. Colfax's regional location is shown in Figure 2-1, *Regional Location*.

EXECUTIVE SUMMARY

1.4 PROJECT SUMMARY

The 2040 General Plan Update is an update to the City of Colfax adopted General Plan. The proposed project includes comprehensive updates to the required elements under the State Planning and Zoning Law, as well as other optional elements that the City has elected to include in its General Plan.

1.4.1 EIR FORMAT

Chapter 1. Executive Summary: Summarizes the background and description of the project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, areas of controversy, and the potential environmental impacts and mitigation measures identified for the project.

Chapter 2. Introduction: Describes the purpose of this EIR, background on the project, the notice of preparation, the use of incorporation by reference, and Final EIR certification.

Chapter 3. Project Description: A detailed description of the project, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this EIR.

Chapter 4. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses: the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; applicable mitigation for the project; the level of significance after mitigation is incorporated; and other existing, approved, and proposed development in the area.

Chapter 5. CEQA-Mandated Assessment: Describes the significant unavoidable adverse impacts and significant irreversible environmental changes associated with the project. Describes the ways in which the project would cause increases in employment or population that could result in new physical or environmental impacts.

Chapter 6. Alternatives: Describes the alternatives and compares their impacts to the impacts of the project. Alternatives include the No Project Alternative.

Chapter 7. Persons and Organizations Consulted/List of Preparers: Lists the people and organizations that were contacted during the preparation of this EIR, as well as the people who prepared this EIR for the project.

Appendices: The appendices for this document comprise the following supporting documents and can be found online at: <https://colfax-ca.gov/government/planning/colfax-planning-documents/>:

- Appendix A: Hillside Development Guidelines
- Appendix B: Vulnerability Assessment (Safety Element Appendix)
- Appendix C: Regulatory Framework

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- Appendix D: References Cited
- Appendix E: NOP and NOP Comments Received
- Appendix F: Air Quality and Greenhouse Gas Emissions Assessment
- Appendix G: City of Colfax General Plan Update Energy Consumption Calculations
- Appendix H: Noise and Vibration Assessment
- Appendix I: Traffic Counts

1.5 SUMMARY OF PROJECT ALTERNATIVES

CEQA requires that an EIR analyze a “no project” alternative (CEQA Guidelines Section 15126.6(e)). CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, the EIR must designate the next most environmentally superior alternative.

- **No Project Alternative:** The No Project alternative, required by CEQA Guidelines Section 15126.6(e), is the only EIR option that does not represent a no-development or no-change scenario. The City’s existing General Plan remains unchanged, and the proposed project will focus on the potential consequences of not updating the General Plan to include State law changes since the current plan’s adoption.
- **Increased Density:** This alternative would require new development to be at the 90th percentile of the density range in the General Plan. This alternative would require less land to accommodate the projected population of 7,037 persons for 2040. This alternative aims to encourage efficient land use and reduce future land annexation.

1.6 AREAS OF CONTROVERSY

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR identify issues to be resolved, including whether or how to mitigate potentially significant impacts and the choice among alternatives. With regard to the proposed project, the major issues to be resolved include decisions by the City of Colfax, as lead agency, related to:

- Whether this EIR adequately describes the environmental impacts of the proposed project.
- Whether the benefits of the project override those environmental impacts that cannot be feasibly avoided or mitigated to a level of insignificance.
- Whether the proposed land use changes are compatible with the character of the existing area.
- Whether the identified goals, policies, or mitigation measures should be adopted or modified.
- Whether there are other mitigation measures that should be applied to the proposed project besides the mitigation measures identified in the EIR.
- Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

1.7 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-1 summarizes the conclusions of the environmental analysis contained in this Draft EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significance after incorporation of the mitigation measures is also presented.

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation		Mitigation Measures	Level of Significance With Mitigation
4.1 Aesthetics				
4.1-1: The proposed project would have a substantial adverse effect on scenic vistas and substantially degrade the existing visual character or quality of public views of its surroundings.	Less than Significant	None Required		Less than Significant
4.2-2: The proposed project would not alter scenic resources within a state scenic highway.	Less than Significant	None Required		Less than Significant
4.3-3: The proposed project would not generate additional light and glare.	Less than Significant	None Required		Less than Significant
4.2 Agricultural and Forestry Resources				
4.2-1: The proposed project would not convert Farmland to nonagricultural use.	No Impact	None Required		No Impact
4.2-2: The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract nor would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), Timberland (as defined by Public Resources Code Section 4526), or Timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).	No Impact	None Required		No Impact
4.2-3: The proposed project would result in loss of forest land or conversion of forest land to non-forest use.	Potentially Significant	Not Feasible		Significant and Unavoidable
4.2-4: The proposed project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.	No Impact	None Required		No Impact
4.3 Air Quality				
4.3-1: Construction activities associated with the proposed project would generate short-term emissions in exceedance of PCAPCD's threshold criteria.	Potentially Significant	Not Feasible		Significant and Unavoidable
4.3-2: Long-term operation of the project would generate new operational emissions in exceedance of PCAPCD's threshold criteria.	Potentially Significant	Not Feasible		Significant and Unavoidable

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation		Mitigation Measures	Level of Significance With Mitigation
4.3-3: The proposed project could expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	Not Feasible		Significant and Unavoidable
4.3-4: The proposed project is consistent with the applicable air quality management plan.	Less than Significant	None Required		Less than Significant
4.3-5: The proposed project would not result in other emissions that would adversely affect a substantial number of people.	Less than Significant	None Required		Less than Significant
4.4 Biological Resources				
4.4-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.	Less than Significant	None Required		Less than Significant
4.4-2: The proposed project would not have a substantial adverse effect on riparian habitat and other sensitive natural communities identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.	Less than Significant	None Required		Less than Significant
4.4-3: The proposed project would not have a substantial adverse effect on State or federally protected wetlands (marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Less than Significant	None Required		Less than Significant
4.4-4: The proposed project could interfere with the movement of a 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.	Less than Significant	None Required		Less than Significant
4.4-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources nor with the provisions of an adopted HCP; NCCP; or other approved local, regional, or State HCP.	No Impact	None Required		No Impact

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.5 Cultural Resources and Tribal Cultural Resources			
4.5-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.	Potentially Significant	Not Feasible	Significant and Unavoidable
4.5-2: The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.	Less than Significant	None Required	Less than Significant
4.5-3: The proposed project would not disturb any human remains, including those interred outside of formal cemeteries.	Less than Significant	None Required.	Less than Significant
4.5-4: The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Sections, 21074, 5020.1(k), or 5024.1.	Potentially Significant	<p>CULT-1 Treatment of Native American Remains. In the event that Native American human remains are found during development of a project and a tribe(s) is determined to be MLD pursuant to Mitigation Measure CULT-1, the following provisions shall apply:</p> <ul style="list-style-type: none"> <li>■ The Medical Examiner shall immediately be notified; ground-disturbing activities in that location shall cease; and the applicable shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to: <ol style="list-style-type: none"> <li>1. Inspect the site of the discovery, and <li>2. Make determinations as to how the human remains and grave goods should be treated and disposed of with appropriate dignity. <li>■ The applicable tribe(s) shall complete its inspection and make its MLD recommendation within 48 hours of getting access to the site. The tribe(s) shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. <li>■ The applicable tribe(s) may wish to rebury said human remains and grave goods or ceremonial and 	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		<p>cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b).</p>	
	CULT -2	<p>Non-Disclosure of Location of Reburials. In the event that Native American human remains are discovered, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, California Government Code Section 6250 et seq., unless otherwise required by law. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The applicable tribe(s) will require that the location for reburial is recorded with the California Historic Resources Inventory System (CHRIS) on a form that is acceptable to the CHRIS center.</p>	
	CULT -3	<p>Treatment of Cultural Resources. In the event that cultural items are found on-site, all such items, including ceremonial items and archaeological items, should be turned over to the applicable tribe(s) for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction. The project proponent should waive any and all claims to ownership of tribal ceremonial and cultural items, including archaeological items, which may be found on a project site in favor of the applicable tribe(s). If any intermediary, for example, an archaeologist retained by the project proponent, is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the applicable tribe(s).</p>	
	CULT -4	<p>Inadvertent Discoveries. In the event that additional significant site(s) not identified as significant in a project environmental review process, but are later determined</p>	

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
		to be significant, are located within a project impact area, such sites will be subjected to further archaeological and cultural significance evaluation by the project proponent, lead agency, and the applicable tribe(s) to determine if additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with federal law.	
4.6 Energy			
4.6-1: Implementation of the proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources.	Less than Significant	None Required	Less than Significant
4.6-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	Less than Significant	None Required	Less than Significant
4.7 Geology and Soils			
4.7-1: Implementation of the proposed project would/would not 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; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides, mudslides, or other similar hazards.	Less than Significant	None Required	Less than Significant
4.7-2: The project would not result in substantial soil erosion or the loss of topsoil.	Less than Significant	None Required	Less than Significant
4.7-3: 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	Less than Significant	None Required	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.			
4.7-4: The proposed project would not create substantial risks to life or property as a result of its location on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial direct or indirect risks to life or property.	Less than Significant	None Required	Less than Significant
4.7-5: The proposed project would not use septic tanks or alternative wastewater disposal systems where soils would be incapable of adequately supporting them in cases where sewers are not available for the disposal of wastewater.	Less than Significant	None Required	Less than Significant
4.7-6: Implementation of the proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially Significant	<p>GEO-1: Prior to issuance of a grading permit for projects involving ground disturbance in previously undisturbed areas, the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have sensitivity, construction activity shall be monitored by a qualified paleontologist. The paleontologist shall have the authority to halt construction during ground-disturbing activities, as outlined in Mitigation Measure GEO-2.</p> <p>GEO-2: In the event of any fossil discovery, regardless of depth or geologic formation, ground-disturbing activities shall halt within a 50-foot radius of the find until its significance can be determined by a qualified paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility, in accordance with the standards of the Society of Vertebrate Paleontology. The repository shall be identified, and a curatorial arrangement shall be signed prior to collection of the fossils.</p>	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
<p>4.7-7: Implementation of the proposed project could result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state.</p>	<p>Potentially Significant</p>	<p>MIN-1: Pursuant to the Public Resources Code, the Surface Mining and Reclamation Act, Chapter 9, Article 4, Section 2762(e), prior to the issuance of a grading permit on lands classified by the State Geologist as MRZ-1 or MRZ-3, the Placer County Geologist shall make a site-specific determination as to the site’s potential to contain or yield important or significant mineral resources of value to the region and the residents of the State of California.</p> <p>If it is determined by the County Geologist that lands classified as MRZ-3 have the potential to yield significant mineral resources that may be of “regional or statewide significance” and the proposed use is considered “incompatible” (as defined by Section 3675 of Title 14, Article 6, of the California Code of Regulations) and could threaten the potential to extract said minerals, the future project applicant(s) shall prepare an evaluation of the area to ascertain the significance of the mineral deposit located therein. This site-specific mineral resources study shall be performed to, at a minimum, document the site’s known or inferred geological conditions; describe the existing levels of development on or near the site which might preclude mining as a viable adjacent use; and analyze the State standards for designating land as having “regional or statewide significance” under the Surface Mining and Reclamation Act. The results of such evaluation shall be transmitted to the State Geologist and the State Mining and Geology Board.</p> <p>Should significant mineral resources be identified, the future project applicant(s) shall either avoid said resource or incorporate appropriate findings subject to a site-specific discretionary review and California Environmental Quality Act process.</p>	<p>Less than Significant</p>

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.7-8: Implementation of the proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan.	No Impact	None Required	No Impact
4.8 Greenhouse Gases			
4.8-1: The proposed project would generate construction-based greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially Significant	Not Feasible	Significant and Unavoidable
4.8-2: The proposed project would generate operational greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially Significant	Not Feasible	Significant and Unavoidable
4.8-3: The project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant	None Required	Less than Significant
4.9 Hazards and Hazardous Materials			
4.9-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than Significant	None Required	Less than Significant
4.9-2: The project would not 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.	Less than Significant	None Required	Less than Significant
4.9-3: The project would not emit hazardous emissions or handle hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school.	Less than Significant	None Required	Less than Significant
4.9-4: The project would not be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	Less than Significant	None Required	Less than Significant
4.9-5: The project is not located in the vicinity of an airport, nor is it within the jurisdiction of an airport land use plan.	Less than Significant	None Required	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.9-6: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan	Less than Significant	None Required	Less than Significant
4.9-7: The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Potentially Significant	Not Feasible	Significant and Unavoidable
4.10 Hydrology and Water Quality			
4.10-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less than Significant	None Required	Less than Significant
4.10-2: The proposed 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.	Less than Significant	None Required	Less than Significant
4.10-3: The proposed 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 that 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 that would result in flooding on- or off-site; (iii) 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; or (iv) impede or redirect flood flows.	Less than Significant	None Required	Less than Significant
4.10-4: The proposed project would not be in a flood hazard, tsunami, or seiche zone, or risk release of pollutants due to project inundation.	No Impact	None Required	No Impact
4.10-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than Significant	None Required	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.11 Land Use and Planning			
4.11-1: Implementation of the proposed project would not divide an established community.	Less than Significant	None Required	Less than Significant
4.11-2: Implementation of the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant	None Required	Less than Significant
4.12 Noise			
4.12-1: The project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards.	Less than Significant	None Required	Less than Significant
4.12-2: The proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels.	Less than Significant	None Required	Less than Significant
4.12-3: For a project located within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the project would not expose people residing or working in the project area to excessive noise levels.	Less than Significant	None Required	Less than Significant
4.13 Population and Housing			
4.13-1: The proposed project would not directly induce substantial unplanned population growth.	Potentially Significant	Not Feasible	Significant and Unavoidable
4.13-2: The proposed project would not displace people and/or housing.	Less than Significant	None Required	Less than Significant
4.14 Public Services, Parks, and Recreation			
4.14-1: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain	Less than Significant	None Required	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
acceptable service ratios, response times, or other performance objectives for any of the public services: i) fire protection, ii) police protection, iii) schools, and iv) other public facilities.			
4.14-2: The project would 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.	Less than Significant	None Required	Less than Significant
4.14-3: The project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Less than Significant	None Required	Less than Significant
4.15 Transportation			
4.15-1: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	No Impact	None Required	No Impact
4.15-2: The project would conflict or be inconsistent with CEQA Guidelines, Section 15064.3, subdivision (b).	Potentially Significant	Not Feasible	Significant and Unavoidable
4.15-3: 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).	Less than Significant	None Required	Less than Significant
4.15-4: The project would not result in inadequate emergency access.	Less than Significant	None Required	Less than Significant
4.16 Utilities and Service Systems			
4.16-1: The project would require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage; however, the construction or relocation would not cause significant environmental effects.	Less than Significant	None Required	Less than Significant
4.16-2: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Less than Significant	None Required	Less than Significant

EXECUTIVE SUMMARY

TABLE 1-1 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Environmental Impact	Level of Significance Without Mitigation	Mitigation Measures	Level of Significance With Mitigation
4.16-3: Implementation of the proposed project would not result in a determination by the wastewater treatment provider that 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.	Less than Significant	None Required	Less than Significant
4.16-4: The project would not generate solid waste in excess and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	Less than Significant	None Required	Less than Significant
4.17 Wildfire			
4.17-1: Development under the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	Less than Significant	None Required	Less than Significant
4.17-2: Development under the proposed project could exacerbate wildfire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to elevated particulate concentrations from a wildfire.	Potentially Significant	Not Feasible	Significant and Unavoidable
4.17-3: The proposed project would not require the installation and maintenance of associated infrastructure in areas that are undeveloped or vacant, which could exacerbate fire risk or result in temporary or ongoing impacts to the environment.	Less than Significant	None Required	Less than Significant
4.17-4: The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Less than Significant	None Required	Less than Significant

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2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all State and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority before acting on those projects. This draft environmental impact report (Draft EIR) has been prepared to satisfy the CEQA Statutes (California Public Resources Code, Section 21000 et seq.) and CEQA Guidelines (California Code of Regulations, Section 15000 et seq). The EIR is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage, and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth-inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present, and reasonably foreseeable future projects.

The lead agency means “the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment” (CEQA Section 21067). The City of Colfax has the principal responsibility for approval of the City of Colfax General Plan Update. For this reason, the City of Colfax is the CEQA lead agency for this project.

The intent of the Draft EIR is to provide sufficient information on the potential environmental impacts of the proposed City of Colfax General Plan Update (proposed project) to allow the City to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City are described in Section 3.3.5, *Intended Uses of the EIR*.

This Draft EIR has been prepared in accordance with requirements of the:

- The CEQA Statutes of 1970, as amended (California Public Resources Code, Section 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (CEQA Guidelines), as amended (CCR, Section 15000 et seq.)

The overall purpose of this Draft EIR is to inform the lead agency, responsible agencies, decision makers, and the general public about the environmental effects of the development and operation of the proposed City of Colfax General Plan Update. This Draft EIR addresses effects that may be significant and adverse; evaluates alternatives to the project; and identifies mitigation measures to reduce or avoid adverse effects.

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2.2 NOTICE OF PREPARATION

The City of Colfax determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on July 7, 2023 (see Appendix E). Comments received during the NOP comment period, from July 7, 2023, to August 7, 2023, are in Appendix E. Table 2-1, *Notice of Preparation Comments*, summarizes the comments received during the public comment period. The NOP solicited comments from identified responsible and trustee agencies and interested parties regarding the scope of the Draft EIR.

TABLE 2-1 NOTICE OF PREPARATION COMMENTS

Agency/Organization/ Individual	Date	Summary of Comments	Section of EIR Comment is Addressed
Agency			
Native American Heritage Commission (NAHC)	07/24/2023	<ul style="list-style-type: none"> ▪ The NAHC explains Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18) which both have tribal consultation requirements. ▪ The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. ▪ AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015. ▪ SB 18 applies to all California tribes and local governments that adopt or amend general plans or specific plans or create open space designations. ▪ NAHC recommends contacting the appropriate regional California Historical Research Information System (CHRIS) Center for an archaeological records search. ▪ NAHC recommends if an archaeological inventory survey is required then prepare a professional report detailing the findings and recommendations of the records search and field study. ▪ NAHC recommends contacting the NAHC for a Sacred Lands File search and a Native American Consultation List of appropriate tribes for consultation concerning the project site 	Section 4.5, <i>Cultural and Tribal Cultural Resources</i>
California Department of Fish and Wildlife (CDFW)	08/04/2023	<ul style="list-style-type: none"> ▪ The CDFW explains what the project description and EIR should include in regard to CEQA. ▪ The CDFW emphasis the importance of understanding the regional setting of a project and to better assess the flora and fauna within or adjacent to the project site. ▪ The CDFW recommends an assessment of all generic habitat types located at the project site, adjoining areas should be included where site activities could lead to direct and indirect impacts offsite. 	Section 4.4, <i>Biological Resources</i>

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Agency/Organization/ Individual	Date	Summary of Comments	Section of EIR Comment is Addressed
		<ul style="list-style-type: none"> ▪ The CDFW encourages having a biological inventory that can affect fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present that could be impacted by the project. ▪ The CDFW encourages having a complete and recent inventory of rare, threatened, endangered and other sensitive species located on the project site or adjacent to it. The inventory should address seasonal variations in the project area. ▪ The CDFW recommends that the EIR must demonstrate that the significant environmental impacts of the project were adequately investigated, discussed and full environmental context on significant effects. ▪ The CDFW encourages a discussion of the potential impacts from lightning, noise, human activity, and wildlife-human interactions as a result of project activities especially those adjacent to habitat areas. Especially on how the project site would impact habitats in regard to hydrology ▪ The CDFW encourages the discussion of potential indirect project impacts on biological resources including nearby public lands, open space, natural habitats, riparian ecosystems, wildlife corridors and other potential habitat-related areas that are adjacent to the project footprint area. ▪ The CDFW highlights how the EIR should discuss a project’s cumulative impacts to natural resources. ▪ The CDFW recommends the agency include an analysis on how to reduce indirect impacts relating to fully protected species and include analysis on appropriate mitigation measures that will reduce impacts to special species of concern. ▪ The CDFW recommends that the EIR include measures on how to fully protect sensitive plant communities from project related direct and indirect impacts. ▪ The CDFW recommends the EIR fully analyze potential adverse impacts to native wildlife nurse sites, including but not limited to bat maternity roosts. ▪ The CDFW recommends that the EIR should include measures to protect the targeted habitat values. ▪ The CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. ▪ The CDFW recommends the EIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. ▪ The CDFW recommends fish and wildlife species be allowed to move out of harm’s way on their own volition, if possible, and to assist their relocation as a last resort. ▪ The CDFW supports that the EIR describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species. 	

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Agency/Organization/ Individual	Date	Summary of Comments	Section of EIR Comment is Addressed
Central Valley Regional Water Quality Control Board (RWQCB)	08/07/2023	<ul style="list-style-type: none"> ▪ The Central Valley RWQCB creates the Basin Plans for all areas of the Central Valley and regulatory process for the Basin plans. ▪ The RWQCB explains how the antidegradation process complies with state water policy and helps maintain water quality. ▪ The RWQCB explains that dischargers who exceed a disturbance limit are required to obtain coverage under the general permit for storm water discharges. The permit system also requires a storm water pollution prevention plan. ▪ The RWQCB explains the Phase 1 and Phase 2 (MS4) permits require that permittees reduce pollutants and runoff flows from new development using Best Management practices to the maximum extent practicable. ▪ The RWQCB states industrial sites that are associated with storm water discharges must comply with the industrial storm water general permit. ▪ The RWQCB states if a project involves the discharge of dredged or fill material in wetlands or navigable waters, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). ▪ The RWQCB states that if a USACE or federal permit is required for a project, then Water Quality certification from the RWCB is required before starting project activities. ▪ The RWQCB explains that if the USACE determines only non-jurisdictional waters of the State are present in the proposed project area, then the proposed project would require a water discharge permit from RWQCB. ▪ The RWQCB explains that if the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order. ▪ The RWQCB states that if the proposed project includes construction dewatering and discharge groundwater to waters of the United States, the proposed project will require a National Pollutant Discharge Elimination System (NPDES) permit. ▪ The RWQCB explains that if the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a NPDES permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. 	Section 4.10, <i>Hydrology</i>

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Agency/Organization/ Individual	Date	Summary of Comments	Section of EIR Comment is Addressed
Placer County Air Pollution Control District (PCAPCD)	08/07/2023	<ul style="list-style-type: none"> ▪ The PCAPCD explains the CEQA thresholds of significance on Greenhouse Gases, criteria pollutants and recommends applying the district’s thresholds to determine the significance. ▪ The PCAPCD recommends using the district’s CEQA handbook to use certain approaches and mitigation measures on related impacts. ▪ The PCAPCD recommends using the California Emissions Estimator Model (CalEEMod) when analyzing related local air emissions from construction and operational phases. ▪ The PCAPCD explains that if there are significant adverse air quality related impacts, CEQA requires that all feasible mitigation measures be implemented during construction and operation to minimize adverse air quality impacts. ▪ The PCAPCD recommends a CANLINE 4 analysis for carbon monoxide concentration under certain scenarios involving emission related impacts from traffic. 	Section 4.3, <i>Air Quality</i> Section 4.8, <i>Greenhouse Gases</i>

The Colfax City Council held a public scoping meeting on July 20, 2023, to receive input from the community on the proposed scope of the EIR. There were no questions from the public at the meeting. Appendix E of this Draft EIR, Notice of Preparation and Scoping Comments, contains the NOP as well as the comments received by the City in response to the NOP.

2.3 SCOPE OF THIS DRAFT EIR

This Draft EIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as for a Project EIR, Program EIRs are typically more conceptual than Project EIRs, with a more general discussion of impacts, alternatives, and mitigation measures with a focus on defining subsequent actions that will be needed before projects can move forward. According to Section 15168 of the CEQA Guidelines, a Program EIR may be prepared on a series of actions that can be characterized as one large project. Use of a Program EIR gives the lead agency an opportunity to consider broad policy alternatives and program-wide mitigation measures, as well as greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive scale.

Agencies prepare Program EIRs for programs or a series of related actions that are linked geographically; logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document is necessary. However, if the Program EIR addresses the program’s effects as specifically and comprehensively as possible, many subsequent activities may be within the Program EIR’s scope, and additional environmental documents may not be required (CEQA Guidelines Section 15168[c]). When a lead agency relies on a Program EIR for a subsequent activity, it must incorporate feasible mitigation measures and alternatives from the Program EIR into the subsequent activities (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects outside the scope of the

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Program EIR, the lead agency must prepare a new Initial Study leading to a Negative Declaration, Mitigated Negative Declaration, or an EIR. Even in this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. The CEQA Guidelines (Section 15168[h]) encourage the use of Program EIRs, citing five advantages of a Program EIR, including:

- Providing a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR;
- Focusing on cumulative impacts that might be slighted in a case-by-case analysis;
- Avoiding continual reconsideration of recurring policy issues;
- Considering broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them;
- Reducing paperwork by encouraging the reuse of data (through tiering).

For a complete list of environmental topics covered in this Draft EIR, see Chapter 4, *Environmental Analysis*.

2.4 INCORPORATION BY REFERENCE

The following documents are incorporated by reference in this Draft EIR, consistent with Section 15150 of the State CEQA Guidelines, and are available for review at the City of Colfax.

- Public Review Draft General Plan
- 2021-2029 Housing Element
- Colfax Municipal Code

2.5 FINAL EIR CERTIFICATION

Upon completion of the 45-day review period, the City will review all written comments received and prepare written responses for each comment. A Final EIR will be prepared that incorporates all of the comments received, responses to comments raising environmental issues, and any changes to the Draft EIR. The Final EIR will be presented to the City Council for a recommendation on EIR certification and potential certification as the environmental document for the proposed project. Public input is encouraged at all public hearings before the City Council.

All persons who commented on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearings before the City Council. All responses to comments submitted on the Draft EIR by agencies will be provided to those agencies at least 10 days prior to certification of the Draft EIR.

2.5.1 FINDINGS

The project is considered a legislative action and the final decision will be made by the City Council. The City Council will make findings regarding the extent and nature of the environmental impacts as presented in the Final EIR.¹ The findings will be based in large part on the information in this Draft EIR, but may also include other supporting information in the public record for the project, such as public testimony, staff reports, applicant submittals, letters to the City, etc.

The City Council will require the mitigation measures specified in this Draft EIR to be incorporated into the General Plan as development policies and may establish other/additional policies that help reduce environmental impacts to a less-than-significant level and require other feasible mitigation measures that arise out of the public review and comment process. However, environmental impacts that cannot be mitigated to a level considered less than significant are considered significant unavoidable impacts. For instance, the City Council may find that the mitigation measures are outside the jurisdiction of the City to implement or that no feasible mitigation measures have been identified for a given significant impact. In such cases, the City Council may nonetheless determine that the proposed project is necessary or desirable due to specific overriding considerations, including economic factors, and may approve the proposed project despite an unavoidable, significant impact. This information will be included in the findings for the proposed project. This is termed a “statement of overriding considerations.”

The findings will accompany staff materials to the City Council to consider this EIR and the proposed project. The Final EIR will need to be certified as complete by the City prior to any decision to approve the proposed project. The proposed project can be denied if the EIR is not certified.

2.5.2 CONSIDERATION OF THE PROPOSED PROJECT

After the City Council certifies the Final EIR, it may consider the proposed project itself, which it may approve as presented in this EIR, approve in part, approve with conditions, or deny. The certification of this EIR does not approve any component of the proposed project. The approval of the 2040 General Plan Update may occur separately from the certification of the EIR, if at all.

2.5.3 MITIGATION MONITORING

A mitigation monitoring and reporting program (MMRP) must be adopted if the proposed project is approved.² This ensures that the mitigation measures required by the EIR, as well as any project design features that are essential to reducing an environmental impact, are carried through with implementation of the project. Although the MMRP is not required to be part of the EIR, the information used to create it will be included in the EIR, and the MMRP will be an attachment to the staff report sent to the City Council for consideration of the proposed project.

¹ CEQA Section 15091.

² CEQA Section 15091(d).

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3. Project Description

3.1 PROJECT LOCATION

The City of Colfax is the eastern-most incorporated city in Placer County, in the Sierra Nevada foothills. Colfax is principally bordered by unincorporated Placer County lands. The city covers an area of 1.3 square miles and is bisected by Interstate 80 (I-80). Colfax is a few miles outside the Tahoe National Forest as I-80 begins its climb into the Sierra Nevada. The City of Colfax is in the western part of Placer County, approximately 46 miles northeast of Sacramento and 68 miles southwest of Reno. Interstate and regional access to Colfax is provided by I-80 and the Union Pacific Railroad, which runs in a general north to south direction and bisects the city. Rail freight access is provided by the Union Pacific Railroad; Amtrak provides daily passenger service north and south of Colfax. Colfax's regional location is shown on Figure 2-1, *Regional Location*.

3.2 PROJECT OBJECTIVES

The following objectives for the Colfax 2040 General Plan Update (proposed project) will aid decision makers in their review of the project and associated environmental impacts:

- Address the current and future needs of residents, businesses, employees, and visitors of Colfax.
- Comply with the State regulations, including new laws such as climate adaptation.
- Engage community members as key decision makers for adaptation, community resiliency, and public safety.
- Update the General Plan without significant land uses changes.
- Address the protection, enhancement, use, and management of natural resources and the environment.
- Promote the public's health, safety, and welfare.
- Play a critical role in establishing a positive environment for economic development.
- Address, identify, and promote ways to maintain or enhance economic opportunity, viability, and community well-being while protecting and restoring the natural environment.

In addition to the objectives outlined in the General Plan 2040 Guiding Principles, the proposed project aims to accommodate anticipated population growth and to allow Colfax residents to maintain economic use and value of their property.

PROJECT DESCRIPTION

3.3 PROJECT CHARACTERISTICS

3.3.1 OVERVIEW OF THE PROPOSED PROJECT

The proposed project is an update to the City of Colfax's 2020 General Plan, adopted in 1998. The General Plan is a State-required legal document that provides guidance to decision makers regarding the allocation of resources and determining the future physical form and character of development in Colfax and its sphere of influence (SOI). It is the official statement of the City regarding the extent and types of development needed to achieve the community's physical, economic, social, and environmental goals.

The proposed project includes comprehensive updates to the required elements under the State Planning and Zoning Law, as well as other optional elements that the City has elected to include in its General Plan.

The 2040 General Plan is updating the following elements:

- Land Use Element
- Community Design Element (Optional Element)
- Circulation Element
- Housing Element (Stand-alone Element)¹
- Noise Element
- Safety Element
- Conservation and Open Space Element
- Economic Development Element (Optional Element)

The goals, policies, and implementation measures in the General Plan 2040 Update would guide development and conservation in Colfax through 2040.

3.3.2 GENERAL PLAN REVISIONS

Land Use Element

The Land Use Element provides the foundation for all other elements in the General Plan. The key component of the Element is the General Plan Diagram, which, along with the policies and implementation measures in the element, determine the location, intensity, design, and quality of new development and guide the preservation of natural resources that are key to Colfax's identity.

¹ Colfax's 6th Cycle (2021-2029) Housing Element certified July 2021 by the California Department of Housing and Community Development

PROJECT DESCRIPTION

The Land Use Element is revised to manage development in a way that supports the community’s vision for the future of Colfax. The City intends to update the General Plan without significant land use changes to preserve the character of the city and quality of life for the residents of Colfax.

Land Use Map Changes

The 2040 General Plan Update would amend the General Plan land use diagram, shown on Figure 2-2, *Land Use Diagram*. The goals, policies, and implementation measures in the Land Use Element provide additional direction on how the various land use designations should be developed to contribute to the overall character of and vision for Colfax. The land use map changes would occur throughout the city. The 2040 General Plan would redesignate a total of 819 parcels.

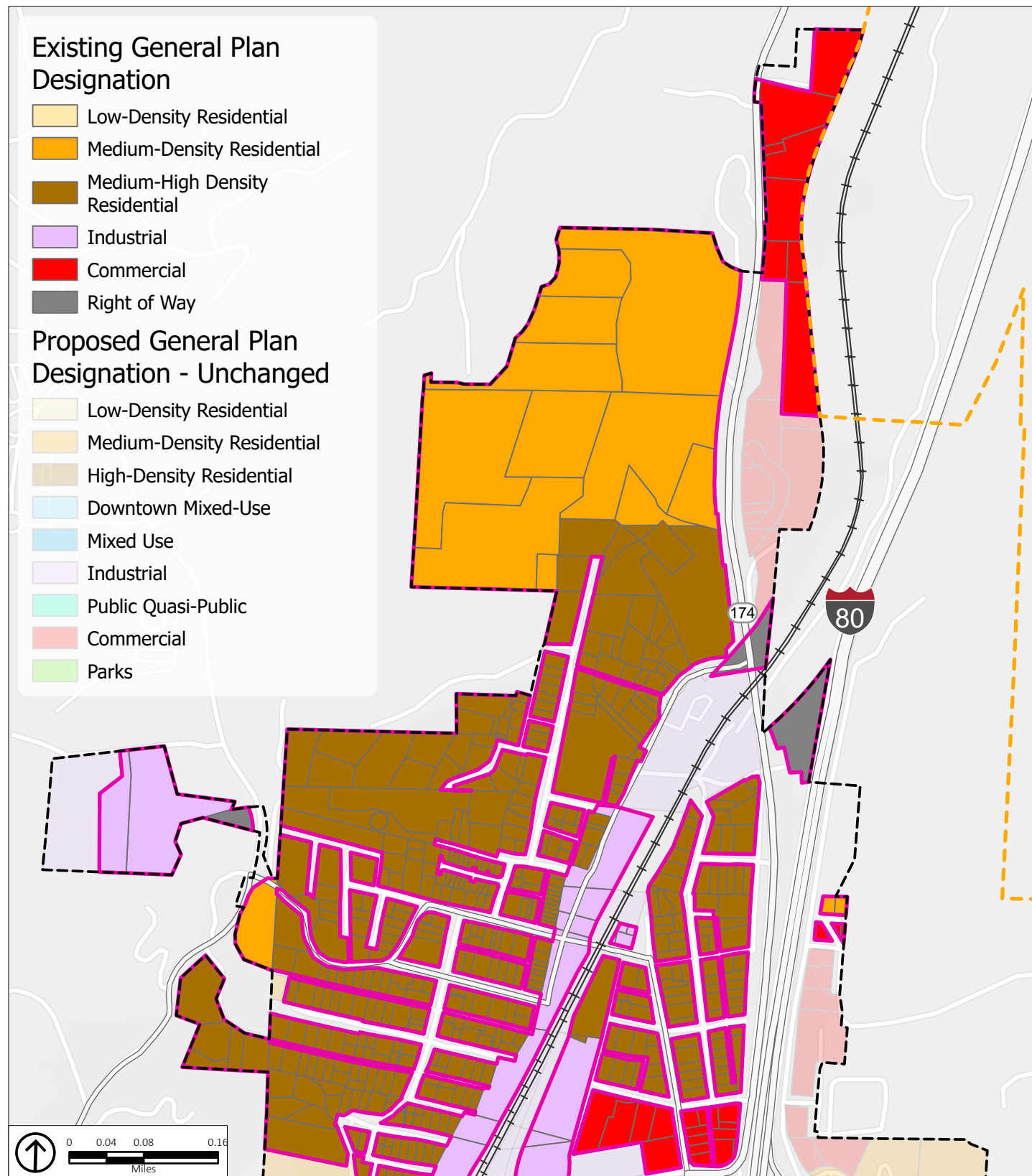
Land Use Designation Changes

The proposed land use changes would occur on 819 parcels, consisting of 500 acres. As shown in Table 3-1, *General Plan 2040 and Proposed Land Use Designation Acres*, the 2040 General Plan Update would increase the amount of land designated for low-density residential and reduce the amount of land designated for medium-density residential, high-density residential, industrial, and commercial uses. Land use designations of public-quasi public facilities, parks, mixed-use, and downtown mixed-use are completely new designations. The proposed land use changes would occur on 819 parcels throughout the city, as shown on Figures 3-1a through 3-1c, *Proposed Land Use Designations in Colfax City Limits*.

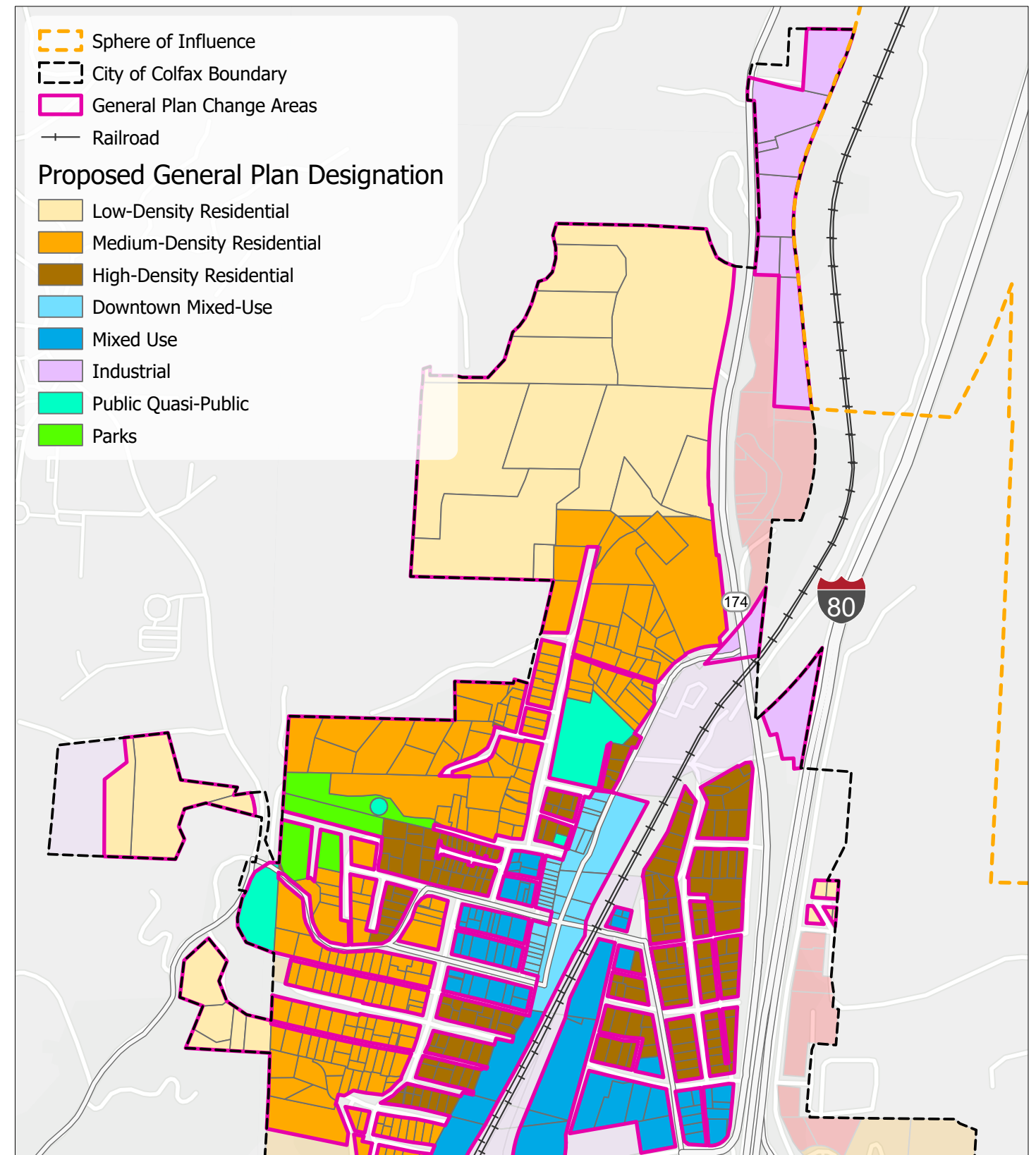
TABLE 3-1 GENERAL PLAN 2040 AND PROPOSED LAND USE DESIGNATION ACRES

Land Use	General Plan 2020 (Existing Acres)	General Plan 2040 (Proposed Acres)	Difference (Acres)
Low Density Residential	0.1	164.6	+164.5
Medium Density Residential	210.5	181.5	-29.0
High Density Residential	153.3	36.3	-117.1
Downtown Mixed-Use	--	27.6	+27.6
Mixed-Use	--	8.3	+8.3
Industrial	223.4	105.3	-118.2
Commercial	226.1	141.1	-85.0
Parks	--	6.4	+6.4
Public-Quasi Public Facilities	--	97.5	+97.5
Right-of-Way	66.3	111.2	+45.0
Total	880	880	0

Existing Land Use Designations



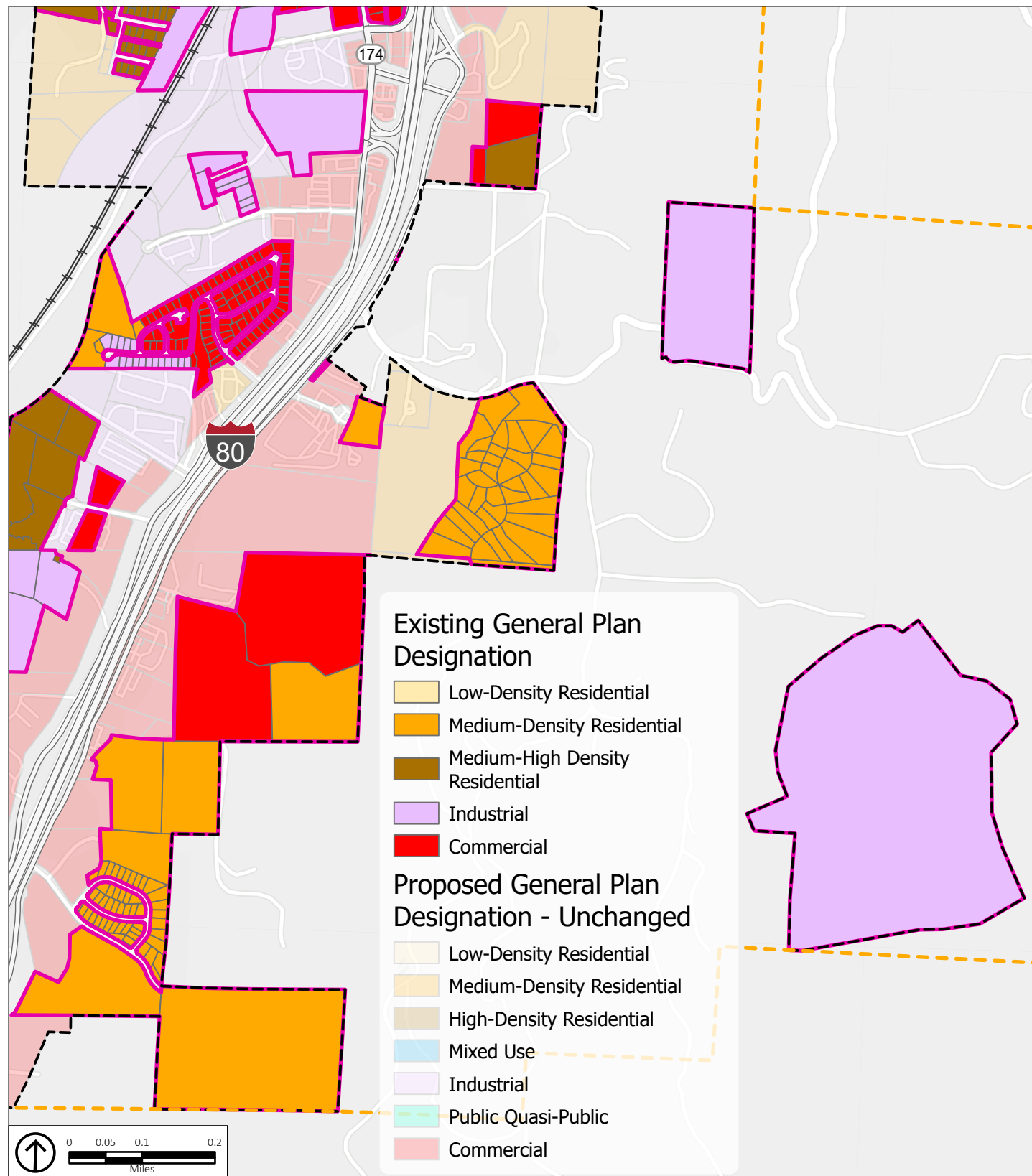
Proposed Land Use Designations



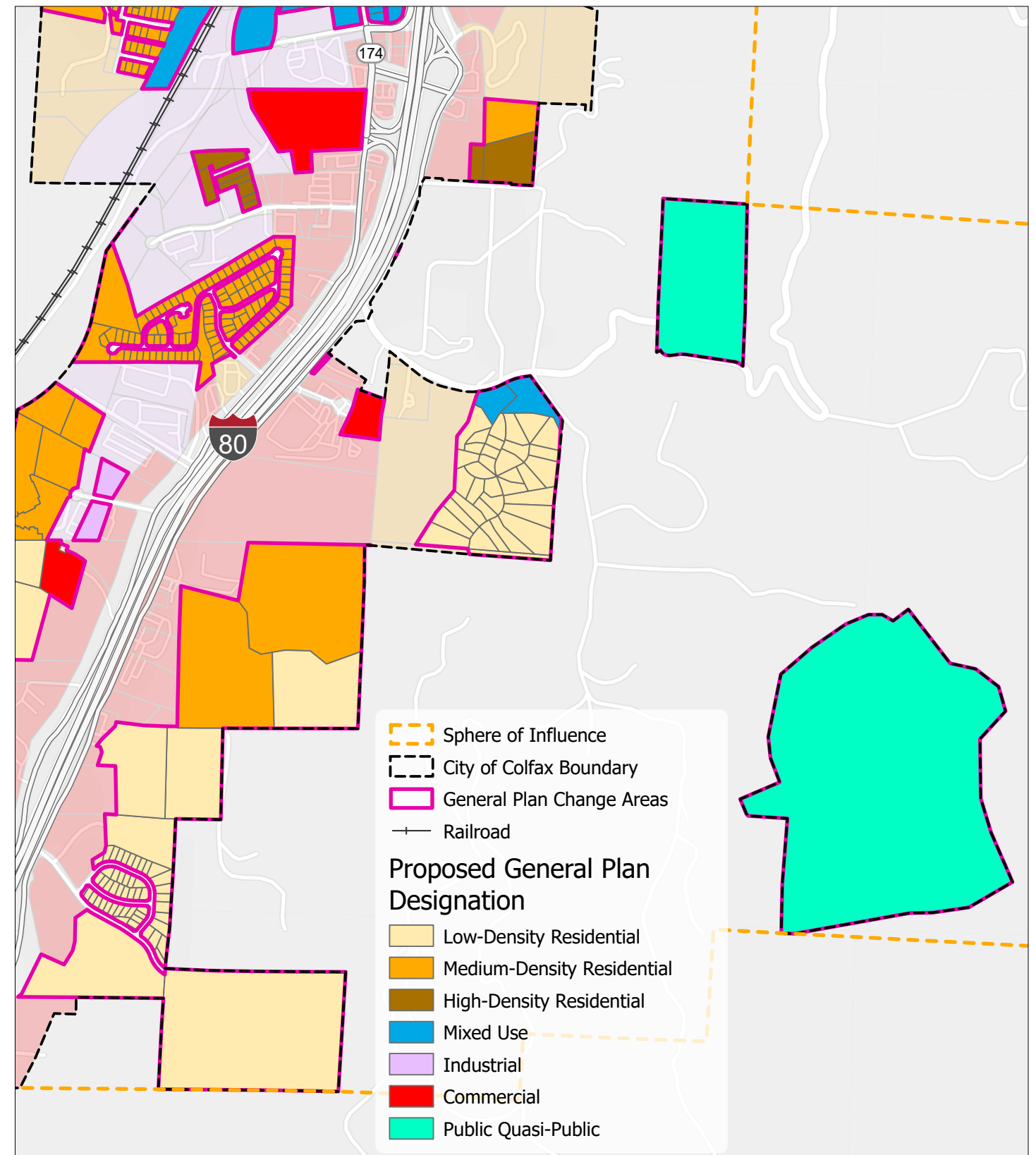
Source: Esri Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, City of Colfax

Figure 3-1a
Proposed Land Use Designations in Colfax City Limits

Existing Land Use Designations



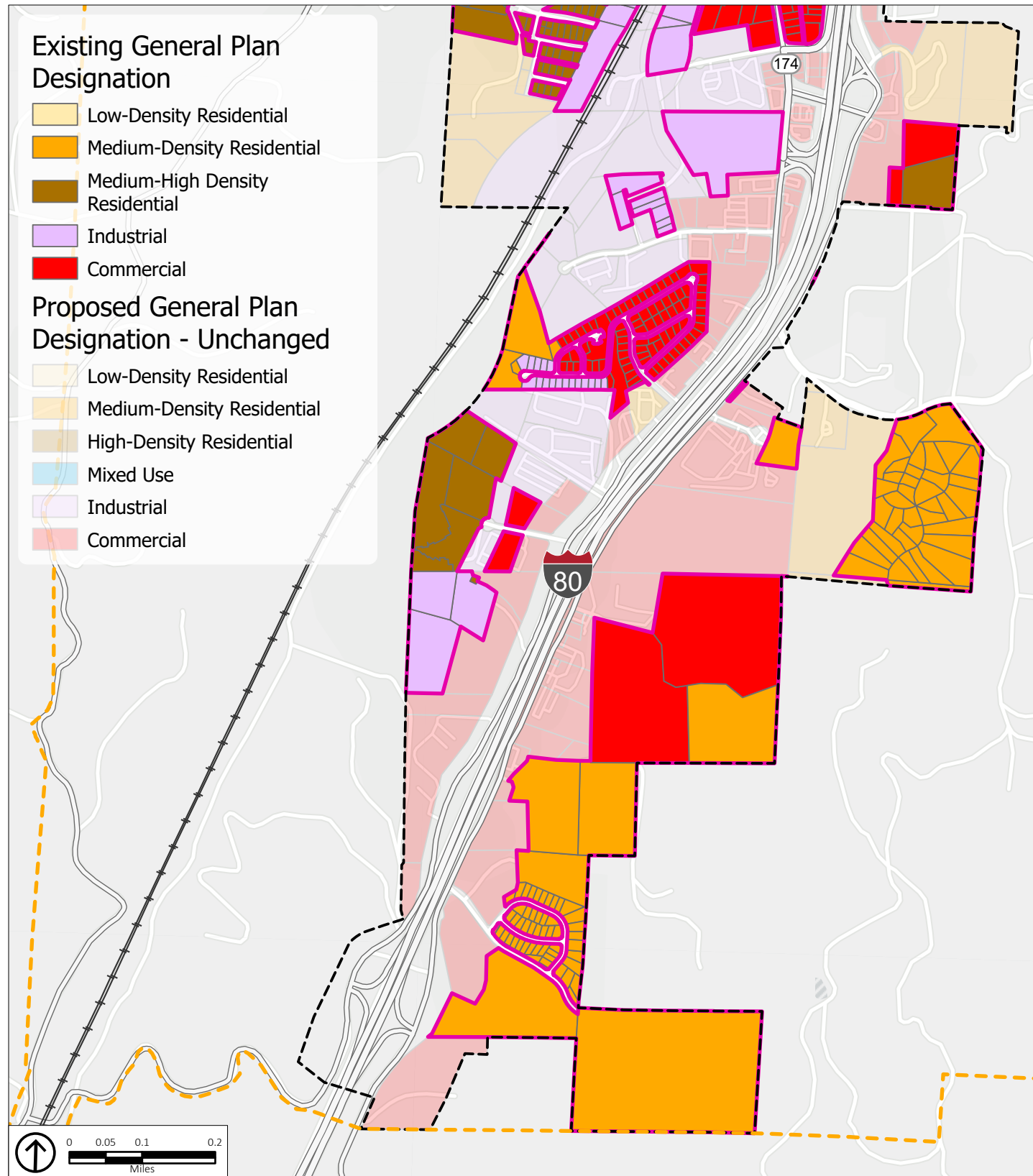
Proposed Land Use Designations



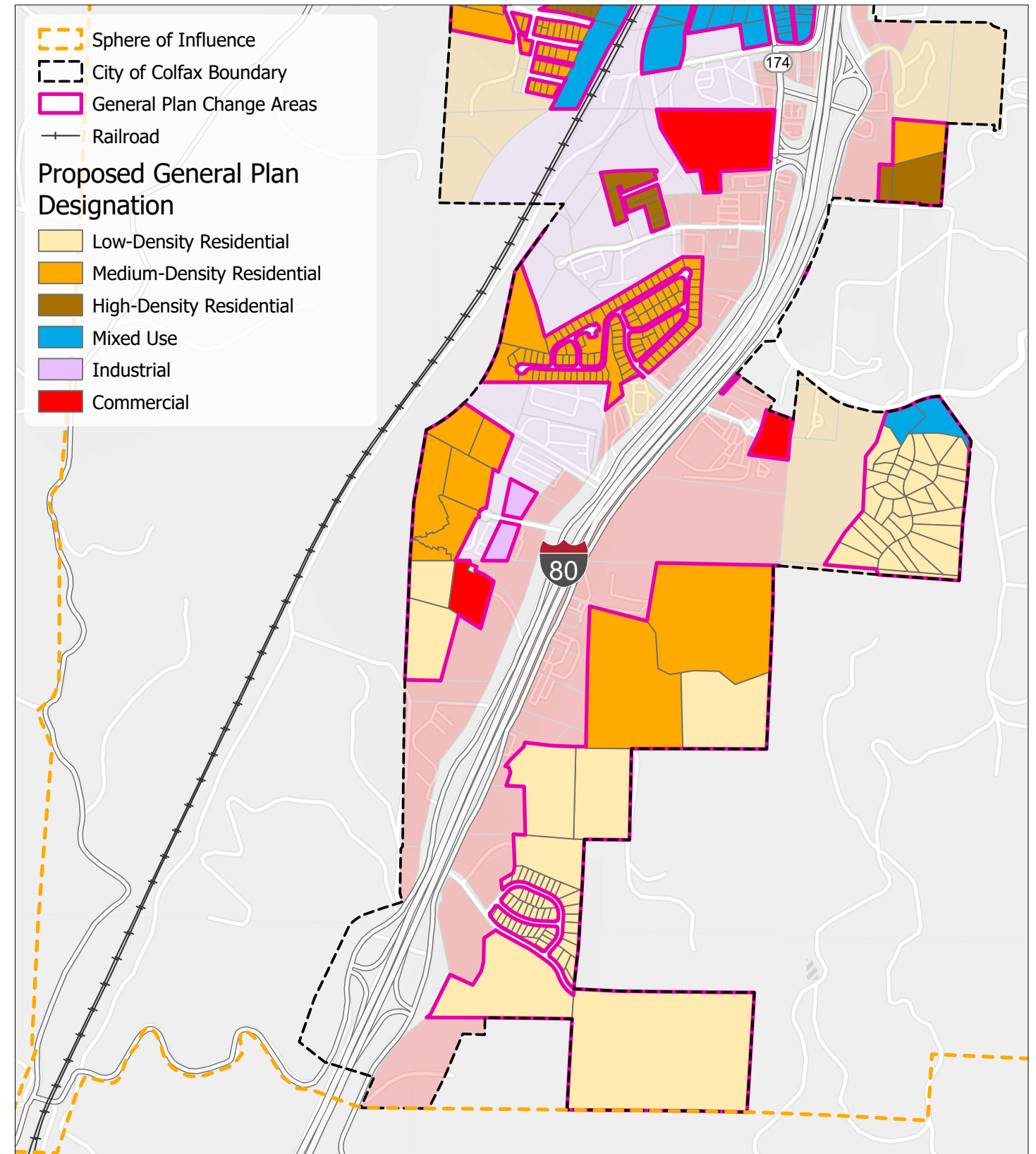
Source: Esri Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, City of Colfax

Figure 3-1b
Proposed Land Use Designations in Colfax City Limits

Existing Land Use Designations



Proposed Land Use Designations



Source: Esri Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

Figure 3-1c
Proposed Land Use Designations in Colfax City Limits

PROJECT DESCRIPTION

Table 3-2, *City of Colfax Buildout Projections*, illustrates the buildout projections for the City of Colfax as a result of the General Plan Update. Note that these projections are based on the City’s existing land use and the General Plan 2040’s proposed land use changes.

TABLE 3-2 CITY OF COLFAX BUILDOUT PROJECTIONS

	2020 (Existing)	2040 (General Plan)	Growth (2020- 2040)	Percentage Difference (%)
Housing Units	3,314	2,645	-669	-20.2
Population	8,814	7,037	-1,777	-20.2
Jobs	6,372	6,273	-99	-1.5
Retail Space (Acres)	226	141	-85	-37.6
Industrial Space (Acres)	223	105	-118	-52.9

Notes: The buildout projections display growth in the city under the existing and proposed project land use designations; this information does not add existing population, housing, jobs, or acres to the additional growth.

As described further in Section 3.3.3, *Zoning Amendments*, the zoning ordinance will be amended to change zoning for 555 parcels to reflect and ensure consistency with the General Plan land use designations.

Community Design Element

This Community Design Element provides an overview of the city’s community and seeks to maintain and enhance the community’s existing character and preserve the cultural and historical resources that make Colfax a desirable place to live. This element is made up of three sections: community character, community design, and historic preservation. The element includes policy additions and minor revisions to promote the historic attributes of the downtown, establish continuity between new development and the city’s existing historic character; preserve architectural features that are important in maintaining the character of the community; and retain the historic, rural, and mountain feeling of the city.

Circulation Element

The Circulation Element addresses the street and transportation network and the movement of people and goods within the City of Colfax. It establishes a plan for the transportation system to serve all members of the community. The transportation system shapes community life by linking friends to friends, people to jobs, homes to shopping, businesses to supplies, and families to entertainment. As such, the Circulation Element provides goals, policies, and implementation measures to guide the prioritization of future investments and maintenance. The element includes policy additions and minor revisions to ensure long-term roadways meet needs of all users and maintain and repair as needed; reduce vehicle miles traveled; reflect existing conditions; and ensure efficient streets, parking, and transportation systems for residents and businesses.

PROJECT DESCRIPTION

Housing Element

The Housing Element serves as the City's guiding policy document to meet future housing needs for all the City's economic levels. It encourages the provision of affordable housing in the existing land use designations in the Land Use Element. The updated Housing Element includes a plan to ensure that residents of all income levels, including those whose units were destroyed by fire, can find housing. The updated Housing Element includes policy changes that are limited to complying with State law, combining programs with similar intent to aid in implementation, and eliminating programs where the City has already completed the identified task. The City of Colfax's 6th Cycle (2021-2029) Housing Element was adopted on July 28, 2021, and reviewed by the California Department of Housing and Community Development (HCD) which found the element in full compliance with State Housing Element Law (Article 10.6 of the Government Code).

Noise Element

The Noise Element helps with planning the location of noise-sensitive land uses and considers noise exposure when placing facilities that generate significant volumes of noise. Topics addressed in the Noise Element include measurements of existing noise conditions, roadway and rail noise, transportation noise contours, vibration, and stationary noise sources. The element includes policy additions and minor revisions to require new development to meet noise compatibility standards, use integrated design-related noise-reduction measures, conduct project-level noise analysis, maintain the Rail Crossing Quiet Zone, and set vibration standards. The element also includes policy additions and minor revisions to minimize noise exposure by ensuring compatible land uses, incorporate noise mitigation measures for new development, and revise the City's municipal codes to include noise standards for residential areas.

Safety Element

The Safety Element is intended to identify potential hazards that must be considered when planning the location, type, and density of development throughout the Planning Area, and to the extent feasible, provide guidance to mitigate the various identified risks. The updated element modernizes information on existing conditions and the level and location of hazards and threats facing Colfax, including updates to all figures mapping hazards and expanding consideration of the connection between climate change and hazards. The element includes details regarding the Placer County Community Wildfire Protection Plan, CAL FIRE Nevada-Yuba-Placer Unit Fire Management Plan, and Placer County Local Hazard Mitigation Plan. It also provides a framework for adaptation and resilience to climate change, as well as developing community evacuation modeling to assist in the development of future evacuation plans. The element includes policy additions and revisions related to emergency preparedness and response, fire hazards, seismic and geologic hazards, hazardous waste and materials, and climate-related hazards.

PROJECT DESCRIPTION

Conservation and Open Space Element

The Conservation and Open Space Element is dedicated to preserving and improving the quantity, quality, and character of open space in Colfax, and to conserving and enhancing the City's important natural resources. It identifies Colfax's open space lands and resources and ensures that future development will respect the natural and scenic qualities of those places, helping to shape the desired physical form of the community by safeguarding open space for future generations. The Element also seeks to strengthen the role of the City and its citizens as environmental stewards, striving to minimize individual and collective impacts on local and global resources and to improve the overall health of the environment. The element includes policy additions and minor revisions to maintain biodiversity and conserve lands by limiting development, protect wildlife and their habitat from incompatible land uses, protect water and soil resources from future development, and provide high-quality parks and recreational facilities through dedication of land or in-lieu fees.

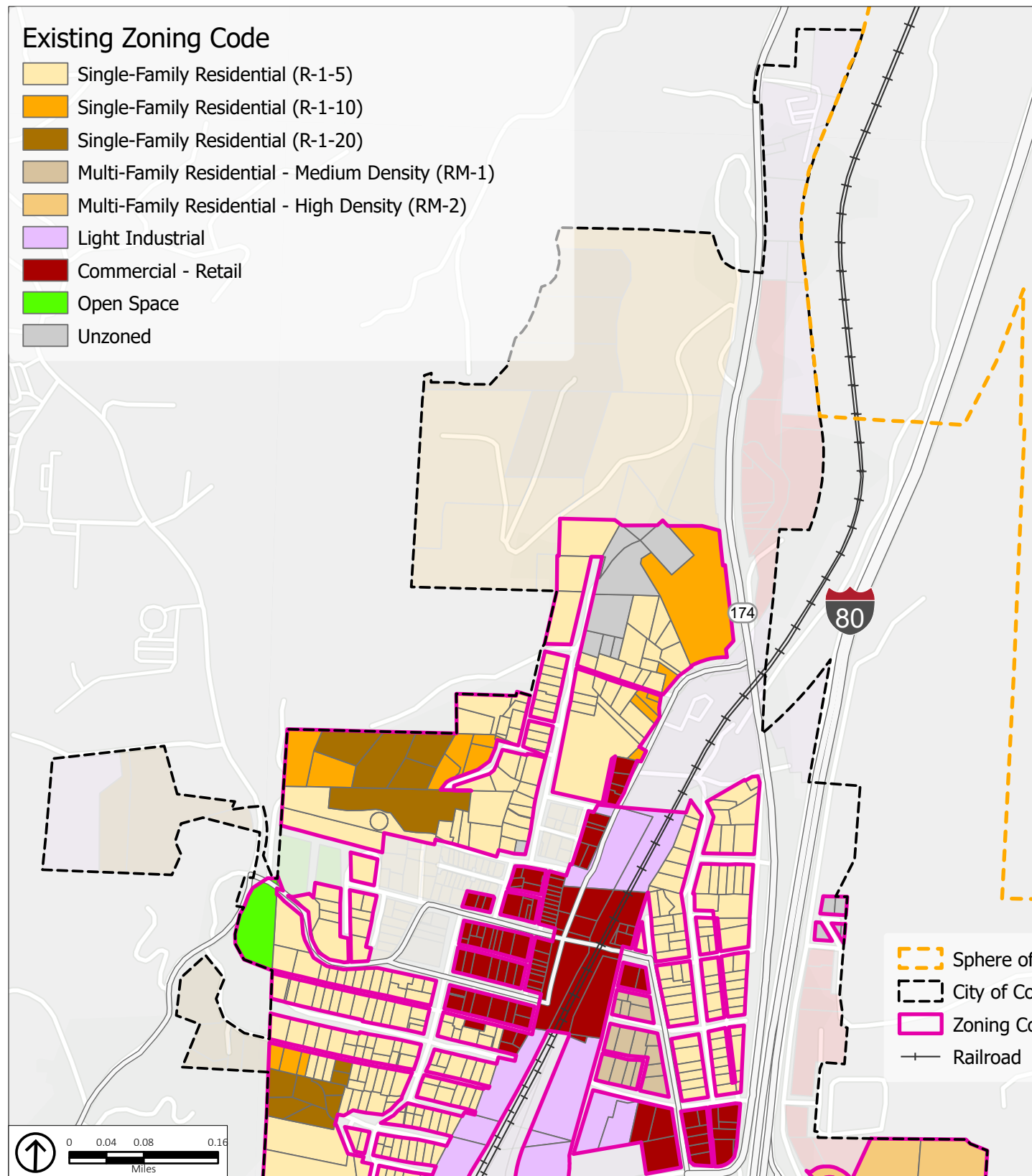
Economic Development Element

The Economic Development Element is directed toward fostering a healthy, balanced year-round economy in Colfax to provide a broad range of economic opportunities for all Colfax residents. This element supports the Vision for Colfax by providing a framework of guiding principles, goals, polices, and implementation measures that encourage a diverse and sustainable year-round economy in Colfax while maintaining the City's community character and high quality of life, and ability to maintain superior community services. This Element seeks to maintain a balanced mix of economic sectors, encourage high-wage jobs, and support businesses and commercial activities that build on and enhance Colfax's unique character and natural environment. The element includes policy additions and minor revisions to support and expand commercial establishments and employment opportunities; promote destination-style shopping; maintain Downtown Colfax's vitality through redevelopment, preservation, and community events, and promoting tourism; and implement a program for tenant assistance in obtaining building permits.

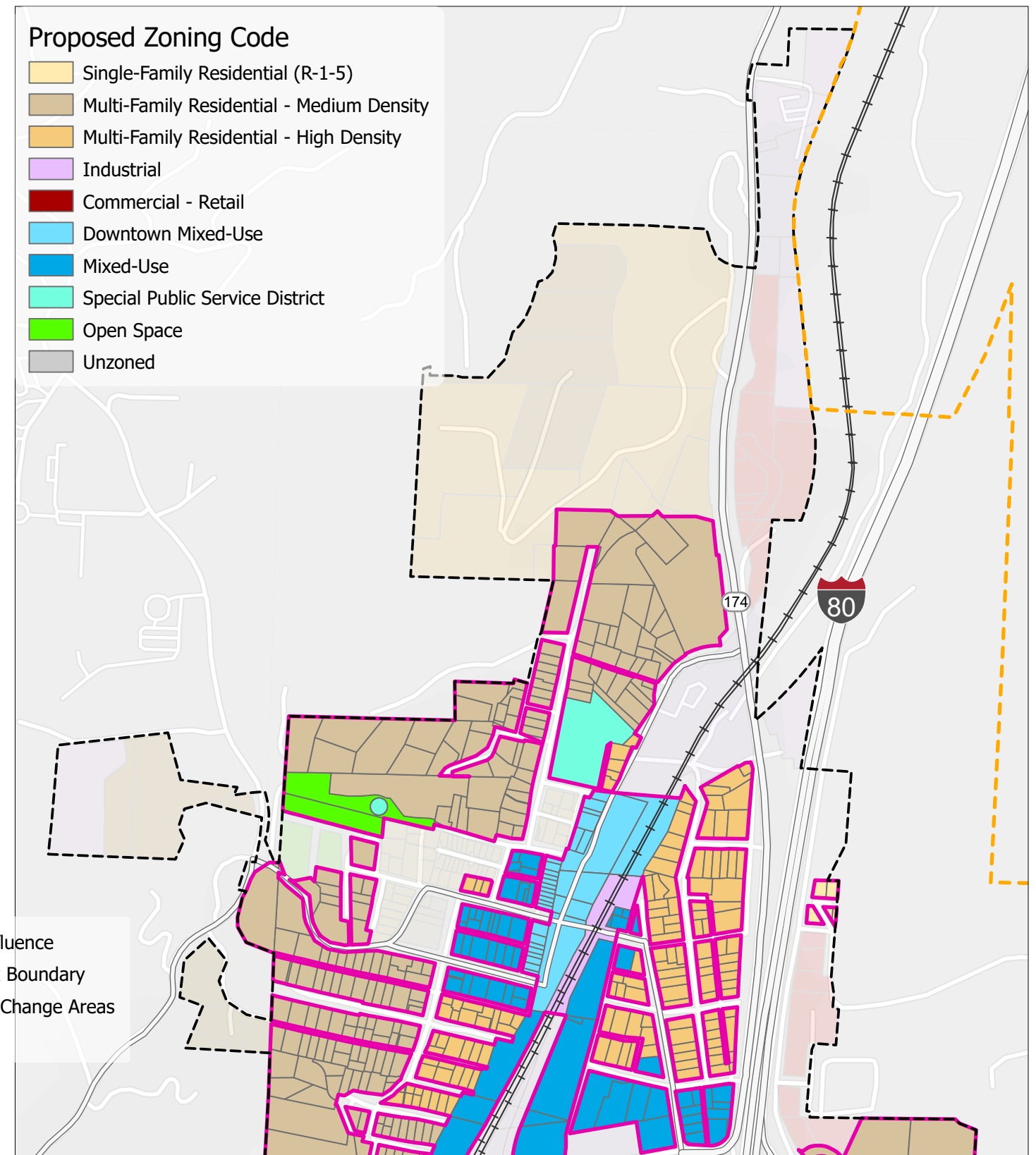
3.3.3 ZONING AMENDMENTS

As illustrated in Figures 3-2a through 3-2c, the zoning ordinance will be amended to change zoning for 555 parcels to reflect and ensure consistency with the General Plan land use designations in the city. The General Plan Update would result in a total of 555 zone changes (rezone) since the land use changes included in the General Plan Update are not supported by existing zoning. In some instances, existing zoning designations were inconsistent with existing land use designations. As a result of the proposed land use changes, several parcels became consistent with the existing zoning designations and did not require rezoning.

Existing Zoning Designations



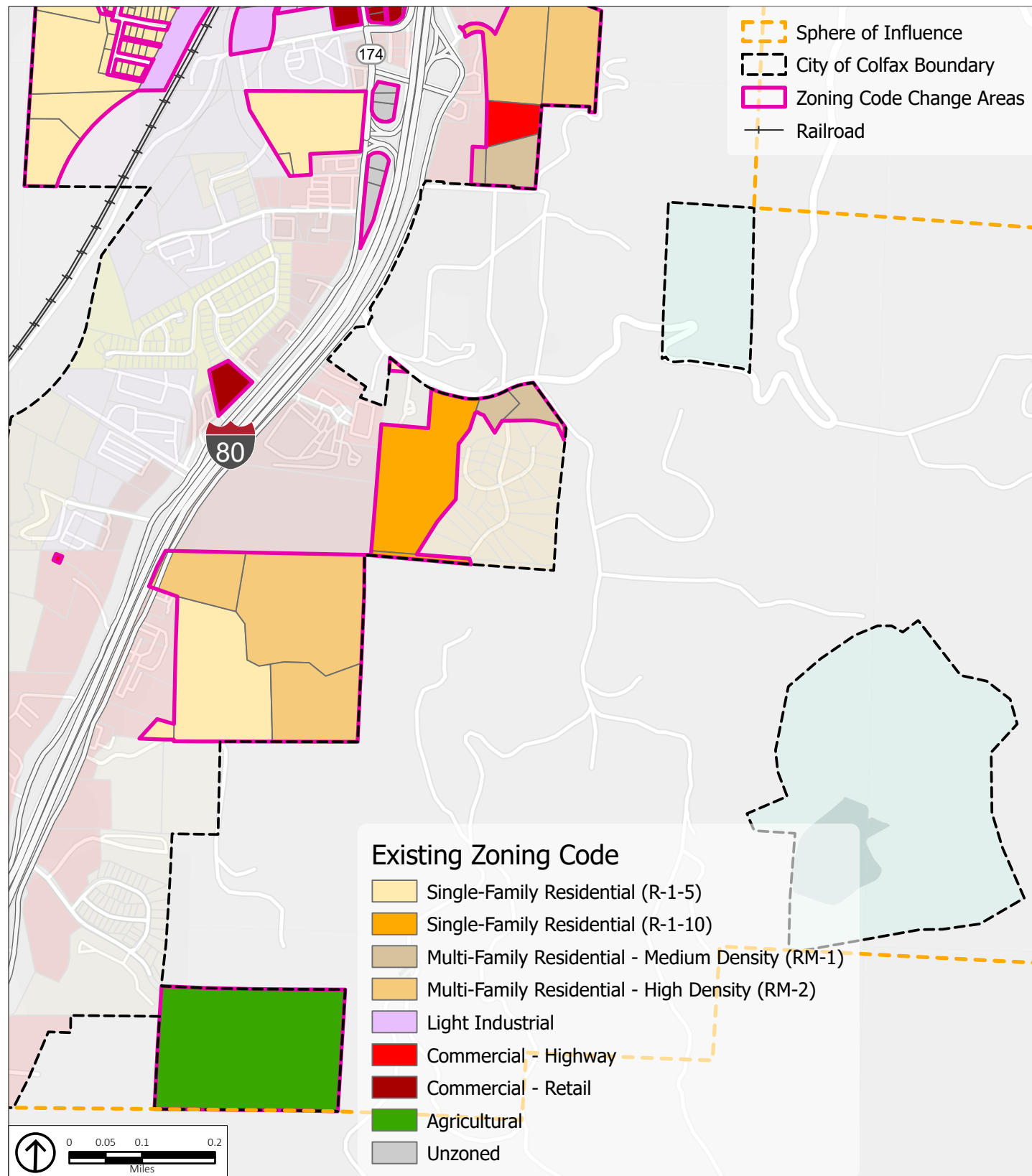
Proposed Zoning Designations



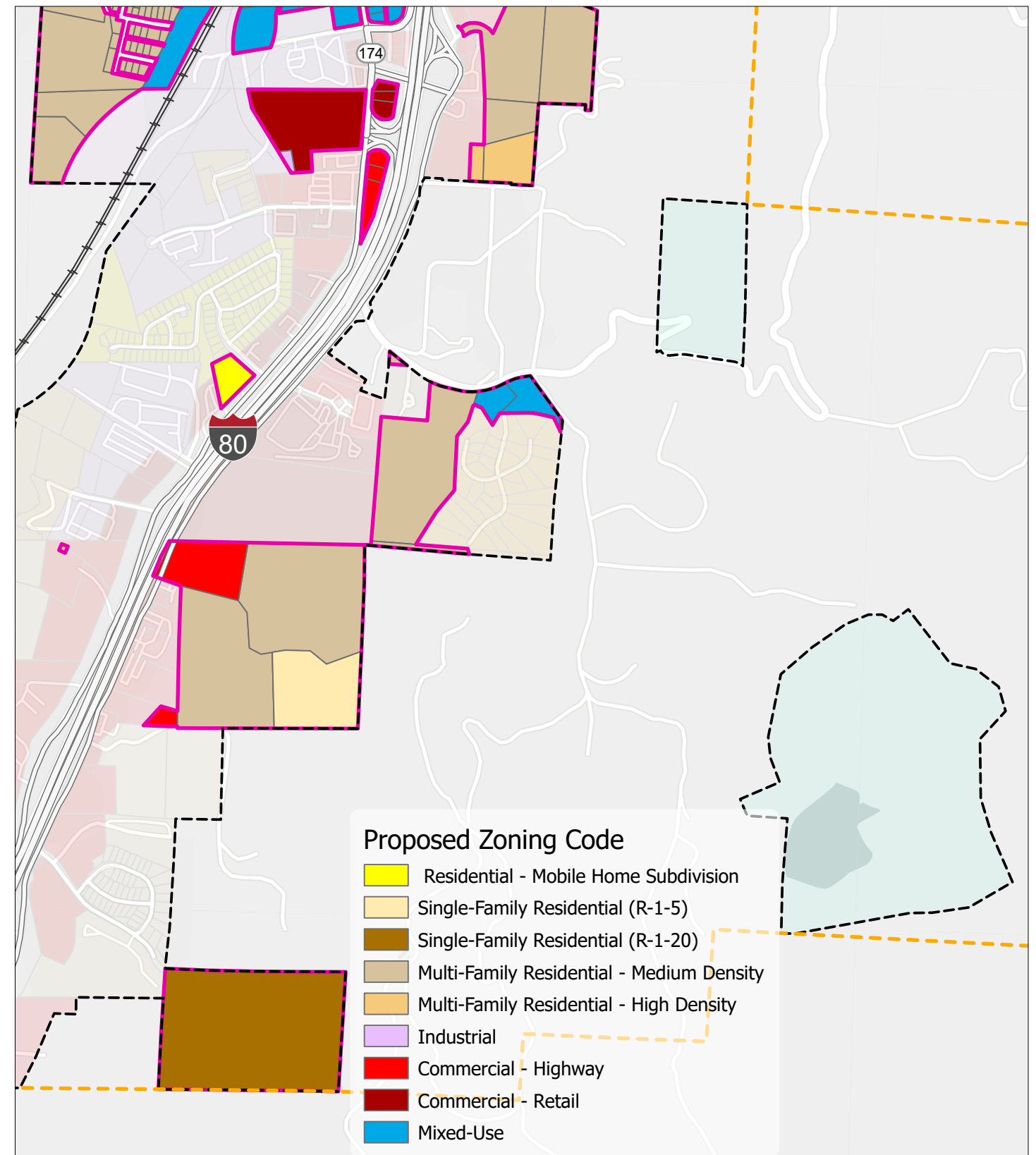
Source: Esri Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, City of Colfax

Figure 3-2a
Proposed Zoning Designations in Colfax City Limits

Existing Zoning Designations



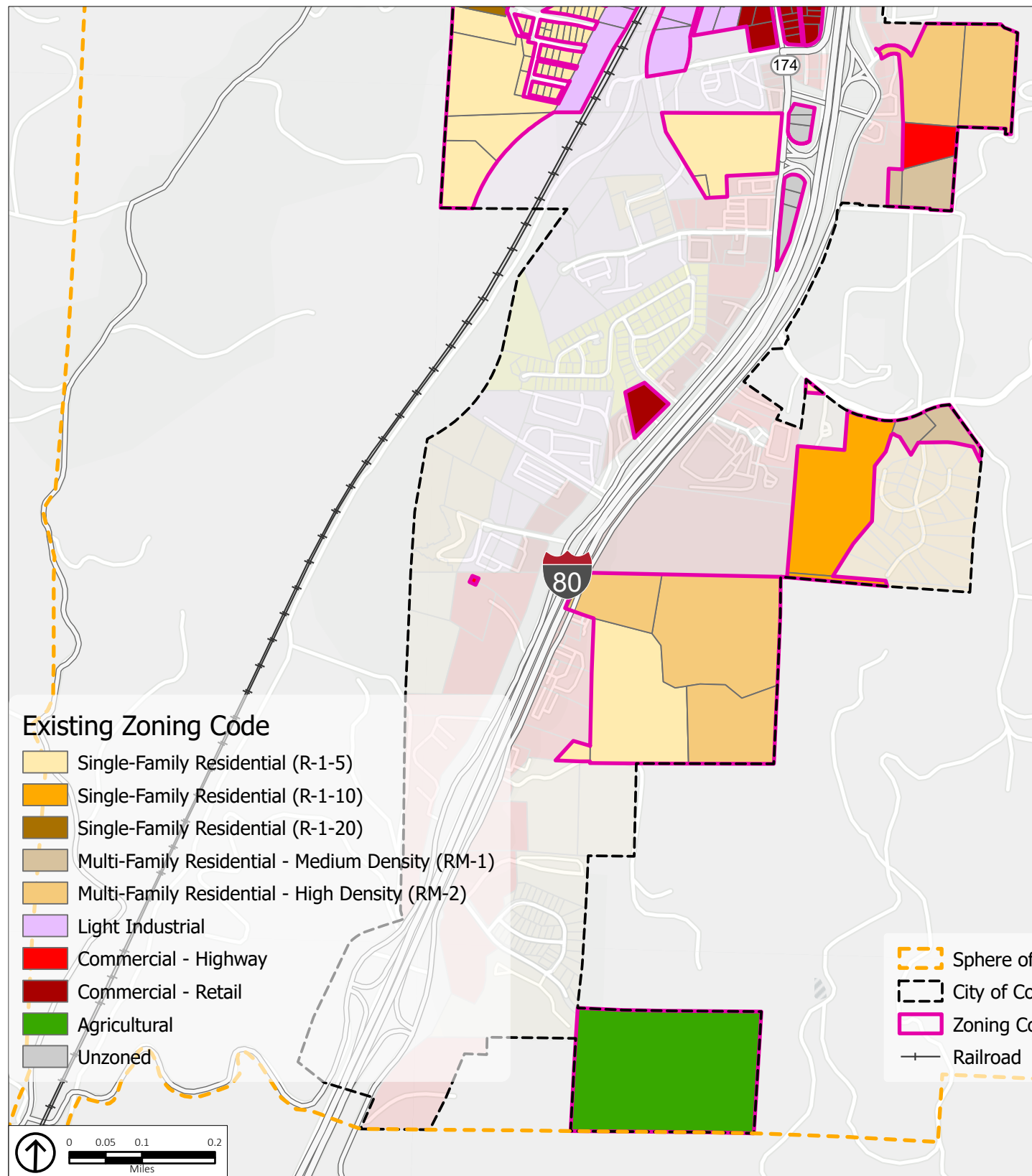
Proposed Zoning Designations



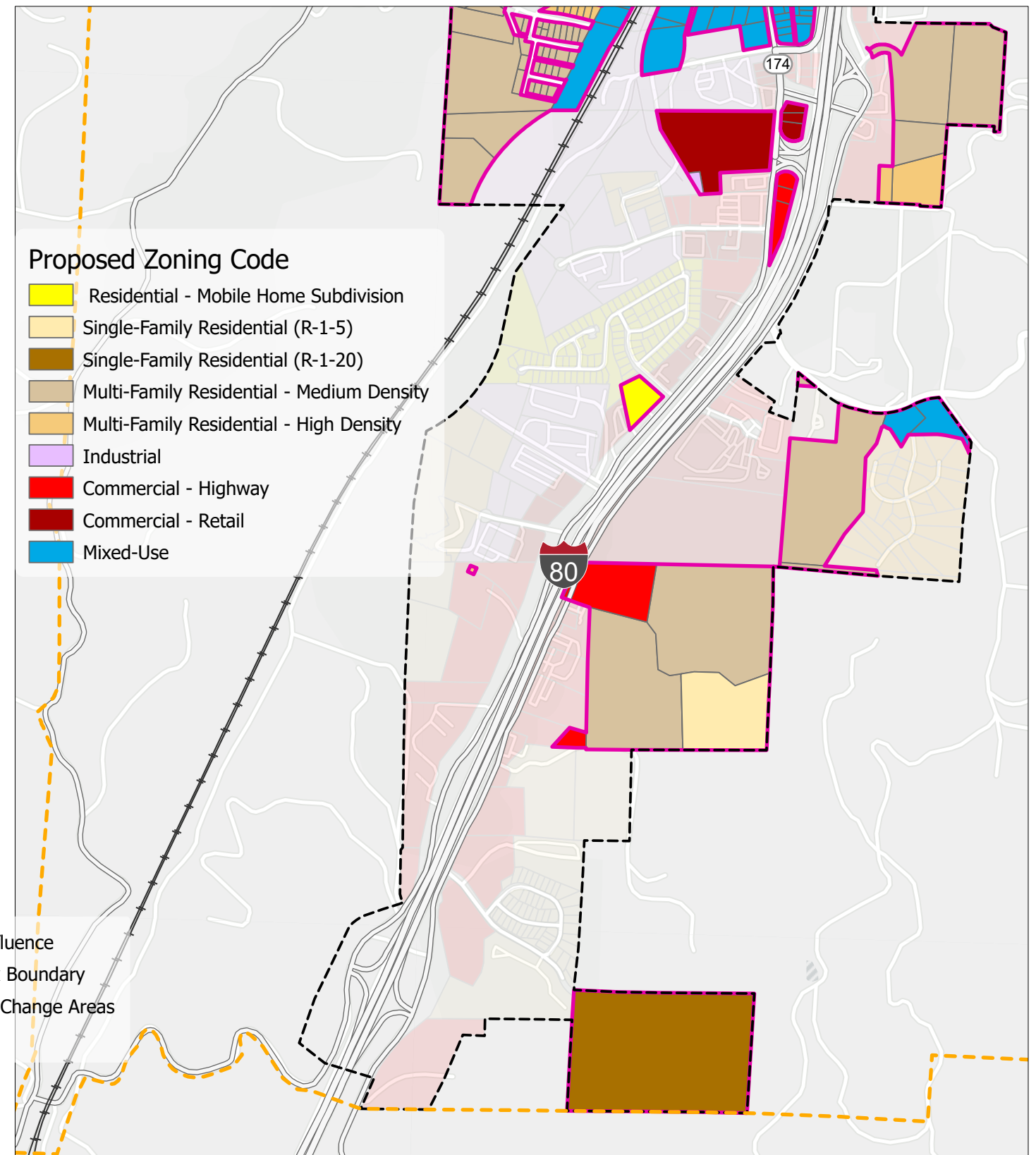
Source: Esri Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, City of Colfax

Figure 3-2b
Proposed Zoning Designations in Colfax City Limits

Existing Zoning Designations



Proposed Zoning Designations



Source: Esri Community Maps Contributors, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, City of Colfax

Figure 3-2c
Proposed Zoning Designations in Colfax City Limits

PROJECT DESCRIPTION

3.3.4 PROJECT PERMITS AND APPROVALS

The proposed project would be adopted solely by the City of Colfax. Future development would need to conform to applicable development and design standards and be consistent with the General Plan Update policies. Depending on the proposal, a future development project may be exempt from California Environmental Quality Act (CEQA) review because a CEQA exemption applies or the approval is ministerial,² or a project may require further environmental review and subsequent analysis in a negative declaration, mitigated negative declaration, or environmental impact report (EIR). Projects may be ministerial and require no discretionary action or may require review and approval by the Planning Department, the Planning Commission, and/or City Council, and other agencies, as needed. Permits would be needed for the construction of all structures, to allow for certain uses or events within the General Plan Area, and to approve encroachments in the right-of-way.

Additionally, the following would be required to be adopted to implement the proposed project:

- Certify the EIR
- Adopt the General Plan
- Modify the Development Code to reflect the changes in the General Plan

3.3.5 INTENDED USES OF THE EIR

This is a Program EIR that examines the potential environmental impacts of the proposed project. This Draft EIR also addresses various actions by the City to adopt and implement the General Plan Update. This EIR serves as a Program EIR under CEQA Guidelines Section 15168. According to CEQA Guidelines Section 15168(b), use of a Program EIR can provide advantages, including:

- Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action.
- Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis.
- Avoid duplicative reconsideration of basic policy considerations.
- Allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts.
- Allow reduction in paperwork.

As a Program EIR, this document focuses on the overall effects of the proposed project. The analysis does not examine the effects of any potential specific projects that may occur during the planning horizon. Further, the nature of the general plan is such that some proposed policies are intended to be more qualitative, with specific details to be determined upon development of a specific project. No development

² Projects may be ministerial, which means they do not require any discretionary review.

PROJECT DESCRIPTION

or subdivision maps are being requested as a part of this project. Any impacts associated with subdivision or development that are not fully evaluated within the scope of this EIR may require further environmental analysis. However, the City envisions that this Program EIR may be used to eliminate or reduce the scope of future environmental review for individual projects that are consistent with the General Plan pursuant to CEQA Guidelines Section 15183 and other streamlining provisions authorized by CEQA.

The intent of this Draft EIR is to evaluate the environmental impact of the project, thereby enabling the City, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements.

4. *Environmental Analysis*

4.1 CHAPTER ORGANIZATION

This chapter of the Draft Environmental Impact Report (EIR) is made up of 17 sub-chapters. This chapter describes the format of this Draft EIR and terminology used in this Draft EIR. The 17 sub-chapters evaluate the direct, indirect, and cumulative environmental impacts of the City of Colfax General Plan Update (proposed project). The potential environmental effects of the proposed project are analyzed for the following environmental issue areas; listed in the order they appear in the EIR:

- Aesthetics (AES)
- Agriculture and Forestry Resources (AG)
- Air Quality (AQ)
- Biological Resources (BIO)
- Cultural Resources and Tribal Cultural Resources (CULT)
- Energy (ENE)
- Geology, Soils, and Mineral Resources (GEO, MIN)
- Greenhouse Gas Emissions (GHG)
- Hazards and Hazardous Materials (HAZ)
- Hydrology and Water Quality (HYD)
- Land Use and Planning (LU)
- Noise (NOI)
- Population and Housing (POP)
- Public Services, Parks, and Recreation (PS, REC)
- Transportation (TRANS)
- Utilities and Service Systems (UTIL)
- Wildfire (WILD)

4.2 FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each subchapter is organized into four sections:

- **Existing Conditions** provides a description of the existing environmental setting—providing a baseline against which the impacts of the proposed project can be compared—and an overview of federal, State, regional, and local laws and regulations relevant to that environmental issue.
- **Proposed General Plan Policies** lists the policies relevant to that environmental resource or topic.

ENVIRONMENTAL EVALUATION

- **Thresholds of Significance** refers to the quantitative or qualitative standards or conditions used to compare the existing setting with and without the proposed project to determine whether the impact is significant. These standards are based primarily on the CEQA Guidelines, and may reflect established health standards, ecological tolerance standards, public service capacity standards, or guidelines established by agencies or experts.
- **Environmental Impacts** gives an overview of the potential impacts of the proposed project and explains why impacts were found to be significant or less than significant and include suggested measures that would mitigate potentially significant impacts. Impacts and mitigation measures are numbered consecutively within each topical analysis and begin with an acronymic or abbreviated reference to the impact section (as listed in Section 4.1).

4.3 TERMINOLOGY USED IN THIS DRAFT EIR

Level of significance is identified for each impact in this Draft EIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform determination of the environmental impact based on definitions consistent with CEQA and the CEQA Guidelines:

- **No impact.** The project would not change the environment.
- **Less than significant.** The project would not cause any substantial, adverse change in the environment.
- **Less than significant with mitigation incorporated.** The EIR includes mitigation measures that avoid substantial adverse impacts on the environment.
- **Significant and unavoidable.** The project would cause a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less-than-significant level.

This EIR evaluates the proposed General Plan long-range planning document that affects the entire Planning Area. Consequently, the environmental determination for each topic is based on a high-level assumption of future development, rather than an evaluation of every potential project on every possible building site. The impact determination for an impact, other than significant and unavoidable, assumes that development consistent with the General Plan would have a similar environmental determination. Because it is not possible to know the details of every future project, and the potential environmental impacts associated with development and operation, the precise environmental determination will be made at the time of approval and supported by substantial evidence in the record.

For topics that conclude with a significant and unavoidable determination, the evidence in this EIR demonstrates that there is at least one instance where this finding would occur. Because this is a low threshold for making this determination, development projects may be found to have a less-than-significant impact even though this EIR concludes a significant and unavoidable impact for the same topic for the General Plan as a whole.

4.1 AESTHETICS

This chapter describes the existing conditions of the City of Colfax related to aesthetics and the potential impacts the General Plan Update can have on Colfax. A discussion of the regulatory framework and references cited in this chapter can be found in Appendix C and Appendix D, respectively.

4.1.1 EXISTING CONDITIONS

The City of Colfax is a small city in Placer County, California, and is known for its historic character and proximity to major transportation routes. The city's character is influenced by its historic downtown, commercial, and residential areas. The city is divided by a railroad and Interstate (I-) 80, has a compact urban form, and centers around the historic downtown.

Gateways are unique entrances into a city or region, creating a sense of arrival and departure for visitors and residents. In Colfax, three gateway entrances are identified: the Freeway Corridor, Main Street and Highway 174, and Auburn Street and Highway 174.

- Colfax is connected to I-80, a major transportation route connecting California and the Rocky Mountains. Freeway interchanges and corridors create a city's first impression, offering a transition from high-paced highways to a calmer environment.
- Main Street enters the city from Highway 174, leading to Historic Colfax and downtown. It connects to neighboring communities and I-80.
- Highway 174 intersects with Auburn Street, providing access to I-80 and the Auburn Street commercial zone, dividing the rural natural environment from urban form.

4.1.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Community Design Element are relevant to the proposed project.

Community Design Element

- **Policy 5.2.3:** Preserve and revitalize Colfax's historic buildings and sites and ensure that new development respects the character and context of those recourse.
- **Policy 5.2.4:** Preserve notable landmarks, streetscape, and other areas of architectural or aesthetic value providing continuity with the past.
- **Policy 5.2.5:** Ensure that infill development is consistent with historic development patterns in terms of scale, design, and material.
- **Policy 5.3.1:** Maintain a compact city form through a clear distinction between urban development and the surrounding environment.
- **Policy 5.3.2:** Ensure that new development is compatible with existing urban areas.

AESTHETICS

- **Policy 5.3.6:** Ensure that new development containing higher densities in clustered development patterns minimize infrastructure requirements and maximize open space and natural features.

4.1.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in a significant aesthetics impact if it would:

- AES-1 Have a substantial adverse effect on a scenic vista.
- AES-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- AES-3 In non-urbanized 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, the project would conflict with applicable zoning and other regulations governing scenic quality.
- AES-4 Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

4.1.4 ENVIRONMENTAL IMPACTS

Impact 4.1-1: The proposed project would have a substantial adverse effect on scenic vistas and substantially degrade the existing visual character or quality of public views of its surroundings. [Thresholds AES-1 and AES-3]

Through the General Plan Update, the City of Colfax is establishing design guidelines to maintain its historic, rural, and mountain feel while accommodating growth in the City. These guidelines will be used by future development, promoting visual qualities in site development, building design, and landscaping to enhance the city's appearance. However, the General Plan Update includes land use changes that would change the land use pattern of the city. The General Plan Update includes policies aimed at ensuring that new development is compatible with the existing environment, such as Policy 5.3.1, which aims to maintain a compact city form by separating urban development from the environment; Policy 5.3.2, which ensures compatibility with existing urban areas; and Policy 5.3.6, which focuses on clustered development patterns to minimize infrastructure requirements and maximize open space and natural features. Though these policies guide future development throughout the city, the proposed project would still introduce new land use designations that would change the existing environment.

The proposed project would introduce new land use designations such as the Downtown Mixed-Use (MU-1) and the Mixed-Use (MU-2) in the Historic Downtown District. The MU-1 designation would allow for vertical combination of commercial and residential uses in the downtown area and the MU-2 designation would allow for the horizontal and vertical combination of commercial and residential uses. These new land use designations in the Historic Downtown District would not substantially change the existing visual character as it currently contains a mix of residential and commercial uses. The General Plan Update would include policies aimed at preserving the visual character and quality of the historic downtown from new development. Policy 5.2.3 aims to preserve Colfax's historic buildings and sites by ensuring new

AESTHETICS

development respects their character and context. Policy 5.2.4 also focuses on preserving notable landmarks, streetscapes, and architectural value, while Policy 5.2.5 ensures that infill development is consistent with historic patterns in scale, design, and material. The proposed project includes policies aimed at preserving the community’s historic character and would ensure development facilitated by the General Plan Update would preserve the visual character of the city. Therefore, impacts at the programmatic level would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.1-2: The proposed project would not alter scenic resources within a state scenic highway. [Threshold AES-2]

According to the California Department of Transportation’s (Caltrans’) Scenic Highway System Map, there are no State-designated highways within the City of Colfax. State Route 174 is an eligible state scenic highway approximately 1.6 miles northwest of city limits. The closest officially designated highway is State Route 20, which is approximately 17 miles northeast of city limits (Caltrans 2023). The proposed project will not affect scenic resources along these highways due to distance, topography, and intervening development (e.g., buildings, structures, mature trees). Therefore, project implementation will not obstruct views of any scenic resources within any officially designated or eligible scenic highways.

Development under the proposed project can create aesthetic impacts through the conversion of forest to non-forest lands. However, the City’s Municipal Code includes Chapter 17.110, Tree Preservation Guidelines, which establishes tree preservation requirements in the event that tree removal is unavoidable. Impacts on scenic resources, such as trees, would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.1-3: The proposed project would not generate additional light and glare. [Threshold AES-4]

Future development in accordance with the General Plan Update would allow for the intensification and redevelopment of existing land uses, which could increase nighttime light and glare in the city. The City’s Municipal Code, Chapter 17.116, Design Guidelines, establishes design guidelines for lighting, such as requiring that lighting be mounted on reinforced pedestals and concealed under canopy lighting and that all lighting shall be downcast. Furthermore, future development under the General Plan would be required to be compliant with the current Title 24 Building Energy Efficiency Standards, including lighting control

AESTHETICS

regulations for residential and nonresidential. The General Plan Update, with compliance with the Design Guidelines, would not generate substantial additional light and glare and the impact would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

4.1.5 REFERENCES

California Department of Transportation (Caltrans). 2023. Scenic Highways: California State Scenic Highway, accessed July 10, 2023. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

AESTHETICS

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AGRICULTURE AND FORESTRY RESOURCES

4.2 AGRICULTURE AND FORESTRY RESOURCES

This chapter describes the existing conditions of the City of Colfax related to agricultural and forestry resources and the potential impacts the General Plan Update (proposed project) can have on Colfax. The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

4.2.1 EXISTING CONDITIONS

Agricultural Uses

The Planning Area is primarily classified for residential use, commercial, industrial, and mixed use. Limited agricultural uses, such as farming and grazing, occur in Colfax; however, there are no parcels in the city that are designated as agricultural land use.

Agricultural Designations and Williamson Act Contracts

The California Important Farmland Finder designates the City of Colfax as primarily Urban and Built-Up Land (DOC 2023a). There are no California Land Conservation Act of 1965, commonly known as the Williamson Act, contracts within the Planning Area (DOC 2017; 2023b).

Forestland and Timberland

The City of Colfax is near the Auburn State Recreational Area (SRA) to the east and southeast, and Bureau of Land Management (BLM) land to the east. The Auburn SRA (which is 20 miles long on two forks of the American River) is situated south of Interstate 80, stretching from Auburn to Colfax. The Auburn SRA is made up of mainly federally owned and managed lands. There are about 70,000 acres of BLM land around Colfax. This land is scattered within the Mother Lode Field Office, which manages over 230,000 acres of public land in Central California. Steven's Trail, to the east, is also within the jurisdiction of BLM.

The City of Colfax does not designate any land within the city, the City's sphere of influence (SOI), or Planning Area as Timber, Timberland, or Timberland Production Zone, according to Government Code, Section 51104(g).

There are four general vegetation types found naturally in Colfax. These include chaparral and shrub communities, woodland communities, conifer forest communities, and sierran mixed conifer forest. Low-lying vegetation include scrub-oak, manzanita, deer brush, as well as a variety of herbs and grasses. In the surrounding area, natural vegetation has been cleared for pastures, orchards, and vineyards. Vegetation within the city includes ornamental landscaping, shade trees, lawns, and shrub cover (CAL FIRE 2023).

AGRICULTURE AND FORESTRY RESOURCES

4.2.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Conservation and Open Space Element are relevant to the proposed project.

Conservation and Open Space Element

- **Policy 6.1.1:** Limit development on lands that provide wildlife and native habitat.
- **Policy 6.1.4:** Protect native plant species in undisturbed portions of a development site and encourage planting and regeneration of native plant species wherever possible in undisturbed portions of the project site.

4.2.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant agriculture and forestry resources impacts if it would:

- AG-1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to nonagricultural use.
- AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.
- AG-3 Conflict with existing zoning for, or cause rezoning of, Forest land (as defined in Public Resources Code Section 12220(g)), Timberland (as defined by Public Resources Code Section 4526), or Timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).
- AG-4 Result in the loss of forest land or conversion of forest land to non-forest use.
- AG-5 Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.

4.2.4 ENVIRONMENTAL IMPACTS

Impact 4.2-1: The proposed project would not convert Farmland to nonagricultural use. [Threshold AG-1]

The Planning Area is not designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance on the California Important Farmland Finder (DLRP 2022a). As such, the proposed project would not result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, and no impact would occur.

Level of Significance Before Mitigation: Impact 4.2-1 would have no impact.

AGRICULTURE AND FORESTRY RESOURCES

Mitigation Measures

No mitigation measures are required.

Impact 4.2-2: The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract nor would the proposed project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), Timberland (as defined by Public Resources Code Section 4526), or Timberland zoned Timberland Production (as defined by Government Code Section 51104(g)). [Thresholds AG-2 and AG-3]

The proposed project would not conflict with existing zoning for agricultural use. The General Plan Update would continue to allow residential categories that allow for housing and permit agricultural uses. Furthermore, there are currently no Williamson Act contracts within the Planning Area. As such, the proposed project would not conflict with existing zoning for agricultural use or an existing Williamson Act contract. Therefore, no impacts would occur.

There are no areas zoned as forestland in the City of Colfax. The Colfax Zoning Code contains use and zone district regulations for agriculture and open space but does not specify forest or timberland. Forest and timberland, as defined by the State, include both land that is used for timber harvesting and other forested land that has aesthetic, recreational, and biological amenities. The General Plan Update would not conflict with existing zoning for, or cause rezoning of Forestland, or Timberland zoned Timberland Production. Thus, no impact would occur.

Level of Significance Before Mitigation: Impact 4.2-2 would have no impact.

Mitigation Measures

No mitigation measures are required.

Impact 4.2-3: The proposed project would result in loss of forest land or conversion of forest land to non-forest use [Threshold AG-4]

Government Code Section 51104(g) defines Timber, Timberland, and Timberland Production Zone for the California Environmental Quality Act (CEQA) and "Timberland Preserve Zone" in city and county general plans. Timber refers to trees maintained for forest production purposes but does not include nursery stock. Timberland is land used for growing and harvesting timber, or for other uses, with an average annual volume of wood fiber of at least 15 cubic feet per acre. Timberland Production Zone (TPZ) is an area zoned for growing and harvesting timber or related uses and is commercially viable. There are no TPZ lands within the Planning Area. As such, the General Plan Update would not result in the conversion of forested areas to non-forested areas.

AGRICULTURE AND FORESTRY RESOURCES

According to Public Resources Code Section 12220(g), “Forest land” is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Native vegetation within Colfax includes habitat, such as oak woodlands, that meets the definition of “forest land.” While oak trees do not have commercial use and would not be harvested for timber, the General Plan Update could result in the conversion of oak woodlands and other upland habitats for future development. However, Conservation and Open Space Element Policy 6.1.1 seeks to limit development on lands that provide native habitat. Additionally, Policy 6.1.4 aims to protect native plant species in undisturbed portions of a development site and encourages planting and regeneration of native plant species wherever possible in undisturbed portions of the project site. Habitat and plant species in Colfax include oak woodlands and a variety of oak species.

The Colfax Municipal Code Chapter 17.110, Tree Preservation Guidelines, seeks to preserve trees whenever feasible through the review of all proposed development activities where trees are present, while recognizing individual rights to develop property in a reasonable manner. Municipal Code Section 12.16.110, Tree Preservation Requirements, includes requirements for innovative techniques or alternative project design to preserve trees to the maximum extent feasible to retain conifers, oaks, maples, and cedars. Furthermore, Municipal Code Section 12.16.120, Tree Replacement Requirements, includes requirements to replace and replant removed trees with an equal number of trees.

Despite these policies and implementation of the tree removal guidelines in the Municipal Code, some areas with woodland habitat will likely be impacted by future development. Therefore, impacts to forestland under the proposed project would be potentially significant.

Level of Significance Before Mitigation: Impact 4.2-3 would be potentially significant.

Mitigation Measures

There are no feasible mitigation measures applicable to Impact 4.2-3. Although policies in the General Plan Update would help to minimize impacts to loss of woodland and other habitat types, and result in the planting of new trees, the proposed project could potentially convert “Forest Land” to non-forested uses to accommodate future development. Therefore, this impact would remain significant and unavoidable.

Level of Significance After Mitigation: Impact 4.2-3 would remain significant and unavoidable.

Impact 4.2-4: The proposed project would not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use. [Threshold AG-5]

The Planning Area does not contain farmland or agricultural uses and there will be no changes to the existing environment that would result in conversion of farmland to nonagricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur.

Level of Significance Before Mitigation: Impact 4.2-4 would have no impact.

AGRICULTURE AND FORESTRY RESOURCES

Mitigation Measures

No mitigation measures are required.

AGRICULTURE AND FORESTRY RESOURCES

4.2.5 REFERENCES CITED

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4.3 AIR QUALITY

This chapter describes the existing conditions of the City of Colfax related to air quality and an analysis of potential construction and operational air quality impacts caused by the General Plan Update (proposed project). Mitigation is developed as necessary to reduce significant air quality impacts to the extent feasible.

Air quality within the City of Colfax is regulated by the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (CARB), and the Placer County Air Pollution Control District (PCAPCD). Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, State and local regulations may be more stringent. The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

Additional discussion of air quality impacts and criteria air pollutant emissions modeling is included in Appendix F, *Air Quality and Greenhouse Gas Emissions Assessment*, of this Draft Environmental Impact Report (EIR).

Terminology

- **AAQS.** Ambient Air Quality Standards.
- **CES.** CalEnviroScreen. CES is a mapping tool that helps identify the California communities most affected by sources of pollution and where people are often especially vulnerable to pollution's effects.
- **Concentrations.** Refers to the amount of pollutant material per volumetric unit of air. Concentrations are measured in parts per million (ppm), parts per billion (ppb), or micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).
- **Criteria Air Pollutants.** Those air pollutants specifically identified for control under the federal Clean Air Act (currently seven—carbon monoxide, nitrogen oxides, lead, sulfur oxides, ozone, and coarse and fine particulates).
- **DPM.** Diesel particulate matter.
- **Emissions.** Refers to the actual quantity of pollutant, measured in pounds per day or tons per year.
- **ppm.** Parts per million.
- **Sensitive receptor.** Land uses that are considered more sensitive to air pollution than others due to the types of population groups or activities involved. These land uses include residential, retirement facilities, hospitals, and schools.
- **TAC.** Toxic air contaminant.
- **$\mu\text{g}/\text{m}^3$.** Micrograms per cubic meter.
- **VMT.** Vehicle miles traveled.

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4.3.2 EXISTING CONDITIONS

4.3.2.1 AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and State law under the federal Clean Air Act (National) and California Clean Air Act, respectively. The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from a specific source; secondary air pollutants occur through chemical reactions. Carbon monoxide (CO), reactive organic gases (ROG), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, NO₂, PM₁₀, and PM_{2.5} are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. ROG and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and nitrogen dioxide (NO₂) are the principal secondary pollutants. Each of the primary and secondary criteria air pollutants and its known health effects are described next, and Table 4.3-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

- **Carbon Monoxide (CO)** is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. When inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces its oxygen-carrying capacity. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease, or anemia, as well as for fetuses. Even healthy people exposed to high CO concentrations can experience headaches, dizziness, fatigue, unconsciousness, and even death.
- **Reactive Organic Gases (ROGs)/Volatile Organic Compounds (VOCs)** are compounds composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of ROGs. Other sources of ROGs include evaporative emissions from paints and solvents, the application of asphalt paving, and the use of household consumer products, such as aerosols. Adverse effects on human health are not caused directly by ROGs, but rather by reactions of ROGs to form secondary pollutants such as O₃. There are no AAQS established for ROGs. However, because they contribute to the formation of O₃, PCAPCD has established a significance threshold for this pollutant.
- **Nitrogen Oxides (NO_x)** are a by-product of fuel combustion and contribute to the formation of O₃, PM₁₀, and PM_{2.5}. The two major components of NO_x are nitric oxide (NO) and NO₂. The principal component of NO_x produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from

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atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 acts as an acute irritant and in equal concentrations is more injurious than NO . At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm).

- **Sulfur Dioxide (SO_2)** is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 . When SO_2 forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue.
- **Suspended Particulate Matter (PM_{10})** consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Most particulate matter is caused by combustion, factories, construction, grading, demolition, agricultural activities, and motor vehicles. Inhalable coarse particles, or PM_{10} , include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less.

Extended exposure to particulate matter can increase the risk of chronic respiratory disease. PM_{10} bypasses the body's natural filtration system more easily than larger particles and can lodge deep in the lungs. These health effects include premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Motor vehicles and wood burning in fireplaces and stoves are the largest sources of fine particulates in the PCAPCD.

- **Suspended Particulate Matter ($\text{PM}_{2.5}$)** is another form of fine particulate matter that has an aerodynamic diameter of 2.5 microns or less (i.e., 2.5 millionths of a meter or 0.0001 inch). Fine particulate matter originates from a variety of sources, including fossil fuel combustion, residential wood burning and cooking, and natural sources, such as wildfires and dust. As mentioned, extended exposure to particulate matter can cause negative effects on the respiratory system, such as triggering asthma attacks, aggravating bronchitis, and diminishing lung function. $\text{PM}_{2.5}$ studies have also found harm to the cardiovascular system and impacts on the brain, such as reduced cognitive function.
- **Ozone (O_3)** is commonly referred to as "smog" and is a gas that is formed when ROGs and NO_x , both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions to the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. O_3 levels usually build up during the day and peak in the afternoon hours. Short-term exposure can irritate the eyes and cause constriction of the airways. Besides causing shortness of breath, it can aggravate existing respiratory

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diseases such as asthma, bronchitis, and emphysema. Chronic exposure to high ozone levels can permanently damage lung tissue. O₃ can also damage plants and trees and materials such as rubber and fabrics.

- **Lead (Pb)** is a metal found naturally in the environment as well as in manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phasing out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers. Because emissions of lead are found only in projects that are permitted by PCAPCD, lead is not an air quality of concern for the proposed project.

TABLE 4.3-1 CRITERIA AIR POLLUTANT HEALTH EFFECTS SUMMARY

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	<ul style="list-style-type: none"> ▪ Chest pain in heart patients ▪ Headaches, nausea ▪ Reduced mental alertness ▪ Death at very high levels 	<ul style="list-style-type: none"> ▪ Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O ₃)	<ul style="list-style-type: none"> ▪ Cough, chest tightness ▪ Difficulty taking a deep breath ▪ Worsened asthma symptoms ▪ Lung inflammation 	<ul style="list-style-type: none"> ▪ Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> ▪ Increased response to allergens ▪ Aggravation of respiratory illness 	<ul style="list-style-type: none"> ▪ Same as carbon monoxide sources
Particulate Matter (PM ₁₀ and PM _{2.5})	<ul style="list-style-type: none"> ▪ Hospitalizations for worsened heart diseases ▪ Emergency room visits for asthma ▪ Premature death 	<ul style="list-style-type: none"> ▪ Cars and trucks (particularly diesels) ▪ Fireplaces and woodstoves ▪ Windblown dust from overlays, agriculture, and construction
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> ▪ Aggravation of respiratory disease (e.g., asthma and emphysema) ▪ Reduced lung function 	<ul style="list-style-type: none"> ▪ Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	<ul style="list-style-type: none"> ▪ Behavioral and learning disabilities in children ▪ Nervous system impairment 	<ul style="list-style-type: none"> ▪ Contaminated soil

Sources: CARB 2023a; South Coast AQMD.

Toxic Air Contaminants

The California Health and Safety Code defines a toxic air contaminant (TAC) as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 US Code Section 7412[b]) is a toxic air contaminant. People exposed to toxic air pollutants at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2020). CARB has identified over 200 substances and groups of substances as TACs (CARB

2022a). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control measures. The majority of the estimated health risks from TACs can be attributed to relatively few compounds. The most important compounds are particulate matter from diesel-fueled engines.

In 1998, CARB identified Diesel Particulate Matter (DPM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs.

4.3.2.2 ENVIRONMENTAL SETTING

Mountain Counties Air Basin

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. Colfax is located in the central portion of Placer County, which is encompassed by the Mountain Counties Air Basin (MCAB). The MCAB consists of nine counties or portions of counties stretching from Plumas County on the north to Mariposa County on the south. The MCAB exhibits large variations in terrain and consequently exhibits large variations in climate, both of which affect air quality. The western portions of the basin slope relatively gradually, with deep river canyons running from southwest to northeast toward the crest of the Sierra Nevada range. East of the divide, the slope of the Sierra is steeper, but river canyons are relatively shallow.

Because of the region's topographical features and meteorological conditions, the MCAB is more sensitive to negative impacts on air quality than most other areas of California. The prevailing wind direction over the county is westerly. However, the terrain has a great influence on local winds, so that wide variability in wind direction can be expected. Afternoon winds are generally channeled up-canyon, while nighttime winds generally flow down-canyon. Winds are, in general, stronger in spring and summer and weaker in fall and winter. Periods of calm winds and clear skies in fall and winter often result in strong, ground-based inversions forming in mountain valleys. These layers of very stable air restrict the dispersal of pollutants, trapping these pollutants near the ground, representing the worst conditions for local air pollution occurring in the county.

Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the surface. Local pollutant sources in the MCAB are trapped by frequent inversions, which limit the volume of air into which they can be mixed and in turn result in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources such as motor vehicles, chimney smoke, and forest burning are trapped in the basin. This is the most common meteorological condition contributing to air quality degradation in the area.

The second-most common meteorological condition contributing to air quality degradation is transport from the Sacramento Valley and the Bay Area into the region. This meteorological condition is strongest during the warmer summer months and contributes approximately 30 percent of the ozone and airborne particulate matter pollution in the region. The lowest pollution regimes are associated with the fall and winter months and contribute approximately 10 percent of the pollution to the region. Similar to other

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areas, when winds are strong enough to break up basin inversion layers, pollution is generally blown outside of the region and the air quality is typically good. However, when fall and winter winds are weak, this regime is associated with persistent local inversions and the associated buildup of local pollutants.

Meteorological Influences on Air Quality

Regional flow patterns affect air quality by directing pollutants downwind of sources. Localized meteorological conditions, such as moderate winds, disperse pollutants and reduce pollutant concentrations. Because of the topographical features and meteorological conditions, the MCAB is more sensitive to negative impacts on air quality than most other areas of California. Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the surface. Local pollutant sources in the MCAB are trapped by frequent inversions, which limit the volume of air into which they can be mixed and in turn results in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources, such as motor vehicles, chimney smoke, and forest burning are trapped in the basins. Local air basin inversions in the Placer County portion of the MCAB are a result of the cold temperatures of Lake Tahoe, which contribute to the occurrence of subsidence and radiation inversions throughout the year. Another common meteorological condition contributing to air quality degradation is transport from the Sacramento Valley and the Bay Area into the region. This meteorological condition is strongest during the warmer summer months and contributes approximately 30 percent of the pollutant, O₃, and airborne particulate matter pollution in the region. The lowest pollution regimes are associated with the fall and winter months and contribute approximately 10 percent of the pollution to the region. Similar to other areas, when winds are strong enough to break up basin inversion layers, pollution is generally blown outside of the region and the air quality is typically good. However, when fall and winter winds are weak, this regime is associated with persistent local inversions and the associated buildup of local pollutants.

Existing Ambient Air Quality and Attainment Status

Under both the federal and State Clean Air Acts (described in Appendix C), 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 Placer 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 4.3-2, *Mountain Counties Air Basin Attainment Status (Placer County)*.

As shown in Table 4.3-2, the Placer County portion of the MCAB is currently designated a nonattainment area for California and National O₃ and California PM₁₀ AAQS. Placer 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.

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TABLE 4.3-2 MOUNTAIN COUNTIES AIR BASIN ATTAINMENT STATUS (PLACER COUNTY)

Pollutant	State	Federal
Ozone	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Unclassified	Unclassified
CO	Unclassified	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment
Lead	Attainment	Unclassified/Attainment
Sulfates	Attainment	No National Standard
All others	Unclassified/Attainment	No National Standard

Sources: CARB 2022a, 2022b.

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 that monitors ozone is at Colfax City Hall on 33 Main Street, Colfax, California. This same station also monitors PM_{2.5}. The closest ambient air quality monitoring station that monitors PM₁₀ is at 151 North Sunrise Avenue, Roseville, California, approximately 30 miles southwest of the city. The data collected at these stations are considered generally representative of the air quality experienced in the city. The most recent background ambient air quality data from 2019 to 2021 and the number of days exceeding the ambient air quality standards are presented in Table 4.3-3, *Ambient Air Quality Monitoring Data*.

TABLE 4.3-3 AMBIENT AIR QUALITY MONITORING DATA

Pollutant Standards	2019	2020	2021	
Ozone (O ₃) ¹	Max 1-hour concentration (ppm)	0.102	0.129	0.097
	Max 8-hour concentration (ppm) (state/federal)	0.077	0.093 / 0.092	0.083
	Number of days above state/ federal 1-hour standard	1 / 0	4 / 0	1 / 0
	Number of days above state/federal 8-hour standard	7 / 4	18 / 18	18 / 17
Particulate Matter (PM ₁₀) ²	Max 24-hour concentration (µg/m ³) (state/federal)	63.1 / 61.3	244.3 / 251.8	150.7 / 155.7
	Number of days above state/federal standard	2 / 0	38 / 5.3	11 / 1.1
Particulate Matter (PM _{2.5}) ¹	Max 24-hour concentration (µg/m ³) (state/federal)	20.6 / *	167.6 / *	186.8 / *
	Number of days above state standard	11	13	13

Source: CARB 2023b.

Notes: ug/m³ = micrograms per cubic meter; ppm = parts per million; * = No data currently available to determine the value.

¹ Data from Colfax City Hall monitoring station (33 Main Street, Colfax, CA)

² Data from Roseville monitoring station (151 North Sunrise Avenue, Roseville, CA)

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Sensitive Receptors

The California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations (CCR), Section 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. Sensitive receptors that are in proximity to localized sources of PM, TACs, and CO are of particular concern. As described in CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (CARB Land Use Handbook), land uses where sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (CARB 2005). CARB's recommendations on the siting of new sensitive land uses identified in Table 4.3-4, *CARB Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources*, were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. Hundreds of potential sensitive receptors exist throughout the city.

TABLE 4.3-4 CARB RECOMMENDATIONS ON SITING NEW SENSITIVE LAND USES NEAR AIR POLLUTANT SOURCES

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration units unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities

Source: CARB 2005.

4.3.3 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Land Use, Circulation, and Community Design Elements are relevant to the proposed project.

Land Use Element

- **Policy 2.1.2:** Higher density housing and employment and service will be located in areas that are easily accessible to existing or planned transportation facilities.

- **Policy 2.2.5:** Prioritize infill development consistent with goals for reducing vehicle miles travelled and supporting existing businesses. Infill development should be evaluated carefully to ensure that development is consistent with the character of the community and open space is preserved, to the extent feasible.

Circulation Element

- **Policy 3.2.1:** Require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking.
- **Policy 3.2.2:** Promote the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible.
- **Policy 3.2.3:** Ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as “sidewalks to nowhere.”

Community Design Element

- **Policy 5.3.6:** Ensure that new development containing higher densities in clustered development patterns minimize infrastructure requirements and maximize open space and natural features.

4.3.4 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant air quality impacts if it would:

AQ-1: Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2: 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.

AQ-3: Expose sensitive receptors to substantial pollutant concentrations.

AQ-4: Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

4.3.5 ENVIRONMENTAL IMPACTS

4.3.5.1 METHODOLOGY

Impacts related to air quality resulting from implementation (construction and operation) of the proposed General Plan are discussed in this section. Air quality impacts were assessed in accordance with methodologies recommended by the PCAPCD. The impact analysis is based on calculations of the criteria air pollutant and O₃ precursor emissions that would result from projected future growth at buildout of the General Plan Update.

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At the time of preparing this analysis, buildout of the proposed General Plan Update was assumed to include the addition of 494 mid-rise apartment units, 502 low-rise apartment units, 1,211 condo/townhouse units, 4,187 single-family units, 1.03 million square feet of commercial space, and 1.02 million square feet of industrial space.¹ This is compared to buildout of the existing General Plan which is assumed to include 1,235 low-rise apartment units, 276 mid-rise apartment units, 1,386 condo/townhouse units, 3,858 single family units, 1.34 million square feet of commercial space and 1.75 million square feet of industrial space. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with operations from a variety of land use projects.

Impact 4.3-1: Construction activities associated with the proposed project would generate short-term emissions in exceedance of PCAPCD's threshold criteria. [Thresholds AQ-2 and AQ-3]

The proposed General Plan would accommodate future development for residential, commercial, recreational, and industrial uses. The future development and other physical changes that could result from the implementation of the proposed project would generate construction-related emissions of criteria air pollutants and O₃ precursors, including ROG, NO_x, PM₁₀, and PM_{2.5} from site preparation (e.g., excavation, clearing), off-road equipment, material delivery, worker commute trips, and other activities (e.g., building construction, asphalt paving, application of architectural coatings). Typical construction activities that could occur with land use development include use of all-terrain forklifts, cranes, pick-up and fuel trucks, compressors, loaders, backhoes, excavators, dozers, scrapers, pavement compactors, welders, concrete pumps, concrete trucks, and off-road haul trucks, as well as other diesel-powered equipment as necessary. Fugitive dust emissions of PM₁₀ and PM_{2.5} would be associated primarily with site preparation and grading and would vary as a function of the soil silt content, soil moisture, wind speed, acreage of disturbance, and mobile sources. Emissions of O₃ precursors would occur from the exhaust of construction equipment and on-road vehicles. Paving and the application of architectural coatings would also result in off-gas emissions of ROG. PM₁₀ and PM_{2.5} would also be emitted from off-road equipment and vehicle exhaust.

Construction activities associated with the proposed project would occur over the buildout horizon of the plan, causing short-term emissions of criteria air pollutants. For the proposed General Plan, which is a broad policy document, it is not possible to determine whether the scale and phasing of individual projects would exceed the PCAPCD's thresholds of criteria pollutants of concern, as identified in Table 4.3-5, *PCAPCD Significance Thresholds*, due to project-level variability and uncertainties related to future individual projects in terms of detailed site plans, construction schedules, equipment requirements, etc., which are not currently known or proposed. Nonetheless, depending on how development proceeds, construction-generated emissions associated with the proposed General Plan could potentially exceed PCAPCD thresholds of significance. Overall, air quality emissions related to construction must be addressed on a

¹ These assumptions are used for a conservative estimate of criteria air pollutant emissions under the proposed project. As shown in Table 3-2, *City of Colfax Buildout Projections*, in Chapter 3, *Project Description*, updates to the buildout assumptions have been made since preparation of the air quality/greenhouse gas emissions modeling that have decreased the amount of housing units, commercial, and industrial space expected under buildout of the proposed project.

project-by-project basis, and information regarding specific development projects, soil types, and the locations of receptors would be needed to quantify the level of impact associated with construction activity.

TABLE 4.3-5 PCAPCD SIGNIFICANCE THRESHOLDS

Air Pollutant	Construction Phase Project Level (pounds per day)	Operational Phase Project Level (pounds per day)
ROG	82	55
NOx	82	55
PM ₁₀	82	82

Source: PCAPCD 2017

As described in Appendix C, Section 16.36.040, *Air quality mitigation fees*, of the Colfax Municipal Code requires that development applications in which the initial study environmental assessment identifies potentially significant impact(s) on air quality must be reviewed by the PCAPCD and incorporate, as conditions of approval, PCAPCD-recommended mitigation measures. The PCAPCD has promulgated methodology protocols for the preparation of air quality analyses. For instance, the PCAPCD has adopted thresholds of significance depicting the approximate level of construction-generated emissions that would result in a potentially significant impact (i.e., violation of an ambient air quality standard) for each pollutant of concern. The significance criteria established by the PCAPCD may be relied upon to make a determination of impact significance level. In addition, the PCAPCD recommends appropriate emissions modeling input parameters for the Placer County region in addition to other recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements.

Projects estimated to exceed PCAPCD significance thresholds are required to implement mitigation measures to reduce air pollutant emissions as much as feasible. Such measures would be required to be implemented per Colfax Municipal Code Section 16.36.040 and could include the requirement that all construction equipment employ the use of the most efficient diesel engines available, which are able to reduce NO_x, PM₁₀, and PM_{2.5} emissions by 60–90 percent (e.g., EPA-classified Tier 3 and/or Tier 4 engines), and/or that construction equipment be equipped with diesel particulate filters. Other PCAPCD-recommended air pollutant reduction measures include, but are not limited to, the following:

- The fueling of all off-road and portable diesel-powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- The prohibition of all on- and off-road diesel equipment from idling for more than five minutes and the posting of signs in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- The prohibition of diesel idling within 1,000 feet of sensitive receptors.
- The prohibition of locating staging and queuing areas within 1,000 feet of sensitive receptors.
- The use of electrified equipment when feasible.
- The substitution of gasoline-powered equipment in place of diesel-powered equipment, where feasible.
- The use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.

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- The requirement that contractors repower equipment with the cleanest engines available.
- The requirement that construction equipment uses installed California Verified Diesel Emission Control Strategies.
- The requirement that the contractor prepare a dust control plan when the disturbed area is more than one acre.
- The reduction of the amount of disturbed areas where possible.
- The use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site, and the requirement to increase watering frequency whenever wind speeds exceed 15 miles per hour (mph), using reclaimed (non-potable) water whenever possible.
- The spraying of all dirt stockpile areas daily as needed.
- The requirement that all roadways, driveways, sidewalks, etc. be paved as soon as possible, with building pads laid as soon as possible after grading unless seeding or soil binders are used.
- The requirement to show all fugitive dust mitigation measures on grading and building plans.
- The requirement that the contractor or builder designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20 percent opacity, and prevent transport of dust off-site.

Furthermore, all development projects in Colfax are subject to PCAPCD rules and regulations adopted to reduce air pollutant emissions. For example, PCAPCD Rule 202, Visible Emissions, states that no person shall discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three in any one hour, which is: (a) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or (b) Of such opacity as to obscure an observer's view to a degree equal to or greater than smoke, described above. Rule 205, Nuisance, states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material that causes 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 have a natural tendency to cause injury or damage to businesses or property. Rule 218, Architectural Coating, requires a limit on the quantity of volatile organic compounds in architectural coating supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the county. Rule 228, Fugitive Dust, requires the reduction of the amount of particulate matter entrained in the ambient air, or discharge into the ambient air, as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.

While the PCAPCD has promulgated methodology protocols for the preparation of air quality analyses, and future development projects allowed under the proposed General Plan Update that are projected to exceed PCAPCD significance thresholds are required to implement mitigation measures to reduce air pollutant emissions as much as feasible, PCAPCD significance thresholds may still be exceeded as a result of construction activities allowed under the proposed General Plan Update. Since it cannot be guaranteed that construction of future projects allowed under the proposed General Plan would generate air pollutant

emissions below PCAPCD significance thresholds due to the programmatic and conceptual nature of the proposed project and uncertainties related to future individual projects, this is considered a significant impact. As such, due to nonattainment status for O₃, construction activities associated with implementation of the proposed project may result in adverse air quality impacts to surrounding land uses and may contribute to the existing air quality condition in the city. Therefore, impacts due to construction emissions would be significant.

Level of Significance Before Mitigation: Impact 4.3-1 would be potentially significant.

Mitigation Measures

No mitigation measures are feasible. Specific details for future development projects are currently unknown and therefore potential impacts and mitigation measures that would reduce those impacts with regard to construction emissions cannot be determined. Future projects would be required to comply with PCAPCD rules and implement mitigation measures when PCAPCD thresholds are exceeded.

Level of Significance After Mitigation: Impact 4.3-1 would be significant and unavoidable.

Impact 4.3-2: Long-term operation of the project would generate new operational emissions in exceedance of PCAPCD's threshold criteria. [Thresholds AQ-2 and AQ-3]

The proposed project would accommodate new development that would operate through the planning horizon year and beyond. New residential, commercial, industrial, and recreational development facilitated by the proposed General Plan would result in long-term area-, energy-, and mobile-source emissions. Area source emissions are the combination of many small emission sources that include use of outdoor landscape maintenance equipment, use of consumer products such as cleaning products, use of fireplaces and hearths, and periodic reapplication of architectural coatings. Criteria pollutants generated from energy sources are principally from the on-site use of natural gas and other heating fuels; electricity consumption is not included in energy source emissions as those potential emissions would be generated as the result of the operation of an electricity generation facility, which may or may not be within the same air basin and under the same attainment status as the end-use.

Mobile source emissions result from the vehicle activity associated with the operation of a given land use development project. It should be noted that the proposed General Plan would not itself authorize specific development to occur within the city. Future development projects would be subject to the City's standard CEQA review process and would be required to assess project-specific emissions in relation to the PCAPCD significance thresholds. Although specific project-level information for potential future development is not available at this time and the estimation of emissions resulting from future development would be speculative, anticipated average daily emissions were quantified and presented in Table 4.3-6, *Operational Criteria Air Pollutant Emissions*, to provide an estimate of the potential overall area, energy, and mobile source emissions resulting from the proposed project based on the calculation methodology described in Section 4.3.5.1, *Methodology*.

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TABLE 4.3-6 OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS

Emission Source	Pollutant (Pounds per Day)		
	ROG	NO _x	PM ₁₀
Proposed Project Buildout Emissions			
Mobile	273	335	844
Area (hearths, consumer products)	992	23	149
Energy (on-site natural gas use)	3	52	4
Total Average lbs/day:	1,268	413	997
<i>PCAPCD Daily Significance Threshold</i>	<i>55 pounds/day</i>	<i>55 pounds/day</i>	<i>82 pounds/day</i>
Exceed PCAPCD Daily Significance Threshold?	Yes	Yes	Yes
Existing General Plan Buildout Emissions			
Mobile	319	389	976
Area (hearths, consumer products)	970	21	138
Energy (on-site natural gas use)	3	59	5
Total Average lbs/day:	1,292	469	1,119
<i>PCAPCD Daily Significance Threshold</i>	<i>55 pounds/day</i>	<i>55 pounds/day</i>	<i>82 pounds/day</i>
Exceed PCAPCD Daily Significance Threshold?	Yes	Yes	Yes

Source: ECORP 2023 (Appendix F)

As shown in Table 4.3-6, the criteria air pollutant emissions from buildout of the proposed project are generally the same as air pollutant emissions from buildout of the existing General Plan 2020 buildout. Specifically, ROG emissions under the proposed project could be expected to be reduced by approximately 24 pounds daily while emissions of NO_x and PM₁₀ could be expected to be reduced by approximately 56 pounds per day and 122 pounds per day, respectively. However, as shown in Table 4.3-6, buildout of the General Plan Update would still result in ROG, NO_x, and PM₁₀ emissions greater than PCAPCD thresholds.

Several proposed policies would help to reduce the generation of criteria air pollutants from mobile sources. For instance, proposed Circulation Element Policy 3.2.1 would require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking. The promotion of these alternative forms of transportation contributes to less dependency on automobiles, a source of criteria air pollutants. Similarly, Policy 3.2.2 proposes to promote the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible. Proposed Policy 3.2.3 seeks to ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as “sidewalks to nowhere.”

Additionally, Implementation Measure 3.2.C of the Circulation Element proposes to develop a Walkways, Trails, and Bikeways Master Plan that incorporates the recommendations of the City of Colfax Bikeway Master Plan, and other planning proposals as appropriate, to plan the location and development of future trails and active transportation routes in the city and the vicinity. The Master Plan will also consider

connection of the city bicycle network with the countywide bicycle network, collaboration with the County in development of a countywide bicycle network, the provision of signage where automobile traffic merges with or intersects bicycle traffic to notify automobile drivers of the presence of cyclists, the repairing or developing railroad crossings in a way that allows safe crossing by bicycles and pedestrians, and the timing of traffic lights and sensitivity of traffic-sensing equipment to accommodate bicycles. Lastly, proposed Policy 3.3.2 would require transportation systems planned and constructed in conjunction with significant development projects, including roads, trails, bikeways, and other improvements, to provide links to the existing transportation network.

Development projects accommodated by the proposed General Plan would be analyzed on a case-by-case basis when detailed information regarding operational activities is known. Future projects would be subject to the proposed General Plan Update policies identified above, as well as PCAPCD and State rules and regulations, including, but not limited to, those identified in Appendix C. Nonetheless, buildout of the General Plan Update would result in regional operational emissions that exceed the PCAPCD's significance thresholds. As such, this impact would be potentially significant.

Level of Significance Before Mitigation: Impact 4.3-2 would be potentially significant.

Mitigation Measures

No mitigation measures are feasible. Specific details for future development projects are currently unknown and therefore potential impacts and mitigation measures that would reduce those impacts with regard to operational emissions cannot be determined. Future projects would be required to comply with PCAPCD rules and proposed General Plan policies and implementation measures in addition to implementing mitigation measures when PCAPCD thresholds are exceeded.

Level of Significance After Mitigation: Impact 4.3-2 would be significant and unavoidable.

Impact 4.3-3: The proposed project could expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-3]

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-Generated Air Contaminants

Construction under the proposed project would result in temporary emissions of ROG, NO_x, CO, PM₁₀, PM_{2.5}, and the TAC, DPM. As previously described, TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health. Sources of the TAC, DPM, during construction activities include off-road construction vehicle and equipment use and on-road vehicle use for material and soil hauling. Identification of potential impacts to sensitive receptors resulting from individual project-generated TACs

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would require project-specific information for future individual land use development projects that is not currently known. Therefore, assessment of future development projects facilitated by the proposed project that would be subject to CEQA would undergo their own review of potential construction-related localized impacts and identify appropriate and feasible mitigation to implement to reduce potentially significant impacts. Implementation of appropriate PCAPCD-recommended pollutant reduction measures would reduce construction emissions for future individual development projects; however, because individual project-specific information is not available, it is not possible to determine whether implementation of the PCAPCD reduction measures would reduce health risk-related impacts to sensitive receptors or identify additional quantifiable mitigation measures that would reduce project-specific construction emissions to ensure that localized emissions generated during construction of future development projects under the General Plan Update do not expose sensitive receptors to substantial pollutant concentrations. As such, this impact would be significant.

Operational Air Contaminants

Common sources of operational TAC emissions are stationary sources (e.g., diesel backup generators and gasoline stations), which are subject to PCAPCD permit requirements. Another common and often more significant source type is on-road motor vehicles on high-volume roads, such as Interstate (I-) 80, and off-road sources such as diesel-powered trains traveling on the Union Pacific Railroad corridor. As previously described, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses identified in Table 4.3-4 were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources.

The proposed General Plan contains policy provisions that are generally consistent with the CARB Land Use Handbook. For example, proposed Implementation Measure 2.1.A discourages sensitive residential land uses from pollutant hotspot locations such as busy roadways by instead supporting commercial development on arterial streets and at major intersections near I-80 interchanges. This is consistent with the proposed General Plan Land Use map, which substantially limits new sensitive residential development in areas adjacent to I-80 and the Union Pacific Railroad. Implementation Measure 2.1.B seeks to place supportive land uses near the railroad and prohibits placing sensitive uses, such as residences, where they could jeopardize use of rail. Implementation Measure 2.1.C would require the location of industrial and commercial land uses away from noise-sensitive land uses, which also includes TAC-sensitive land uses such as residences, thereby prohibiting the development of any substantial commercial or industrial source of TAC emissions in the vicinity of residential land uses. Additionally, Implementation Measure 2.1.D states that to protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise-generating uses, which often consist of sources of TAC emissions such as manufacturing facilities and/or distribution centers, thereby prohibiting the development of TAC-sensitive land uses in the vicinity of most sources of stationary TAC sources. Lastly, Policy 5.3.2 requires that new development be compatible with the existing urban area where they are proposed. These proposed policies of the General Plan effectively assist to reduce human health impacts and exposure of sensitive receptors to substantial

pollutant concentrations. As such, impacts associated with operational TAC emissions would be less than significant.

Level of significance Before Mitigation: Impact 4.3-3 would be potentially significant.

Mitigation Measures

No mitigation measures are feasible. Specific details for future development projects are currently unknown and therefore potential impacts and mitigation measures that would reduce those impacts with regard to stationary TAC sources cannot be determined. Future projects would be required to comply with the proposed General Plan policies and implementation measures, consistent with the CARB Land Use Handbook, in addition to implementing mitigation measures when PCAPCD thresholds are exceeded.

Level of significance Ask Mitigation: Impact 4.3-3 would be significant and unavoidable.

Impact 4.3-4: The proposed project is consistent with the applicable air quality management plan. [Threshold AQ-1]

As part of its enforcement responsibilities, the EPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, State, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under State law, the California Clean Air Act requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and State ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously described, the PCAPCD is the agency responsible for enforcing many federal and State air quality requirements and for establishing air quality rules and regulations. The PCAPCD attains and maintains air quality conditions in Placer County. They achieve this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. As part of this effort, the PCAPCD has developed input to the SIP. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (including 2018 updates), the PM₁₀ Implementation/Maintenance Plan and Re-Designation Request (2010), and PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area (2013) constitute the current SIP for Placer County and include the PCAPCD's plans and control measures for attaining air quality standards. These air quality attainment plans are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, State regulations, and federal controls describing how the state will attain ambient air quality standards.

As shown in Table 4.3-6, emissions of ROG, NO_x, and PM₁₀ emissions are predicted to be less at the buildout of Colfax under the development allowed by the proposed General Plan compared with the buildout of Colfax under the development allowed by the existing General Plan. Specifically, ROG emissions under the proposed General Plan Update could be expected to be reduced by approximately 24 pounds daily while emissions of NO_x and PM₁₀ could be expected to be reduced by approximately 56 pounds per day and 122

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pounds per day, respectively. The reduction of regional pollutants is the underlying goal of PCAPCD's air quality planning efforts and while buildout of the proposed project would result in regional operational emissions that exceed the PCAPCD's significance thresholds, these emissions would be less than what will otherwise be generated without adoption of the proposed General Plan Update. For this reason, the proposed project is consistent with PCAPCD's air quality planning efforts and the proposed project would not conflict with or obstruct implementation of PCAPCD's air quality plans.

Level of Significance Before Mitigation: Impact 4.3-4 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.3-5: The proposed project would not result in other emissions, such as those leading to odors, that would adversely affect a substantial number of people. [Threshold AQ-4]

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

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Construction activities that have the potential to emit odors from the operation of diesel equipment, generation of fugitive dust, and paving (asphalt). Odors and similar emissions from construction would be intermittent and temporary, and generally would not extend beyond the construction area. While odors could be generated during construction activities, the proposed General Plan Update would not directly

result in construction of any development project. Identification of potential impacts to odor receptors resulting from construction-generated odors, such as equipment exhaust, would require project-specific information for future individual land use development projects that is not currently known. Nonetheless, odors generated from the operation of diesel equipment are short-term in nature and rapidly dissipate and can be diluted by the atmosphere downwind of the odor sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors generated under the General Plan Update would not adversely affect a substantial number of people to odor emissions.

According to the PCAPCD CEQA Handbook (2017), facilities/land uses that have the potential to produce odors during standard operations and may require special attention in the environmental review process include the following:

- Wastewater Treatment Plants
- Sanitary Landfills
- Composting/Green Waste Facilities
- Recycling Facilities
- Chemical Manufacturing Plants
- Painting/Coating Operations
- Agricultural Operations
- Slaughterhouse/Food Packaging Plants

Per the PCAPCD (2017), if a land use project proposes any of the above type of land uses, which have the potential to cause significant odor impacts, the odor impacts should be identified and discussed in the environmental document so mitigation measures may be identified. These guidelines further state that the most effective mitigation strategy is to provide a sufficient distance, or buffer zone, between the source and the receptor(s). The greater the distance between an odor source and receptor, the less odor impact when it reaches the receptor. The PCAPCD CEQA Handbook (2017) provides an Odor Screening Distances table that lists recommended buffer distances for a variety of odor-generating facilities. Consideration of PCAPCD's recommended buffer distances would be required for all future development under the proposed General Plan per Section 16.36.040 of the City Municipal Code, which requires incorporation, as conditions of approval, of PCAPCD-recommended mitigation measures.

Additionally, Colfax Municipal Code Section 17.120.090, Odors, also addresses potential odor impacts by requiring that no emission of odorous gases or other odorous matter be permitted in excess of the most recent standards adopted by the PCAPCD and Placer County Department of Environmental Health. Any process that may involve the creation or emission of any odor shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system should fail.

Lastly, PCAPCD Rule 205, Nuisance, states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material that causes 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 have a natural tendency to cause injury or damage to

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businesses or property. These existing requirements would minimize odor emissions from new development that could adversely affect a substantial number of people within the city. This impact would be less than significant.

Level of Significance Before Mitigation: Impact 4.3-5 would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.3.6 REFERENCES

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AIR QUALITY

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BIOLOGICAL RESOURCES

4.4 BIOLOGICAL RESOURCES

This chapter describes the existing conditions of the City of Colfax related to biological resources and the potential impacts the General Plan Update (proposed project) can have on Colfax. The regulatory framework and references for this section can be found in Appendix B and Appendix C, respectively.

4.4.1 EXISTING CONDITIONS

Special-Status Species

Special-status species are plants and animals that are legally protected under the State or federal Endangered Species Acts (ESAs) or other regulations, and species that are considered by the scientific community to be sufficiently rare to qualify for such listing. Special-status plant and animal species in the city and the city's sphere of influence (SOI) are shown in Table 4.4-1, *Sensitive Plant Species Potentially Present in the City and Sphere of Influence*, and Table 4.4-2, *Sensitive Animal Species Potentially Present in the City and Sphere of Influence*.

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TABLE 4.4-1 SENSITIVE PLANT SPECIES POTENTIALLY PRESENT IN THE CITY AND SPHERE OF INFLUENCE

Scientific Name	Common Name	Federal/State Status	California Rare Plant Rank
<i>Chlorogalum grandiflorum</i>	Red Hills soaproot	None/None	1B.2
<i>Allium sanbornii</i> var. <i>congdonii</i>	Congdons onion	None/None	4.3
<i>Allium sanbornii</i> var. <i>sanbornii</i>	Sanborns onion	None/None	4.2
<i>Githopsis pulchella</i> ssp. <i>serpentinicola</i>	serpentine bluecup	None/None	4.3
<i>Lilium humboldtii</i> ssp. <i>humboldtii</i>	Humboldt lily	None/None	4.2
<i>Sidalcea gigantea</i>	giant checkerbloom	None/None	4.3
<i>Claytonia parviflora</i> ssp. <i>grandiflora</i>	streambank spring beauty	None/None	4.2
<i>Clarkia biloba</i> ssp. <i>brandegeae</i>	Brandegees clarkia	None/None	4.2
<i>Piperia leptopetala</i>	narrow-petaled rein orchid	None/None	4.3
<i>Poa sierrae</i>	Sierra blue grass	None/None	1B.3
<i>Eriogonum tripodum</i>	tripod buckwheat	None/None	4.2

Source: CDFW, 2023a, Colfax quadrangle.

California Rare Plant Ranks:

- 1A: Plants presumed extinct in California and rare/extinct elsewhere
- 1B.1: Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
- 1B.2: Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
- 1B.3: Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
- 2A: Plants presumed extirpated in California, but more common elsewhere
- 2B.1: Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
- 2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
- 2B.3: Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
- 3.1: Plants about which we need more information; seriously threatened in California
- 3.2: Plants about which we need more information; fairly threatened in California
- 3.3: Plants about which we need more information; not very threatened in California
- 4.1: Plants of limited distribution; seriously threatened in California
- 4.2: Plants of limited distribution; fairly threatened in California
- 4.3: Plants of limited distribution; not very threatened in California

Federal Status

- *Endangered*: The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.
- *Threatened*: The classification provided to an animal or plant which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.
- *Proposed Endangered*: The classification provided to an animal or plant that is proposed for federal listing as Endangered in the Federal Register under Section 4 of the Endangered Species Act.

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Scientific Name	Common Name	Federal/State Status	California Rare Plant Rank
- <i>Proposed Threatened</i> : The classification provided to an animal or plant that is proposed for federal listing as Threatened in the Federal Register under Section 4 of the Endangered Species Act.			
- <i>Candidate</i> : The classification provided to an animal or plant that has been studied by the United States Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.			
- <i>None</i> : The plant or animal has no federal status.			
- <i>Delisted</i> : The plant or animal was previously listed as Endangered or Threatened but is no longer listed on the Federal Endangered and Threatened species list.			

State Status

- *Endangered*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.
- *Threatened*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.
- *Rare*: The classification provided to a native plant species, subspecies, or variety when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. This designation stems from the Native Plant Protection Act of 1977.
- *None*: The plant or animal has no state status.
- *Delisted*: The plant or animal was previously listed as Endangered, Threatened or Rare but is no longer listed by the State of California.
- *Candidate Endangered*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.
- *Candidate Threatened*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of threatened species.

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TABLE 4.4-2 SENSITIVE ANIMAL SPECIES POTENTIALLY PRESENT IN THE CITY AND SPHERE OF INFLUENCE

Scientific Name	Common Name	Federal/State Status	California Department of Fish and Wildlife Status
Amphibians			
<i>Rana boylei</i> pop. 3	foothill yellow-legged frog – north Sierra DPS	None/Threatened	-
Birds			
<i>Icteria virens</i>	yellow-breasted chat	None/None	SSC
<i>Lanius ludovicianus</i>	loggerhead shrike	None/None	SSC
<i>Contopus cooperi</i>	olive-sided flycatcher	None/None	SSC
<i>Empidonax traillii</i>	willow flycatcher	None/Endangered	-
Insects			
<i>Bombus caliginosus</i>	obscure bumble bee	None/None	-
<i>Bombus occidentalis</i>	western bumble bee	None/Candidate	-
<i>Desmocerus californicus dimorphus</i>	valley elderberry longhorn beetle	Threatened/None	-
Mammals			
<i>Pekania pennanti</i>	Fisher	None/None	SSC
<i>Bassariscus astutus raptor</i>	northern California ringtail	None/None	FP
<i>Antrozous pallidus</i>	pallid bat	None/None	SSC
<i>Myotis evotis</i>	long-eared myotis	None/None	-
<i>Myotis thysanodes</i>	fringed myotis	None/None	-
Mollusks			
<i>Margaritifera falcata</i>	western pearlshell	None/None	-
Reptiles			
<i>Emys marmorata</i>	western pond turtle	None/None	SSC
<i>Phrynosoma blainvillii</i>	coast horned lizard	None/None	SSC

Source: CDFW, 2023a, Colfax quadrangle.

California Department of Fish and Wildlife Status

- *FP (Fully Protected)*: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds, and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.

- *SSC (Species of Special Concern)*: It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to

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Scientific Name	Common Name	Federal/State Status	California Department of Fish and Wildlife Status
<p>extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.</p> <p>- <i>WL (Watch List)</i>: The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.</p>			

Federal Status

- *Endangered*: The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.
- *Threatened*: The classification provided to an animal or plant which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.
- *Proposed Endangered*: The classification provided to an animal or plant that is proposed for federal listing as Endangered in the Federal Register under Section 4 of the Endangered Species Act.
- *Proposed Threatened*: The classification provided to an animal or plant that is proposed for federal listing as Threatened in the Federal Register under Section 4 of the Endangered Species Act.
- *Candidate*: The classification provided to an animal or plant that has been studied by the United States Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.
- *None*: The plant or animal has no federal status.
- *Delisted*: The plant or animal was previously listed as Endangered or Threatened but is no longer listed on the Federal Endangered and Threatened species list.

State Status

- *Endangered*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.
- *Threatened*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.
- *Rare*: The classification provided to a native plant species, subspecies, or variety when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. This designation stems from the Native Plant Protection Act of 1977.
- *None*: The plant or animal has no state status.
- *Delisted*: The plant or animal was previously listed as Endangered, Threatened or Rare but is no longer listed by the State of California.
- *Candidate Endangered*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.
- *Candidate Threatened*: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of threatened species.

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Wildlife Movement

Open space areas within the city and SOI can provide refuge for some wildlife species. Open space areas, such as parks and cemeteries, typically have mature trees and may have water features, both important elements providing food, hydration, and cover for wildlife. Some types of agricultural land uses may also offer some habitat value. The SOI has significantly more open space areas suitable for wildlife habitat since portions of the city are developed.

4.4.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Conservation and Open Space Element are relevant to the proposed project.

Conservation and Open Space Element

- **Policy 6.1.1:** Limit development on lands that provide wildlife and native habitat.
- **Policy 6.1.2:** Require flexibility in development standards to balance both private property rights with the need to conserve wildlife and native habitat.
- **Policy 6.2.1:** Provide for the integrity and continuity of biological resources open space, habitat and wildlife movement corridors and support the permanent protection and restoration of these areas, particularly those identified as sensitive resources.
- **Policy 6.2.2:** Protect sensitive wildlife habitat from destruction and intrusion by incompatible land uses where appropriate. All efforts to protect sensitive habitats should consider:
 - Sensitive habitat and movement corridors in the areas adjacent to development sites, as well as on the development site itself.
 - Prevention of habitat fragmentation and loss of connectivity.
 - Use of appropriate protection measures for sensitive habitat areas such as non-disturbance easements and open space zoning.
 - Off-site habitat restoration as a potential mitigation, provided that no net loss of habitat value results.
 - Potential mitigation or elimination of impacts through mandatory clustering of development, and/or project redesign.
- **Policy 6.2.3:** Preserve riparian corridors through application of setbacks and other development standards that respect these resources.

4.4.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant biological resources impacts if it would:

- BIO-1 Have a substantial 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.

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- BIO-2 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 Wildlife or U.S. Fish and Wildlife Service.
- BIO-3 Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- BIO-4 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.
- BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- BIO-6 Conflict with the provisions of an adopted Habitat Conservation Plan (HCP); Natural Community Conservation Plan (NCP); or other approved local, regional, or state HCP.

4.4.4 ENVIRONMENTAL IMPACTS

Impact 4.4-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or United States Fish and Wildlife Service. [Threshold BIO-1]

Development allowed by the General Plan Update could potentially impact special-status species.

Plants

A search of the California Natural Diversity Database (CNDDDB) queries identified a total of 11 special-status plant species as occurring in the City of Colfax and SOI. Artificial and unvegetated biological communities, barren, and/or urban areas in the city are unlikely to support special-status plants. However, construction activities within habitat communities could potentially result in significant impacts on special-status plants. There are no federally or State-listed plant species known to occur in the city and SOI. Although the 11 special-status species listed in Table 4.4-1 are not federally or State listed, losses of these special-status plants would cause potentially significant impacts under the California Environmental Quality Act (CEQA).

Wildlife

As listed in Table 4.4-2, a total of 16 special-status wildlife species (one amphibian, three birds, three insects, five mammals, one mollusk, and two reptiles) are known to occur or have the potential to occur in the city and SOI. Of those 16 special-status species, there is one amphibian, one bird, and two insect species listed as threatened or endangered by the federal and/or State ESAs and known to occur in the city and SOI. Development within or near habitat for special-status wildlife species could result in adverse impacts on these species.

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Fish

Development allowed by the General Plan Update also has the potential to cause adverse impacts to special-status fish species. Impacts on fish from construction-related disturbances include increased sedimentation and turbidity, release of contaminants into surrounding waterbodies, noise disturbance, and change in fish habitat. A change in fish habitat could result from the removal of terrestrial vegetation from streambanks, removal of riparian trees and aquatic vegetation, or rip-rapping¹ banks for erosion control. Increases in sedimentation and turbidity have been shown to affect fish physiology, behavior, and habitat. Stress responses are generally higher with increasing turbidity and decreasing particle size.

Construction activities may also involve the storage, use, or discharge of toxic and other harmful substances near water bodies or in areas that drain to these water bodies. Heavy construction equipment often use petroleum products, such as fuels, lubricants, hydraulic fluids, and coolants, all of which may be toxic to fish and other aquatic organisms. An accidental spill or inadvertent discharge of these materials could affect the water quality of the river or water body and thereby affect fish or fish habitat.

Impact Significance Determination

Furthermore, the General Plan Update contains several policies in the Conservation and Open Space Element that would preserve and enhance areas that may provide habitat for special-status species, including the following:

- **Policy 6.1.1:** Limit development on lands that provide wildlife and native habitat.
- **Policy 6.1.2:** Require flexibility in development standards to balance both private property rights with the need to conserve wildlife and native habitat.
- **Policy 6.2.1:** Provide for the integrity and continuity of biological resources open space, habitat and wildlife movement corridors and support the permanent protection and restoration of these areas, particularly those identified as sensitive resources.
- **Policy 6.2.2:** Protect sensitive wildlife habitat from destruction and intrusion by incompatible land uses where appropriate. All efforts to protect sensitive habitats should consider:
 - Sensitive habitat and movement corridors in the areas adjacent to development sites, as well as on the development site itself.
 - Prevention of habitat fragmentation and loss of connectivity.
 - Use of appropriate protection measures for sensitive habitat areas such as non-disturbance easements and open space zoning.
 - Off-site habitat restoration as a potential mitigation, provided that no net loss of habitat value results.
 - Potential mitigation or elimination of impacts through mandatory clustering of development, and/or project redesign.

¹ Rip-rap banks are composed of rock or other materials that resist erosion by dissipating the energy of flowing water or waves.

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- **Policy 6.2.3:** Preserve riparian corridors through application of setbacks and other development standards that respect these resources.

The goals and policies in the Conservation and Open Space Element of the proposed General Plan Update and compliance with the policies and regulations under the federal and State ESAs, Migratory Bird Treaty Act, California Fish and Game Code, Clean Water Act, and California Native Plant Protection Act would reduce potential impacts to special-status species associated with new development allowed under the General Plan to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.4-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.4-2: The proposed project would not have a substantial adverse effect on riparian habitat and other sensitive natural communities identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service. [Threshold BIO-2]

The City and SOI do not contain any sensitive natural communities. Therefore, construction activities allowed by the General Plan Update would not have any potential direct or indirect impacts on sensitive natural communities. However, the City and SOI contain riparian communities. Construction projects in the City and SOI would have the potential to affect riparian habitats by spreading or introducing invasive plant species to currently uninfected areas. Invasive species spread aggressively and crowd native species, potentially altering the species composition of natural communities. A predominance of invasive species reduces the overall habitat quality for native plants and wildlife.

However, Conservation and Open Space Element Policy 6.2.3 seeks to preserve riparian corridors through application of setbacks and other development standards that respect these resources. Additionally, disturbance or alteration of streams, lakes, or non-federally protected (non-jurisdictional) wetlands would require a permit, which would include conditions to protect these sensitive natural communities. A Section 1602 streambed alteration agreement would be needed from the CDFW prior to initiation of project construction activities within the city that would divert, obstruct, or change the natural flow of a river, stream, or lake, or that would use material from a streambed. Non-jurisdictional wetlands include wetland features that are not hydrologically connected to navigable waters in rivers and are not under the jurisdiction of the United States Army Corps of Engineers. These wetlands would still be considered waters of the State and would be regulated according to waste discharge requirements that would be issued by the Regional Water Quality Control Board.

Implementation of the General Plan Update goals and policies, with conditions associated with streambed alteration agreements and waste discharge requirements, would reduce potential impacts on riparian corridors and other sensitive natural communities to a less-than-significant level.

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Level of Significance Before Mitigation: Impact 4.4-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.4-3: The proposed project would not have a substantial adverse effect on State or federally protected wetlands (marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. [Threshold BIO-3]

The City of Colfax and SOI contain waters of the United States, which include jurisdictional wetlands and other waters (USFWS 2023). Construction activities allowed by the General Plan Update could potentially have direct and indirect impacts on waters of the United States.

However, in accordance with the federal Clean Water Act, a formal delineation of waters of the United States would need to be conducted prior to the initiation of construction activities in the city and SOI where potential jurisdictional features are present. The results of the delineation, including a report and map, would be submitted to the Sacramento District of the United States Army Corps of Engineers for verification. If the United States Army Corps of Engineers determines that no waters of the United States are present, a Clean Water Act Section 404 permit would not be required, although waste discharge requirements from the Regional Water Quality Control Board might be required. If the United States Army Corps of Engineers determines that waters of the United States are present, a Section 404 permit from the United States Army Corps of Engineers for placement of fill within waters of the United States and a Section 401 water quality certification from the Regional Water Quality Control Board would be required. Placement of fill materials into waters of the United States would require compensation to ensure no net loss of aquatic resources. Required compensation for the loss of degraded habitat could be less than that for undisturbed habitat, but compensation ratios would ultimately be determined by the resource agencies and be stated in the permit conditions.

Implementation of General Plan Update goals and policies, conditions associated with Section 404 permits and Section 401 water quality certifications, and additional mitigation protection of wetlands during construction activities would reduce potential impacts on federally protected wetlands to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.4-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.4-4: The proposed project could interfere with the movement of a 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. [Threshold BIO-4]

The City of Colfax and SOI contain essential movement corridors for wildlife species; development allowed by the General Plan Update could potentially have adverse impacts on such species. Riparian corridors provide habitat connectivity through the city, SOI, and adjacent areas (e.g., parks, open space). Development along these areas could occur and could impede movement of native or migratory species. Compliance with the Migratory Bird Treaty Act, which prohibits the take or possession of any migratory nongame bird and their active nests, would ensure that future development does not result in adverse effects on migratory bird species.

The General Plan Update contains several policies in the Conservation and Open Space Element that address potential impacts to native or migratory wildlife species and corridors, including the following:

- **Policy 6.1.1:** Limit development on lands that provide wildlife and native habitat.
- **Policy 6.1.2:** Require flexibility in development standards to balance both private property rights with the need to conserve wildlife and native habitat.
- **Policy 6.2.1:** Provide for the integrity and continuity of biological resources open space, habitat and wildlife movement corridors and support the permanent protection and restoration of these areas, particularly those identified as sensitive resources.
- **Policy 6.2.2:** Protect sensitive wildlife habitat from destruction and intrusion by incompatible land uses where appropriate. All efforts to protect sensitive habitats should consider:
 - Sensitive habitat and movement corridors in the areas adjacent to development sites, as well as on the development site itself.
 - Prevention of habitat fragmentation and loss of connectivity.
 - Use of appropriate protection measures for sensitive habitat areas such as non-disturbance easements and open space zoning.
 - Off-site habitat restoration as a potential mitigation, provided that no net loss of habitat value results.
 - Potential mitigation or elimination of impacts through mandatory clustering of development, and/or project redesign.
- **Policy 6.2.3:** Preserve riparian corridors through application of setbacks and other development standards that respect these resources.

The proposed General Plan Update goals and policies, in combination with regulations under the federal and State ESA, Migratory Bird Treaty Act, and California Fish and Game Code, would reduce potential impacts to migratory species to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.4-4 would be less than significant.

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Mitigation Measures

No mitigation measures are required.

Impact 4.4-5: The proposed project would not conflict with any local policies or ordinances protecting biological resources nor with the provisions of an adopted HCP; NCCP; or other approved local, regional, or State HCP. [Thresholds BIO-5 and BIO-6]

The General Plan Update would not conflict with any local policies or ordinances protecting biological resources. The City of Colfax Municipal Code includes Chapter 12.16, Article II, Tree Preservation Guidelines, which establishes tree preservation guidelines for the purpose of maintaining natural scenic beauty, improving air and water quality, reducing soil erosion, preserving significant natural heritage values and wildlife habitat, and helping to reduce energy consumption. Future development under the General Plan Update would be required to comply with all applicable policies and plans pertaining to biological resources and would not conflict with such policies and ordinances. The Planning Area is not within an adopted HCP, NCCP, or other HCP (CDFW 2023b). No impact would occur.

Level of Significance Before Mitigation: Impact 4.4-5 would have no impact.

Mitigation Measures

No mitigation measures are required.

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4.4.5 REFERENCES

California Department of Fish and Wildlife (CDFW). 2023a, June 26 (accessed). CNDDDB Maps and Data: CNDDDB QuickView Tool. <https://wildlife.ca.gov/Data/CNDDDB/Maps-and-Data#43018408-cnddb-in-bios>

———. 2023b, June 26 (accessed). CNDDDB Maps and Data: NCCP Plan Summaries. <https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans>

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CULTURAL AND TRIBAL CULTURAL RESOURCES

4.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

This chapter describes the existing conditions of the City of Colfax related to cultural and tribal cultural resources and potential impacts the General Plan Update (proposed project) can have on the city. The regulatory framework and references for this chapter can be found in Appendix B and Appendix C, respectively.

4.5.1 EXISTING CONDITIONS

Archaeological Context

Although humans may have inhabited the Sacramento Valley as early as 10,000 years ago, the evidence of early human use likely is buried by deep alluvial sediments that accumulated rapidly during the late Holocene epoch. Archaeological remains of this early period have been identified in and around the Central Valley, including the Sierra foothills (Johnson 1967; Treganza and Heizer 1953).

The taxonomic framework of Central California, including the Sierra foothills, is described in terms of archaeological patterns (Moratto 1984). A pattern is characterized archaeologically by technology, particular artifacts, economic systems, trade, burial practices, and other aspects of culture. Fredrickson (1973) identified three broad patterns of resource use for the period between 4500 and 3500 Before Present (B.P.): the Windmill, Berkeley, and Augustine Patterns.

The Windmill Pattern (4500–3000 B.P.) shows evidence of a mixed economy of game procurement with use of wild plant foods and materials. The archaeological record contains numerous projectile points associated with a wide range of faunal remains. Hunting was not limited to terrestrial animals, as is evidenced by fishing hooks and spears that have been found in association with the remains of sturgeon, salmon, and other fish (Moratto 1984). Plants were also used, as indicated by ground stone artifacts and clay balls or stones that were used for boiling acorn mush. Settlement strategies during the Windmill period reflect seasonal adaptations; habitation sites in the valley were occupied during the winter months, but populations moved into the foothills during the summer (Moratto 1984).

The Windmill Pattern transitioned to a more specialized adaptation labeled the Berkeley Pattern (3500–2500 B.P.). A reduction in the number of manos and metates and an increase in mortars and pestles indicate a greater dependence on acorns and seeds. Although seasonally harvested plant resources gained importance during this period, the continued presence of projectile points and atlatls (spear-throwers) in the archaeological record indicates that hunting was still an important activity (Fredrickson 1973).

The Berkeley Pattern was superseded by the Augustine Pattern around A.D. 500. The Augustine Pattern reflects a change in subsistence and land-use patterns to those of the ethnographically known people (Nisenan) of the historic era. This pattern exhibits an elaboration of ceremonial and social organization, including the development of social stratification. Exchange became well developed, and an even more intensive emphasis was placed on the use of the acorn, as evidenced by the presence in the archaeological record of shaped mortars and pestles and numerous hopper mortars. Other notable elements of the artifact

CULTURAL AND TRIBAL CULTURAL RESOURCES

assemblage associated with the Augustine Pattern include flanged tubular smoking pipes, harpoons, clamshell disc beads, and an especially elaborate baked clay industry, which included figurines and pottery vessels (Cosumnes Brownware). The presence of small projectile point types, referred to as the Gunther Barbed series, suggests the use of the bow and arrow. Other traits associated with the Augustine Pattern include the introduction of pre-interment burning of offerings in a grave pit during mortuary ritual, increased village sedentism, population growth, and an incipient monetary economy in which beads were used as a standard of exchange (Moratto 1984).

Ethnographic Context

The Nisenan, or Southern Maidu, inhabited the project area ethnographically. Nisenan territory made up the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River. The Nisenan, together with the Maidu and Konkow, their northern neighbors, form the Maidu language family of the Penutian linguistic stock (Shiple 1978). Kroeber (1976) noted three dialects: Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan. Others made finer distinctions (Shiple 1978).

Nisenan territory generally included lands west of the Sacramento River, the crest of the Sierra Nevada to the east, with a northern boundary approximately 10 miles south of the middle fork of the Feather River and a southern boundary a few miles south of the American River (Wilson and Towne 1978).

Nisenan settlement locations depended primarily on elevation, exposure, and proximity to water and other resources. Permanent villages were usually on low rises along major watercourses. Village size ranged from 3 houses up to 40 or 50. Houses were domed structures covered with earth and tule or grass and measured 10 to 15 feet in diameter. Brush shelters were used in the summer and at temporary camps during food-gathering rounds. Larger villages often had semi-subterranean dance houses, which were covered in earth and tule or brush and had a central smoke hole at the top and an entrance that faced east. Another common village structure was a granary used for storing acorns (Wilson and Towne 1978).

The Nisenan occupied permanent settlements, from which specific task groups set out to harvest the seasonal bounty of flora and fauna that the rich valley environment provided. The Valley Nisenan economy involved riparian resources, in contrast to the Hill Nisenan, whose resource base consisted primarily of acorns and game. The only domestic plant was native tobacco (*Nicotiana* sp.), but many wild species were closely stockpiled. The acorn crop from blue oaks (*Quercus douglasii*) and black oaks (*Q. kelloggii*) was so carefully managed that it served as the equivalent of an agricultural crop and could be stored against winter shortfalls. Deer, rabbit, and salmon were the chief sources of animal protein in the aboriginal diet, but many other insect and animal species were used when available.

Religion played an important role in Nisenan life. All natural objects were thought to be endowed with supernatural powers. Two kinds of shamans existed: curing and religious shamans. Curing shamans had limited contact with the spirit world and diagnosed and healed illnesses. Religious shamans gained control over the spirits through dreams and esoteric experiences (Wilson and Towne 1978).

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Early Nisenan contact with Europeans appears to have been limited to the southern reaches of their territory. Spanish expeditions began to cross Nisenan territory in the early 1800s. Unlike the valley Nisenan, the groups in the foothills remained relatively unaffected by the European presence until the discovery of gold at Coloma in 1848. In the two or three years following the gold discovery, Nisenan territory was overrun by settlers from all over the world. Gold seekers and the settlements that sprang up to support them were nearly fatal to the native inhabitants. The sudden onslaught of humanity brought disease and violence to the indigenous groups who lived in the area. Survivors worked as wage laborers and domestic help and lived on the edges of foothill towns. Despite severe depredations, descendants of the Nisenan still live in Placer County and have maintained their cultural identity.

Historic Context

Placer County formed in 1851 from parts of Sutter and Yuba Counties. The city of Auburn serves as the county seat. During the Gold Rush, thousands of miners swarmed up the American River and its tributaries into the foothills of Placer County, where they established camps and towns near the sites of major gold discoveries. Colfax was one of a handful of mining and railroad communities built within this gold-rich region, with the nearby Rising Sun Mine first revealing its ore deposits in 1866 (Hoover et al. 1990; Thompson and West 1882:230). In 1864, the Central Pacific Railroad (CPRR) constructed a line through the region, encouraging communities along the alignment (such as Colfax, Auburn, and Newcastle) to thrive and develop. The CPRR laid out the community of Colfax (named after Vice President Schuyler Colfax Jr.) in September 1865 and had regular train service by the end of that month. The CPRR sold its stake in the town to investors Kohn and Kind, and individual lots were sold by July 1865. Colfax replaced Illinoistown, a prior settlement about 0.5 miles south of the current townsite. With the arrival of the railroad in September 1865, new development quickly replaced the mining camps as farmers and ranchers came to take advantage of the more lucrative agricultural wealth (Hoover et al. 1990; Thompson and West 1882:376–377).

Situated some 54 miles northeast of Sacramento and 18 miles northeast of Auburn, Colfax's moderate climate allowed for area ranches to exploit harvests from apple and peach trees whose quality rivaled those in the valley regions. In addition, the existing mining ditches provided an excellent source of irrigation for orchards. These conditions together created a profitable and marketable fruit-growing area by the 1870s, farmers planted orchards and fruit crops on thousands of acres in the foothills. Fruit grown in the area included strawberries, blackberries, cherries, peaches, apricots, plums, and oranges, which were later replaced with pears. By this time, the CPRR railroad was linked to the Transcontinental Railroad, providing access to the eastern United States, and opening a larger market for fruit. Fruit production escalated, and commercial orchards soon filled the foothills, constituting the chief source of income for the region (Orsi 1975; Thompson and West 1882:377).

Horticulturalists like Arthur Flanders Boardman were instrumental in the expansion of irrigation and water systems into the area for the purposes of growing fruit. By the 1880s, the demand for irrigation water in the foothills supplanted the need for water in the mining camps and mines of the Mother Lode. The Boardman Canal was reconstructed from an 1865 mining ditch and expanded for irrigation in the 1890s by the South Yuba Water Company (Coleman 1952). By purchasing small water companies and connecting their ditches into a vast network, this water company created the largest water system in the state, the South Yuba Canal System, that provided not only water for agricultural purposes but formed the basis for

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hydroelectric power development in northern California. The South Yuba Water Company eventually incorporated as Pacific Gas & Electric Company (Coleman 1952).

In 1874, a fire destroyed much of the original Colfax community. Despite these setbacks, the local community and industry continued to grow. By the late nineteenth century, Colfax hosted about 600 residents and included several grocery and dry goods stores, two hotels, a drug store, bakery, restaurant, meat market, lumberyard, and a variety of other commercial interests (Thompson and West 1882:377).

Placer County's fruit production experienced a gradual decline as it faced orchard diseases and blight, and growing competition from the Sacramento–San Joaquin Delta region as well as Lake, Fresno, and Tulare Counties, which surpassed the foothill region in fruit production beginning in the late 1950s. Today, agriculture plays only a small part in the economy of Colfax, which, in recent years, has grown into a bedroom community of the greater Sacramento area and a community “lost in time,” retaining much of its small-town character (Grace Hubley Foundation 2015).

National Register of Historic Places

The following are National Register of Historic Places (NRHP) listed historic places worthy of preservation within the City of Colfax and its SOI (NPS 2023):

- Colfax Freight Depot
- Colfax Passenger Depot
- Steven's Trail

4.5.2 PROPOSED GENERAL PLAN POLICIES

The following relevant policies of the 2040 Colfax General Plan Update may reduce the potential impacts on cultural and tribal cultural resources as a result of implementation of the proposed project.

Land Use Element

- **Policy 2.3.5:** Encourage adaptive reuse of the Historic District and its buildings. New construction and buildings in the Historic District shall compliment the historical character of the community and surrounding architecture.
- **Policy 2.3.6:** Adopt and maintain design standards and a development code for the City, including specific design standards for the Historic District.

Community Design Element

- **Policy 5.2.3:** Preserve and revitalize Colfax's historic buildings and sites, and ensure that new development respects the character and context of those resources.
- **Policy 5.2.4:** Preserve notable landmarks, streetscape, and other areas of architectural or aesthetic value providing continuity with the past.
- **Policy 5.2.5:** Ensure that infill development is consistent with historic development patterns in terms of scale, design, and material.

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Economic Development Element

- **Policy 8.2.1:** Continue redevelopment and improvement efforts in Downtown Colfax, including programs to preserve the unique historic character of the Downtown, and expand upon the Downtown's vibrant mixed-use character.

4.5.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant cultural and tribal cultural resources impacts if it would:

CULT-1 Cause a substantial adverse change in the significance of a historical resource pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15064.5.

CULT-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

CULT-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

CULT-4 Cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Sections, 21074, 5020.1(k), or 5024.1.

4.5.4 ENVIRONMENTAL IMPACTS

Impact 4.5-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. [Threshold CULT-1]

There are two identified historical resources in the City of Colfax and one within the SOI that are NRHP historic listed buildings or structures (NPS 2023). This includes the Colfax Freight Depot, Colfax Passenger Depot, and Steven's Trail. Future development under the General Plan Update could adversely impact historic resources through changes to accommodate adaptive reuse, removal, or reconstruction. Known or future historic sites or resources listed in the national, California, or local registers maintained by the City would be protected through local ordinances, General Plan Update policies, and State and federal regulations restricting alteration, relocation, and demolition of historical resources. For example, Chapter 15.20, Demolition Review and Permit Process, of the Colfax Municipal Code implements historic preservation and maintenance of the architectural character and integrity of the city, in accordance with policies of the Colfax General Plan. Chapter 17.116, Design Guidelines, establishes a set of standard regulations to continue to maintain and enhance the historic resources, qualities, and character of the city.

Chapter 17.200, Significant Buildings, of the Colfax Municipal Code seeks to prevent the demolition of significant buildings unless it is needed for the development of a new building and after having a noticed public hearing and a discretionary approval. Significant buildings include special historic, cultural, or aesthetic interest, and may have significant value to the community. The City has also adopted the historic building provisions of the California Building Code as described in the City's Municipal Code, Chapter 15.04.010, California Building Standards Code adopted. Compliance with the proposed General Plan Update policies, local ordinances, and State and federal regulations would ensure that development would not

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result in adverse impacts to identified historic and cultural resources. While the regulations provide a process for recognizing historic buildings and places, they do not prevent the reuse or modification of them. Further, a comprehensive assessment of historic resources has not been undertaken.

The General Plan Update is a regulatory document that sets the framework for future growth and development of the city and does not directly result in development. Before any development or redevelopment projects can occur in the city, all such projects are required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. Therefore, adoption of the General Plan Update would not lead to demolition or material alteration of any historic resources.

However, identified historic structures may be vulnerable to development activities accompanying infill, redevelopment, or revitalization that would be accommodated by the General Plan Update. For instance, the placement of new buildings adjacent to a historic resource may result in indirect impacts to access, visibility, and visual context, while renovations or modification to historic resources may deteriorate or destroy the characteristics that make those resources important or unique.

In addition, other buildings or structures that could meet the NRHP criteria upon reaching 50 years of age might be impacted by development or redevelopment activity that would be accommodated by the General Plan Update, and construction could damage or destroy as-yet undiscovered resources. The General Plan Update also seeks to preserve important historic resources through the following policies:

- **Policy 2.3.5:** Encourage adaptive reuse of the Historic District and its buildings. New construction and buildings in the Historic District shall complement the historical character of the community and surrounding architecture.
- **Policy 2.3.6:** Adopt and maintain design standards and a development code for the City, including specific design standards for the Historic District.
- **Policy 5.2.3:** Preserve and revitalize Colfax's historic buildings and sites, and ensure that new development respects the character and context of those resources.
- **Policy 5.2.4:** Preserve notable landmarks, streetscape, and other areas of architectural or aesthetic value providing continuity with the past.
- **Policy 5.2.5:** Ensure that infill development is consistent with historic development patterns in terms of scale, design, and material.
- **Policy 8.2.1:** Continue redevelopment and improvement efforts in Downtown Colfax, including programs to preserve the unique historic character of the Downtown, and expand upon the Downtown's vibrant mixed-use character.

Furthermore, several existing regulatory procedures would help to protect existing or potential historic resources. For example, if a project is subject to federal approval, funding, authorization, or permit (collectively, "assistance"), then the federal lead agency will direct the compliance and consultation procedures. Typically, this begins with a cultural resources inventory conducted according to the applicable federal agency's regulations (e.g., Title 36 Code of Federal Regulations [CFR] Section 800) and guidelines in compliance with Section 106 of the National Historic Preservation Act. This process includes establishing an Area of Potential Effect (APE), surveying the APE for cultural resources, applying the criteria of adverse

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effects in 36 CFR 800.5(a)(1) to determine if historic properties will be adversely affected by the project, and handling resources that may be discovered inadvertently during construction pursuant to 36 CFR 800.13(b).

Additionally, projects subject to approval under CEQA may be required to conduct a cultural resources analysis to identify and protect historical resources in compliance with CEQA. This could include conducting a cultural resources inventory of the Planning Area and designing or configuring the project to avoid impacts on eligible or listed resource or preparing and implementing appropriate treatment measures as determined by a qualified professional. Resources that may be discovered inadvertently during construction may be subject to inadvertent discovery protocols.

Regardless of the implementation of General Plan policies and adherence to State regulations, some historic properties may be significantly affected by implementation of this General Plan Update. This impact would be potentially significant.

Level of Significance Before Mitigation: Impact 4.5-1 would be potentially significant.

Mitigation Measures

Compliance with the applicable regulatory processes would ensure that existing and future historic resources are protected to the extent possible. Project-specific impacts are not known at this time and future impacts would be assessed under project-specific environmental review, during which mitigation measures may be adopted to address specific impacts. However, potential significant impacts to historic resources may occur and as such, impacts are significant and unavoidable.

Level of Significance After Mitigation: Impact 4.5-1 would be significant and unavoidable.

Impact 4.5-2: The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. [Threshold CULT-2]

Development allowed by the General Plan Update could result in direct or indirect impacts to archaeological resources. Construction activities, such as grading and excavation, may result in the accidental destruction or disturbance of archaeological sites.

Adoption of the General Plan Update would not directly affect archaeological resources. Long-term implementation of the General Plan Update land use plan could include grading, and other ground-disturbing activities, of known and unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of archaeological resources. Therefore, future development that would be accommodated by the General Plan Update could potentially unearth previously unrecorded resources.

Archaeological sites are protected by a wide variety of State policies and regulations under the California Public Resources Code. Cultural resources are also recognized as nonrenewable and therefore receive protection under the California Public Resources Code and CEQA. Review and protection of archaeological

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resources are afforded by CEQA for individual development projects that would be accommodated by the General Plan Update, subject to discretionary actions that are implemented in accordance with the land use plan of the General Plan Update. According to Public Resources Code Section 21083.2 of CEQA, the lead agency is required to determine whether a development project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the project-level CEQA document prepared for the development project is required to address the issue of those resources.

It is also important to note that the General Plan Update is a regulatory document that sets the framework for future growth and development in the city and would not result in development in and of itself. Before any development or redevelopment activities can occur in the city, they must be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

Long-term implementation of the General Plan Update could include grading of unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of archaeological resources. Therefore, future development could potentially unearth previously unknown/unrecorded archaeological resources. However, compliance with existing regulatory requirements would mitigate potential impacts to less than significant.

Level of Significance Before Mitigation: Impact 4.5-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.5-3: The proposed project would not disturb any human remains, including those interred outside of formal cemeteries. [Threshold CULT-3]

Although the General Plan Update would not affect any formal cemeteries or known burials outside of formal cemeteries, future development could disturb unknown human remains.

California Health and Safety Code, Section 7050.5, CEQA Section 15064.5, and Public Resources Code, Section 5097.98, mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code, Section 7050.5, requires that if human remains are discovered on a project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the 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 Public Resources Code Section 5097.98. If the coroner determines that the remains are not subject to his or her authority and has reason to believe they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Although soil-disturbing activities associated with development in accordance with the General Plan Update could result

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in the discovery of human remains, compliance with existing law would ensure that significant impacts to human remains would be reduced to less than significant.

Level of Significance Before Mitigation: Impact 4.5-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.5-4: The proposed project would not cause a substantial adverse change in the significance of a tribal cultural resource, as defined in Public Resources Code Sections, 21074, 5020.1(k), or 5024.1. [Threshold CULT-4]

The City of Colfax is in a region known to have been occupied by the Nisenan, or Southern Maidu. Nisenan territory made up of the drainages of the Yuba, Bear, and American Rivers, and the lower drainages of the Feather River. Development allowed by the General Plan Update could result in direct or indirect impacts to tribal cultural resources. Construction activities, such as grading and excavation, may result in the accidental destruction or disturbance of tribal cultural resources and/or sites. Mitigation measures CULT-1 through CULT-4 require that before any development or redevelopment activities can occur, the site must be analyzed for conformance with the applicable local, State, and federal requirements, and must comply with the requirements of CEQA. The City will work with the tribe to address any artifacts unearthed during construction in accordance with the mitigation measures. By working with the tribe and following the mitigation measures, impacts to tribal cultural resources will be less than significant.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures

CULT-1 Treatment of Native American Remains. In the event that Native American human remains are found during development of a project and a tribe(s) is determined to be MLD pursuant to Public Resources Code Section 5097.98 Inadvertent Discovery of Native American Human Remains, the following provisions shall apply:

- The Medical Examiner shall immediately be notified; ground-disturbing activities in that location shall cease; and the applicable shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to:
 1. Inspect the site of the discovery, and
 2. Make determinations as to how the human remains and grave goods should be treated and disposed of with appropriate dignity.
- The applicable tribe(s) shall complete its inspection and make its MLD recommendation within 48 hours of getting access to the site. The tribe(s) shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future.

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- The applicable tribe(s) may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b).

CULT-2 Non-Disclosure of Location of Reburials. In the event that Native American human remains are discovered, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, California Government Code Section 6250 et seq., unless otherwise required by law. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The applicable tribe(s) will require that the location for reburial is recorded with the California Historic Resources Inventory System (CHRIS) on a form that is acceptable to the CHRIS center.

CULT-3 Treatment of Cultural Resources. In the event that cultural items are found on-site, all such items, including ceremonial items and archaeological items, should be turned over to the applicable tribe(s) for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction. The project proponent should waive any and all claims to ownership of tribal ceremonial and cultural items, including archaeological items, which may be found on a project site in favor of the applicable tribe(s). If any intermediary, for example, an archaeologist retained by the project proponent, is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the applicable tribe(s).

CULT-4 Inadvertent Discoveries. In the event that additional significant site(s) not identified as significant in a project environmental review process, but are later determined to be significant, are located within a project impact area, such sites will be subjected to further archaeological and cultural significance evaluation by the project proponent, lead agency, and the applicable tribe(s) to determine if additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with federal law.

Level of Significance After Mitigation: Less than significant with mitigation incorporated.

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4.6 ENERGY

Section 21100(b)(3) of the California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a detailed statement with mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy. Appendix F of State CEQA Guidelines states that, to ensure that energy implications are considered in project decisions, the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Appendix F further states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the project description, environmental setting, and impact analysis portions of technical sections, as well as through mitigation measures and alternatives.

In accordance with Appendices F and G of the State CEQA Guidelines, this EIR includes relevant information and analyses that address the energy implications of the proposed project. This chapter summarizes the proposed project's anticipated energy needs, impacts, and conservation measures. The information in this chapter and other aspects of the proposed project's energy implications are also discussed in Chapter 3, *Project Description*, and Sections 4.3, *Air Quality*; 4.8, *Greenhouse Gas Emissions*; and 4.15, *Transportation*.

The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively. Information in this chapter is based on the modeling data in Appendix F, *Air Quality and Greenhouse Gas Emissions Assessment*, of this Draft EIR. Additional energy calculations made can be found in Appendix G, *City of Colfax General Plan Update Energy Consumption Calculations*, of this Draft EIR.

4.6.1 EXISTING CONDITIONS

Energy Providers

Pacific Gas and Electric Company

Pacific Gas and Electric Company (PG&E) is the primary gas and electricity provider in the City of Colfax. PG&E is a publicly traded utility company that generates, purchases, and transmits energy under contract with the California Public Utilities Commission (CPUC). Its service territory is 70,000 square miles in area, roughly extending north to south from Eureka to Bakersfield, and east to west from the Sierra Nevada range to the Pacific Ocean. The electricity distribution system of PG&E consists of 106,681 circuit miles of electric distribution lines and 18,466 circuit miles of interconnected transmission lines. PG&E owns and maintains above- and below-ground networks of electric and gas transmission and distribution facilities throughout Colfax.

PG&E electricity is generated by a combination of sources, such as coal-fired power plants, nuclear power plants, and hydro-electric dams, as well as newer sources of energy, such as wind turbines and photovoltaic plants or "solar farms." "The Grid," or bulk electric grid, is a network of high-voltage transmission lines, linked to power plants within the PG&E system. The distribution system, composed of lower-voltage

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secondary lines, is at the street and neighborhood level, and consists of overhead or underground distribution lines, transformers, and individual service “drops” that connect to the individual customer.

PG&E gas transmission pipeline systems serve approximately 4.5 million gas customers in northern and central California (PG&E 2022). The system is operated under an inspection and monitoring program. The system operates in real time on a 24-hour basis, and includes leak inspections, surveys, and patrols of the pipelines. A new program, the Pipeline 2020 program, aims to modernize critical pipeline infrastructure, expand the use of automatic or remotely operated shut-off valves, catalyze development of next-generation inspection technologies, develop industry-leading best practices, and enhance public safety partnerships with local communities, public officials, and first responders.

Pioneer Community Energy

Pioneer Community Energy (PCE) is a community choice aggregator (CCA) that provides electricity service to customers in communities of Auburn, Colfax, Lincoln, Rocklin, Loomis, and most of unincorporated Placer County. PCE started providing service in 2018 and achieved its status as an independent entity in 2021. As of 2022, PCE served 158,000 commercial customers. In 2021, PCE began offering a 100 percent renewable rate option known as “Green100” (PCE 2023). According to the CCA’s 2021 power content label, PCE’s greenhouse gas emissions intensity is approximately 84 pounds of carbon dioxide equivalent (CO₂e) per megawatt-hour for its Green100 power mix and 542 pounds of CO₂e per megawatt-hour for its base service power mix (CEC 2023). The 2021 average for California utilities is 456 pounds of CO₂e per megawatt-hour.

Propane Consumption

Liquefied petroleum gas (LPG), or propane, is a mixture of hydrocarbon gases predominantly composed of propane and butane used as an alternative source of fuel. Propane is commonly used for residential and commercial heating, cooking, transportation, agriculture, industrial processes, power generation, refrigeration, and air conditioning. Within the City of Colfax, propane suppliers include JS West Propane, AmeriGas, and Campora Propane Services, which generally supply propane for residential uses. Nonresidential propane consumption is not anticipated to be a substantial contribution to propane consumption in the city.

Transportation Fuel Consumption

California is among the top producers of petroleum in the country, with crude oil pipelines throughout the state connecting to oil refineries in the Los Angeles, San Francisco Bay, and Central Valley regions. In addition to producing petroleum, California is also one of the top consumers of fuel for transportation. California’s transportation sector accounted for approximately 35 percent of California’s total energy demand in 2020, amounting to approximately 2,355.5 trillion British Thermal Units (BTUs) (USEIA 2020a). In addition, in 2020, California’s transportation sector consumed approximately 433 million barrels of petroleum fuels (USEIA 2020b). Furthermore, according to the California Energy Commission (CEC), California’s 2021 fuel sales were approximately 13,818 million gallons of gasoline and 3,744 million gallons of diesel (CEC 2022). In Placer County, approximately 94 million gallons of gasoline and 20 million gallons of diesel fuel were sold in 2021 (CEC 2022).

Alternative fuels for the transportation sector, such as hydrogen, biodiesel, and electricity, are used to reduce the demand of petroleum. Use of these fuels is encouraged through statewide regulations and plans, including the Low Carbon Fuel Standard (LCFS) and Senate Bill (SB) 32 (see Appendix C). In particular, use of electricity within the transportation sector has become more prominent. Electric and plug-in hybrid vehicles may rely directly on electricity from the power grid. In addition, emerging technology such as fuel cells are currently being explored to use electricity generated from the vehicle to power motors. California currently has 13,774 electric vehicle (EV) charging stations, with approximately 37,314 charging ports across all station locations (USDE 2022).

4.6.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Circulation Element are relevant to the proposed project.

Circulation Element

- **Policy 3.2.1:** Require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking.
- **Policy 3.2.2:** Promote the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible.
- **Policy 3.2.3:** Ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as “sidewalks to nowhere.”

4.6.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant energy impacts if it would:

- ENE-1 Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation.
- ENE-2 Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.
- ENE-3 Require or result in the re-location or construction of new or expanded energy facilities, the construction or re-location of which could cause significant environmental effects.

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4.6.4 ENVIRONMENTAL IMPACTS

4.6.4.1 METHODOLOGY

Wasteful, Inefficient, or Unnecessary Energy Consumption

The methodology employed to determine whether a proposed project would result in wasteful, inefficient, or unnecessary consumption of energy resources follows the guidance provided in Appendix F of the CEQA Guidelines as well as the analytical precedent set by *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) (75 Cal.App.5th 63, 164-168).

According to Appendix F of the CEQA Guidelines, the goal of conserving energy is translated to include decreasing overall per-capita energy consumption; decreasing reliance on fossil fuels such as coal, natural gas, and oil; and increasing reliance on renewable energy sources. In *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) (75 Cal.App.5th 63, 164-168), the Appellate Court concluded that the analysis of wasteful, inefficient, and unnecessary energy consumption was not adequate because it did not consider whether additional renewable energy features could be added to the project.

The proposed project could result in a potentially significant impact if it would result in wasteful, inefficient, or unnecessary consumption of energy resources. Considering the guidance provided by Appendix F of the CEQA Guidelines and the Appellate Court decision in *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) (75 Cal.App.5th 63, 164-168), the proposed project could result in wasteful, inefficient, or unnecessary consumption of energy resources if it would conflict with any of the following energy conservation goals:

- Decrease overall per-capita energy consumption.
- Decrease reliance on fossil fuels such as coal, natural gas, or oil.
- Increase reliance on renewable energy sources.

Renewable Energy and Energy-Efficiency Plan Consistency

This impact discussion focuses on project consistency with a local plan or policy adopted for the purpose of improving energy efficiency or reliance on renewable energy sources. The proposed project will be analyzed against the relevant policies intended to improve energy efficiency and encourage the use of renewable energy sources. As such, the proposed project could conflict with the applicable energy-efficiency or renewable energy plan if it would not adhere to applicable energy consumption measures.

Impact 4.6-1: Implementation of the proposed project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources. [Threshold ENE-1]

Short-Term Construction Impacts

Construction of development projects facilitated by the General Plan Update would create temporary demands for electricity. Natural gas is not generally required to power construction equipment, and therefore is not anticipated during construction phases. Electricity use would fluctuate according to the phase of construction. Additionally, it is anticipated that most electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would not result in substantial electricity usage during construction activities.

Construction of development projects facilitated by the General Plan Update would also temporarily increase demands for energy associated with transportation. Transportation energy use depends on the type and number of trips, vehicle miles traveled (VMT), fuel efficiency of vehicles, and travel mode. Energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. It is anticipated that most off-road construction equipment, such as those used during demolition and grading, would be gas or diesel powered. In addition, all operation of construction equipment would cease upon completion of project construction.

Furthermore, the construction contractors would minimize nonessential idling of construction equipment during construction, in accordance with the California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449. Such required practices would limit wasteful and unnecessary energy consumption in development in the city. Moreover, future development projects within the city would be similar to the construction processes of any current development projects within the city. Therefore, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of fuel use during construction.

Long-Term Impacts During Operation

Operation of potential future development accommodated under the proposed project would create additional demand for electricity and natural gas compared to existing conditions. Operational use of electricity and natural gas would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; use of on-site equipment and appliances; lighting; and charging electric vehicles. Land uses accommodated under the proposed project would also result in additional demand for transportation fuels (e.g., gasoline, diesel, compressed natural gas, and electricity) associated with on-road vehicles. Electricity, natural gas, and transportation fuel consumption estimates during operation of the proposed project are presented in Table 4.6-1, *Year 2040 Forecast Energy Consumption*. Table 4.6-1 expresses the energy consumption expected under buildout of the proposed project in addition to energy consumption under buildout of the existing General Plan.

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TABLE 4.6-1 YEAR 2040 FORECAST ENERGY CONSUMPTION

Source	Annual Energy Consumption (Proposed General Plan)	Annual Energy Consumption (Existing General Plan)
Building – Electricity ¹	76,747,501	95,166,797
Building – Natural Gas ²	202,703,314	229,179,650
Transportation – Electricity ¹	8,305,383	9,606,381
Transportation – Natural Gas ³	75,754	87,621
Transportation – Diesel ³	1,649,934	1,908,389
Transportation – Gasoline ³	13,206,423	15,275,145

¹ Energy resource is expressed in kilowatt-hours (kWh).

² Energy resource is expressed in British thermal units (kBtu).

³ Diesel, compressed natural gas (CNG), and gasoline fuels are expressed in gallons. Electric vehicles are expressed in kilowatt-hours (kWh).

Sources: CalEEMod Output (Appendix F); EMFAC 2021 Version 1.0.2 (Appendix G).

As shown in Table 4.6-1, buildout under the proposed project would result in the annual consumption of 8,305,383 kilowatt-hours (kWh) of electricity, 75,754 gallons of compressed natural gas, 1,649,934 gallons of diesel, and 13,206,423 gallons of gasoline associated with vehicle fuel usage. Considering that the introduction of up to 2,645 new units could accommodate an estimated 7,037 new residents, the proposed project is anticipated to result in 1,180 kWh, 10.8 gallons of compressed natural gas fuel, 234.48 gallons of diesel fuel, and 1,877 gallons of gasoline fuel per capita.¹ As previously discussed, the proposed project would be considered to have a potentially significant impact if it would result in wasteful, inefficient, or unnecessary consumption of energy resources. Considering the guidance provided in Appendix F of the CEQA Guidelines and the Appellate Court decision in *League to Save Lake Tahoe Mountain etc. v. County of Placer* (2022) (75 Cal.App.5th 63, 164-168), the proposed project would be considered to result in wasteful, inefficient, or unnecessary consumption of energy resources if it would conflict with any of the following energy conservation goals:

- Decrease overall per-capita energy consumption.
- Decrease reliance on fossil fuels such as coal, natural gas, or oil.
- Increase reliance on renewable energy sources.

Decreasing Overall Per-Capita Energy Consumption

While the electricity and natural gas demand for the city would increase compared to existing conditions as the new energy consumption would account for development in the city beyond existing conditions, energy consumption under buildout of the proposed General Plan Update would be less than that of buildout under the existing General Plan, as shown in Table 4.6-1. Development accommodated under the proposed project would be required to comply with the current and future updates to the Building Energy Efficiency Standards and CALGreen. Compliance with CALGreen energy-efficiency standards would contribute to reducing the building-related energy demands shown in Table 4.6-1. New and replacement buildings in

¹ Note energy consumption modeled for the proposed project is based on outdated buildout assumptions that conservatively overestimate development under the proposed project. See Section 4.3, *Air Quality*, for more details.

compliance with these standards would generally have greater energy efficiency than existing buildings. In addition, not all development envisioned by the proposed project would be constructed under the current California Building Code cycle and would be subject to future iterations of CALGreen and other related building codes. It is anticipated that each update to the Building Energy Efficiency Standards and CALGreen will result in greater building-related per-capita energy efficiency and move closer toward buildings achieving zero net energy demand.

Additionally, fuel efficiency of vehicles during the buildout year of 2040 would on average improve compared to vehicle fuel efficiencies experienced under existing conditions, thereby resulting in a lower per-capita fuel consumption in 2040 assuming travel distances, travel modes, and trip rates remain the same. The improvement in fuel efficiency would be attributable to regulatory compliance (e.g., CAFE standards), resulting in new cars that are more fuel efficient and the attrition of older, less fuel-efficient vehicles. The CAFE standards are not directly applicable to residents or land use development projects, but to car manufacturers. Thus, city residents do not have direct control in determining the fuel efficiency of vehicles manufactured and that are made available. However, compliance with the CAFE standards by car manufacturers would ensure that vehicles produced in future years have greater fuel efficiency and would generally result in an overall benefit of reducing fuel usage by providing the population of the City more fuel-efficient vehicle options. Considering the proposed project would result in the construction and operation of new buildings that would have on average the same or greater energy-efficient designs than current structures and vehicle fuel efficiencies would improve year over year through the buildout year of 2040, the proposed project is anticipated to result in a decrease in overall per-capita energy consumption in 2040. As such, the proposed project would be consistent with this energy conservation criterion.

Decreasing Reliance on Fossil Fuels

The proposed project would be considered to conflict with this criterion if it did not take steps to decrease the reliance on fossil fuels. New and replacement buildings in compliance with CALGreen standards would generally have greater energy efficiency than existing buildings. In addition, not all units envisioned by the proposed project would be constructed under the current California Building Code cycle and would be subject to future iterations of CALGreen and other related building codes. It is anticipated that each update to the Building Energy Efficiency Standards and CALGreen will result in greater building-related per-capita energy efficiency and move closer toward buildings achieving zero net energy demand.

In addition, the proposed project envisions new development throughout the city, which would be required to install rooftop solar, as applicable. New single-family residences would be required to comply with Title 24, Part 6, Subchapter 8, Section 150.1(c)14 and new multifamily residences would be required to comply with Title 24, Part 6, Subchapter 11, Section 170.2(f), of the 2022 California Building Code to include rooftop solar systems. Compliance with these codes would decrease overall reliance on fossil fuels for electricity generation as some on-site electricity consumption could be satisfied with on-site electricity generation.

Moreover, as previously discussed, fuel efficiency of vehicles during the buildout year of 2040 would on average improve compared to vehicle fuel efficiencies experienced under existing conditions. In addition to regulatory compliance that would contribute to more fuel-efficient vehicles and less per-capita demand on fuels, the General Plan Update includes policies that will contribute to minimizing overall VMT, and thus incrementally decreasing dependence on fossil fuels for transportation energy needs. These include Policy

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3.2.1, which requires new construction to install infrastructure that supports alternative modes of transportation. Policy 3.2.3 would also require the City to ensure that pedestrian facilities provide connection between transportation nodes and land uses.

Considering this, the proposed project would result in the construction and operation of development that would be designed to be compliant with the California Building Code, thereby reducing reliance on fossil fuels for space and water heating. In addition, the proposed project would result in population growth that would result in subsequent increases in transportation energy demand; however, with improving fuel-efficiency standards year over year through the buildout year of 2040 and compliance with the EV charging infrastructure requirements contained in the California Building Code, the proposed project would, on average, reduce reliance on fossil fuels for transportation energy demand. Therefore, the proposed project would be considered consistent with this energy conservation criterion.

Increasing Reliance on Renewable Energy Sources

As previously discussed, the proposed project envisions new development throughout the city which would be required to install rooftop solar, as applicable. New single-family residences would be required to comply with Title 24, Part 6, Subchapter 8, Section 150.1(c)14 and new multifamily residences would be required to comply with Title 24, Part 6, Subchapter 11, Section 170.2(f), of the 2022 California Building Code to include rooftop solar systems. Compliance with these codes would directly increase overall reliance on renewable energy sources for electricity generation. Moreover, compliance with the EV charging infrastructure requirements contained in the California Building Code would on average increase reliance on electricity for transportation energy demand. As electricity consumed in California is required to meet the increasing renewable energy mix requirements under the State's Renewables Portfolio Standard (RPS) and accelerated by SB 100, greater and greater proportions of electricity consumed in buildings and for transportation energy demand envisioned under the proposed project would continue to be sourced from renewable energy sources.

Furthermore, new development facilitated by the proposed project would be automatically enrolled in PCE service, which provides more renewable-sourced electricity services in comparison to those provided by PG&E. PCE would allow future residents in the city to enroll in its "Green100" option, which offers 100 percent renewable energy-sourced electricity to customers (PCE 2023). In 2021, PG&E's "Base Plan" electricity service consisted of a power mix of 47.7 percent sourced from eligible renewable sources (PG&E 2022). As future residents have the option to choose an electricity service that relies on renewable sources more for electricity generation than what is minimally required under the State's RPS, and considering that both electricity service providers for the City would provide incrementally greater and greater proportions of renewably sourced electricity to city residents, buildout of the proposed project in 2040 would result in an overall increase in reliance on renewable energy sources. As such, the proposed project would be consistent with this energy conservation criterion.

Considering the above analysis demonstrating that the proposed project would result in an overall decrease in energy consumption per capita when compared to buildout under the existing General Plan, decrease in reliance on fossil fuels, and increase in renewable energy sources, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. As such, this impact would be less than significant.

Level of Significance Before Mitigation: Impact 4.6-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.6-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. [Threshold ENE-2]

Buildings constructed in the city would meet the California Code of Regulations Title 24 standards for energy efficiency that are in effect at the time of construction. Future development would occur consistent with the General Plan Update over several decades, and these standards likely would continue to be updated in the future to require improved building energy efficiency. Subdivisions in the city would also comply with Chapter 16.80, Solar Energy, of the Municipal Code, which requires single-family subdivisions to incorporate natural heating and cooling features into the design of the development, which would also reduce residential energy usage. Additionally, policies in the proposed General Plan Update related to VMT reduction efforts would also reduce transportation fuel usage, including Policies 3.2.1, 3.2.2, and 3.2.3 of the proposed Circulation Element.

Implementation of the proposed General Plan Update would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, this impact is less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.6-3: The proposed project would not require or result in the relocation or construction of new or expanded energy facilities, the construction or relocation of which could cause significant environmental effects. [Threshold ENE-3]

The proposed project would accommodate future growth in the City that would require new or expanded energy facilities; however, the proposed project would not directly result in the construction of new or expanded energy facilities. The Integrated Resource Plan (IRP) is the principal planning document that identifies the California Independent System Operator's (CAISO's) forecasts for electricity demand, supply, and transmission needs over a 20-year planning horizon, as well as its strategies for integrating renewable energy resources and other grid services to meet those needs. These forecasts take into account the expected growth in population and development in corresponding Local Serving Entity's (LSE's) service areas, such as the population and development envisioned under the proposed project within PG&E's and PCE's service area.

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The IRP is developed in collaboration with LSEs, regulators, and other stakeholders, and is updated periodically to reflect changes in the energy landscape and evolving policy goals (CEC 2020). Overall, the IRP plays a critical role in ensuring the reliability and resilience of California's electricity grid as the state continues to transition to a cleaner and more sustainable energy system. When an LSE identifies that new or expanded energy facilities are needed to accommodate the population and development growth in its service area, those proposed improvements are reviewed to identify consistency with local, State, and federal regulatory compliance as well as potential environmental effects that may result. For on-site systems, such as rooftop solar, the review would be conducted by the applicable lead agency as part of that individual development project. For energy infrastructure improvements that involve the construction of new or expanded existing transmission lines, generation systems, or Battery Energy Storage (BES) facilities, separate from an individual development project, the review would be conducted by the California Public Utilities Commission (CPUC) and/or the California Energy Commission (CEC) depending on the type of facility. The CEC typically acts as a CEQA lead or responsible agency for energy infrastructure improvements involving generation or BES systems, whereas the CPUC typically acts as a CEQA lead or responsible agency for improvements involving transmission lines or other distribution infrastructure.

Once the new or expanded energy facility is reviewed and approved, incorporating any necessary and appropriate mitigation, it is assigned a point of interconnection on the grid, and its output is added to the IRP as a resource that can provide electricity and other grid services, such as frequency regulation or ramping support. The facility is then dispatched by CAISO based on its bids into the day-ahead and real-time electricity markets, and its output is used to help balance supply and demand on the grid in real-time. CAISO operates a wholesale electricity market in which LSEs can participate by offering to buy or sell electricity and other grid services, such as demand response or energy storage. This market helps to ensure that the electricity system operates efficiently and reliably by providing economic incentives for electricity providers to use their resources effectively.

In addition to the IRP, which principally governs the planning efforts for new and expanded electricity and natural gas facilities, the CPUC in December 2022 adopted a new framework to comprehensively review utility natural gas infrastructure investments in order to help the State transition away from natural-gas fueled technologies and avoid stranded assets in the gas system. The new framework requires utilities to seek CPUC approval of natural gas infrastructure projects of \$75 million or more or those with significant air quality impacts. The new framework is intended to capture natural gas projects likely to have the most substantial community and environmental impacts and to require demonstrate project compliance with CEQA (CPUC 2022). Therefore, while the proposed project may result in increased energy resource demand by facilitating population and development growth in the City, and subsequently in PG&E and PCE's service area, any new or expanded facilities needed as a result of meeting that increased demand would undergo its own review to mitigate potentially significant environmental effects and demonstrate compliance with regulatory requirements. As such, the proposed project would not result in new or expanded energy facilities which may cause significant environmental effects. This impact would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

4.6.5 REFERENCES

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GEOLOGY, SOILS, AND MINERAL RESOURCES

4.7 GEOLOGY, SOILS, AND MINERAL RESOURCES

This chapter describes the existing conditions of the City of Colfax related to geology, soils, and mineral resources and the potential impacts the General Plan Update (proposed project) can have on Colfax. The regulatory framework and references for this chapter can be found in Appendix B and Appendix C, respectively.

4.7.1 EXISTING CONDITIONS

Geology and Soils

Geology

The City of Colfax is in the western foothills of the Sierra Nevada. The Sierra Nevada is a large fault block composed of granitic and metamorphic rocks tilted gently from the summit near Donner Lake to the west, where the block dips under sedimentary and alluvial units of the Sacramento Valley. The city is underlain by Jurassic marine sedimentary and metasedimentary rocks characterized by shale, sandstone, minor conglomerate, chert, slate, limestone, and minor pyroclastic rocks (DOC 2015).

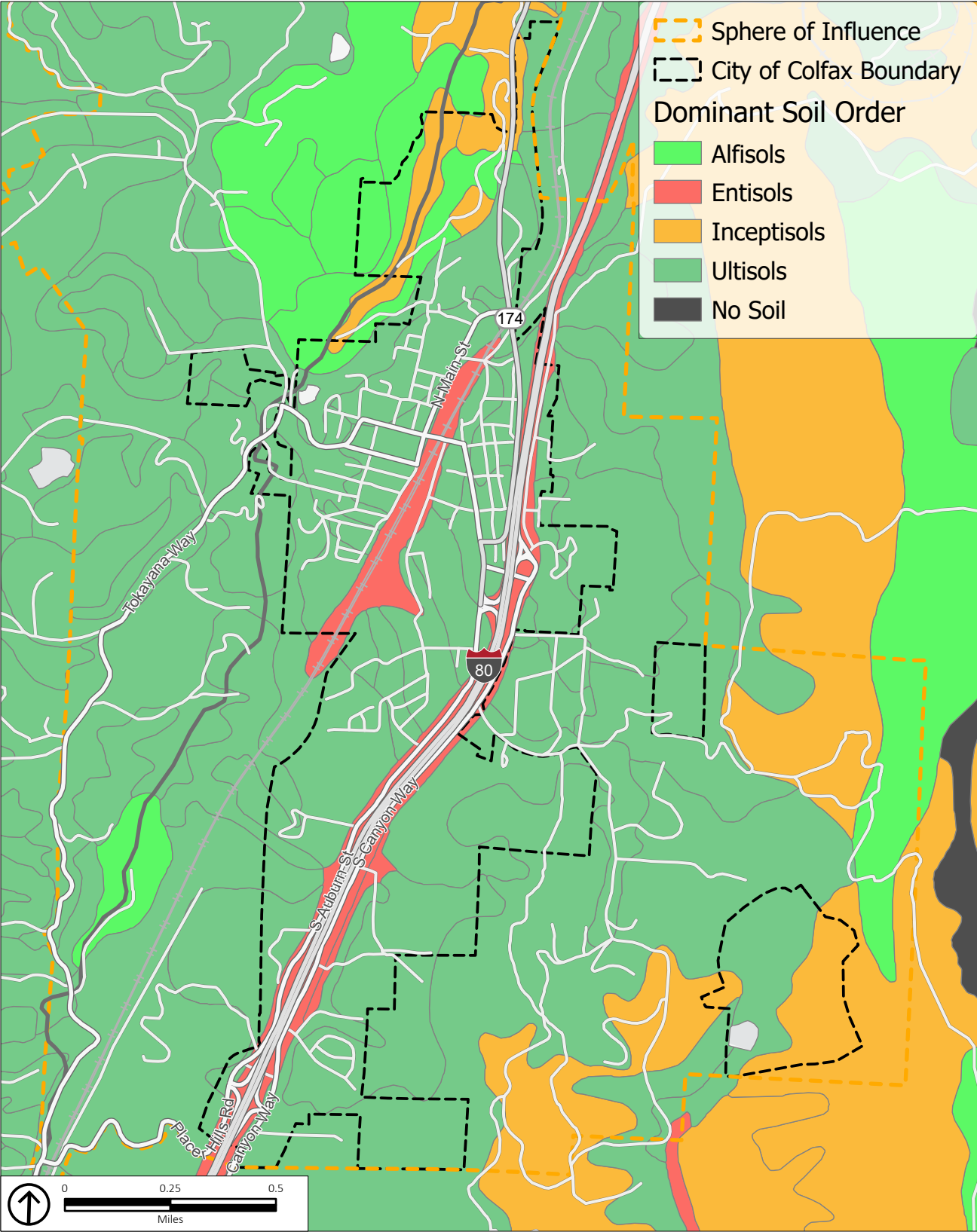
Geologic Hazards

The major regional geologic feature in the Planning Area is the Foothills Fault System, a major zone of faulting in the basement rock in the western Sierra Nevada. The fault system extends from the Melones Fault Zone on the east to the westernmost exposure of metamorphic rocks west of the Bear Mountain Fault Zone. These faults are not considered to be active and the relative risk of earthquakes in this region is considered to be lower than in other areas of the state. The California Geological Survey's (CGS) Fault Activity Map of California does not identify Holocene and/or Late Quaternary age faults (displacement within the last 700,000 years) within or in proximity to the city. However, a pre-quaternary fault in the Gillis Hills fault system runs through the Planning Area, as shown in the CGS Fault Activity Map (CGS 2023a). The city is not within or adjacent to an Alquist-Priolo Earthquake Fault Zone (CGS 2023b). The city is also not within a liquefaction hazard zone (CGS 2023b).

While some of the developed portion of the city is flat, the terrain outside the historic core of the city is generally steeper and faces moderate to severe landslide susceptibility, as shown on the CGS Deep-Seated Landslide Susceptibility Map (CGS 2011). Based on information in CGS's Landslide Inventory, the Planning Area and its vicinity have not experienced historic landslide events (CGS 2023c). In March 2023, an approximately 200-foot-wide mudslide destroyed a structure on Ben Taylor Road (Passmore 2023).

Soils

Figure 4.7-1, *Soils*, shows the dominant soil order in the City and SOI.



Source: United States Department of Agriculture, October 2022

Figure 4.7-1
Soils

GEOLOGY, SOILS, AND MINERAL RESOURCES

1. Alfisols: These soils result from weathering processes that leach clay minerals and other constituents out of the surface layer and into the subsoil, where they can hold and supply moisture and nutrients to plants. They formed primarily under forest or mixed vegetative cover and are productive for most crops.
2. Entisols: Soils that show little or no evidence of pedogenic horizon¹ development. Entisols occur in areas of recently deposited parent materials or in areas where erosion or deposition rates are faster than the rate of soil development; such as dunes, steep slopes, and floodplains
3. Inceptisols: Soils of semiarid to humid environments that generally exhibit only moderate degrees of soil weathering and development. Inceptisols have a wide range in characteristics and occur in a wide variety of climates.
4. Ultisols: Soils that can be found in humid areas. Ultisols formed from fairly intense weathering and leaching processes that result in a clay-enriched subsoil dominated by minerals. Ultisols are typically acid soils in which most nutrients are concentrated in the upper few inches. They have moderately low capacity to retain additions of lime and fertilizer.

Paleontological Resources

Paleontological potential refers to the likelihood that a rock unit will yield a unique or significant paleontological resource. All sedimentary rocks, some volcanic rocks, and some low-grade metamorphic rocks have potential to yield significant paleontological resources. Depending on location, the paleontological potential of subsurface materials generally increases with depth beneath the surface, as well as with proximity to known fossiliferous deposits. Pleistocene or older (older than 11,000 years) continental sedimentary deposits are considered as having a high paleontological potential while Holocene-age deposits (less than 10,000 years old) are generally considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized the remains of organisms.

As discussed previously, the bedrock underlying the city consists primarily of Jurassic period (190– 135 million years ago) sedimentary rock, which indicates the potential of paleontological resources. A search of the University of California Museum of Paleontology (UCMP)² database was conducted on July 11, 2023. Records of paleontological finds maintained by the UCMP indicate that 64 total resources have been documented within Placer County – 11 of which do not provide a detailed locality information (UCMP 2023).

¹ When uniform rock material transforms to soil, horizons appear at various depths, recognizable as dark humus layers, gray and reddish color bands, zones of clay accumulations, carbonate strata, and iron and silica hardpans (Jenny 1980).

² Please note, the UCMP website does not serve longitude/latitude data or detailed locality information for fossil sites on private property. In addition, detailed locality information for U.S. public lands may also be unavailable due to current government regulations regarding the management of paleontological resources. Locality information is served to the public at the county level only using Berkeley Mapper. In most cases, this is sufficient for preliminary evaluations of paleontological resources within or near a construction project (UCMP 2023).

GEOLOGY, SOILS, AND MINERAL RESOURCES

Mineral Resource Zones and Mines

CGS designates the land underlying the City of Colfax as Mineral Resource Zone (MRZ)-1 and MRZ-3 areas for concrete aggregate (CGS 2018). Additionally, CGS designates several areas in proximity to the city as MRZ-2b (inferred resource areas) for lode gold and shale (CGS 1995). There are currently no actively operating mines within city limits. However, Bear River Plant operates as a quarry approximately 11.4 miles northwest of Colfax.

Oil and Gas Fields and Drilling Operations

According to the Well Finder Interactive Map by the California Department of Conservation (DOC), no drilling operations are active within city limits nor does the city overlie a known oil or gas field. The closest gas field to Colfax is a dry gas well in unincorporated Yuba County approximately 30 miles west of the city.

4.7.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Land Use, Conservation and Open Space, and Safety Elements are relevant to the proposed project.

Land Use Element

- **Policy 2.1.3:** The City may approve the clustering of development on sites that preserve historic resources, protect sensitive natural features (such as creeks, native trees, rock outcrops), and avoid potentially hazardous areas (such as steep slopes, flood zones, and unstable soils).

Conservation and Open Space Element

- **Policy 6.4.1:** Require discretionary project review for all substantial grading activities not associated with an approved development project.
- **Project 6.4.2:** Require slope analysis maps during the environmental review process or at the first available opportunity of project review, as needed, to assess future grading activity, building location impacts, and road construction impacts.
- **Project 6.4.3:** Require projects that require earthwork and grading, including cuts and fills for roads, to incorporate measures to minimize erosion and sedimentation. Typical measures include project design that conforms with natural contours and site topography, maximizing retention of natural vegetation, implementing erosion control Best Management Practices.

Safety Element

- **Policy 7.2.1:** Identify opportunities to strengthen or relocate existing weak critical structures and lifeline utilities to increase public safety and minimize or avoid potential damage from seismic and geological hazards.
- **Policy 7.2.2:** Incorporate resilient design features for roads and trails that are on or below steep slopes and have a history damaged or blocked by landslide events.

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- **Policy 7.2.3:** Continually identify areas of Colfax susceptible to damage from seismic shaking, liquefaction, subsidence, and other geologic risks.
- **Policy 7.2.4:** Require detailed soils and geologic studies prior to approval for development in potentially hazardous areas. Require mitigation measures if significant hazards are identified.
- **Policy 7.2.5:** Avoid development in areas of steep slope and high erosion potential.
- **Policy 7.2.6:** Encourage upgrading of unreinforced masonry buildings to prevent disastrous earthquake damage.

4.7.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant geology and soils or mineral resource impacts if it would:

- GEO-1 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; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides, mudslides, or other similar hazards.
- GEO-2 Result in substantial soil erosion or the loss of topsoil.
- GEO-3 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.
- GEO-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
- GEO-5 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.
- GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
- MIN-1 Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state.
- MIN-2 Result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan.

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4.7.4 ENVIRONMENTAL IMPACTS

Impact 4.7-1: Implementation of the proposed project would/would not 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; (ii) Strong seismic ground shaking; (iii) Seismic-related ground failure, including liquefaction; (iv) Landslides, mudslides, or other similar hazards. [Threshold GEO-1]

As discussed previously, the city is near several fault systems, including pre-Quaternary faults associated with the Gills Hills fault system (CGS 2023a). The major or active faults in or near the city are shown on Figure 7, *Fault Lines*, of the proposed General Plan Safety Element. As noted in the proposed Safety Element, damage to essential and vulnerable structures could occur as a result of potential seismic activity. Although various faults in proximity to the City could rupture, none of these faults are delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist. Additionally, according to the CGS Earthquake Shaking Potential for California map, the city is within a region that is distant from known, active faults (CGS 2002). These regions experience lower levels of shaking less frequently. Furthermore, the proposed General Plan includes Policy 7.2.1, which directs the City to identify opportunities to strengthen or relocate critical structures and utilities to minimize damage from seismic events. Policy 7.2.4 requires detailed soils and geologic studies prior to approval for development in potentially hazardous areas in addition to mitigation to reduce any identified risks. Future projects would also be required to comply with the seismic safety requirements of the 2022 California Building Code (CBC), as codified in Chapter 15, Building Code, of the City's Municipal Code.

As noted previously, the city is not within a liquefaction hazard area. However, due to its steep and unstable terrain, many areas of the city are susceptible to landslides, mudslides, or other similar hazards. These landslide susceptibility areas are shown in Figure 8, *Landslide Risk*, in the proposed Safety Element. In addition to Policies 7.2.1 and 7.2.4, Policy 7.2.2, which would require the incorporation of resilient design features for the construction of roads and trails, and Policy 7.2.3, which directs the City to continually identify areas of Colfax susceptible to damage from seismic shaking, liquefaction, subsidence, and other geologic risks would help to mitigate risks associated with landslides. Furthermore, compliance with the provisions within Chapter 15.30, Grading, Erosion, and Sediment Control, within the City's Municipal Code would ensure that future projects under the proposed General Plan would incorporate techniques to reduce risks associated with development on slopes.

Compliance with State and local requirements for reducing risks associated with geologic hazards would ensure that impacts are less than significant.

Level of Significance Before Mitigation: Less than significant.

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Mitigation Measures

No mitigation measures are required.

Impact 4.7-2: The project would not result in substantial soil erosion or the loss of topsoil. [Threshold GEO-2]

Development under the proposed General Plan could include vegetation removal and grading, which would increase the potential for wind and water erosion to result in the loss of topsoil. As noted, soils found in the city have been rated as having moderate to severe erosion potential. However, several provisions of the City's Municipal Code would require practices that minimize the potential for erosion. As discussed under Impact 4.7-1, Chapter 15.30 of the Municipal Code provides requirements for projects that involve grading or other soil-disturbing activities that would minimize erosion and loss of topsoil. Section 17.122.100, Grading Design Plan, also requires that landscape grading plans be submitted to the City for review.

Furthermore, the proposed General Plan provides several policies in the Conservation and Open Space Element and Safety Element that would minimize the soil erosion potential associated with development under the General Plan. Policy 6.4.1 would require discretionary project review for all substantial grading activities. Through Policy 6.4.3, projects that require earthwork and grading, including cuts and fills for roads, would be required to incorporate measures to minimize erosion and sedimentation. Policy 7.2.5 directs the City to avoid development in areas of steep slope and high erosion potential. Adherence to the City's Municipal Code and policies of the proposed General Plan would reduce the impact of erosion and loss of topsoil due to implementation of the proposed project to less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.7-3: 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 on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. [Threshold GEO-3]

The proposed General Plan could potentially allow the development of facilities on unstable soils or geologic units or cause those soils or units to become unstable. This risk is primarily associated with landslide hazards.

The susceptibility of hillside and mountainous areas to landslides depends on variations in geology, topography, vegetation, and weather. As discussed in Impact 4.7-1, specific areas of the city that may be more susceptible to landslides are shown in Figure 8 of the General Plan's Safety Element and include areas

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along the outlying portions of the city, particularly areas in the northwest portion near the community of Shady Glen. Section 1803.2 of the CBC requires that a geotechnical investigation is conducted to ensure a site is suitable for building. This investigation determines if the site contains unstable soils or soils subject to excessive settlement or differential movement, faulting, or spreading. The investigation assesses potential consequences of soil strength loss. The City's Municipal Code also contains measures to minimize impacts related to unstable soils and geologic units. Section 16.56.170, Slope Development Standards, of the Municipal Code provides hillside development standards for slopes of 10 percent or greater. Additionally, several policies in the Safety Element would also reduce impacts associated with landslides, including those discussed under Impact 5.7-1 (Policy 7.2.1, Policy 7.2.2, Policy 7.2.4, and Policy 7.2.5). Additionally, Policy 6.4.2 of the Conservation and Open Space Element would require projects to undergo a slope analysis during environmental review.

As discussed previously, Colfax is not within a mapped liquefaction risk area; however, as noted in the Placer County 2021 Local Hazard Mitigation Plan (LHMP), some soil liquefaction risk is associated with stream beds or slopes that are highly saturated with water (Placer County 2021). As such, liquefaction could occur under these conditions during earthquake shaking. Subsidence potential in the city is noted to be unlikely and of negligible severity in the LHMP. The State and local regulations that would reduce risk associated with landslide hazards would also ensure that risks associated with other types of geologic instability would be reduced. Policy 7.2.3 of the proposed Safety Element would help to ensure that all potential areas of the city at risk of these hazards are identified.

Compliance with State and local regulations and implementation of the proposed General Plan policies would ensure that impacts are less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.7-4: The proposed project would not create substantial risks to life or property as a result of its location on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial direct or indirect risks to life or property. [Threshold GEO-4]

The soils underlying Colfax are generally coarse-grained soils with cobbles and are well drained. These coarse-grained soils contain less clay and, therefore, have a low potential for expansion or shrink-swell.

Typical measures to treat expansive soils involve removal, proper fill selection, and compaction. Expansion would not be a substantial constraint to development of individual sites provided that adequate soil and foundation studies are performed before construction and that recommendations in any soil engineering reports made by a qualified professional are followed. Section 1803.2 of the CBC requires that a

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geotechnical investigation shall be conducted to ensure that a site is suitable for building, and that there are not unstable soils or soils subject to differential movement or spreading.

Section 15.30 of the City Municipal Code requires a preliminary soils report that includes recommendations for corrective actions to prevent structural damage to structures. If the preliminary soil report indicates the presence of critically expansive soils or other soil problems, which, if not corrected, would lead to structural defects, additional soils investigation may be required. The policies in the proposed Safety Element would support these regulatory requirements and minimize development on unstable soil or geologic units. For example, Policy 7.2.4 requires preparation of soil reports that include recommendations to reduce risks where there are known geologic hazards. Compliance with the CBC, the City Municipal Code, and policies in the proposed General Plan would minimize the potential for hazards associated with expansive soils. This impact would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.7-5: The proposed project would not use septic tanks or alternative wastewater disposal systems where soils would be incapable of adequately supporting them in cases where sewers are not available for the disposal of wastewater. [Threshold GEO-5]

According to the NRCS Web Soil Survey, 98.6 percent of land within the city is rated as having very limited suitability for septic tanks. However, any potential septic tank development to support future development under the proposed General Plan would be subject to Chapter 16.64.020, Standards for the design of septic tanks and leaching fields, in the City Municipal Code. All installations must meet the requirements of the County Environmental Health Department and City Engineer. Compliance with these requirements would reduce impacts to less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.7-6: Implementation of the proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. [Threshold GEO-6]

Future development allowed under the proposed General Plan may result in impacts to paleontological resources or unique geological features. Geologic formations underlying the city have the potential to contain paleontological resources. Ground-disturbing activities in sensitive areas may cause damage to or destruction of these potential resources. Additionally, development of previous undeveloped areas could result in the discovery of paleontological resources, which would be considered a significant impact.

California Public Resources Code, Chapter 1.7, Sections 5097.5 and 30244, require reasonable mitigation of adverse impacts to paleontological resources resulting from development on State lands, define the removal of paleontological “sites” or “features” from State lands as a misdemeanor, and prohibit the removal of any paleontological “site” or “feature” from State land without permission of the jurisdictional agency. Mitigation Measure GEO-1 would require future project applicants to consult with a geologist or paleontologist to confirm potential paleontological sensitivity and impacts. Mitigation Measure GEO-2 would require evaluation of paleontological discoveries by a qualified paleontologist if found on-site during ground-disturbing activities. As such, State regulations as well as Mitigation Measures GEO-1 and GEO-2 would reduce potential impacts to less than significant.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures

GEO-1 Prior to issuance of a grading permit for projects involving ground disturbance in previously undisturbed areas, the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have sensitivity, construction activity shall be monitored by a qualified paleontologist. The paleontologist shall have the authority to halt construction during ground-disturbing activities, as outlined in Mitigation Measure GEO-2.

GEO-2 In the event of any fossil discovery, regardless of depth or geologic formation, ground-disturbing activities shall halt within a 50-foot radius of the find until its significance can be determined by a qualified paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility, in accordance with the standards of the Society of Vertebrate Paleontology. The repository shall be identified, and a curatorial arrangement shall be signed prior to collection of the fossils.

Level of Significance After Mitigation: Impact 4.7-6 would be less than significant with implementation of Mitigation Measures GEO-1 and GEO-2.

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Impact 4.7-7: Implementation of the proposed project could result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. [Threshold MIN-1]

The proposed General Plan could result in a significant impact if it would result in the loss of availability of a mineral resource that would be of value to the region and the residents of the state—for example, if development were permitted that created surface land use incompatibilities with mining operations or precluded access to subsurface mineral resources. As illustrated in the CGS Mineral Land Classification Map of Concrete Aggregate in the Greater Sacramento Area Production-Consumption Region, the city overlies MRZ-1 and MRZ-3 areas. Under the proposed General Plan, development of non-mineral extraction uses would be allowed on land that overlies mapped MRZ-1 and MRZ-3 areas.

Because the proposed General Plan would allow incompatible development in designated MRZ-1 and MRZ-3 areas, the proposed project could contribute to the loss of availability of a known mineral resource of value to the region and the residents of the state, resulting in a potentially significant impact. Mitigation Measure MIN-1 would ensure that development in areas overlying these important mineral resource zones is studied and the significance of potential deposits is determined. Mitigation Measure MIN-1 would therefore reduce impacts to less than significant.

Level of Significance Before Mitigation: Potentially significant.

Mitigation Measures

MIN-1 Pursuant to the Public Resources Code, the Surface Mining and Reclamation Act, Chapter 9, Article 4, Section 2762(e), prior to the issuance of a grading permit on lands classified by the State Geologist as MRZ-1 or MRZ-3, the Placer County Geologist shall make a site-specific determination as to the site’s potential to contain or yield important or significant mineral resources of value to the region and the residents of the State of California.

If it is determined by the County Geologist that lands classified as MRZ-3 have the potential to yield significant mineral resources that may be of “regional or statewide significance” and the proposed use is considered “incompatible” (as defined by Section 3675 of Title 14, Article 6, of the California Code of Regulations) and could threaten the potential to extract said minerals, the future project applicant(s) shall prepare an evaluation of the area to ascertain the significance of the mineral deposit located therein. This site-specific mineral resources study shall be performed to, at a minimum, document the site’s known or inferred geological conditions; describe the existing levels of development on or near the site which might preclude mining as a viable adjacent use; and analyze the State standards for designating land as having “regional or statewide significance” under the Surface Mining and Reclamation Act. The results of such evaluation shall be transmitted to the State Geologist and the State Mining and Geology Board.

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Should significant mineral resources be identified, the future project applicant(s) shall either avoid said resource or incorporate appropriate findings subject to a site-specific discretionary review and California Environmental Quality Act process.

Level of Significance After Mitigation: Impact 4.7-7 would be less than significant with implementation of Mitigation Measure MIN-1.

Impact 4.7-8: Implementation of the proposed project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local General Plan, Specific Plan, or other land use plan. [Threshold MIN-2]

There are no locally important mineral resource recovery sites delineated in the city's General Plan or other applicable land use plan. Therefore, locally designated mineral resources would not be impacted by the proposed project. No impact would occur.

Level of Significance Before Mitigation: No impact.

Mitigation Measures

No mitigation measures are required.

GEOLOGY, SOILS, AND MINERAL RESOURCES**4.7.5 REFERENCES**

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GREENHOUSE GAS EMISSIONS

4.8 GREENHOUSE GAS EMISSIONS

This chapter describes the existing conditions in the City of Colfax related to greenhouse gases (GHGs) and the potential impacts the General Plan Update (proposed project) can have related to hazards. The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

Additional discussion of GHGs and emissions modeling is included in Appendix F, *Air Quality and Greenhouse Gas Emissions Assessment*, of this Draft Environmental Impact Report (EIR).

4.8.1 EXISTING CONDITIONS

4.8.1.1 TERMINOLOGY

The following are definitions for terms used throughout this section.

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a GHG absorbs relative to a molecule of carbon dioxide (CO₂) over a given period of time (20, 100, and 500 years). CO₂ has a GWP of 1.
- **Carbon dioxide-equivalent (CO₂e).** The standard unit to measure the amount of GHGs in terms of the amount of CO₂ that would cause the same amount of warming. CO₂e is based on the GWP ratios between the various GHGs relative to CO₂.
- **MTCO₂e.** Metric ton of CO₂e.
- **MMTCO₂e.** Million metric tons of CO₂e.

4.8.1.2 GREENHOUSE GASES AND CLIMATE CHANGE

Human activities contribute to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor,¹ carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that may cause an increase in global average temperatures observed

¹ Water vapor (H₂O) is the strongest greenhouse gas (GHG) and most variable in its phases. It's not considered a pollutant as it's part of the feedback loop, changing radiative forcing, rather than a primary cause of change.

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within the twentieth and twenty-first centuries. Other GHGs identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).²

The major GHGs are briefly described as follows:

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWP of applicable GHG emissions are shown in Table 4.8-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO₂*. The GWP is used to convert GHGs to CO₂-equivalence (CO₂e) to show the relative potential that different GHGs have to contribute to the greenhouse effect.

California's GHG Sources and Relative Contribution

Based on these GWPs, California produced 369.2 MMTCO₂e GHG emissions in 2020. California's transportation sector was the single-largest generator of GHG emissions, producing 38 percent of the state's total emissions. Industrial-sector emissions made up 23 percent, and electric power generation made up 16 percent of the state's emissions inventory (CARB 2022).

² Black carbon, the most light-absorbing component of particulate matter (PM) emitted from burning fuels like coal, diesel, and biomass, contributes to climate change by absorbing sunlight and depositing on snow, causing faster snow melting and affecting cloud formation. Reducing black carbon emissions can have immediate economic, climate, and public health benefits. California is a leader in reducing black carbon emissions, with programs targeting PM reduction from diesel engines and burning activities (CARB 2017b). However, State and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

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TABLE 4.8-1 GHG EMISSIONS AND THEIR RELATIVE GLOBAL WARMING POTENTIAL COMPARED TO CO₂

GHGs	Second Assessment Report Atmospheric Lifetime (Years)	Fourth Assessment Report Atmospheric Lifetime (Years)	Second Assessment Report Global Warming Potential Relative to CO ₂ ^a	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ¹
Carbon Dioxide (CO ₂)	50 to 200	50 to 200	1	1
Methane ² (CH ₄)	12 (±3)	12	21	25
Nitrous Oxide (N ₂ O)	120	114	310	298

Notes: The IPCC has published updated global warming potential (GWP) values in its Fifth Assessment Report that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂ (radiative forcing is the difference of energy from sunlight received by the earth and radiated back into space).

¹Based on 100-year time horizon of the GWP of the air pollutant relative to CO₂.

²The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

Sources: IPCC 1995; 2007

In 2020, California’s statewide emissions were 369.2 MMTCO₂e, 35.3 MMTCO₂e lower than 2019 levels and 61.8 MMTCO₂e below the 2020 GHG Limit of 431 MMTCO₂e. Since 2004, California's GHG emissions have generally decreased, with per-capita emissions dropping from 13.8 metric tons per person in 2001 to 9.3 metric tons per person in 2020. The inventory trends show a decline in the California economy's carbon intensity, with a 49 percent decrease from 2000 to 2020, while Gross Domestic Product (GDP) increased by 56 percent (CARB 2022).

Human Influence on Climate Change

In the past, gradual changes in the earth’s temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007). The environmental consequences of Earth's gradual temperature changes are difficult to predict due to variability in projections. Climate models rely on emission scenarios, historical trends, and climate record observations to assess human influence and extreme weather events. These scenarios are affected by varying degrees of uncertainty, making climate change predictions difficult.

Potential Climate Change Impacts for California

There is a greater than 50 percent likelihood that global warming will reach or exceed 34.7 degrees Fahrenheit (°F) in the near-term, even for the very low GHG emissions scenario (IPCC 2021). Climate change is already impacting California and will continue to affect it for the foreseeable future. For example, the average temperature in most areas of California is already 1 degree °F higher than historical levels, and some areas have seen average increases in excess of 2°F (CalOES 2020). The California Fourth Climate Change Assessment identifies the following climate change impacts under a business-as-usual scenario such as California's average daily high temperatures are predicted to rise by 2.7°F by 2040, 5.8°F by 2070, and 8.8°F by 2100, causing longer, more intense, and more frequent heat waves. Global climate change risks to California are described below and shown in Table 4.8-2, *Summary of GHG Emissions Risk to California*.

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TABLE 4.8-2 SUMMARY OF GHG EMISSIONS RISK TO CALIFORNIA

Impact Category	Potential Risks
Public Health	Heat waves will be more frequent, hotter, and longer; poor air quality made worse and higher temperate increase ground level ozone levels
Water Resource Impacts	Decreasing Sierra Nevada snowpack, challenges in securing adequate water supply, potential reduction in hydropower, loss of winter recreation
Agricultural Impacts	Increasing temperature; increasing threats from pests and pathogens; expand ranged of agricultural weeds; declining productivity; and irregular blooms and harvests
Coastal Sea Level Impacts	Accelerating sea level rise, increasing coastal floods, shrinking beaches, and worsening impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires; lengthening of the wildfire season; movement of forest areas; conversion of forest to grassland; declining forest productivity; increasing threats from pest and pathogens; shifting vegetation and species distribution; altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower and increased energy demand

Sources: CEC 2006, 2009; CCCC 2012; CNRA 2014; CalEOS 2020

4.8.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Land Use, Circulation, Community Design, and Economic Elements are relevant to the proposed project.

Land Use Element

- **Policy 2.1.2:** Higher density housing and employment and service will be located in areas that are easily accessible to existing or planned transportation facilities.
- **Policy 2.2.4:** Encourage commercial and employment-generating uses which provide tax revenues and employment to help support planned residential growth, including auxiliary public facilities and services

Circulation Element

- **Policy 3.1.3:** Ensure that roadways are complete streets meeting the needs of all users, including bicyclists, public transit users, children, seniors, persons with disabilities, pedestrians, motorists, and movers of commercial goods
- **Policy 3.1.5:** To the extent that funding is available and feasible, ensure that city roadways are maintained and repaired as needed. As needed, the City will also coordinate with Caltrans and Placer County to address needed maintenance of roadways within the city-limits and City's SOI in order to provide safe driving conditions in the community
- **Policy 3.2.2:** Promote the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible.

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- **Policy 3.3.1:** Maintain and implement a comprehensive on- and off-street parking system that serves the needs of residents and businesses while supporting the use of multiple modes of transportation.
- **Policy 3.3.2:** Require transportation systems planned and constructed in conjunction with significant development projects, including roads, trails, bikeways, and other improvements, to provide links to the existing transportation network.

Community Design Element

- **Policy 5.3.4:** Encourage public and private development of all kinds to create safe, inviting, and functional pedestrian and cyclist environments through a variety of techniques, including:
 - Planting trees to provide shade on pedestrian paths, sidewalks, and walkways;
 - Safe, separated pedestrian walkways;
 - Safe, visible bicycle parking;
 - Shaded walkways; and
 - Wide sidewalks

Economic Element

- **Policy 8.1.2:** Encourage destination-style shopping allowing customers to park once and shop at several locations.
- **Policy 8.2.1:** Continue redevelopment and improvement efforts in Downtown Colfax, including programs to preserve the unique historic character of the Downtown, and expand upon the Downtown’s vibrant mixed-use character.

4.8.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant GHG emission impacts if it would:

GHG-1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The Appendix G thresholds for GHGs do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the California Environmental Quality Act (CEQA) Guidelines emphasize the lead agency’s discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, CEQA Guidelines Section 15064.4(a) states that lead agencies “shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate” GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project’s GHG emissions or rely on a “qualitative analysis or other performance-based standards” (14 California Code of Regulations

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[CCR] 15064.4(b)). A lead agency may use a “model or methodology” to estimate GHG emissions and has the discretion to select the model or methodology it considers “most appropriate to enable decision makers to intelligently take into account the project’s incremental contribution to climate change” (14 CCR 15064.4(c)). Section 15064.4(b) of the CEQA Guidelines provides that the lead agency should consider the following when determining 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.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

As described in Appendix C, the Placer County Air Pollution Control District (PCAPCD) adopted GHG emission thresholds to assist the district in attaining the GHG reduction goals established by Assembly Bill (AB) 32 and Senate Bill (SB) 32. For the purpose of this evaluation, the proposed project is compared to the PCAPCD GHG thresholds. Operational emissions are specifically compared to the PCAPCD’s efficiency thresholds since these are calculated on a per-capita basis and therefore the most appropriate thresholds to employ for a programmatic analysis involving a General Plan Update.

4.8.4 ENVIRONMENTAL IMPACTS

4.8.4.1 METHODOLOGY

Impacts related to GHG emissions resulting from implementation (construction and operation) of the proposed General Plan are discussed below. GHG impacts were assessed in accordance with methodologies recommended by the PCAPCD. The impact analysis is based on calculations of the GHG emissions that would result from projected future growth at buildout of the proposed General Plan.

At the time of preparing this analysis, buildout of the proposed General Plan Update was assumed to include the addition of 494 mid-rise apartment units, 502 low-rise apartment units, 1,211 condo/townhouse units, 4,187 single-family units, 1.03 million square feet of commercial space, and 1.02 million square feet of industrial space.³ This is compared to buildout of the existing General Plan which is assumed to include 1,235 low-rise apartment units, 276 mid-rise apartment units, 1,386 condo/townhouse units, 3,858 single family units, 1.34 million square feet of commercial space and 1.75 million square feet of industrial space.

³ These assumptions are used for a conservative estimate of criteria air pollutant emissions under the proposed project. As shown in Table 3-2, *City of Colfax Buildout Projections*, in Chapter 3, *Project Description*, updates to the buildout assumptions have been made since preparation of the air quality/greenhouse gas emissions modeling that have decreased the amount of housing units, commercial, and industrial space expected under buildout of the proposed project.

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Where GHG emission quantification was required, emissions were modeled using California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with operations from a variety of land use projects.

Impact 4.8-1: The proposed project would generate construction-based GHG emissions, either directly or indirectly, that may have a significant impact on the environment. [Threshold GHG-1]

The proposed project would accommodate future development for residential, commercial, recreational, and industrial uses. The future development and other physical changes that could result from the implementation of the proposed General Plan would generate construction-related GHG emissions from worker commute trips, haul trucks carrying supplies and materials to and from the construction site, and off-road construction equipment (e.g., dozers, loaders, excavators).

Construction activities associated with the proposed project would occur over the buildout horizon of the plan, causing short-term GHG emissions. For the proposed General Plan, which is a broad policy plan, it is not possible to determine whether the scale and phasing of individual projects would exceed the PCAPCD's GHG construction threshold of 10,000 metric tons of CO₂e annually, due to project-level variability and uncertainties related to future individual projects in terms of detailed site plans, construction schedules, equipment requirements, etc., which are not currently determined or even proposed. Nonetheless, depending on how development proceeds, construction-generated GHG emissions associated with the proposed project could potentially exceed the PCAPCD threshold of significance. Overall, GHG emissions related to construction must be addressed on a project-by-project basis, and information regarding specific development projects, soil types, and the locations of receptors would be needed to quantify the level of impact associated with construction activity.

Section 16.36.040, Air quality mitigation fees, of the City Municipal Code requires that development applications in which the initial study environmental assessment identifies potentially significant impact(s) related to emissions must be reviewed by the PCAPCD and incorporate, as conditions of approval, PCAPCD-recommended mitigation measures. The PCAPCD has promulgated methodology protocols for the preparation of GHG analyses. For instance, the PCAPCD has adopted thresholds of significance depicting the approximate level of construction-generated emissions that would result in a potentially significant impact, as described. The significance criteria established by the PCAPCD may be relied upon to determine impact significance level. In addition, the PCAPCD recommends appropriate emissions modeling input parameters for the Placer County region in addition to other recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements.

Projects estimated to exceed PCAPCD significance thresholds are required to implement mitigation measures to reduce GHG emissions as much as feasible. Such measures that would be required to be implemented per Colfax Municipal Code Section 16.36.040 include, but are not limited to, the following:

- The fueling of all off-road and portable diesel-powered equipment with CARB-certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).

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- The prohibition of all on- and off-road diesel equipment from idling for more than five minutes and the posting of signs in the designated queuing areas and/or job sites to remind drivers and operators of the five-minute idling limit.
- The use of electrified equipment when feasible.
- The use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane, or biodiesel.
- The requirement that contractors repower equipment with the cleanest engines available.
- The requirement that construction equipment use installed California Verified Diesel Emission Control Strategies.

While the PCAPCD has promulgated methodology protocols for the preparation of GHG analyses, and future development projects allowed under the proposed General Plan that are projected to exceed the PCAPCD significance threshold are required to implement mitigation measures to reduce GHG emissions as much as feasible, the PCAPCD significance threshold may still be exceeded by construction activities allowed under the proposed project. Since it cannot be guaranteed that construction of future projects allowed under the proposed General Plan would generate GHG emissions below the PCAPCD significance threshold due to the programmatic and conceptual nature of the proposed project and uncertainties related to future individual projects, this is considered a significant impact.

Level of Significance Before Mitigation: Impact 4.8-1 would be potentially significant.

Mitigation Measures

No mitigation measures are feasible. Specific details for future development projects are currently unknown; therefore, potential impacts and mitigation measures that would reduce those impacts with regard to construction emissions cannot be determined. Future projects would be required to comply with City Municipal Code provisions and implement mitigation measures when PCAPCD thresholds are exceeded.

Level of Significance After Mitigation: Impact 4.8-1 would be significant and unavoidable.

Impact 4.8-2: The proposed project would generate operational GHG emissions, either directly or indirectly, that may have a significant impact on the environment. [Threshold GHG-1]

Development under the proposed project would contribute to global climate change through direct and indirect emissions of GHG from land uses within the city. A General Plan does not directly result in development without additional approvals. However, the proposed General Plan would guide and facilitate development throughout the city. Before any development can occur in the city, it must be analyzed for consistency with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

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Future development projects would be subject to the City’s standard CEQA review process and would be required to assess project-specific emissions in relation to the PCAPCD significance thresholds. Although specific project-level information for potential future development is not available at this time and the estimation of emissions resulting from future development would be speculative, anticipated maximum annual GHG emissions were quantified and presented in Table 4.8-3, *Operational-Related Greenhouse Gas Emissions*, to provide an estimate of the potential overall GHG emissions resulting from the proposed General Plan Update based on the calculation methodology provided in Section 4.8.4.1, *Methodology*.

TABLE 4.8-3 OPERATIONAL-RELATED GREENHOUSE GAS EMISSIONS

Emission Source	CO ₂ e Emissions (Metric Tons/Year)
Proposed Project Buildout Emissions	
Mobile	133,320
Area	4,757
Energy	17,957
Water	956
Waste	2,011
Refrigerants	57
Total	159,058
Existing General Plan Buildout Emissions	
Mobile	154,260
Area	4,412
Energy	21,086
Water	1,286
Waste	2,513
Refrigerants	90
Total	183,647

Source: ECORP 2023 (Appendix F)

As shown in Table 4.8-3, the GHG emissions from buildout of the proposed General Plan would be less than the GHG emissions from buildout of the existing General Plan by approximately 24,589 metric tons annually. This is largely due to the reduced population projected under buildout of the proposed General Plan compared with buildout of the existing General Plan.

The operational emissions identified in Table 4.8-3 are specifically compared to the PCAPCD’s efficiency thresholds since these are calculated on a per-capita basis and therefore the most appropriate thresholds to employ for a programmatic analysis involving a General Plan Update. Residential emissions are compared to the rural residential threshold of 5.5 metric tons of CO₂e annually per-capita and nonresidential emissions are compared to the rural nonresidential threshold of 27.3 metric tons of CO₂e annually per capita. This approach is used to identify the emissions level for which the growth allowed under the proposed project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. An advantage of the service population approach is its application to both residential land uses and employment-oriented land uses. The per-capita metric represents the rates of emissions needed to achieve a fair share of the State’s emission-reduction mandate. The use of “fair share”

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in this instance indicates the GHG efficiency level that, if applied statewide or to a defined geographic area, would meet the Statewide GHG emissions-reduction targets.

Based on the population and employment projections shown in Table 3-2, *City of Colfax Buildout Projections*, in Chapter 3, *Project Description*, GHG emissions are compared to the PCAPCD’s efficiency thresholds, as shown in Table 4.8-4, *Greenhouse Gas Emissions per Capita*.

TABLE 4.8-4 GREENHOUSE GAS EMISSIONS PER CAPITA

	Proposed Project Buildout Emissions	Existing General Plan Buildout Emissions
Residential Land Uses		
Residential Emissions (Metric Tons/Year)	99,673	103,210
Population	17,006	17,966
Residential CO₂e Emissions per Capita	5.8	5.7
<i>Rural Residential Per Capita Threshold</i>	5.5	5.5
Exceed Rural Residential Per Capita Threshold?	Yes	Yes
Nonresidential Land Uses		
Nonresidential Emissions (Metric Tons/Year)	59,388	80,435
Employees/Jobs	7,406	6,895
Nonresidential CO₂e Emissions per Capita	8.01	11.66
<i>Rural Nonresidential Per Capita Threshold</i>	27.3	27.3
Exceed Rural Nonresidential Per-Capita Threshold?	No	No

Source: ECORP 2023 (Appendix F)

As shown in Table 4.8-4, buildout of the residential components of both the proposed General Plan and existing General Plan would result in per-capita GHG emissions greater than PCAPCD thresholds, while buildout of the nonresidential components of both the proposed General Plan and existing General Plan would result in per-capita GHG emissions less than PCAPCD thresholds.

The General Plan Update does propose several policy provisions that would assist to reduce the generation of GHG emissions from mobile sources. For instance, proposed Circulation Element Policy 3.2.1 would require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking. The promotion of these alternative forms of transportation contributes to less dependency on automobiles, a source of GHG emissions. Similarly, Policy 3.2.2 proposes to promote the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers, and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible. Proposed Policy 3.2.3 seeks to ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as “sidewalks to nowhere.”

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Additionally, Implementation Measure 3.2.C of the Circulation Element proposes to develop a Walkways, Trails, and Bikeways Master Plan that incorporates the recommendations of the City of Colfax Bikeway Master Plan, and other planning proposals as appropriate, to plan the location and development of future trails and active transportation routes in the city and the vicinity. The Master Plan will also consider connection of the city bicycle network with the countywide bicycle network, collaboration with the County in development of a countywide bicycle network, the provision of signage where automobile traffic merges with or intersects bicycle traffic to notify automobile drivers of the presence of cyclists, the repairing or developing railroad crossings in a way that allows safe crossing by bicycles and pedestrians, and the timing of traffic lights and sensitivity of traffic-sensing equipment to accommodate bicycles. Lastly, proposed Policy 3.3.2 would require transportation systems planned and constructed in conjunction with significant development projects, including roads, trails, bikeways, and other improvements, to provide links to the existing transportation network.

Development projects accommodated by the proposed project would be analyzed on a case-by-case basis when detailed information regarding operational activities is known. Future projects would be subject to the proposed General Plan policies identified in Section 4.8.2, as well as PCAPCD and State rules and regulations. Nonetheless, buildout of the proposed project would result in residential emissions that exceed the PCAPCD's per-capita rural residential significance threshold. As such, this impact is significant.

Level of Significance Before Mitigation: Impact 4.8-2 would be potentially significant.

Mitigation Measures

No mitigation measures are feasible. Specific details for future development projects are currently unknown and therefore potential impacts and mitigation measures that would reduce those impacts with regard to operational GHG emissions cannot be determined. Future projects would be required to comply with proposed General Plan policies and implement mitigation measures when PCAPCD thresholds are exceeded.

Level of Significance After Mitigation: Impact 4.8-2 would be significant and unavoidable.

Impact 4.8-3: The project would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. [Threshold GHG-2]

Applicable plans adopted for the purpose of reducing GHG emissions include California Air Resources Board's (CARB) Scoping Plan and Placer County Transportation Planning Agency's (PCTPA) Regional Transportation Plan and Sacramento Area Council of Governments' (SACOG's) 2020 Metropolitan Transportation Plan (MTP)/Sustainable Communities Strategy (SCS). A consistency analysis with these plans is presented below.

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CARB Scoping Plan

The CARB Scoping Plan is applicable to State agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require local jurisdictions to adopt its policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies from the Scoping Plan result in GHG emissions reductions at the local level. So local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that affect a local jurisdiction's emissions inventory from the top down.

Statewide strategies to reduce GHG emissions include the Low Carbon Fuel Standard (LCFS) mandate and changes in the corporate average fuel economy standards. Development projects accommodated under the proposed project are required to adhere to the programs and regulations identified by the Scoping Plan and implemented by State, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32, SB 32, and AB 1279. Future development projects would be required to comply with these State GHG emissions-reduction measures because they are statewide strategies. For example, new buildings under the proposed project would be required to meet the CALGreen and Building Energy Efficiency Standards in effect at the time when applying for building permits. Furthermore, as discussed under the discussion for Impact GHG-1, the proposed project includes General Plan Update policies that would help reduce GHG emissions and therefore help achieve GHG reduction goals. Implementation of the proposed project would not obstruct implementation of the CARB Scoping Plan, and impacts would be less than significant.

Placer County Transportation Planning Agency's (PCTPA) Regional Transportation Plan and SACOG's 2020 Metropolitan Transportation Plan/ Sustainable Communities Strategy

The PCTPA is responsible for preparing and adopting a Regional Transportation Plan (RTP) every five years. The RTP identifies priorities for addressing traffic congestion, mobility needs, and maintenance of transportation infrastructure, programs, and services in incorporated cities, towns, and unincorporated areas of Placer County, including Colfax. It adheres to State statutes for continuous, cooperative, and comprehensive planning and allocates State and federal funds to local transportation projects. The current RTP, adopted in December 2019, contains financially constrained transportation investments planned for delivery through 2040. The Placer County RTP is integrated into the broader regional planning context of the SACOG's MTP and SCS. SACOG updates the MTP/SCS every four years to fulfill federal planning responsibilities and address State GHG emissions-reduction requirements. PCTPA has a Memorandum of Understanding with SACOG to provide demographic growth projections, financial forecasting assistance, and air quality modeling services. Both Placer County's RTP and SACOG's MTP/SCS are financially constrained, but SACOG's MTP/SCS considers how planned land-use development and transportation investments address GHG emission-reduction targets for the six-county region per SB 375. The SACOG board adopted the 2020 MTP/SCS and accompanying documents at a special board meeting on November 18, 2019.

SACOG's 2020 MTP/SCS includes four policy priorities that are the plan's overall goals and objectives features strategies and policies are focused to reduce per-capita vehicle miles traveled and associated GHGs and to provide a range of practical mobility alternatives (SACOG 2019). The PCTA RTP establishes goals, objectives, and policies to guide the development and management of the region's transportation systems.

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As shown in Table 4.8-5, *PCTPA's RTP and SACOG's MTP/SCS Consistency Analysis*, the proposed project would be consistent with the goals of the PCTPA RTP and SACOG MTP/SCS as the proposed project aims to direct its future growth in infill areas and improve transportation systems.

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TABLE 4.8-5 PCTPA’S RTP AND SACOG’S MTP/SCS CONSISTENCY ANALYSIS

Goals	Consistency Analysis
SACOG’s 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy	
MTP/SCS Goal #1 Build vibrant places for today’s and tomorrow’s residents	The General Plan Update includes the Community Design Element which aims to preserve the city's character and cultural resources, focusing on its physical appearance, design guidelines, and historic preservation. The Element is comprised of three sections: Community Character, Community Design, and Historic Preservation, each designed to enhance the community's desirable characteristics. These sections aim to promote positive physical qualities, preserve cultural heritage, and enhance the overall quality of life in Colfax.
MTP/SCS Goal #2 Foster the next generation of mobility solutions	The General Plan Update includes Policy 8.2.1 requires the City to continue redevelopment and improvement efforts in Downtown Colfax, including expanding upon the Downtown’s vibrant mixed-use character. In addition Policy 8.1.2 encourage destination-style shopping allowing customers to park once and shop at several locations. Policy 2.1.2 requires that higher density housing, employment and service be located in areas that are easily accessible to existing or planned transportation facilities.
MTP/SCS Goal #3 Modernize the way we pay for transportation infrastructure	See analysis in RTP Goal #10
MTP/SCS Goal #4 Build and maintain a safe, reliable and multimodal transportation system	The General Plan Update includes Policy 3.3.1 which states to implement a comprehensive parking system for residents and businesses while also supporting multiple modes of transportation. Policy 3.2.2 encourages the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths connecting residential neighborhoods, schools, employment centers, and public spaces, separating bicyclists, skateboarders, and pedestrians from vehicular traffic. Policy 5.3.4 promotes safe pedestrian and cyclist environments through various techniques, such as planting trees, creating separated walkways, visible bicycle parking, shaded walkways, and wide sidewalks.
PCTPA’s Regional Transportation Plan	
RTP Goal #1 Maintain and upgrade a safe, efficient, and convenient countywide roadway system that meets the travel needs of people and goods through and within the region	The General Plan Update includes Policy 3.1.5 which ensures city roadways are maintained and repaired as needed, coordinating with Caltrans and Placer County to provide safe driving conditions within the city limits and SOI.
RTP Goal #2 Provide effective, convenient, regionally and locally coordinated transit service that connects residential areas with employment centers, serves key activity centers and facilities, and offers a viable option to the drive-alone commute	The General Plan Update includes Policy 3.2.2 which encourages the development of bikeways, sidewalks, pedestrian pathways, and multi-use paths connecting residential neighborhoods, schools, employment centers, and public spaces, separating bicyclists, skateboarders, and pedestrians from vehicular traffic.
RTP Goal #3 Improve the availability and convenience of passenger rail service	The General Plan Update includes Policy 3.1.3 which ensure that roadways are complete streets meeting the needs of all users, including public transit users
RTP Goal #4 Promote general and commercial aviation facilities and services that complement the countywide transportation system	This would not apply to Colfax since there is no public airport in the City.

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Goals	Consistency Analysis
RTP Goal #5 Provide for the safe and efficient movement of goods through, within, and into Placer County	The General Plan Update includes Policy 3.1.3 which ensure that roadways are complete streets meeting the needs of all users, including movers of commercial goods
RTP Goal #6 Promote a safe, convenient, and efficient non-motorized transportation system, for bicyclists, pedestrians, and users of low speed vehicles, which is part of a balanced overall transportation system	See analysis in RTP Goal #2.
RTP Goal #7 Provide an economical solution to the negative impacts of single-occupant vehicle travel through the use of alternative transportation methods	See analysis in MTP/SCS Goal #4.
RTP Goal #8 Promote a transportation system that integrates and facilitates recreational travel and uses, both motorized and non-motorized	The General Plan includes Policy 8.1.2 which encourages destination-style shopping allowing customers to park once and shop at several locations.
RTP Goal #9 By integrating land, air, and transportation planning, build and maintain the most efficient and effective transportation system possible while achieving the highest possible environmental quality standards	See analysis in RTP Goal #2.
RTP Goal #10 Secure maximum available funding; pursue new sources of funds for maintenance, expansion, and improvement of transportation facilities and services; and educate the public about the need for funding for transportation projects	The General Plan Update includes Policy 2.2.4 which promotes commercial, and employment-generating uses for tax revenues and employment, supporting residential growth and auxiliary public facilities. The General Plan Update includes Implementation Measure 3.2.D which states the City should collaborate with other programs to secure funding for pedestrian and bicycle route improvements, including the Safe Routes to School program.
RTP Goal #11 Incorporate all-inclusive public outreach efforts as part of the planning process, and encourage input from all interested groups and persons	The General Plan Update includes Policy 3.1.3 which ensure that roadways are complete streets meeting the needs of all users. Implementation Measure 3.2.D also states the City should collaborate with local public safety agencies.

Sources: SACOG 2019; PCTPA 2019.

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The proposed project would not interfere with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs, and impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Mitigation Measures

No mitigation measures are required.

GREENHOUSE GAS EMISSIONS**4.8.5 REFERENCES**

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HAZARDS AND HAZARDOUS MATERIALS

4.9 HAZARDS AND HAZARDOUS MATERIALS

This chapter describes the existing conditions in the City of Colfax related to hazards and hazardous materials and the potential impacts the General Plan Update (proposed project) can have related to hazards. The regulatory framework and references for this chapter can be found in Appendix B and Appendix C, respectively.

4.9.1 EXISTING CONDITIONS

Hazardous Materials Transportation

Areas of concern in the City of Colfax are the Union Pacific Railroad and Interstate 80 (I-80), which are major interstate transportation routes that pass through the city. As mentioned in the General Plan Update Safety Element, hazardous materials are transported via truck routes, I-80, Union Pacific Railroad, and railway lines, posing potential risks in Colfax.

Hazardous Sites

According to the State Water Resources Control Board, there are 34 GeoTracker sites in the city, two of which are open cases. The two open sites include a National Pollutant Discharge Elimination System (NPDES) site and a Cleanup Program Site. The Department of Toxic Substances Control reports three Envirostor sites in the city, none of which are listed as active. Table 4.9-1, *Hazardous Sites in the City of Colfax*, summarizes the type, status, and number of hazardous sites within the city.

TABLE 4.9-1 HAZARDOUS SITES IN THE CITY OF COLFAX

Type of Sites	Status	Number of Sites
GeoTracker		
Permitted Underground Storage Tank (UST) ¹	---	5
Single-Walled UST	SWT-No Plan Returned	1
Lust Cleanup Site	Completed – Case Closed	25
NPDES ²	Active	1
Cleanup Program Site	Completed – Case Closed	1
	Open – Verification Monitoring	1
Envirostor		
Voluntary Clean Up	Inactive – Needs Evaluation	1
Evaluation	Inactive – Needs Evaluation	2
Subtotal, Open/Active Cases		2
Total		37

Source: DTSC 2023; SWRCB 2023

¹The "Permitted Tanks" data set includes facilities that are associated with permitted underground storage tanks from the California Environmental Reporting System (CERS) database. The CERS data consists of current and recently closed permitted underground storage tank (UST) facilities information provided to CERS by Certified Unified Program Agencies (CUPAs).

²National Pollutant Discharge Elimination System (NPDES) Sites: includes sites that operate under NPDES permits issued by the State Water Resources Control Board or a Regional Water Quality Control Board. The NPDES program regulates point sources that discharge pollutants into waters of the United States.

HAZARDS AND HAZARDOUS MATERIALS

Fire Hazards

According to CalFire mapping, the entire City of Colfax is within a Very High Fire Hazard Severity Zone (VHFHSZ) in Local Responsibility Areas (LRA) and the unincorporated areas surrounding the city are identified as VHSZ in State Responsibility Areas (SRAs) (CalFire 2023). The General Plan Update Safety Element shows Figure 3, *Fire Hazard Severity Zones*, which displays wildfire hazard zones in Colfax; Figure 4, *Parcels in Very High Fire Hazard Severity Zones*, which shows parcels in high severity zones; and Figure 5, *Wildland-Urban Interface Zones*, identifies the wildland-urban interface (WUI), which refers to areas with buildings and infrastructure near or adjacent to areas prone to wildfires.

Airports

There are no airports within the City of Colfax (Airnav 2023).

4.9.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Safety Element are relevant to the proposed project.

Safety Element

- **Policy 7.1.6:** Work with local and regional transportation agencies to help protect primary evacuation routes from being blocked or damaged by a hazard event.
- **Policy 7.1.10:** Design and site critical facilities to minimize potential damage and increase their ability to remain operational during and after hazard events.
- **Policy 7.3.2:** Prevent fuel accumulation around any City-owned infrastructure where fires are known to occur.
- **Policy 7.3.3:** Maintain an adequate peak load water supply for fire suppression efforts in Colfax.
- **Policy 7.3.8:** Require fire protection plans for all new development projects, including plans for long term, comprehensive, fuel reduction and management. The main components of a fire protection plan include:
 1. Risk Analysis
 2. Fire Response Capabilities
 3. Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
 4. Mitigation Measures and Design Considerations for Non-Conforming Fuel Modification
 5. Wildfire Education Maintenance and Limitations
- **Policy 7.3.9:** Require review by the Planning Department prior to the issuance of development permits for proposed construction projects and conceptual landscaping plans. Plans for proposed development shall include, at a minimum:
 1. Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
 2. Development and maintenance of defensible space.

HAZARDS AND HAZARDOUS MATERIALS

3. Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access, and adequate water infrastructure for water supply and fire flow.
 4. Class A roof materials for new and replacement roofs.
 5. Location and source of anticipated water supply.
- **Policy 7.3.10:** Enforce fire-resistant landscaping and defensible space requirements for new residential and commercial development and require development standards that meet or exceed Title 14, CCR, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and Title 14, CCR, Division 1.5, Chapter 7, Subchapter 3, Article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). All new residential development must comply with California Fire Safe Regulations (Section 1276 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Article 5), as well as Chapter 17.122 of the Municipal Code, which requires a landscape design plan for projects in fire-prone areas that addresses fire safety and prevention, as well as defensible space.
 - **Policy 7.3.14:** Ensure that new development be located where fire and emergency services have sufficient capacity to meet project needs or require that they be upgraded to provide necessary capacity as part of the proposed development activities to ensure new development has adequate fire protection.
 - **Policy 7.5.1:** Encourage commercial or industrial development using hazardous materials in areas away from residential uses and discourage commercial and industrial development using hazardous materials in areas of identified wildfire risk.

4.9.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant hazards and hazardous materials impacts if it would:

- HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- HAZ-2 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.
- HAZ-3 Emit hazardous emissions or handle hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school.
- HAZ-4 Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.
- HAZ-5 For a project 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.
- HAZ-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- HAZ-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

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4.9.4 ENVIRONMENTAL IMPACTS

Impact 4.9-1: The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. [Threshold HAZ-1]

Construction

During construction of future projects throughout the city, new development would potentially involve the use of hazardous materials, such as fuels, lubricants, paints, solvents, and greases in construction equipment and coatings used in construction. As mentioned in Section 4.9.1, Existing Conditions, hazardous materials are transported through Union Pacific Railroad and I-80, which are major interstate transportation routes that pass through the city. Future construction contractors would be required to ensure that the use, transport, storage, and disposal of construction-related materials is in conformance with existing laws and regulations, such as the Department of Transportation's (DOT's) Hazardous Materials Regulations Title 49 Code of Federal Regulations, which sets general requirements for the transport of hazardous materials. In addition, according to California Vehicle Code Section 32000.5, any motor carrier who transports hazardous materials must have a hazardous materials transportation license issued by the California Highway Patrol.

Construction activities would be conducted in accordance with the Stormwater Pollution Prevention Plan (SWPPP) as part of the NPDES permit. The primary objective of the SWPPP is to identify, construct, implement, and maintain best management practices (BMPs) to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site. BMPs for hazardous materials include, but are not limited to, off-site refueling, placement of generators on impervious surfaces, establishing cleanout areas for cement, etc.

While the risk of exposure to hazardous materials cannot be eliminated, adherence to existing regulations would ensure compliance with safety standards related to the use and storage of hazardous materials and with the safety procedures mandated by applicable federal, State, and local laws and regulations. Therefore, transport, use, and/or disposal of hazardous materials during construction activities in accordance with the proposed project would be properly managed, and impacts would be less than significant. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for impacts to occur.

Operation

Operation of projects developed pursuant to the General Plan Update would involve hazardous materials used in industrial, commercial, residential, and other land uses, including, but not limited to, cleaners, solvents, paints, pesticides, and fertilizers. The amounts of hazardous materials used would vary by land use type. The General Plan Update would increase the level of development in the City, so, it is expected to increase the number of hazardous waste generators.

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Hazardous wastes are required to be stored, transported, and disposed of in conformance with existing regulations of the U.S. Environmental Protection Agency (EPA), DOT, CalRecycle, and Placer County Environmental Health Department.

For example, the Health and Safety Code, Division 20, Chapter 6.7, Article 1, Business and Area Plan, requires regulated facilities to complete Hazardous Materials Business Plan (HMBP) reporting if they store hazardous materials in quantities equal to or greater than 55 gallons (liquids), 200 cubic feet (gases), or 500 pounds (solids). The HMBP requires providing a Hazardous Materials Inventory and Site Map and Emergency Response and Employee Training Plan to be reported to the California Environmental Reporting System (Placer 2023a). Future commercial and industrial uses must follow specific guidelines to manage, store, and transport generated hazardous waste detailed by the Placer County Environmental Health Department, which is the Certified Unified Program Agency (CUPA) for the City of Colfax.

The City's Municipal Code, Section 17.152.050, Performance standards – Citywide, requires that no home shall store flammable or hazardous materials without the City fire department's approval. Additionally, implementation of General Plan Update also includes policies that incorporate preventative measures to reduce the potential for hazardous materials to the public. Policy P7.5.1 encourages commercial or industrial development using hazardous materials in areas away from residential uses. Therefore, implementation of the General Plan Update would not result in substantial hazards to the public due to the transport, use, and/or disposal of hazardous material. Impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.9-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.9-2: The project would not 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. [Threshold HAZ-2]

Implementation of the General Plan Update would result in land uses that would require the use, transportation, and storage of hazardous materials throughout the city. Personal injury, property damage, environmental degradation, or death could result from the release of hazardous materials caused by upset or accident conditions. However, the General Plan Update includes policies regarding emergency events in the city, such as Policy 7.3.11, which requires the City to coordinate with Cal Fire and the Placer County Fire Department to identify and maintain evacuation routes for emergency capacity, safety, and viability; Policy 7.3.14 requires new development locations with adequate emergency services capacity; and Policy 7.6.2, which requires the City to work with the Placer County Office of Emergency Services to ensure safe community gathering locations during hazardous events.

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Although the risk of upset and accident conditions involving the release of hazardous materials cannot be completely eliminated, it can be reduced to a manageable level. The Placer County Environmental Health Department serves as the CUPA for the City of Colfax and is responsible for the Hazmat Business Plans, Hazardous Waste Generators, Underground Storage Tank Program, California Accidental Release Prevention Program (CalARP), and the Above Ground Storage Tanks (Placer 2023b). Businesses using hazardous materials in Colfax would be required to register with these programs and comply with their guidelines.

Proper implementation of these CUPA programs, in conjunction with other State and federal regulations and the General Plan Update policies discussed, would reduce the impact of reasonably foreseeable accidents and/or upset conditions involving the release of hazardous materials to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.9-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.9-3: The project would not emit hazardous emissions or handle hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school. [Threshold HAZ-3]

Implementation of the General Plan Update would allow land uses that would handle hazardous materials or generate hazardous emissions. It is possible that such uses could occur near existing or proposed schools. However, the General Plan Update includes Policy 7.1.1, which requires a review of all potential hazards in areas identified for development; therefore, any future development within existing or proposed schools would need to undergo review for potential hazardous materials.

In addition, potential exposure to hazardous materials within proximity to school sites would be reduced as all users of hazardous materials are subject to federal, State, and local laws that ensure that hazardous material use, emission, and transportation are controlled to a safe level. The combination of federal, State, and local regulations described in previous sections, and General Plan Update policies that call for reducing risks from the harmful effects of hazardous materials, would ensure that the risk of hazardous materials or emissions within proximity to school sites would be less than significant.

Level of Significance Before Mitigation: Impact 4.9-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.9-4: The project would not be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment. [Threshold HAZ-4]

As noted in Table 4.9-1, there are a total of 37 sites in the city that are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. These sites have a history of contamination with hazardous materials and are subject to various State and federal laws and regulators, including the Comprehensive Environmental Response, Conservation, and Liability Act of 1980 (CERCLA), US EPA, Department of Toxic Substance Control, and the Regional Water Quality Control Board.

Development allowed by the General Plan Update could create a hazard to the public or the environment if the development occurs on contaminated sites. Although it is possible that construction activities resulting from the General Plan could occur within or adjacent to hazardous sites, development on or adjacent to any sites, such as those pursuant to Government Code Section 65962.5 would require environmental site assessment by a qualified professional to ensure that the projects would not disturb hazardous materials sites, nor create a substantial hazard to the public or the environment. Properties contaminated by hazardous substances are also regulated at the local, State, and federal level and are subject to compliance with stringent laws and regulations for investigation and remediation. For example, compliance with CERCLA, the Resource Conservation and Recovery Act (RCRA), California Code of Regulations, Title 22, and related requirements would remedy all potential impacts caused by hazardous substance contamination.

Level of Significance Before Mitigation: Impact 4.9-4 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.9-5: The project is not located in the vicinity of an airport, nor is it within the jurisdiction of an airport land use plan. [Threshold HAZ-5]

Alta Sierra is a private airport and is approximately 12 miles east of the city of Colfax. The proposed project would not be located within the vicinity of a private airstrip and therefore would have no impact with regard to safety hazards associated with private aviation. Other domestic and local airports near the City include Auburn Municipal Airport, Blue Canyon-Nyack Airport, Placerville Airport, Sacramento Mather Airport, Yuba City County Airport, and Sacramento International Airport. These airports span between 12 miles to 50 miles away from the City of Colfax. Therefore, the proposed project would not result in a safety or noise hazard for people residing or working within the city. The City of Colfax is not within an airport land use plan.

Level of Significance Before Mitigation: Impact 4.9-5 would be less than significant.

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Mitigation Measures

No mitigation measures are required.

Impact 4.9-6 The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. [Threshold HAZ-6]

The General Plan Update would allow new development and population growth, which would result in an increase in demand for emergency services during disasters, which could affect the implementation of emergency response and evacuation plans.

Construction

An impact to emergency operations and evacuation under the proposed General Plan Update could occur from construction of potential future development projects if they were to result in temporary road closures and potentially disrupt evacuation routes. Potential future development in the city would be required to comply with SRA Fire Safe Regulations, the California Building Code (CBC), and the California Fire Code (CFC). Some traffic delays can be expected during proposed project construction; however, traffic impacts during construction are temporary in nature and would cease once construction activities are complete. Future construction-related road closures would be limited to the duration of the construction period, a detour plan would be created (as needed), and direct impacts of construction would be evaluated during the project environmental review process or permit review.

Future development under the proposed project would result in construction activities that could temporarily affect roadways as a result of lane closures. This could affect emergency response times or evacuation routes. However, future project applicants would need to apply for an encroachment permit application for projects that involve working in the City of Colfax roads or right-of-way. The City's Municipal Code Chapter 15.12, Encroachment Permits, states that a building or occupancy permit cannot be issued if the council or delegated authority withholds it due to public interest, health and safety, or welfare. This includes noncompliance with laws, agreements, or improper land use. In addition, the General Plan Update includes Policy 7.3.9, which requires the Planning Department review before granting development permits for construction projects, the plans must include multiple ingress and egress points. Therefore, future projects compliant with the City's regulation and the proposed General Plan Update policies would ensure that construction related to road closures would not hinder public safety.

Operation

The General Plan Update would increase the number of people who may need to evacuate the city in the event of an emergency. Future development under the proposed project would be required to comply with the provisions of most recent versions of the CFC and CBC, which would ensure that building and life safety measures are incorporated and would facilitate implementation of emergency response plans. The City of Colfax is also covered under the Placer County Local Hazard Mitigation Plan (LHMP), which provides guidance to effectively respond to an emergency.

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The operation phase of future development projects would not involve physical components that would interfere with the ability of the City, and emergency response service providers in the event of an emergency. The General Plan Update includes policies aimed to address the City's emergency preparedness in the event of natural or human-made disasters. Examples include Policy 7.1.6, which focuses on protecting primary evacuation routes from being blocked or damaged by a hazard event; Policy 7.1.10, which states critical facilities shall be designed to minimize damage and ensure operational efficiency during and after hazard events; and Policy 7.3.14, which requires that new development be located where emergency services have sufficient capacity to meet project needs or require that they be upgraded to provide necessary capacity.

The General Plan Update would not interfere with an adopted emergency response plan or emergency evacuation. The proposed General Plan Update, in combination with State laws and regulations, as well as General Plan Update policies, would reduce hazards regarding implementation of emergency response and evacuation plans to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.9-6 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.9-7 The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. [Threshold HAZ-7]

The General Plan Update would allow new development where there are fire risks that could expose people to loss, injury, or death due to wildfires. As shown in the General Plan Update Safety Element, Figures 3, 4, and 5 identify wildfire risks throughout the City of Colfax.

Development under the General Plan Update would be subject to compliance with the most recent CBC and CFC. The CFC (Part 9 of Title 24 of the California Code of Regulations) includes Section 4905.2, Construction Methods and Requirements within Established Limits. The CFC Chapter 49 cites specific requirements for WUI areas that include, but are not limited to, providing defensible space and hazardous vegetation and fuel management. In addition, future development would be required to comply with the City's Municipal Code Chapter 8.32, Hazardous Vegetation Abatement and Establishment of Defensible Space, which addresses hazardous vegetation abatement, defensible space, and enforcement. The City of Colfax is covered by the Placer County LHMP, which provides guidance to effectively respond to any emergency, including wildfires. In addition, the Placer County Community Wildfire Protection Program provides information and community recommendations for individual communities in regard to fire safety and efforts to reduce wildfire risk.

The General Plan Update also includes policies that would reduce wildfire impacts. Policy 7.3.2 prevents fuel accumulation in City-owned infrastructure fire-prone areas; Policy 7.3.3 ensures Colfax's peak load water supply is sufficient for fire suppression efforts; Policy 7.3.8 mandates fire protection plans for new development projects, including long-term, comprehensive fuel reduction and management; Policy 7.3.9

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requires Planning Department review before granting development permits for construction projects and landscaping plans; and Policy 7.3.10 mandates fire-resistant landscaping and defensible space requirements for new residential and commercial development.

Although the proposed General Plan Update, in combination with State laws and regulations, would reduce hazards regarding fire risks, future development in the city would still expose people and structures to wildfire risk. As shown in Figures 3, 4, and 5 of the General Plan Safety Element, the City of Colfax is within VHFHSZs and the WUI. Therefore this impact would be potentially significant.

Level of Significance Before Mitigation: Impact 4.9- would be potentially significant.

Mitigation Measures

No mitigation measures are feasible. In order to avoid wildfire impacts from the proposed General Plan, development must not occur in VHFHSZs and the WUI. However, this is not feasible due to the City's responsibility to promote economic and residential development within its growth boundaries. Potential unknown impacts from future development under the General Plan Update will remain significant and unavoidable.

Level of Significance After Mitigation: Impact 4.9-7 would be significant and unavoidable.

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4.9.5 REFERENCES

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HYDROLOGY AND WATER QUALITY

4.10 HYDROLOGY AND WATER QUALITY

This chapter describes the existing conditions in the City of Colfax related to hydrology and water quality and the potential impacts of the General Plan Update (proposed project). The regulatory framework and references for this chapter can be found in Appendix B and Appendix C, respectively.

4.10.1 EXISTING CONDITIONS

Water Resources

Domestic water for the City of Colfax is provided by the Placer County Water Agency (PCWA). The city is situated on a ridge dividing the Bear River watershed to the north from the North Fork American River watershed to the south. The source of water for the City of Colfax is the South Fork of the Yuba River and the Bear River. The water is conveyed from Lake Spaulding via the Pacific Gas and Electric Company (PG&E) Drum Canal, into the Agency's Boardman Canal, and then in a pipe to the Colfax Water Treatment Plant.

The city lies within PCWA's Service Zone 3. This zone also includes the communities of Applegate, Weimar, Meadow Vista, Gold Run, Monte Vista, Dutch Flat, and Alta. PCWA's Zone 3 treatment plants include Alta, Monte Vista, Colfax, and Applegate. There are about 29 miles of treated water piping and 2.3 million gallons of treated storage in Zone 3.

PCWA's Zone 3 extends from Upper Zone 1 (i.e., City of Auburn and surrounding communities) up to nearly 4,000 feet and is characterized by Sierra forest climate with warm summers, cold wet winters, and occasional snow. Precipitation at these elevations is significant. Spring runoff from the higher elevations, above 4,000 feet, is the backbone of PCWA's water supply system. Colfax is representative of the climate in PCWA's Zone 3 service area. Water system facilities in Zone 3 are relatively old, leading to more water loss. As water system facilities are replaced, water loss will decrease and, in turn, Zone 3 gross water use will decrease.

PCWA's Zone 3 surface water supply originates from the Yuba and Bear Rivers, as well as Canyon Creek. PCWA's surface water supplies consist of water diverted from the Yuba, Bear, and North Fork American River and its tributaries, which include:

- Water purchased from PG&E from the Yuba and Bear Rivers under the 1982 Zone 3 Contract Purchase Agreement and the February 27, 2015, Water Supply Agreement;
- Surface water from various small creeks under pre-1914 water rights.

Some residents within the city rely on groundwater for their water supply. The average depth of water in the Colfax area is 150 to 300 feet. The Placer County Health Department monitors water quality in these wells. Water in these areas depend on local aquifers. Some have high production potential and others are unpredictable.

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The State has maximum contaminant levels for minerals and chemicals in drinking water. The State of California, Department of Health Services, establishes these standards for drinking water based on the National Interim Primary Drinking Water Regulations. Water quality in the City of Colfax is consistently high. There have been no shortages or violations of water quality in the service area.

Future water supplies in the city depend on PCWA and its sources for water supplied through the Colfax treatment plant. The potential supply is sufficient for future development in the city. Conservation methods can extend the supply and quality of water.

4.10.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Conservation and Open Space Element and Safety Element are relevant to the proposed project.

Conservation and Open Space Element

- **Policy 6.3.1:** Minimize excessive paving that negatively impacts surface water runoff and groundwater recharge rates.
- **Policy 6.3.2:** Protect surface and groundwater resources from contamination from runoff containing pollutants and sediment, through implementation of the Regional Water Quality Control Board's (RWQCB) Central Valley Region's, Best Management Practices.
- **Policy 6.3.3:** Require new development projects that have the potential to impact local water quality through increased stormwater runoff or erosion to include analysis of water quality impacts as a component of project review, and to integrate mitigation measures that would reduce identified impacts to an acceptable level.
- **Policy 6.3.6:** Continue to protect and enhance existing water courses, riparian and other hydrologic features for the purpose of improving ground water recharge and runoff infiltration through implementation of existing City standards and ordinances.

Safety Element

- **Policy 6.4.1:** Require discretionary project review for all substantial grading activities not associated with an approved development project.
- **Policy 6.4.2:** Require slope analysis maps during the environmental review process or at the first available opportunity of project review, as needed, to assess future grading activity, building location impacts, and road construction impacts.
- **Policy 6.4.3:** Require projects that require earthwork and grading, including cuts and fills for roads, to incorporate measures to minimize erosion and sedimentation. Typical measures include project design that conforms with natural contours and site topography, maximizing retention of natural vegetation, and implementing erosion control Best Management Practices.
- **Policy 7.2.4:** Require detailed soils and geologic studies prior to approval for development in potentially hazardous areas. Require mitigation measures if significant hazards are identified.
- **Policy 7.2.5:** Avoid development in areas of steep slope and high erosion potential.

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4.10.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant hydrology and water quality impacts if it would:

- HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
- HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- HYD-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 that 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 that would result in flooding on- or off-site; (iii) 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; or (iv) impede or redirect flood flows.
- HYD-4 In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.4 ENVIRONMENTAL IMPACTS

Impact 4.10-1: The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. [Threshold HYD-1]

The intensification of land uses in the city could degrade water quality through increases in non-point-source pollution from new impervious surfaces, construction activity that increases erosion and sediment loads in downstream receiving waters, increased pollutants from additional traffic, and increased use of chemicals and other pollutants from various land uses allowed by the General Plan Update. However, new development under the General Plan Update would be subject to several State and local regulations that would ensure that water quality standards are not violated. For example, the State General Construction Activity Storm Water Permit (CGP), which applies to construction activity that disturbs one acre or more, requires the preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that identifies best management practices (BMPs) to minimize pollutants from discharging from the construction site to the maximum extent practicable. The CGP also prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges (such as irrigation and pipe flushing and testing).

Additionally, the State Water Resources Control Board (SWRCB) has adopted a statewide general permit (Water Quality Order No. 2013-0001-DWQ) for small MS4s covered under the Clean Water Act to efficiently regulate numerous stormwater discharges under a single permit. Permittees must meet the requirements in Provision D of the General Permit, which require development and implementation of a Stormwater

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Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

Furthermore, all storm drain facilities for future development projects would be designed and constructed consistent with the intent of applicable City of Colfax Construction and Maintenance Standards outlined in Chapter 16.04 of the Colfax Municipal Code, and the City of Colfax MS4 General Permit from the RWQCB. These plans and standards incorporate strategies to minimize stormwater pollution. Potential water quality (non-point-source pollutants) impacts would be reduced by the implementation of the following 2040 General Plan policies:

- **Policy 6.3.2:** Protect surface and groundwater resources from contamination from runoff containing pollutants and sediment, through implementation of the Regional Water Quality Control Board's (RWQCB) Central Valley Region's, Best Management Practices.
- **Policy 6.3.3:** Require new development projects that have the potential to impact local water quality through increased stormwater runoff or erosion to include analysis of water quality impacts as a component of project review, and to integrate mitigation measures that would reduce identified impacts to an acceptable level.

The goals and policies in the Conservation and Open Space Element in combination with other State and federal regulations, would reduce water quality impacts to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.10-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.10-2: The proposed 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. [Threshold HYD-2]

Some residents within the city rely on groundwater for their water supply. The average depth of water in the Colfax area is 150 to 300 feet. Water in these areas depend on local aquifers. Some have high production potential and others are unpredictable. Some urban development allowed by the General Plan Update would use groundwater. In addition, new construction could include impervious surfaces, which would decrease the area available for rainfall to infiltrate the ground and recharge the underlying water table. Additionally, Policy 6.3.1 in the Conservation and Open Space Element helps to maintain groundwater supplies and sustain groundwater resources by minimizing excessive paving that negatively impacts groundwater recharge rates. This policy, in combination with State and federal regulations, like the Sustainable Groundwater Management Act, would ensure that groundwater resources are sustainably managed and would reduce groundwater impacts to a less-than-significant level.

Level of Significance Before Mitigation: Impact 4.10-2 would be less than significant.

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Mitigation Measures

No mitigation measures are required.

Impact 4.10-3: The proposed 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 that 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 that would result in flooding on- or off-site; (iii) 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; or (iv) impede or redirect flood flows. [Threshold HYD-3]

Erosion, Siltation, and On- and Off-Site Flooding

Alterations to drainage patterns during and following construction allowed by the General Plan Update have the potential to result in construction-related increased runoff and erosion problems. In addition, increased stormwater runoff resulting from increased impervious surfaces can create erosive velocities and higher bank shear stress, which can ultimately cause bank and bed erosion and/or sedimentation in drainages and streams, as well as create nuisance flooding in areas without adequate drainage facilities. Minor increases in tributary flows can also exacerbate creek bank erosion and/or cause destabilizing channel incision by altering the so-called “channel-forming” flow. Bank instability and bank failure often occur in urban drainage systems where the channel-forming flow has been substantially altered.

However, new development under the General Plan Update would be subject to several State and local regulations that would ensure future development would not substantially alter the existing drainage pattern of a site resulting in increased runoff and erosion. For example, future development would be required to request coverage under the NPDES General Permit, Order No. Water Quality Order No. 2009-0000-DWQ (as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ), if the proposed project would result in one or more acres of land disturbance. To conform to the requirements of the MS4 General Permit, a SWPPP would need to be prepared. The SWPPP would specify BMPs to prevent construction pollutants, including eroded soils (such as topsoil), from moving off-site. Additionally, pursuant to Colfax Municipal Code Chapter 15.30, Grading, Erosion, and Sediment Control, prior to commencement of any grading within the city, a person is required to meet with the City Engineer or designee and complete a simple form application to outline what is proposed. The City Engineer will then make a determination whether a permit is required and what other actions may be necessary before grading can be commenced.

Furthermore, the General Plan Update includes the following policies from the Conservation and Open Space Element and Safety Element that would reduce impacts to erosion:

- **Policy 6.4.1:** Require discretionary project review for all substantial grading activities not associated with an approved development project.

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- **Policy 6.4.2:** Require slope analysis maps during the environmental review process or at the first available opportunity of project review, as needed, to assess future grading activity, building location impacts, and road construction impacts.
- **Policy 6.4.3:** Require projects that require earthwork and grading, including cuts and fills for roads, to incorporate measures to minimize erosion and sedimentation. Typical measures include project design that conforms with natural contours and site topography, maximizing retention of natural vegetation, and implementing erosion control Best Management Practices.
- **Policy 7.2.4:** Require detailed soils and geologic studies prior to approval for development in potentially hazardous areas. Require mitigation measures if significant hazards are identified.
- **Policy 7.2.5:** Avoid development in areas of steep slope and high erosion potential.

These General Plan policies and State and federal regulations would reduce drainage impacts to a less-than-significant level.

Stormwater Drainage and Runoff

Development allowed by the General Plan Update would result in more impervious surfaces, thereby increasing stormwater runoff to levels that could exceed the capacity of existing or planned stormwater drainage systems. However, new development under the General Plan Update would be subject to several State and local regulations that would ensure future development would not result in significant impacts to stormwater drainage systems. Development would be subject to Chapter 16.58 of the Colfax Municipal Code, Storm Drainage, which requires developers to provide adequate facilities for carrying stormwater originating above and within the project through the project to an adequate storm drainage facility. Additionally, development would be required to comply with the State CGP and the MS4 Phase II General Permit. Furthermore, the General Plan Update includes the following policies from the Conservation and Open Space Element that would reduce impacts to stormwater drainage:

- **Policy 6.3.1:** Minimize excessive paving that negatively impacts surface water runoff and groundwater recharge rates.
- **Policy 6.3.6:** Continue to protect and enhance existing water courses, riparian and other hydrologic features for the purpose of improving ground water recharge and runoff infiltration through implementation of existing City standards and ordinances.

These General Plan Update policies, in combination with Chapter 16.58 of the Colfax Municipal Code, Storm Drainage, and other State regulations, would reduce stormwater capacity impacts to a less-than-significant level.

Impediment or Redirection of Flooding

Colfax does not contain areas designated as 100-year and 500-year flood zones (FEMA 2023). Regardless, development would be subject to Chapter 16.58 of the Colfax Municipal Code, Storm Drainage, which requires developers to provide adequate facilities for carrying stormwater originating above and within the project through the project to an adequate storm drainage facility. Additionally, the following policies from the General Plan Conservation and Open Space Element would reduce impacts to flooding.

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- **Policy 6.3.1:** Minimize excessive paving that negatively impacts surface water runoff and groundwater recharge rates.
- **Policy 6.3.6:** Continue to protect and enhance existing water courses, riparian and other hydrologic features for the purpose of improving ground water recharge and runoff infiltration through implementation of existing City standards and ordinances.

These General Plan Update policies, in combination with Chapter 16.58 of the Colfax Municipal Code, Storm Drainage, and other State and federal regulations, would ensure that the impact of impedance and redirection of flood waters would be less than significant.

Level of Significance Before Mitigation: Impact 4.10-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.10-4: The proposed project would not be in a flood hazard, tsunami, or seiche zone, or risk release of pollutants due to project inundation. [Threshold HYD-4]

Flood Hazards

As indicated, Colfax does not contain areas within the 100-year or 500-year flood zones. No impact would occur.

Tsunami

Colfax is over 100 miles east of the Pacific Ocean and is well outside of the tsunami inundation zone. No impact would occur.

Seiches

Colfax is not within a dam inundation zone and does not contain any bodies of water that would be susceptible to a seiche. No impact would occur.

Level of Significance Before Mitigation: Impact 4.10-4 would have no impact.

Mitigation Measures

No mitigation measures are required.

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Impact 4.10-5: The proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. [Threshold HYD-5]

Impact 4.10-1 details measures in place to ensure future development has a less-than-significant impact on surface and groundwater quality. These measures would also ensure that future development does not obstruct or conflict with the implementation of a water quality control plan or groundwater sustainable plan. As discussed in Impact 4.10-2, the proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. As such, the impact would be less than significant.

Level of Significance Before Mitigation: Impact 4.10-5 would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.10.5 REFERENCES

Federal Emergency Management Agency (FEMA). 2023, June 30 (accessed). FEMA's National Flood Hazard Layer Viewer. <https://www.fema.gov/flood-maps/national-flood-hazard-layer>

HYDROLOGY AND WATER QUALITY

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LAND USE AND PLANNING

4.11 LAND USE AND PLANNING

This chapter describes the existing conditions in the City of Colfax related to land use and planning, and the potential impacts of the General Plan Update (proposed project) on land use and planning. The regulatory framework and references for this chapter can be found in Appendix B and Appendix C, respectively.

4.11.1 EXISTING CONDITIONS

Planning Area

The Planning Area for the General Plan includes both the entirety of the city limits, and the area between the city limits and the sphere of influence (SOI). State law requires each city to include in its General Plan all territory within the boundaries of the incorporated area as well as “any land outside its boundaries which in the planning agency’s judgment bears relation to its planning” (California Government Code Section 65300). The Colfax Planning Area encompasses approximately 903 acres (1.4 square miles) within the city limits, and 2,056.3 acres (3.2 square miles) within the SOI. The total land area covered by this General Plan is 2,959.3 acres (4.6 square miles).

General Plan Land Use Designations

The classifications fall within nine land use categories: low-density residential, medium-density residential, high-density residential, downtown mixed-use, mixed-use, industrial, commercial, parks, and public/quasi-public facilities.

As shown in Table 3-1, *General Plan 2040 and Proposed Land Use Designation Acres*, in Chapter 3, *Project Description*, the largest land use designation within the city is residential. This category includes a range of residential uses and densities, from low to high, as outlined in the City’s General Plan. Other prominent land uses include industrial, commercial, and public/quasi-public facilities. Land use designations for the city and adjacent areas are shown in Figure 2-2, *Land Use Diagram*, in the General Plan Land Use Element.

4.11.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Land Use Element and Community Design Element are relevant to the proposed project.

Land Use Element

- **Policy 2.1.2:** Higher density housing and employment and service will be located in areas that are easily accessible to existing or planned transportation facilities.
- **Policy 2.2.2:** All new residential subdivision, commercial, or industrial land development within the city shall be contingent upon City services including sewer, water, and emergency vehicle access.

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- **Policy 2.2.5:** Prioritize infill development consistent with goals for reducing vehicle miles traveled and supporting existing businesses. Infill development should be evaluated carefully to ensure that development is consistent with the character of the community and open space is preserved, to the extent feasible.

Community Design Element

- **Policy 5.3.1:** Maintain a compact city form through a clear distinction between urban development and the surrounding environment.
- **Policy 5.3.2:** Ensure that new development is compatible with existing urban areas.

4.11.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant land use and planning impacts if it would:

LU-1 Physically divide an established community.

LU-2 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.11.4 ENVIRONMENTAL IMPACTS

Impact 4.11-1: Implementation of the proposed project would not divide an established community. [Threshold LU-1]

The General Plan Update is designed as a programmatic document, directing future growth and overall development to already urbanized areas.

The General Plan Update encourages efficient infill development, development near existing or planned transportation facilities, as well as development in areas where public infrastructure facilities can be readily available. For example, Policy 2.1.2 states that higher-density housing and employment and service will be located in areas that are easily accessible to existing or planned transportation facilities. Policy 2.2.2 requires that new residential subdivision, commercial, or industrial land development within the city shall be contingent on City services, including sewer, water, and emergency vehicle access. Policy 2.2.5 prioritizes infill development consistent with goals for reducing vehicle miles travelled and supporting existing businesses and states that infill development should be evaluated carefully to ensure that development is consistent with the character of the community and open space is preserved.

The General Plan Update also seeks to ensure that new development is sensitive to and strengthens the existing built and natural environment. For example, Policy 5.3.1 seeks to maintain a compact city form through a clear distinction between urban development and the surrounding environment. Policy 5.3.2 ensures that new development is compatible with existing urban areas.

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These proposed policies would ensure that new development would be sensitive to the existing built environment and would unify rather than divide existing communities. As a result of these policies, implementation of the General Plan Update would result in a less-than-significant impact associated with the physical division of existing communities.

Level of Significance Before Mitigation: Impact 4.11-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.11-2: Implementation of the proposed project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]

Land-Use Plans, Policies, and Regulations

While the proposed 2040 General Plan is the primary planning document for the City of Colfax and the proposed update is intended to ensure consistency with federal and State laws, implementation of the 2023-2045 General Plan has the potential to conflict with “land use” plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. For the purposes of this environmental impact report (EIR), a “land use” plan is a policy or regulation that addresses how land is used. The following discusses the proposed 2040 General Plan and its relationship to the land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

Placer County Local Agency Formation Commission

The City of Colfax’s SOI is regulated by the Placer County Local Agency Formation Commission (LAFCO), and any proposed jurisdictional boundary changes, including annexations and detachments of territory to and/or from the City, is subject to the Placer County LAFCO review and approval. The Placer County LAFCO also must review any contractual service agreements and determine the SOI. Although the City does not propose to annex or de-annex any areas of the SOI as part of the 2040 General Plan, annexation proposals could occur during the buildout horizon of the proposed General Plan. Any annexations must be consistent with the policies of the City’s General Plan and all appropriate City development standards and must be processed under an application funded fully by the applicant that includes “pre-zoning” for the subject area and that may also include a development agreement. The proposed project acknowledges that the City will follow adopted Placer County LAFCO policies to review proposed SOI changes and annexation requests. Accordingly, the proposed 2040 General Plan would neither conflict with nor be inconsistent with the Placer County LAFCO policies, and the impact would be less than significant.

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Regional Transportation Plan and Sustainable Communities Strategy for the Sacramento Region

While the 2020 Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) is not intended to override local land use control, it provides guidance to the local agencies such as Colfax that focuses on achieving the State's greenhouse gas (GHG) and vehicle miles traveled (VMT) reduction goals by prioritizing growth in strategic growth areas. Accordingly, the 2040 General Plan would not conflict with or be inconsistent with the Sacramento Area Council of Government's (SACOG's) 2020 MTP/SCS.

Summary

In summary, the proposed project is the primary planning document for the City of Colfax. The proposed General Plan Update is intended to ensure consistency between the General Plan and federal, State, and local laws. As described previously, the proposed project would not conflict with any relevant planning documents and contains policies that would support the efforts of these documents. As such, the impact would be less than significant.

Level of Significance Before Mitigation: Impact 4.11-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

4.12 NOISE

This chapter describes the existing conditions of the City of Colfax related to noise and vibration and provides an analysis of the potential noise and vibration impacts associated with development of the General Plan Update (proposed project). Mitigation is developed as necessary to reduce significant noise impacts to the extent feasible. The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

Additional background information and noise monitoring and modeling data can be found in Appendix H, *Noise and Vibration Impact Assessment for the City of Colfax General Plan Update*, of this Draft Environmental Impact Report (EIR).

4.12.1 NOISE AND VIBRATION FUNDAMENTALS

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Therefore, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise Exposure and Community Noise

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and

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atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn} /CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- Equivalent Noise Level (L_{eq}) is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- L_{max} is the instantaneous maximum noise level for a specified period of time.
- L_{min} is the minimum, instantaneous noise level experienced during a given period of time.
- Day-Night Average (L_{dn}) is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
- Community Noise Equivalent Level (CNEL) is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. and a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Vibration Fundamentals

Vibration is an oscillating motion in the earth. Like noise, vibration is transmitted in waves, but through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard. Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. As with noise, vibration can be described by both its amplitude and frequency. Amplitude can be characterized in three ways—displacement, velocity, and acceleration. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

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PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a one-second period.

Table 4.12-1, *Human Reaction and Damage to Buildings from Typical Vibration Levels*, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

TABLE 4.12-1 HUMAN REACTION AND DAMAGE TO BUILDINGS FROM TYPICAL VIBRATION LEVELS

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	1. 64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Threshold at which there is a risk of architectural damage to extremely fragile historic buildings, ruins, ancient monuments
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Threshold at which there is a risk of architectural damage to fragile buildings. Virtually no risk of architectural damage to normal buildings
0.25	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to historic and some old buildings
0.3	96	Vibrations may begin to feel severe to people in buildings	Threshold at which there is a risk of architectural damage to older residential structures
0.5	103	Vibrations considered unpleasant by people subjected to continuous vibrations	Threshold at which there is a risk of architectural damage to new residential structures and modern industrial/commercial buildings

Source: ECORP 2023 (Appendix H)

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 4.12-1 is considered very

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unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth moving that require the use of heavy-duty equipment.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

4.12.2 EXISTING CONDITIONS

Noise-Sensitive Land Uses

Some land uses are considered more sensitive to noise levels than others due to the duration and nature of time people spend at these uses. In general, residences are considered most sensitive to noise as people spend extended periods of time in them, including the nighttime hours. Therefore, noise impacts affecting rest and relaxation, sleep, and communication are highest at residential uses. Schools, hotels, hospitals, nursing homes, and recreational uses are also considered to be more sensitive to noise, as activities at these land uses involve rest, recovery, relaxation, and concentration, and increased noise levels tend to disrupt such activities. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate, are also sensitive to noise but, due to the limited time people spend at these uses, impacts are usually tolerable. Commercial and industrial uses are considered the least noise sensitive.

Existing Noise Environment

Noise sources are typically categorized as mobile or stationary. Most mobile sources are transportation related from vehicles operating on roadways, fixed railways, and aircraft and airport operations. Off-road construction equipment is also considered a mobile source. Stationary noise sources typically include machinery; fabrication; heating, ventilation, and air conditioning systems; compressors and generators; and landscape maintenance equipment. Stationary noise sources generated by light industrial and commercial activities can result in noise-related land use conflicts when these operations (e.g., loading docks or equipment operations) are adjacent to residential land uses (co-location). The dominant noise sources within the city include community noise from automobile traffic, most potently from Interstate 80 (I-80) and State Route 174 (SR 174). The Union Pacific Railroad railway corridor is another potent source of noise in Colfax.

Existing Community Noise

To quantify existing ambient noise levels within the city, ECORP Consulting, Inc. conducted nine short-term noise measurements (15 minutes) on July 10, 2023. These noise measurements are representative of typical existing noise exposure during the daytime. The 15-minute measurements were taken between 9:30 a.m. and 1:10 p.m. The sound-level meter used for noise monitoring was a Larson Davis SoundExpert LxT precision sound-level meter, which satisfies the American National Standards Institute for general

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environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound-level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. The measurement locations, described in Appendix G (in Section 4.2.1, *Existing Community Noise*), are shown in Figure 4-1, *Existing Noise Measurement Locations*, in Appendix H and the results are reported in Table 4.12-2, *Existing (Baseline) Noise Measurements*.

TABLE 4.12-2 EXISTING (BASELINE) NOISE MEASUREMENT

Location Number	Location Description	Leq dBA	L _{min} dBA	L _{max} dBA	Time
1	End of Canyon Creek Drive adjacent to undeveloped property and House 301.	46.5	38.5	63.5	9:30 a.m. – 9:45 a.m.
2	On Old Illinoistown Road east of the Winner Chevrolet adjacent to driveway 1550.	57.7	51.0	74.4	9:51 a.m. – 10:06 a.m.
3	On Sierra Oaks Drive adjacent to undeveloped land and Sierra Oaks Estates residential development.	42.2	35.3	64.1	10:18 a.m. – 10:33 a.m.
4	On Canyon Court between the Canyon View Apartments and Standlock Bottle Shop.	59.8	51.0	70.1	10:43 a.m. – 10:58 a.m.
5	On Knorr Swiss, approximately 0.25 miles from State Route 174.	50.1	44.6	61.9	11:06 a.m. – 11:21 a.m.
6	On Pleasant Street adjacent to House 200.	50.3	38.2	68.2	11:33 a.m. – 11:48 a.m.
7	Pine Street and Lincoln Street Intersection.	40.8	33.0	60.6	12:01 p.m. – 12:16 p.m.
8	End of cul-de-sac on Whitcomb Avenue.	42.9	39.1	58.6	12:25 p.m. – 12:40 p.m.
9	On South Auburn Street, adjacent to the entrance to the Church of Jesus Christ of Latter-day Saints.	57.3	52.6	64.0	12:55 p.m. – 1:10 p.m.

Source: ECORP 2023 (Appendix H)

As shown in Table 4.12-2, the ambient recorded noise levels range from 40.8 dBA to 59.8 dBA Leq over the course of the nine short-term noise measurements taken throughout the city. The most common noise in the proposed project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) on area roadways. The city is also influenced by typical residential noise (e.g., people talking, dogs barking, heating and cooling units).

Existing Traffic Noise

Traffic noise levels depend primarily on the speed of the traffic and the volume of trucks. The primary source of noise from automobiles is high-frequency tire noise, which increases with speed. Trucks and older automobiles produce engine and exhaust noise, and trucks can also generate wind noise. Tire noise from cars is produced at ground level (i.e., where the tire contacts the road), whereas truck noise can be generated at a height of 10 to 15 feet above the road, depending on the height of the exhaust pipe(s) and engine. As a result, sound walls are not as effective at reducing truck noise unless they are very tall.

The dominant noise source within the City of Colfax is vehicle traffic on its roadways, primarily I-80 and SR 174. Existing roadway noise levels were calculated for roadway segments throughout Colfax. This task was accomplished using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA-RD-77-108) and traffic volumes from Fehr & Peers Transportation Consultants (see Attachment B of

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Appendix H). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in Table 4-1, *Existing Roadway Noise Levels*, in the proposed Noise Element.

Existing noise contours for the I-80, SR 174, and heavily traveled roadways within the city are presented in Figure 4-1, *Existing Traffic Noise Contours*, in the proposed Noise Element. The noise contours shown in Figure 4-1 represent the predicted noise level based on roadway volumes, percentage of trucks, speed, and other factors.

Existing Railway Noise

Railway noise is also a major mobile noise source throughout the city. The Union Pacific Railroad railway line runs through the western portion of the city adjacent to Mian Street. Currently, there are approximately 25 freight trains and 2 Amtrak trains per day traversing the city. Noise levels for the rail line were calculated using the methodology contained in the Federal Transit Administration's Transit Noise and Vibration Impact Assessment manual. The Union Pacific Railroad railway is designated as a New Quiet Zone, a **quiet zone is a segment of a rail line with one or more consecutive public highway-rail grade crossings and locomotive horns would not be routinely sounded within this quiet zone** (FRA 2022; FRA 2023). However trains occasionally sound their horns; therefore, it was assumed that the train's warning horn was blown within a quarter-mile of all grade crossings and stations. Due to the size of the city, grade crossings, and station in Colfax, the train horn dominates the existing train noise contours shown in Figure 4-2, *Railroad and Rail Crossing and Noise Contours*, in Chapter 4 of the General Plan.

Existing Aircraft Noise

Aircraft overflight occurs regularly as the city is near domestic airports as noted in Section 4.9, *Hazards and Hazardous Materials*. However, the city is not within an airport overflight area and is outside of any airport noise contours.

4.12.3 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Noise Element are relevant to the proposed project.

Noise Element

- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1 (of the proposed Noise Element).
- **Policy 4.1.2:** Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.

- **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
- **Policy 4.1.5:** Maintain the Rail Crossing Quiet Zone and allow the establishment of a full or partial at-grade rail crossing quiet zone.
- **Policy 4.1.7:** Require new development to reduce vibration to 85 VdB or below at the property line.
- **Policy 4.2.1:** Require that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.
- **Policy 4.2.2:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.

4.12.4 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant noise impacts if it would:

- NOI-1 Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or in other applicable local, State, or federal standards.
- NOI-2 Result in generation of excessive groundborne vibration or groundborne noise levels.
- NOI-3 For a project within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

A project might have a significant effect on the environment if it would substantially increase the ambient noise levels in the area or expose people to severe noise levels. As previously described, a change of at least 5 dBA is required before any noticeable change in community response is expected. Based on this fact and the proposed Noise Element policies, a significant increase in traffic noise is considered to be an increase in the existing ambient noise environment of at least 5 dBA CNEL.

4.12.5 ENVIRONMENTAL IMPACTS

4.12.5.1 METHODOLOGY

This is a program-level analysis that considers the potential impacts from adoption of the proposed General Plan Update by assessing proposed policies contained within and development and activities that may occur under it. Impacts relative to noise and vibration are evaluated using the criteria listed above and based on information included in the proposed project and existing and future traffic volumes provided by Fehr & Peers Transportation Consultants (see Attachment B of Appendix H). The proposed General Plan Update does not propose specific development projects but, for the purposes of environmental review, establishes

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the potential buildout of the proposed General Plan Update. This represents the maximum feasible development that the City has projected can reasonably be expected to occur through the proposed General Plan Update horizon. To capture the potential impact of future development under the proposed General Plan Update, this analysis uses the baseline existing conditions described in Section 4.12.2 and analyzes the impacts of urban development through the projection period.

Roadside noise levels were calculated for the same roadways analyzed under existing conditions. The street segments selected for analysis are those forecast to experience the greatest percentage increase in traffic generated by future development under the proposed project and are therefore expected to be most directly impacted. Transportation-source noise levels have been calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with traffic counts provided by Fehr & Peers Transportation Consultants (2023). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels.

Impact 4.12-1: The project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local General Plan or noise ordinance, or in other applicable local, State, or federal standards. [Threshold NOI-1]

Noise and Land Use Compatibility

The Noise Element of the proposed General Plan Update (Chapter 4) provides policy direction for minimizing noise impacts on the community and establishes noise-control measures for construction and operation of land use projects. By identifying noise-sensitive land uses and establishing compatibility guidelines for those land uses (Table 4-1 of the proposed General Plan Update Noise Element), noise considerations would influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and project design can alleviate most noise problems.

The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating certain land uses at locations in the city that would negatively affect noise-sensitive land uses. Uses such as schools, hotels, hospitals, nursing homes, recreational uses, churches, libraries, cemeteries, and all types of residential uses must be outside of any area anticipated to exceed the exterior and interior noise levels, as defined by the Noise Compatibility Standards, or must be protected from noise through sound attenuation measures such as site and architectural design and sound walls (proposed Noise Element Policy 4.1.2 and Policy 4.1.3). The proposed guidelines are used as a basis for planning decisions and these guidelines are shown in Table 4-3, *Noise Compatibility Standards*, of the proposed Noise Element. Table 4-1 of the proposed Noise Element would be used to determine whether the existing exterior and interior noise levels that would surround a proposed new use are consistent with those presented in the proposed General Plan Update and to identify where a proposed General Plan Update may need to incorporate noise mitigation features. In a case where the noise levels identified at a future project site are within levels

identified in Table 4-1 of the General Plan, the project would be considered compatible with the existing noise environment. All future projects under the proposed General Plan Update subject to discretionary review would be evaluated for noise and land use compatibility. The Noise Element of the proposed General Plan Update provides guidance to protect the community from excessive noise exposure. The following proposed goals, policies, and implementation measures from the Noise and Circulation Elements would integrate noise considerations into land use planning decisions and require design strategies to minimize noise effects:

- **Implementation Measure 2.1.C:** Locate industrial and commercial land uses away from noise sensitive land uses.
- **Implementation Measure 2.1.D:** To protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise generating uses.
- **Goal 4.1:** A City with appropriate noise and vibration levels that support a range of places from quiet neighborhoods to active outdoor events.
 - **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1 (of the proposed Noise Element).
 - **Policy 4.1.2:** Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
 - **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
 - **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
- **Goal 4.2:** Minimize exposure to excessive noise by ensuring compatible land uses relative to noise sources.
 - **Policy 4.2.1:** Require that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.
 - **Policy 4.2.2:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.

Proposed General Plan Update Policy 4.1.1 requires the integration of noise considerations into land use planning decisions to minimize new noise impacts to or from new development. Proposed Policy 4.1.4 would require the submittal of an acoustical analysis for projects adding people in areas where they may be exposed to major noise sources (e.g., roadways, railway lines, aircraft, industrial, or other non-transportation noise sources). This noise analysis would determine if the noise level at the future project site is consistent with the noise levels presented in Table 4-1 of the proposed Noise Element.

The acoustical analyses potentially triggered by Policy 4.1.4 would include refined evaluation of noise/land use compatibility to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through conducting baseline noise measurements with a sound-level meter, though this can also be achieved in many areas of the city by referring to the General Plan noise contours (Figures 4-2 through 4-4 of Appendix H) and/or Table 4.12-2. The location-specific baseline noise measurements

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presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use. Examples of this are included in Policy 4.1.2 and Policy 4.1.3 and include measures such as noise barriers, buffers, walls, or setbacks. The need for noise attenuation measures in building construction and project design from any noise source and for all land uses will be determined on a project-by-project basis at the time development is proposed. Further, proposed General Plan Update Policy 4.2.1 would require that effective noise mitigation measures be incorporated into the design of new noise-generating and noise-sensitive land uses. Lastly, Policy 4.2.2 aims to protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.

For these reasons, noise and land use compatibility under the General Plan would represent a less-than-significant impact.

Temporary Construction Noise

Under the proposed project, the primary source of temporary noise within the city would be demolition and construction activities associated with development projects and activities. Construction activities would involve both off-road construction equipment (e.g., excavators, dozers, cranes) and transport of workers and equipment to and from construction sites. Table 5-2, *Reference Construction Equipment Noise Levels (50 Feet from Source)*, of Appendix H, shows typical noise levels produced by the types of off-road equipment that would likely be used during future construction within Colfax. It is noted that future development under the proposed project could potentially require installation of pile foundations that may use impact pile drivers or similar equipment that may be expected to generate high noise levels.

Construction noise is currently a major source of temporary noise within Colfax and will continue to be so regardless of whether the proposed General Plan Update is adopted. Noise levels near individual construction sites associated with development and activities under the proposed General Plan Update would not be substantially different from what they would be under the existing City of Colfax General Plan 2020. Since specific future projects within the city are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be within 50 feet of sensitive land uses.

As depicted in Table 5-2 of Appendix H, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 101.3 dBA L_{max} at 50 feet and 67.7 dBA to 94.3 dBA L_{eq} at 50 feet. Average hourly noise levels associated with construction projects can vary, depending on the activities performed. Short-term increases in vehicle traffic, including worker commute trips and haul truck trips, may also result in temporary increases in ambient noise levels at nearby receptors. During each stage of construction, a different mix of equipment would operate, and noise levels would vary based on the amount of equipment on-site and the location of the activity. Construction noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and the receptor. Intervening structures or terrain would result in lower noise levels at distant receivers.

The City of Colfax Municipal Code Section 8.28.010 permits construction Monday through Friday 6:00 a.m. to 6:00 p.m. as well as Saturdays, Sundays, and observed holidays 8:00 a.m. to 5:00 p.m. Noise from construction activities must not produce noise levels in excess of 80 dBA when measured at the property

line or at a distance of 25 feet, whichever is greater, on Saturdays and 70 dBA when measured at the property line or at a distance of 25 feet, whichever is greater, on Sundays and observed holidays. It is common for cities to regulate construction noise in this manner because construction noise is temporary, short-term, and intermittent in nature, and ceases upon completion of construction.

Compliance with Municipal Code Section 8.28.010 would ensure that noise attenuation is provided to minimize temporary noise impact associated with construction. Construction noise under the proposed General Plan Update would therefore be less than significant.

Stationary Source Noise

The development of residential, automotive, industrial, or other uses and activities under the proposed General Plan Update could generate substantial stationary noise. Such sources could generate noise from heating, ventilation, and air conditioning (HVAC) mechanical equipment, back-up diesel generators in some cases, parking lot activity, backup beepers from internal truck and equipment maneuvering, and other sources. Table 5-3, *Reference Stationary Source Noise Levels (At the Source)*, in Appendix G, identifies noise levels generally associated with common stationary noise sources.

Stationary source noise is currently a major source of temporary noise within Colfax and will continue to be so regardless of whether the proposed General Plan Update is adopted. Noise levels near individual sources under the proposed project would not be substantially different from what they would be under the existing City of Colfax General Plan. The Noise Element of the proposed General Plan Update addresses stationary noise as follows:

- **Implementation Measure 2.1.C:** Locate industrial and commercial land uses away from noise sensitive land uses.
- **Implementation Measure 2.1.D:** To protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise generating uses.
- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
- **Policy 4.2.2:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.
- **Policy 4.2.3:** Revise the Municipal Code to include appropriate interior and exterior noise level standards for existing and future residential areas.

Implementation Measure 2.1.C explicitly mandates the location of industrial and commercial land uses be away from noise-sensitive land uses, while Implementation Measure 2.1.D prohibits new sensitive land uses near existing noise-generating uses. Proposed General Plan Update Policy 4.1.1 requires the integration of noise considerations into land use planning decisions to minimize new noise impacts to or from new development. Additionally, proposed Policy 4.1.4 would require the submittal of an acoustical analysis for projects adding people in areas where they may be exposed to major noise sources (e.g., roadways, railway lines, aircraft, industrial, or other non-transportation noise sources). This noise analysis would show if the

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noise level at the future development site is consistent with the noise levels presented in Table 4-1 of the proposed Noise Element. Furthermore, proposed Policy 4.1.4 would require the submittal of a project-level noise analysis in areas where noise-sensitive receptors may be exposed to major stationary noise sources. The noise analyses at the project level would include refined evaluation of noise and land use compatibility to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through the conducting of baseline noise measurements with a sound-level meter and/or calculating traffic noise from surrounding roadway facilities with regulatory traffic noise models. The location-specific baseline noise measurements and/or traffic noise calculations presented in the acoustical analyses must demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of appropriate noise attenuation measures necessary to protect the new noise-sensitive land use. Additionally, proposed General Plan Update Policy 4.2.2 and Policy 4.2.3 aim to protect noise-sensitive land uses by restricting the proximity to noise-producing sources and establishing City standards.

With implementation of the proposed General Plan Update policies identified, future development and activities under the proposed General Plan Update would result in a less-than-significant impact related to stationary noise sources.

Rail Noise

As previously described, railway noise is a major mobile noise source in Colfax (see Figure 4-2 of the proposed Noise Element). The Union Pacific Railroad rail line runs through the western portion of the city adjacent to Main Street. Currently, there are approximately 25 freight trains and 2 Amtrak trains per day traversing the city.

Noise levels along the existing railroad under the proposed General Plan Update would remain the same as existing conditions; any changes to the frequency of trains or to train equipment would be initiated and implemented by the respective rail authority, rather than the City of Colfax, and are not part of the proposed project. However, development under the proposed project has the potential to locate new development along the rail line.

The Noise Element of the proposed General Plan Update addresses rail noise as follows:

- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1 (of the proposed Noise Element).
- **Policy 4.1.2:** Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
- **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.

- **Policy 4.1.5:** Maintain the Rail Crossing Quiet Zone and allow the establishment of a full or partial at-grade rail crossing quiet zone.

The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating certain land uses at locations in the city that would negatively affect noise-sensitive land uses. Uses such as schools, hotels, hospitals, nursing homes, recreational uses, churches, libraries, cemeteries, and all types of residential uses must be outside of any area anticipated to exceed noise levels as defined by the Noise Compatibility Standards (see Table 4-3 of the proposed Noise Element) or must be protected from noise through sound attenuation measures, such as site and architectural design and sound walls. Proposed General Plan Update Policy 4.1.1 would require the integration of noise considerations into land use planning decisions to minimize new noise impacts to or from new development. Additionally, Proposed Policies 4.1.2, 4.1.3, and 4.1.5 provide a strong policy framework for minimizing noise impacts, including railway-related noise impacts, in new development. Furthermore, proposed Policy 4.1.4 would require the submittal of a project-level noise analysis in areas where noise-sensitive receptors may be exposed to major noise sources, such as rail activity. The noise analyses at the project level would include refined evaluation of noise/land use compatibility to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through the conducting of baseline noise measurements with a sound-level meter and/or calculating traffic noise from surrounding roadway facilities with regulatory traffic noise models, though this can also be achieved in many areas of the city by referring to the General Plan railroad noise contours (Figure 4-2 of the proposed Noise Element). The location-specific baseline noise measurements and/or traffic noise calculations presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use.

No aspect of the proposed project would increase railway noise levels along the existing railroad corridor. Adherence to the proposed General Plan Update policies identified would ensure that the noise environment in Colfax does not increase in a manner that worsens existing noise compatibility or exposes noise-sensitive land uses to “unacceptable” noise levels. Therefore, this impact is less than significant.

Traffic Noise

Future development and activities under the proposed General Plan Update are expected to affect the community noise environment mainly by generating additional traffic. Transportation-source noise levels were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with traffic counts provided by Fehr & Peers Transportation Consultants (2023). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. Future traffic noise contours are mapped in Figure 4-4, *Future Traffic Noise Contours*, of Appendix H. Table 4-2, *Future (General Plan Buildout) Roadway Noise Levels*, of the proposed Noise Element, shows the calculated off-site roadway noise levels under existing traffic levels compared to future buildout under the proposed General Plan Update.

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As previously described, a 5 dBA change is required before any noticeable change in community response is expected. Based on this fact, a significant increase in traffic noise is considered to be an increase in the existing ambient noise environment of at least 5 dBA CNEL. As reflected in Table 4-2 of the proposed Noise Element, this analysis included a large sample of local roadway segments but did not include all roadways within Colfax. The analyzed segments were selected to illustrate potential changes in roadway noise throughout Colfax. Therefore, additional roadway segments in Colfax may experience some increased traffic noise.

As shown in Table 4-2 of the proposed Noise Element, no city roadway segment would experience an increase of more than 5.0 dBA CNEL over existing conditions with buildout anticipated under the proposed General Plan Update.

The Noise Element of the proposed General Plan Update addresses traffic noise as follows:

- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1 (of the proposed Noise Element).
- **Policy 4.1.2:** Require the use of integrated design-related noise-reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
- **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.

All future projects subject to discretionary review under the proposed project would be required to be evaluated for noise compatibility, including traffic noise compatibility. The proposed General Plan Update Policy 4.1.1 would require the integration of noise considerations into land use planning decisions to minimize new traffic noise impacts to or from new development. Proposed Policies 4.1.2 and 4.1.3 provide a strong policy framework for minimizing noise impacts on noise-sensitive land uses due to traffic noise. Furthermore, proposed Policy 4.1.4 would require the submittal of a project-level noise analysis in areas where they may be exposed to major noise sources, such as roadways. The noise analyses at the project level would include refined evaluation of noise/land use compatibility to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through the conducting of baseline noise measurements with a sound-level meter and/or calculating traffic noise from surrounding roadway facilities with regulatory traffic noise models, though this can also be achieved in many areas of the city by referring to the General Plan noise contours (Figures 4-2 and 4-4 of Appendix H). The location-specific baseline noise measurements and/or traffic noise calculations presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use.

As shown in Table 4-2 of the proposed Noise Element, no city roadway segment would experience an increase of more than 5.0 dBA CNEL over existing conditions with buildout anticipated under the proposed project. With implementation of the proposed General Plan Update policies identified, future development and activities under the proposed General Plan Update would result in a less-than-significant impact related to traffic noise sources.

Level of Significance Before Mitigation: Impact 4.12-1 would be less than significant.

Mitigation Measures:

No mitigation measures are required.

Impact 4.12-2: The proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels. [Threshold NOI-2]

Construction Vibration

Future construction activities under the proposed General Plan Update have the potential to expose sensitive land uses within Colfax to groundborne vibration. Construction activities would occur in a variety of locations throughout Colfax and may require the use of off-road equipment known to generate some degree of vibration. Construction activities that generate excessive vibration, such as blasting, would not be expected to occur from future development due to the geography of Colfax and small number of properties with potential for development. Receptors sensitive to vibration include structures (especially older masonry structures), people (especially elderly and sick), and equipment (e.g., magnetic resonance imaging equipment, high-resolution lithographic, optical, and electron microscopes). Regarding the potential effects of groundborne vibration to people, except for long-term occupational exposure, vibration levels rarely affect human health.

The majority of construction equipment would not be situated at any one location during construction activities, but rather spread throughout a construction site and at various distances from sensitive receptors. Since specific future projects under the proposed General Plan Update are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be within 50 feet of sensitive land uses. The primary vibration-generating activities would occur during grading, placement of underground utilities, and construction of foundations. For reference, Table 5-5, *Representative Vibration Source Levels for Construction Equipment*, of Appendix H, shows the typical vibration levels produced by construction equipment at 50 feet.

The Noise Element of the proposed General Plan Update addresses construction vibration as follows:

- **Policy 4.1.7:** Require new development to reduce vibration to 85 VdB or below at the property line.

Proposed General Plan Update Policy 4.1.7 limits construction vibration to 85 VdB as a way to protect historic/older buildings as well as to avoid damage to residential structures and modern industrial/commercial buildings. Adherence to the vibration-reducing measures in the proposed Noise Element would ensure that vibration reduction is being provided to minimize the temporary impact during

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future construction activities. Construction vibration under the proposed project would be less than significant.

Train Vibration

As discussed in Impact 4.12-1, the proposed General Plan Update would not generate any new train trips through Colfax. Vibration levels as a result of trains traveling along the existing railroad under the proposed project would remain the same as existing conditions, unless otherwise changed by the respective rail authority. However, development under the proposed project has the potential to locate new development along the Union Pacific Railroad railway line, where it would potentially be exposed to substantial levels of vibration.

Passing trains create vibration events that last approximately two minutes, though it is extremely rare for vibration from train operations to cause substantial or even minor cosmetic building damage. Older, historic buildings often considered fragile are the predominate source of concern from rail-related vibration. According to the Federal Transit Administration, groundborne vibration from “locomotive-powered passenger and freight rail” is readily perceptible at distances of less than 50 feet between the track and building foundations (85 VdB), while vibration from “rapid transit/light rail” is barely perceptible at that distance (75 VdB) (FTA 2018). While each building has different characteristics relative to structure-borne vibration, in general, the heavier the building, the lower the levels of vibration. Additionally, community (human) response to vibration correlates with the frequency of events and, intuitively, more frequent events of low vibration levels may evoke the same response as fewer high vibration level events.

Table 5-6, *Representative Train Vibration Levels*, in Appendix H, identifies train vibration levels at several distances within 200 feet, as determined by the Federal Transit Administration.

The Noise Element of the proposed General Plan Update addresses train vibration as follows:

- **Policy 4.1.7:** Require new development to reduce vibration to 85 VdB or below at the property line.

As shown in Table 5-6 in Appendix H, a locomotive-powered train traversing at a distance of 10 feet from a receptor could be expected to result in 95 VdB at the receptor, which is the threshold at which there is a risk of architectural damage to older residential structures. The construction of new buildings under the proposed project would be done in conformance with the most recent building standards, reducing the potential for damage to buildings from typical rail vibration. Adherence to proposed General Plan Update Policy 4.1.7 would ensure that train-induced vibration under the proposed project would be less than significant.

Level of Significance Before Mitigation: Impact 4.12-2 would be less than significant.

Mitigation Measures:

No mitigation measures are required.

Impact 4.12-3: For a project within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, the project would not expose people residing or working in the project area to excessive noise levels. [Threshold NOI-3]

Aircraft overflights occur regularly, as the city is near domestic airports as noted in Section 4.9, *Hazards and Hazardous Materials*,; however, the city is not within an airport overflight area and is outside of any airport noise contours. Therefore, people within Colfax would not be exposed to excessive aircraft noise levels and there would be no impact.

Level of Significance Before Mitigation: Impact 4.12-3 would be less than significant.

Mitigation Measures:

No mitigation measures are required.

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4.12.6 REFERENCES

ECORP Consulting Inc. (ECORP). 2023, July. *Noise and Vibration Impact Assessment for the City of Colfax General Plan Update* (Appendix H).

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Federal Railroad Administration (FRA). 2022. Quiet Zone FRAWeb Report.
<https://railroads.dot.gov/sites/fra.dot.gov/files/2022-02/FRAWebReport.pdf>

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POPULATION AND HOUSING

4.13 POPULATION AND HOUSING

This chapter of the Draft Environmental Impact Report (EIR) examines the potential for socioeconomic impacts of the proposed Colfax General Plan Update (proposed project) on the City of Colfax and its sphere of influence (SOI), including changes in population, employment, and demand for housing, particularly housing cost/rent ranges defined as “affordable.” A discussion of the regulatory framework and references cited in this chapter can be found in Appendix C and Appendix D, respectively.

4.13.1 EXISTING CONDITIONS

Population

According to the California Department of Finance (DOF), the 2023 population of the City of Colfax is 2,016 persons, and the total population of Placer County is 410,305 persons (DOF 2023). Table 4.13-1, *Population Trends in the City of Colfax and Placer County, 2013-2023*, shows the population trends in the City of Colfax and Placer County from 2013 to 2023.

TABLE 4.13-1 POPULATION TRENDS IN THE CITY OF COLFAX AND PLACER COUNTY, 2013 - 2023

Year	City of Colfax		Placer County	
	Population	Percentage Change	Population	Percentage Change
2013	2,058	N/A	363,837	N/A
2014	2,070	0.58%	368,059	1.16%
2015	2,069	-0.05%	371,234	0.86%
2016	2,097	1.35%	376,307	1.37%
2017	2,113	0.76%	383,258	1.85%
2018	2,131	0.85%	388,872	1.46%
2019	2,139	0.38%	395,345	1.66%
2020	2,154	0.70%	399,015	0.93%
2021	2,005	-6.92%	406,688	1.92%
2022	2,038	1.65%	409,441	0.68%
2023	2,016	-1.08%	410,305	0.21%

Sources: DOF 2021, 2023.

Housing

Housing Growth Trends

Table 4.13-2, *Housing Unit Growth Trends in the City of Colfax and Placer County, 2013-2023*, shows the housing growth trends from 2013 to 2023.

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TABLE 4.13-2 HOUSING UNIT GROWTH TRENDS IN THE CITY OF COLFAX AND PLACER COUNTY, 2013-2023

Year	City of Colfax		Placer County	
	Housing Units	Percentage Change	Housing Units	Percentage Change
2013	928	N/A	155,782	N/A
2014	927	-0.11%	157,117	0.86%
2015	926	-0.11%	158,518	0.89%
2016	926	0%	160,369	1.17%
2017	926	0%	162,489	1.32%
2018	926	0%	164,820	1.43%
2019	926	0%	167,548	1.66%
2020	933	0.76%	169,526	1.18%
2021	927	-0.64%	174,035	2.66%
2022	955	3.02%	177,369	1.92%
2023	963	0.84%	181,012	2.05%

Sources: DOF 2021, 2023.

Regional Housing Needs Assessment

As shown in Table 4.13-3, *City of Colfax 2021-2029 Regional Housing Needs Assessment*, the City of Colfax's Regional Housing Needs Assessment (RHNA) for the 2021-2029 planning period is 97 units. The City is required to demonstrate that there is sufficient land to accommodate the RHNA but is not required to physically construct the housing units.

TABLE 4.13-3 CITY OF COLFAX 2021–2029 REGIONAL HOUSING NEEDS ASSESSMENT

Income Category	Number of Units	Percentage
Very Low	17	17.5%
Low	11	11.3%
Moderate	21	21.7%
Above Moderate	48	49.5%
Total	97	100%

Source: SACOG 2020.

Employment

Employment Trends

According to the California Employment Development Department (EDD), the growth rate of employment in the City of Colfax has remained relatively consistent, while employment growth rates in Placer County have varied over the years. The City of Colfax and Placer County employment trends are shown in Table 4.13-4, *City of Colfax and Placer County Employment Trends, 2013-2023*.

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TABLE 4.13-4 CITY OF COLFAX AND PLACER COUNTY EMPLOYMENT TRENDS, 2013-2023

Year	City of Colfax		Placer County	
	Employment (Persons)	Percentage Change	Employment (Persons)	Percentage Change
2013	1,000	N/A	161,500	N/A
2014	1,000	0%	164,000	1.55%
2015	1,000	0%	167,400	2.07%
2016	1,000	0%	171,500	2.45%
2017	1,000	0%	174,200	1.57%
2018	900	-10%	179,700	3.16%
2019	1,000	11.11%	183,100	1.89%
2020	900	-10%	173,400	-5.30%
2021	1,000	11.11%	180,000	3.81%
2022	1,000	0%	187,900	4.39%
2023	1,000	0%	188,540	0.34%

Source: EDD 2023.

Existing Employment

Table 4.13-5, *City of Colfax; Industry by Occupation (2012 and 2020)*, shows the total number of jobs per industry in the city in 2012 and 2020. According to the estimates calculated by the US Census, the City of Colfax had 534 jobs in 2012 and 546 jobs in 2020. The three largest occupational categories during 2012 were Retail Trade, Accommodation and Food Services, and Manufacturing, and in 2020 were Retail Trade, Accommodation and Food Services, and Healthcare and Social Assistance.

TABLE 4.13-5 CITY OF COLFAX; INDUSTRY BY OCCUPATION (2012 AND 2020)

Industry/Occupation	Number of Employees In 2012	Number of Employees In 2020
Utilities	7	0
Construction	11	39
Manufacturing	86	28
Wholesale Trade	53	0
Retail Trade	157	168
Transportation and Warehousing	5	8
Information	1	5
Finance and Insurance	9	6
Real Estate and Rental and Leasing	5	5
Professional, Scientific, and Technical Services	26	17
Administration and Support, Waste Management and Remediation	6	6
Educational Services	4	0
Health Care and Social Assistance	29	67
Accommodation and Food Services	89	160
Other Services (Excluding Public Administration)	28	16
Public Administration	18	21
Total	534	546

Source: U.S. Census Bureau 2020.

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Growth Projections

Sacramento Area Council of Governments (SACOG) undertakes regional planning with an emphasis on transportation, producing a Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) that provides projections of housing units and jobs for the City of Colfax and Placer County. These projections are summarized in Table 4.13-6, *SACOG Growth Projections for the City of Colfax and Placer County*.

TABLE 4.13-6 SACOG GROWTH PROJECTIONS FOR THE CITY OF COLFAX AND PLACER COUNTY

	City of Colfax			Placer County		
	2035	2040	Total at Buildout (2040)	2035	2040	Total at Buildout (2040)
Jobs	1,170	1,280	3,280	213,440	191,580	375,420
Housing Units	1,050	1,120	1,390	224,050	200,890	288,170
Jobs-Housing Ratio	1.11	1.14	2.36	0.95	0.95	1.30

Source: SACOG 2019.

Jobs-Housing Ratio

The jobs-housing ratio is a general measure of the total number of jobs and number of housing units in a defined geographic area, without regard to economic constraints or individual preferences. The balance of jobs and housing in an area, in terms of the total number of jobs and housing units in addition to the type of jobs versus the price of housing, has implications for mobility and air quality. The job-housing ratio is one indicator of a project's effect on growth and quality of life in the project area. There is no ideal jobs-housing ratio adopted in State, regional, or city policies. The American Planning Association (APA) is an authoritative resource for community planning best practices, including recommendations for assessing jobs-housing ratios. Although APA recognizes that an ideal jobs-housing ratio will vary across jurisdictions, it recommend target for an appropriate jobs-housing ratio is 1.5 jobs for each housing unit, with a recommended range of 1.3 to 1.7 (Weitz 2003).

As shown in Table 4.13-6, the City's 2035 and 2040 jobs-housing ratios of 1.11 and 1.14, respectively, are considered balanced; the County's jobs-housing ratio of 0.95 in 2035 and 2040 is considered to be housing-rich.

4.13.2 PROPOSED GENERAL PLAN POLICIES

The following are policies of the 2023-2045 General Plan Update relevant to population and housing impacts.

Economic Development Element

- **Policy 8.1.1:** Encourage a full range of commercial establishments and facilities to serve the residents of the community, to provide local employment opportunities, and to improve and diversify the community's tax base.

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- **Policy 8.3.2:** Attract new industries and promote commercial uses that provide employment for the resident labor force.

Land Use Element

- **Policy 2.2.1:** Encourage the location and development of businesses which generate high property and sales taxes, local employment, and are environmentally compatible.
- **Policy 2.2.4:** Encourage commercial and employment-generating uses which provide tax revenues and employment to help support planned residential growth, including auxiliary public facilities and services.

4.13.3 THRESHOLDS OF SIGNIFICANCE

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would normally have a significant effect on the environment if the project would:

- POP-1: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- POP-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.13.4 IMPACT DISCUSSION

4.13-1 The proposed project would directly induce substantial unplanned population growth. [Threshold POP-1]

As shown in Table 3-2 in Chapter 3, *Project Description*, under the proposed General Plan Update, the City of Colfax is projected to result in a net decrease of 668 units, 1,778 residents, and 99 jobs compared to the existing General Plan projections. The proposed General Plan Update would increase the amount of land designated low-density residential, and reduce the amount of land designated medium-density residential, high-density residential, industrial, and commercial. New land use designations under the proposed General Plan Update include the public-quasi public facilities, mixed use, and downtown mixed-use.

While the population, housing, and jobs projections under the proposed General Plan Update would be less than the existing General Plan, the housing and job projections of the proposed General Plan Update would exceed the SACOG estimates by 1,255 units¹ and 2,993 jobs². It should be noted that the State of California has a shortage of housing. In 2019, Governor Newsom signed several bills aimed at addressing the need for more housing, including the Housing Crisis Act of 2019 (Senate Bill 330). Nonetheless, as the housing and

¹Difference between the Proposed General Plan sum of units (2,645) and SACOG total buildout units for Colfax (1,390)

²Difference between the Proposed General Plan sum of jobs (6,273) and SACOG total buildout jobs for Colfax (3,280)

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job projections of the proposed General Plan exceed the SACOG projections by 90 percent and 91 percent, respectively, impacts would be substantial and potentially significant.

As shown in Table 4.13-6, the SACOG jobs-housing ratio for the City would be 2.36. Under the General Plan Update, development based on the land use designations would result in a jobs-housing ratio of 2.37, which is more than the existing General Plan's ratio of 1.95. A ratio of 2.37 indicates that the City would be job rich. As an ideal jobs-housing ratio is between 1.3 and 1.7, the City would be considered to have an unbalanced jobs-housing ratio upon implementation of the proposed General Plan Update. As such, impacts would be potentially significant.

Level of Significance Before Mitigation: Impact 4.13-1 would be potentially significant.

Mitigation Measures

There are no feasible mitigation measures.

Level of Significance After Mitigation: Impact 4.13-1 would be significant and unavoidable.

4.13-2 The proposed project would not displace people and/or housing. [Threshold POP-2]

The purpose of the General Plan Update is to provide orderly growth in the City of Colfax through the distribution, location, balance, and extent of land uses. amount of land designated low-density residential, and reduce the amount of land designated medium-density residential, high-density residential, industrial, and commercial. New land use designations under the proposed General Plan Update include the public-quasi public facilities, mixed use, and downtown mixed-use. The proposed project would also result in zoning amendments to reflect the land use changes. These land use changes would be proposed to accommodate the growth projections for the city, which project a decrease in housing and population, and an increase in employment.

Government Code Section 66300(d)(2) requires that any project that would demolish residential units must create at least as many units as will be demolished. Additionally, the General Plan Update policies would support housing growth, as indicated in Policy 2.2.4 of the Land Use Element which encourages tax-generating development to support residential growth. All of the sites proposed for new development either contain property owners who are actively redeveloping the site, are vacant, or are nonresidential in nature and, therefore, do not contain any residents. Therefore, the proposed project would not displace any people and would provide housing commensurate to the city's growth trends. Therefore, the impact would be less than significant.

Level of Significance Before Mitigation: Impact 4.13-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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4.13.5 REFERENCES

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PUBLIC SERVICES, PARKS, AND RECREATION

4.14 PUBLIC SERVICES, PARKS, AND RECREATION

This chapter describes the existing conditions of the City of Colfax related to public services, parks, and recreation and the potential impacts of the General Plan Update (proposed project) can have on public services, parks, and recreation. The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

4.14.1 EXISTING CONDITIONS

Fire Protection

Through a Cooperative Fire Protection Agreement with the California Department of Forestry and Fire Protection (CAL FIRE), the Placer County Fire Department and CAL FIRE provide firefighting services to the County through eight career and five volunteer fire stations (Placer County 2023a). There are three fire stations in the City of Colfax: Stations 30, 36, and 37.

Colfax Station 30

Colfax Station 30 is in the SOI but outside the City of Colfax boundary at 24020 Fowler Ave, is the Battalion Headquarters for Battalion 13, and services the communities of Colfax and Gold Run. Equipment assigned to Station 30 includes one Battalion Chief and two Type III Engines (Placer County 2023b).

Colfax Station 36

Colfax Station 36, at 33 Church Street, is the City Volunteer Department that was administered by the Placer County Fire Department from 2001 until 2021, when the volunteer Fire Department was fully integrated into the Placer County Fire Department. Station 36 is an unstaffed/reserve volunteer station and services the downtown area of Colfax. Equipment assigned to Station 36 includes one Type III Rescue Engine (Placer County 2023c).

Colfax Station 37

Colfax Station 37, at 139 E. Oak Street, is an unstaffed/volunteer station. It services the City of Colfax and the area around Rollins Reservoir. Equipment assigned to Station 37 includes one Type I Engine and one Type III Brush Engine (Placer County 2023d).

Police Protection

The City of Colfax contracts its law enforcement needs through the Placer County Sheriff's Office. The Placer County Sheriff's Office Colfax Substation, at 10 Culver Street, is staffed primarily by volunteers from the community who are interested in assisting the Sheriff's Office in a variety of areas. The Colfax Substation is staffed by a Sergeant, four City-dedicated deputies, and two resident deputies, who handle the area between Colfax and Donner summit (Placer County 2023e).

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School Services

Colfax Elementary School District

The Colfax Elementary School, which accommodates grades kindergarten through eight, has a 2022-2023 enrollment of 342 students (CDE 2023a).

The current developer fees for Colfax Elementary School District (CESD), which are collected by Placer Union High School District (PUHSD) on CESD’s behalf, are (PUHSD 2022):

- Commercial: \$0.28 per square foot.
- Level I Residential: \$1.78 per square foot.

Placer Union High School District

Colfax High School, which accommodates grades 9 through 12, has a 2022-2023 enrollment of 666 (CDE 2023b).

The current developer fees for PUSD are (PUHSD 2022):

- Commercial: \$0.31 per square foot.
- Level I Residential: \$1.92 per square foot.

Library Services

Placer County Library consists of nine branches, including the Colfax Library (Placer County 2023f). Placer County Library includes events, virtual programs, and online resources for its patrons (Placer County 2023f).

The Colfax Library is at 10 West Church Street and includes three internet workstations, Wi-Fi throughout the building, and an ongoing book sale in the library during opening hours. In 2010, an expansion project was completed for the library, which now encompasses 3,600 square feet (Placer County 2023g).

Parks and Recreation

Table 4.14-1, *Colfax Parks and Amenities*, lists the parks, acreages, and amenities in the city.

TABLE 4.14-1 COLFAX PARKS AND AMENITIES

Park	Acreage	Amenities
Lion’s Club Ball Park and Children’s Park	1.8 acres	Lighted baseball field, basketball court, tot play area, water play area, pool, picnic area, restroom, concessions, off-street parking.
Roy Toms Plaza	0.05 acres	Gazebo, historical/cultural remnant, seating, special paving, off-street parking.
Depot Park	1.4 acres	Historical markers, statue, seating, off-street parking, meeting room.
Arbor Park	0.01 acres	Picnic table, gazebo, bike parking.
Total	3.26 acres	-

Source: Colfax, 2007, 2023a.

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Additionally, the Colfax City Council approved the Colfax Skate Park in March 2021, which will be approximately 0.23 acre and accommodate skateboards, scooters, and BMX bikes. Construction is planned to commence in 2023 (Colfax 2023b).

Moreover, the Colfax Parks and Recreation Master Plan includes the City of Colfax as well as Placer County recreation areas 3, 12, and 14 (Colfax 2007). Placer County has several parks located within the Colfax Parks and Recreation Master Plan boundary area, which include Bear River Campground (207 acres), Bear River Bridge (1 acre), Meadow Vista Equestrian Arenas and Trail Staging Area (5 acres), and Applegate Community Park (2.5 acres), totaling to 215.5 acres (Colfax 2007).

4.14.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Land Use, Safety, and Conservation and Open Space Elements are relevant to the proposed project.

Land Use Element

- **Policy 2.1.1:** The City will coordinate with service providers to provide infrastructure and services, such as water service, libraries, parks and recreational facilities, transportation systems, and fire/police/medical services.
- **Policy 2.2.2:** All new residential subdivision, commercial, or industrial land development within the City shall be contingent upon City services including sewer, water, and emergency vehicle access.
- **Policy 2.2.3:** Establish and maintain a Capital Improvement Program and impact fees for public facilities improvements that parallels the rate of new land development in the city.
- **Policy 2.2.4:** Encourage commercial and employment-generating uses which provide tax revenues and employment to help support planned residential growth, including auxiliary public facilities and services.

Safety Element

- **Policy 7.3.1:** Continually identify any areas of likely wildfire risks or urban conflagration in Colfax.
- **Policy 7.3.2:** Prevent fuel accumulation around any City-owned infrastructure where fires are known to occur.
- **Policy 7.3.3:** Maintain an adequate peak load water supply for fire suppression efforts in Colfax.
- **Policy 7.3.4:** Continue to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development to minimize property damage and loss of life.
- **Policy 7.3.5:** Continue to work with Placer County, state agencies, and federal agencies to support wildlife fuel management activities in areas devastated by bark beetle and other pests.
- **Policy 7.3.6:** Continue to partner with Placer County and other entities within the County to regularly update and implement the Placer County Community Wildfire Protection Plan (CWPP).
- **Policy 7.3.7:** Promote the use of fire-resistant landscaping in public and private developments.
- **Policy 7.3.8:** Require fire protection plans for all new development projects, including plans for long-term, comprehensive, fuel reduction and management. The main components of a fire protection plan include:

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- Risk Analysis
- Fire Response Capabilities
- Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
- Mitigation Measures and Design Considerations for Non-Conforming Fuel Modification
- Wildfire Education Maintenance and Limitations
- **Policy 7.3.9:** Require review by the Planning Department prior to the issuance of development permits for proposed construction projects and conceptual landscaping plans. Plans for proposed development shall include, at a minimum:
 - Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
 - Development and maintenance of defensible space.
 - Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access, and adequate water infrastructure for water supply and fire flow.
 - Class A roof materials for new and replacement roofs.
 - Location and source of anticipated water supply.
- **Policy 7.3.10:** Enforce fire-resistant landscaping and defensible space requirements for new residential and commercial development and require development standards that meet or exceed Title 14, CCR, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with Section 1270) (SRA Fire Safe Regulations) and Title 14, CCR, Division 1.5, Chapter 7, Subchapter 3, Article 3 (commencing with Section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). All new residential development must comply with California Fire Safe Regulations (Section 1276 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Article 5), as well as Chapter 17.122 of the Municipal Code, which requires a landscape design plan for projects in fire-prone areas that addresses fire safety and prevention, as well as defensible space.
- **Policy 7.3.11:** Coordinate with CAL FIRE and Placer County Fire Department to identify and maintain evacuation routes to ensure adequate capacity, safety, and viability of those routes in the event of an emergency.
- **Policy 7.3.12:** Coordinate with CAL FIRE and Placer County Fire Department, fire safe councils, and other agencies to maintain existing fuel breaks and emergency access routes for effective fire suppression.
- **Policy 7.3.13:** Support measures that help firefighting crews and emergency response teams respond to fire hazards or work under low-visibility conditions, such as high-visibility signage for streets and buildings addresses that meet or exceed the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations—Title 24, division 1.5, Chapter 7, Articles 2 and 3).
- **Policy 7.3.14:** Ensure that new development be located where fire and emergency services have sufficient capacity to meet project needs or require that they be upgraded to provide necessary capacity as part of the proposed development activities to ensure new development has adequate fire protection.

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- **Policy 7.3.15:** Develop and update programs as needed that ensure recovery and redevelopment after a large fire and that reduce vulnerabilities to fire hazard risks through site preparation, redevelopment layout design, fire-resistant landscape planning, and home hardening building design and materials.
- **Policy 7.3.16:** Provide information to the community about wildland and urban fire hazards, evacuation routes, and ways to minimize damage caused by fires such as through defensible space. The City shall identify and map at-risk populations within the community and prioritize public outreach, as well as fire education and training among these populations.
- **Policy 7.3.17:** Identify existing public and private roadways in fire hazard areas not in compliance with contemporary fire-safe standards, including road standards, vegetation clearance, and other requirements of Sections 1273 and 1274 of the California Code of Regulations to the extent resources are available. Work at retrofitting City-owned roadways as needed to meet current standards and require private property owners to do the same, to the extent feasible and given the absence of other site constraints.
- **Policy 7.3.18:** Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).
- **Policy 7.3.19:** Coordinate with the Placer County Water Agency to maintain an adequate, long-term water supply for fire suppression needs for the community.
- **Policy 7.4.1:** Work with the Sheriff’s Office to maintain response times sufficient to rapidly respond to 911 calls.
- **Policy 7.4.2:** Ensure that new development projects use environmental design to reduce the risk of crime.
- **Policy 7.4.3:** Promote citizen engagement in crime awareness in existing crime reduction programs.

Conservation and Open Space Element

- **Policy 6.5.1:** Require land or in-lieu fees for parks to be provided by new development at a minimum ratio of four acres per through population, to conform with standards established by the City.
- **Policy 6.5.2:** Cooperate with the Park and Recreation Commission to improve and maximize the use of existing parks, trails, and recreational facilities, identify needed facilities and improvements, and to effectively plan for the future parks and recreation needs of Colfax’s residents and visitors.
- **Policy 6.5.3:** Strive to provide neighborhood parks to meet the needs of developing areas.
- **Policy 6.5.4:** Continue to meet community park and recreation needs.

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4.14.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant public services and recreation impacts if it would:

- PS-1 Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: (i) fire protection, (ii) police protection, (iii) schools, and (iv) other public facilities.
- REC-1 Result in an increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- REC-2 Result in substantial adverse physical impacts associated with the provision of new or physically altered park facilities or result in the need for new or physically altered park facilities, the construction of which could cause significant environmental impacts to maintain acceptable service ratios or other performance objectives.

4.14.4 ENVIRONMENTAL IMPACTS

Impact 4.14-1: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any of the public services: (i) fire protection, (ii) police protection, (iii) schools, and (iv) other public facilities. [Threshold PS-1]

Fire Protection

The Placer County Fire Department (PCFD)/CAL FIRE provides fire protection and safety services for the City of Colfax. PCFD/CAL FIRE has two fire stations in the city and one in the SOI—the Battalion Headquarters (Colfax Station 30) and two volunteer stations (Colfax Stations 36 and 37). The proposed project would result in an increase in development and residents compared to existing conditions. While the proposed project would result in new development, including development that may be in or near fire hazard zones, the proposed project includes policies aimed at creating defensible space, identifying and maintaining evacuation routes, supporting measures that help firefighting crews respond to fire hazards, and ensuring that new development is located where fire and emergency services have sufficient capacity (Policy 7.3.10 through Policy 7.3.14 of the Safety Element). Also, Policy 2.1.1 of the Land Use Element states that the City will coordinate with service providers to ensure adequate infrastructure and services. Additionally, new development in the city would be required to comply with all applicable regulations, such as the California Fire Code, and all new development would be reviewed by the PCFD/CAL FIRE for consistency. If additional and/or expanded facilities are needed, subsequent environmental review for each development project would be required. Therefore, impacts would be less than significant.

PUBLIC SERVICES, PARKS, AND RECREATION

Police Protection

The Placer County Sheriff's Office Colfax Substation is staffed by a Sergeant, four City-dedicated deputies, and two resident deputies. While the proposed project would result in new development and the addition of new residents compared to existing conditions, the proposed project includes policies aimed at maintaining sufficient response times, ensuring that new development projects reduce the risk of crime, and promoting citizen engagement in crime awareness (Policy 7.4.1 through Policy 7.4.3 of the Safety Element). Also, Policy 2.1.1 of the Land Use Element states that the City will coordinate with service providers to ensure adequate infrastructure and services. If additional and/or expanded facilities are needed, subsequent environmental review for each development project would be required. As such, impacts would be less than significant.

School Services

Buildout of the proposed project would result in an increase in students, compared to existing conditions. The CESD and PUHSD require developers of commercial and residential developments to pay developer fees. Pursuant to Section 65996 of the Government Code, payment of school fees is deemed to provide full and complete school facilities mitigation. If additional and/or expanded facilities are needed, subsequent environmental review for each development project would be required. Therefore, impacts would be less than significant.

Library Services

The Colfax Library was expanded in 2010, and now encompasses 3,600 square feet. In addition to physical volumes, Placer County Library provides online resources for its patrons. While the proposed project would result in an increase in residents compared to existing conditions, access to online resources could lessen demand for physical volumes. Additionally, the proposed project includes Policy 2.1.1 of the Land Use Element, which states that the City will coordinate with service providers to ensure adequate infrastructure and services. If additional and/or expanded facilities are needed, subsequent environmental review for each development project would be required. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.14-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.14-2: The project would 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. [Threshold REC-1]

Buildout of the proposed project would result in an estimated population of 7,037 residents in the city. The proposed project would increase the existing population of 2,016 residents in Colfax by 5,021 additional residents (DOF 2023). This would result in an increase in the use of existing park and recreational facilities.

Each jurisdiction determines the appropriate park standard based on the guidance provided by Section 666477 of the California Government Code, commonly referred to as the Quimby Act, which requires a standard of three acres of parkland per 1,000 residents. The City's park standard is four acres of parkland per 1,000 residents.

With an existing population of 2,016 residents, the parkland requirements at four acres per 1,000 residents would be approximately 8.1 acres. Using the same four acres per 1,000 residents metric, the buildout population of 7,037 residents in the city would result in a need of 28.1 acres of parkland. Therefore, the City would have a parkland deficiency of 24.84 acres, given that the city currently has 3.26 acres of parklands (excluding the proposed skate park for the existing Children's Park). However, Placer County recreation areas 3, 12, and 14 provide approximately 215.5 acres of parklands, and would be more than adequate publicly available land for residents in the city and SOI.

New development would be required to pay development impact fees and/or dedicate parkland or pay an in-lieu fee. The availability of new facilities would prevent the accelerated physical deterioration of existing facilities. Additionally, Policy 2.1.1 of the Land Use Element of the proposed project states that the City will coordinate with service providers to provide infrastructure and services, such as parks and recreational facilities. Additionally, the proposed Conservation and Open Space Element includes policies that require land or in-lieu fees for parks, call for cooperation with the Park and Recreation Commission to improve and maximize existing parks and recreational facilities, strive to provide parks to meet the needs of developing areas, and continue to meet community park and recreation needs (Policy 6.5.1 through Policy 6.5.4). As such, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.14-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.14-3: The project would include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. [Threshold REC-2]

The General Plan Update guides growth and development within the city and is not a development project. As the population of the city grows, recreational facilities may be developed and/or improved to provide residents with additional recreational opportunities and to adhere to the City's parkland standard of four acres per 1,000 residents. Parks are also a permitted use under other land use designations (e.g., residential land uses), which could result in the development of recreational facilities outside of park-designated parcels.

Development and operation of new or expanded recreational facilities may have an adverse physical effect on the environment, including impacts related to air quality, biological resources, lighting, noise, and traffic. As this Draft Environmental Impact Report (EIR) assumes construction would occur on all areas designated for development, the physical environmental impacts associated with the construction of new and/or expansions of existing recreational facilities in accordance with the proposed land use plan are addressed throughout this Draft EIR. Similarly, potentially adverse impacts to the environment that may result from the expansion of parks, recreational facilities, and multiuse trails pursuant to buildout of the proposed project are also addressed throughout this Draft EIR. Subsequent environmental review for individual recreational developments would also be required if additional and/or expanded parks and recreational facilities are needed. Consequently, impacts from the General Plan Update relating to new and/or expanded recreational facilities would not result in additional impacts than disclosed in this Draft EIR. Impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.14-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

PUBLIC SERVICES

4.14.5 REFERENCES

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4.15 TRANSPORTATION

This chapter describes the existing conditions of the City of Colfax related to transportation facilities and circulation and evaluates the potential for implementation of the Colfax General Plan Update (proposed project) to impact these facilities and circulation in Colfax and its sphere of influence (SOI). The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

4.15.1 EXISTING CONDITIONS

Traffic

Daily traffic volumes on key motor vehicle routes within Colfax are summarized on Table 4.15-1, *Average Daily Traffic in Colfax*. The primary regional motor vehicle facility is the Interstate 80 (I-80) freeway that carries roughly 30,500 daily vehicles in Colfax and the second being S. Auburn Street with 26,172 daily vehicles. Canyon Way, Grass Valley Street, and Central Street carry over 9,000 daily vehicles.

TABLE 4.15-1 AVERAGE DAILY TRAFFIC IN COLFAX

Street/Route	Average Daily Traffic		
	Baseline	2040	Percentage Change
Interstate 80	30,500	44,200	44.92
S. Auburn Street	26,172	28,900	10.4
Canyon Way	9,198	10,921	18.7
Grass Valley Street	9,423	10,628	12.8
Rising Sun Road	3,771	94	-97.5
Main Street	5,130	161	-96.8
Forest Hill Street	54	69	27.8
Central Street (State Route 174)	9,306	14,173	52.3
Dinky Avenue	36	65	80.6
Tokayana Way/Ben Taylor Road	6,030	5,220	-13.4
Placer Hills Road	2,574	5,729	122.6

Source: Appendix G, Noise and Vibration Assessment

Roadway Classification System

The City of Colfax is served by six different classifications of roadways, as summarized in Table 4.15-2, *Roadway Classifications and Types of Roadways in Colfax*. See Figure 3-1, *Circulation Map*, in the Circulation Element, which shows the roadways in Colfax.

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TABLE 4.15-2 ROADWAY CLASSIFICATIONS AND TYPES OF ROADWAYS IN COLFAX

Street Classification	Description	Roadways In Colfax
Freeway	A limited access and high-speed road serving inter-regional movement with no interference from local street patterns or at-grade crossings. Freeways are divided highways and serve primarily regional and long-distance travel.	<ul style="list-style-type: none"> I-80 is the primary transportation route in Colfax, carrying most traffic and preventing intra-city circulation. The city has two interchanges: Canyon Way, providing freeway access in the north and south, and South Auburn Street, providing access to the historic downtown in the north and south.
State Highway	Limited access and higher-speed road for travel between communities. Medium capacity two-lane roadways with one lane in each direction. The passing of slower vehicles requires the use of the opposing lane where traffic gaps allow.	<ul style="list-style-type: none"> Highway 174 enters the city limits north and connects to the historic downtown via Main Street. It overpasses railroad tracks and terminates on South Auburn Street, providing access to Grass Valley and Nevada City.
Arterial	A street carrying the vehicular traffic of intra-community travel, as well as access to the rest of the county transportation system. Access to arterials is generally by minor arterial, collector, and local streets.	<ul style="list-style-type: none"> Canyon Way is an I-80 frontage street and connects to South Auburn Street and Placer Hills Road. Placer Hills connects to South Auburn Street and Canyon Way.
Minor Arterial	A street for movement of intra-community traffic and less traveled than arterial streets.	<ul style="list-style-type: none"> Tokayana connects to South Auburn Street, Placer Hills Road, and Ben Taylor Road. Ben Taylor Road connects to South Auburn Street, Grass Valley Street, Church Street, and Main Street.
Collector	These roadways serve traffic between local roadways and neighborhoods. Collector streets are used mainly for traffic movements within residential, commercial, and industrial areas.	<ul style="list-style-type: none"> South Auburn Street is an I-80 frontage street that connects to arterial streets that lead into the city. Grass Valley Street connects to arterial streets that lead into the city. Railroad Street connects to arterial streets that lead into the city. Foresthill Street connects to arterial streets that lead into the city. Vista Avenue connects to arterial streets that lead into the city. Church Street connects to arterial streets that lead into the city. Main Street connects to arterial streets that lead into the city. Rising Sun Road connects to arterial streets that lead into the city.
Local Street	Roadways used primarily for direct access to residential, commercial, industrial, or other abutting property with on-street parking. They do not generally include roadways carrying through traffic.	<ul style="list-style-type: none"> Depot Street connects residential areas to the network of collector roadways. Culver Street connects residential areas to the network of collector roadways. Pleasant Street connects residential areas to the network of collector roadways.

Source: General Plan Circulation Element

Bicycle Facilities

The only existing bicycle facility within Colfax is a Class II bicycle lane along one side of Rising Sun Road and Grass Valley Street. Class II bicycle pathways are within the right-of-way of streets, usually collectors and arterials. The lanes are up to seven feet wide, located adjacent to the vehicle travel lanes with signage and striping on the pavement demarking the lane.

Pedestrian Facilities

Pedestrian needs can usually be accommodated by the construction of sidewalks and pathways, and in areas with little or no development, adequate shoulders (4 to 6 feet wide) should be provided for pedestrians. The use of pedestrian and bicycle facilities to link areas of home, work, school, and commercial uses can be used to reduce traffic and air pollution.

Transit Facilities

Placer County Transit provides transit service for the City of Colfax. Alta Colfax is a deviated fixed route servicing less than a mile off I-80 from Auburn Amtrak station, Colfax Amtrak station, and the Alta store. It operates twice daily Monday through Friday (PCT 2023).

4.15.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Circulation and Safety Elements are relevant to the proposed project.

Circulation Element

- **Policy 3.1.2:** Ensure that roadways are built to standards meeting long-term needs by evaluating current and future land uses.
- **Policy 3.1.3:** Ensure that roadways are complete streets meeting the needs of all users, including bicyclists, public transit users, children, seniors, persons with disabilities, pedestrians, motorists, and movers of commercial goods.
- **Policy 3.1.5:** To the extent that funding is available and feasible, ensure that city roadways are maintained and repaired as needed. As needed, the City will also coordinate with Caltrans and Placer County to address needed maintenance of roadways within the city-limits and City's SOI in order to provide safe driving conditions in the community.

Safety Element

- **Policy 7.3.9:** Require review by the Planning Department prior to the issuance of development permits for proposed construction projects and conceptual landscaping plans. Plans for proposed development shall include, at a minimum:
 1. Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
 2. Development and maintenance of defensible space

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3. Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access, and adequate water infrastructure for water supply and fire flow.
 4. Class A roof materials for new and replacement roofs.
 5. Location and source of anticipated water supply.
- **Policy 7.3.11:** Coordinate with CAL FIRE and Placer County Fire Department to identify and maintain evacuation routes to ensure adequate capacity, safety, and viability of those routes in the event of an emergency.
 - **Policy 7.3.12:** Coordinate with CAL FIRE and Placer County Fire Department, fire safe councils, and other agencies to maintain existing fuel breaks and emergency access routes for effective fire suppression.
 - **Policy 7.3.14:** Ensure that new development be located where fire and emergency services have sufficient capacity to meet project needs or require that they be upgraded to provide necessary capacity as part of the proposed development activities to ensure new development has adequate fire protection.
 - **Policy 7.3.18:** Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).

4.15.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant transportation impacts if it would:

- TRANS-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- TRANS-2 Conflict or be inconsistent with California Environmental Quality Act (CEQA) Guidelines Section 15064.3, subdivision (b).
- TRANS-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- TRANS-4 Result in inadequate emergency access.

4.15.4 ENVIRONMENTAL IMPACTS

Impact 4.15-1: The project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold TRANS-1]

Local programs, plans, ordinances, and policies that address the City’s transportation system are described in Environmental Impact Report (EIR) Appendix C, Section 15.1.1.1, *Regulatory Framework*, and include the Regional Transportation Plan (RTP) for Placer County (PCTPA 2019), Placer County Regional Bikeway Plan (Placer County 2018), and Title 10, Vehicles and Traffic, of the Colfax Municipal Code.

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The proposed Circulation Element focuses on developing a transportation system that meets the needs of all segments of the population through a complete streets approach. This includes increasing options for alternative transportation (public transit, walking, and bicycling); ensuring that pedestrian and bicycle systems connect residential neighborhoods to public facilities and services, schools, parks, and shopping areas; and other means to develop a multi-modal transportation system that meets the needs of all members of the community. The proposed Land Use Element also supports alternative transportation by promoting infill and mixed-use development, increasing residential densities along major traffic corridors and near employment opportunities and shopping, and encouraging circulation improvements that promote community connectivity. Therefore, the goals and policies of the proposed Elements are consistent with the regional goals and strategies expressed in the 2040 RTP. Discretionary projects are reviewed on a case-by-case basis according to determine compliance with the City's Vehicle Congestion Management Program. Implementation of the 2040 General Plan would have a beneficial effect on the City's transportation system by enhancing safety on the roadway system and promoting alternative travel modes, including transit, pedestrian, and bicycle circulation systems. There would be no impact.

Level of Significance Before Mitigation: Impact 4.15-1 would result in no impact.

Mitigation Measures

No mitigation measures are required.

Impact 4.15-2: The project would conflict or be inconsistent with CEQA Guidelines, Section 15064.3, subdivision (b). [Threshold TRANS-2]

The following evaluates whether the project would conflict or be inconsistent with CEQA Guidelines, Section 15064.3(b), which describes specific considerations for analyzing transportation impacts as amended on July 1, 2020, pursuant to Senate Bill (SB) 743. CEQA Guidelines Section 15064.3(b) states that vehicle miles traveled (VMT) is "generally" the most appropriate measure of transportation impacts.

No particular methodology or metric is mandated by Section 15064.3(b) and the methodology or metric is left to the lead agency, bearing in mind the criteria the legislature had in mind for determining the significance of transportation impacts in SB 743. These were expressed in Public Resource Code Section 21099(b)(1), which states: "[t]hose criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

The assessment of VMT impacts for this EIR was conducted consistent with *The County of Placer Transportation Study Guidelines* (TSG). The TSG were adopted by the Board of Supervisors on December 1, 2020, and further amended on June 22, 2021. The TSG are intended to describe the transportation analysis requirements for land development projects and major land plans in Placer County (Placer 2021b).

The County Guidelines are primarily focused on analyzing the effects of individual, site-specific land use projects, and the screening criteria are designed as such. The proposed General Plan is a long-range and large-scale plan that will affect land uses of a wide range of sizes and types, in a range of locations throughout the City and SOI, and over a long planning horizon. As such, the proposed project does not fit within any of the screening criteria in the TSG and thus requires a full VMT assessment.

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Significance Threshold

The recommended CEQA VMT metrics and significance thresholds for Placer County are described by land use type in Table 4.15-3, *CEQA VMT Thresholds of Significance by Project Type*.

TABLE 4.15-3 CEQA VMT THRESHOLDS OF SIGNIFICANCE BY PROJECT TYPE

LAND USE/PROJECT TYPE	RECOMMENDED METRIC	THRESHOLD FOR DETERMINATION OF A SIGNIFICANT TRANSPORTATION VMT IMPACT
Residential	VMT per resident	<ul style="list-style-type: none"> ▪ 15% below unincorporated County baseline (for projects in Western Placer County¹) ▪ 15% below eastern County baseline (for projects in eastern Placer County²)
Office Employment	Work VMT per employee	
Industrial Agricultural Employment		
Hotel/Campground	VMT per room or per site	
Commercial Retail		
Recreation Destination	Total VMT	Zero net increase
Transportation		

¹Western Placer County, defined as areas of Placer County in the Sacramento Area Council of Government boundary.

²Eastern Placer County outside of the Tahoe Basin, defined as land east of the Sierra Nevada crest and outside the Tahoe Regional Planning Agency (TRPA) jurisdictional boundary, including the Sugar Bowl ski resort and Serene Lakes communities. Eastern Placer County within the Tahoe Basin is defined by the jurisdictional boundary of the TRPA.

The City of Colfax and SOI are within the Sacramento Area Council of Government (SACOG) boundary, and the proposed project is within western Placer County. Therefore, the proposed project is evaluated against the Placer County TSG threshold of 15 percent below the unincorporated county baseline for VMT per capita, VMT per employee, and other applicable VMT metrics.

Based on this threshold, the impact would be considered potentially significant if the forecasted rate of VMT metrics for the City of Colfax and SOI under Year 2040 conditions with the proposed project were to exceed 85 percent of the baseline (year 2020) regional rate of VMT per resident, Work VMT per employee, and VMT per room per site for the unincorporated Placer County. The impact would also be considered potentially significant if the forecasted total VMT metrics for the City of Colfax and SOI under Year 2040 conditions with the proposed project were to result in a total VMT net increase compared to the baseline.

The assessment of VMT impacts for this EIR was conducted by using SACOG’s Sacramento Activity-Based Travel Stimulation Model (SACSIM). SACOG created thresholds and screening maps for residential and office projects using the 2016 travel demand model for the 2020 MTP/SCS. The SACSIM is activity/tour based and is designed to estimate individual’s daily travel, accounting for land use, transportation, and demographics that influence peoples’ travel behaviors. The model reports VMT per Resident (commonly referred to as “VMT per Capita”) and VMT per Job (SACOG 2023). Residential VMT threshold is defined as total household VMT per capita achieving 15 percent reduction compared to regional average. The threshold for employment-generating projects in the Governor’s Office of Planning and Research (OPR) Technical Advisory is achieving a 15 percent reduction in regional average work VMT per job (SACOG 2023).

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Findings

Based on the SACSIM, the VMT per Capita for the City of Colfax's forecasted average VMT per Resident (150 percent) and VMT per Job (100 to 150 percent) is greater than the regional average (SACOG 2019, 2023). This finding is consistent with the SACOG 2020 RTP/SCS, which noted that Colfax has a higher rate of VMT per Capita in the region for both 2016 and 2040.

Individual projects under the General Plan Update that do not screen out from VMT analysis shall provide a detailed VMT analysis consistent with the methodology in the County of Placer TSG. Projects which result in a significant impact shall provide VMT mitigation. The Guidelines contain potential mitigation measures to reduce VMT such as modifying the project's characteristics to reduce VMT generated by the project. This might involve changing the density or mixture of land uses on the project site, changing the project's location to one that is more accessible by transit or other travel modes, relocating the project in an area that already exhibits low VMT, or implementing transportation demand management (TDM) or physical design measures to reduce VMT generated by the project.

Though the General Plan Update would include policies that would support mixed-use development and public transportation in the city, the proposed project plans for more growth, which would result in an increase in VMT without proper infrastructure to support it. This impact would be potentially significant.

Level of Significance Before Mitigation: Impact 4.15-2 would be potentially significant.

Mitigation Measures

No feasible mitigation measures are available. As discussed above, the proposed project is a programmatic General Plan and considerable uncertainty exists with regard to the implementation and feasibility of mitigation for individual development projects. Projects with significant VMT impacts would be required to implement VMT mitigation consisting of modification to project designs and implementation transportation demand management strategies. While the County's Guidelines would require that projects that are found to have a significant VMT impact implement VMT-reducing measures, since this is a comprehensive analysis and the effectiveness of each mitigation measure is dependent on the land use context and other factors, it cannot be determined at this time whether impacts would be reduced to less than significant for individual projects. As a result, the VMT impacts associated with the proposed project would be considered significant and unavoidable.

Level of Significance After Mitigation: Impact 4.15-2 would be significant and unavoidable.

Impact 4.15-3: 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). [Threshold TRANS-3]

Roadway hazards are typically assessed at the project level. Potential hazards associated with future development projects would be analyzed and evaluated in detail through the project-specific environmental review process or during project application review. Prior to the construction of streets, highways, alleys,

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traffic signals, and related public improvements, the Colfax Public Works Department reviews and needs to approve plans according to construction standards and specifications. Additionally, the Placer County Local Road Safety Plan will continue to help to guide improvements to the local roadway system based on existing gaps needs.

While growth within Colfax and its SOI would result in changes to the existing transportation network, the proposed Circulation Element contains policies that require local planning and development decisions to consider impacts to transportation facilities. The following General Plan policies would support the design of a transportation system that is safe for all modes of travel. The proposed policies could directly and indirectly result in improving the transportation network, such as Policy 3.1.2, which ensures that roadways are built to standards meeting long-term needs by evaluating current and future land uses; Policy 3.1.3, which ensures that roadways are complete streets meeting the needs of all users; and Policy 3.1.5, which ensures city roadways are maintained and repaired, coordinating with Caltrans and Placer County, to provide safe driving conditions in the community.

Implementation of these policies would promote the design of improvements to the transportation network that are safe for all modes of travel. Compliance with State regulations on roadway and facility design, materials, and signage would further minimize this impact. Implementation of the proposed project would not result in conflicts with adopted policies, plans, or actions or otherwise increase hazards due to a design feature that may have a significant impact on the environment. The impact would be less than significant.

Level of Significance Before Mitigation: Impact 4.15-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.15-4: The project would not result in inadequate emergency access. [Threshold TRANS-4]

Future potential development that could occur during the buildout of the proposed 2040 General Plan would alter land use patterns and increase travel demand on the transportation network that may influence emergency access. Like roadway hazards, emergency access is typically assessed at the project level, and potential impacts to emergency access associated with future development projects would be analyzed and evaluated in detail through the environmental review process or during project application review. Prior to the construction of streets, highways, alleys, traffic signals, and related public improvements, the City of Colfax Public Works Department reviews and needs to approve plans according to construction standards and specifications to ensure adequate emergency access. This may include applying for an encroachment permit and other requirements outlined in Chapter 15.12, Encroachment Permits, of the City's Municipal Code for projects that involve working in the City of Colfax right-of-way.

While growth within the city and SOI would result in changes to land use and the existing transportation network, the proposed 2040 Safety Element contains policies that require local planning and development decisions to consider improvements to transportation efficiency, mobility, and access, including developing and updating emergency response plans. The following describes the policies that directly and indirectly

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result in providing emergency access, such as Policy 7.3.11, which focuses on coordinating with the California Department of Forestry and Fire Protection (CAL FIRE) and Placer County Fire Department to identify and maintain evacuation routes for emergency situations. Policy 7.3.12 focuses on maintaining fuel breaks and emergency access routes for effective fire suppression. Policy 7.3.9 requires the Planning Department to review development permits for construction projects and landscaping plans. Plans should include a site plan, planting plan, planting palette, and irrigation plan to reduce fire hazards, defensible space development, multiple points of ingress and egress, adequate water infrastructure, Class A roof materials, and location and source of anticipated water supply. Policy 7.3.14 requires new development locations with adequate fire and emergency services capacity or upgrading to ensure adequate fire protection and Policy 7.3.18 mandates development with adequate access for fire and emergency vehicles and equipment, meeting or exceeding California Fire Safe Regulations standards.

Implementation of the 2040 General Plan would not result in inadequate emergency access that may have a significant impact on the environment and impacts would be less than significant. No mitigation measures are required.

Level of Significance Before Mitigation: Impact 4.15-4 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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4.15.5 REFERENCES

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UTILITIES AND SERVICE SYSTEMS

4.16 UTILITIES AND SERVICE SYSTEMS

This chapter describes the current conditions for utility providers, including water, wastewater, stormwater, and solid waste. Electricity and natural gas are discussed in Chapter 4.6, *Energy*. This chapter also evaluates the potential for implementation of the Colfax General Plan Update (proposed project) to impact these facilities and circulation in Colfax and its sphere of influence (SOI). The regulatory framework and references for this chapter can be found in Appendix C and Appendix D, respectively.

4.16.1 EXISTING CONDITIONS

Wastewater Treatment

The City of Colfax's Wastewater Treatment Plant (WWTP) works to remove pollutants from wastewater. The WWTP was built in 1978 and modified in 2008 and was designed to treat up to half a million gallons per day (Colfax 2023a). The WWTP operates with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES regulates stormwater discharges from three main sources: Municipal Separate Storm Sewer Systems (MS4), construction activities, and industrial activities (Colfax 2023b).

Water Supply and Distribution Systems

Placer County Water Agency

Domestic water for the City of Colfax is provided by the Placer County Water Agency (PCWA). The City of Colfax lies within PCWA's Service Zone 3, which is served by water purchased from the Pacific Gas and Electric Company (PG&E) by PCWA. There are about 29 miles of treated water piping and 2.3 million gallons of treated storage in Zone 3. PCWA's Zone 3 extends from Upper Zone 1 (i.e., City of Auburn and surrounding communities) up to nearly 4,000 feet and is characterized by Sierra forest climate with warm summers, cold wet winters, and occasional snow. Precipitation at these elevations is significant. Spring runoff from the higher elevations, above 4,000 feet, is the backbone of PCWA's water supply system. The Placer County 2020 Urban Water Management Plan states that the 2020 total water use for Zone 3 was 10,720 acre-feet per year (AFY) and is projected to be 11,526 AFY in 2040 (PCWA 2021).

Water Sources

The source of water for the City of Colfax is the South Fork of the Yuba River and the Bear River. The water is conveyed from Lake Spaulding via the PG&E Drum Canal into PCWA's Boardman Canal, and then in a pipe to the Colfax Water Treatment Plant.

Groundwater

Some residents within the city rely on groundwater for their water supply. The average depth of water in the Colfax area is 150 to 300 feet. The Placer County Health Department monitors water quality in these wells. Water supply in these areas depend on local aquifers. Some have high production potential and others are unpredictable.

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Surface Water

PCWA's surface water supplies consist of water diverted from the Yuba, Bear, and North Fork American Rivers and its tributaries, which includes water purchased from PG&E from the Yuba and Bear Rivers under the 1982 Zone 3 Contract Purchase Agreement, the February 2015 Water Supply Agreement, and surface water from various small creeks under pre-1914 water rights.

Stormwater

The City of Colfax Public Works is responsible for installing, monitoring, maintaining, and cleaning the storm drainage system of the City of Colfax.

Solid Waste

Solid waste collection services would be provided by Placer County. Placer County is separated into four franchise areas that are serviced by the two franchise haulers. The City of Colfax is serviced by the Auburn Placer Disposal Transfer Station and Eastern Regional Landfill Material Recovery Facility (MRF) and Transfer Station, which is a program of Tahoe Truckee Sierra Disposal Company Inc. (Placer 2023; ERLMRF 2023). The Eastern Regional Landfill MRF has a maximum permit capacity of 600 tons per day (Cal Recycle 2023a).

4.16.2 PROPOSED GENERAL PLAN POLICIES

The following are policies of the City of Colfax General Plan Update relevant to utilities and service systems impacts.

Land Use Element

- **Policy 2.2.2:** All new residential subdivision, commercial, or industrial land development within the city shall be contingent upon City services including sewer, water, and emergency vehicle access.

Conservation and Open Space Element

- **Policy 6.3.4:** Require new development projects that have the potential to impact local water quality through increased stormwater runoff or erosion to include analysis of water quality impacts as a component of project review, and to integrate mitigation measures that would reduce identified impacts to an acceptable level.
- **Policy 6.3.4:** Ensure that proposed developments can be adequately served by available water supplies.
- **Policy 6.3.5:** Support all efforts to encourage water conservation by Colfax residents and businesses, and public agencies to implement water conservation programs and incentives that facilitate conservation efforts.

Safety Element

- **Policy 7.6.1:** Prepare for a reduced long-term water supply resulting from more frequent and severe drought events, including working with regional water providers to implement extensive water conservation measures and ensure sustainable water supplies, including for fire suppression needs.

UTILITIES AND SERVICE SYSTEMS

4.16.3 THRESHOLDS OF SIGNIFICANCE

The proposed project would result in significant utilities and service systems impacts if it would:

- UTIL-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage, the construction or relocation of which could cause significant environmental effects.
- UTIL-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- UTIL-3 Result in a determination by the wastewater treatment provider that 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.
- UTIL-4 Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- UTIL-5 Comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

4.16.4 ENVIRONMENTAL IMPACTS

Impact 4.16-1: The project would require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater drainage; however, the construction or relocation would not cause significant environmental effects. [Threshold UTIL-1]

Water

As mentioned in Section 4.16.1, *Existing Conditions*, the City of Colfax is within Zone 3 of PCWA's service area and is projected to result in 11,526 AFY total water use in 2040, which is an 806 AFY increase since 2020.

In the PCWA 2020 UWMP, Zone 3, situated in the Sierra Nevada foothills, has outdated water system facilities, causing water loss. Replacements will reduce water loss and decrease gross water use. Retail treated water uses in Zone 3 are a fraction of PCWA's current usage and will increase slightly over the next few decades due to nominal growth in mountain communities. Changes in this zone are unlikely to significantly impact the expected increase in total water use served by PCWA. Zone 3 untreated retail water use is primarily for commercial agriculture, irrigation customers, landscape greenbelts, and metered irrigation. The PCWA 2020 UWMP reports that all untreated retail water use is expected to remain consistent in the UWMP planning horizon (PCWA 2021).

The General Plan Update includes policies that would reduce the impacts, such as Policy 6.3.4, which ensures that proposed developments can be adequately served by available water supplies. Policy 6.3.5 promotes Colfax residents, businesses, and public agencies to encourage water conservation through

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programs and incentives, and Policy 2.2.2 requires all new residential subdivision, commercial, or industrial land development within the city be contingent on City services, including water.

Moreover, if water system improvements are needed, additional project-specific environmental analysis would be completed pursuant to the California Environmental Quality Act (CEQA). Therefore, the proposed project would have a less-than-significant impact on water supplies and facilities.

Wastewater Treatment

The City of Colfax operates a 1.24 million gallons per day (mgd) WWTP in Colfax. Development allowed by the proposed project would generate increased amounts of wastewater in the city. However, General Plan Update Land Use Policy 2.2.2 requires that all new residential subdivisions, as well as commercial and industrial uses, be contingent on City sewer services availability. In addition, new development under the proposed project would need to comply with Colfax Code of Ordinances Chapter 13.08, Sewer Service System, which outlines connection permits and charges for the City of Colfax's Sewer Service System and charges individuals for connecting to the system that increases or alters the sewage discharged from the premises. Compliance with this chapter would ensure that this impact would be less than significant.

Stormwater

Development under the proposed project can create impacts on local storm systems through increased demand on the City's system. However, the proposed project would need to comply with the City's Municipal Code Chapter 16.68, Storm Drainage Utility, which states that future developers must provide stormwater drainage facilities approved by the city engineer, ensuring they meet minimum standards and comply with Standard Specifications for carrying water above and within the project. In addition, the General Plan Update Conversation Element includes Policy 6.3.4, which mandates new development projects affecting local water quality through increased stormwater runoff or erosion to include analysis of water quality impacts as a component of project review, and to integrate measures that would reduce identified impacts to an acceptable level.

Level of Significance Before Mitigation: Impact 4.16-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.16-2: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. [Threshold UTIL-2]

As shown in Table 3-2 in Chapter 3, *Project Description*, the proposed General Plan would result in 2,645 new residential units, as well as 141.1 acres of commercial and office space and 105.3 acres of industrial space.

UTILITIES AND SERVICE SYSTEMS

Development under the proposed project can create impacts on local water supplies through increased demand from the proposed project. The increase in water demand with implantation of the proposed General Plan is provided in Table 4.16-1, *Net Increase in Water Demand with Proposed General Plan*.

TABLE 4.16-1 NET INCREASE IN WATER DEMAND WITH PROPOSED GENERAL PLAN

Land Use	Number Of Dwelling Units	Water Demand Factor (Gpd/Du)	Total Water Demand (Gpd)	Increase In Total Water Demand (AFY)
Residential	2,645	0.55 ¹	1,454.75	1.63
	Nonresidential Acres	Water Demand Factor (AFY)	Total Water Demand (AFY)	
Commercial/Office	141.1	0.79 ²	111.5	
Industrial	105.3	9.9 ³	1,042.5	
Total			1,154	

AFY = acre-feet per year; DU = dwelling unit; GPD = gallons per day.

¹ DWR and State Water Board urge urban water suppliers to meet 55 gallons per capita daily indoor water efficiency standard by 2023.

² While preparing the 2020 Urban Water Management Plan, PCWA developed demand factors for the Western Area Treated Retail Water customers, while Colfax is within designated Zone 3, these demand factors were not used in the development of the water use projections but are made for PCWA to use in evaluating future proposed projects.

³ CalEEMod water consumption factor for Industrial Park of 1,000 square foot per 231,250 gallons per unit per year

Sources: PCWA 2021; DWR 2023; CalEEMOD 2023.

The projected water demand increase from the proposed General Plan Update is estimated to be 1,155.6 AFY. As mentioned in Section 4.16.1, *Existing Conditions*, Zone 3 is projected to result in 11,526 AFY total water use in 2040. In comparing 2040 water supply to water demand from the 2020 Urban Water Management Plan, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

In addition, the General Plan Update would include policies aimed at maintaining the health and supply of the City of Colfax’s water, such as Policy 7.6.1, which would prepare for a reduced long-term water supply resulting from more frequent and severe drought events, including working with regional water providers to implement extensive water conservation measures and ensure sustainable water supplies, Policy 6.3.4 ensures that proposed developments can be adequately served by available water supplies, Policy 2.2.2 requires that all new development be contingent with the City’s water services, and Policy 7.6.1 addresses drought-related water supply reduction by collaborating with regional providers to implement conservation measures and ensure sustainable water supplies, including fire suppression, for emergency purposes.

Level of Significance Before Mitigation: Impact 4.16-2 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.16-3: Implementation of the proposed project would not result in a determination by the wastewater treatment provider that 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. [Threshold UTIL-3]

Development allowed by the General Plan Update would generate increased amounts of wastewater in the city. However, the General Plan Land Use Policy 2.2.2 requires that all new development within the city be contingent on City services, including sewer services. The proposed project must comply with Chapter 13.08, Sewer Service System, ensuring connection permits and charges for the City of Colfax's Sewer Service System, which charges individuals for increasing or altering sewage discharge.

In addition, any new or expanded wastewater facilities would be subject to project-specific review under CEQA and the direct regulatory authority of the Regional Water Quality Control Board (RWQCB) and would require a Report of Waste Discharge to be filed and issued by the RWQCB. The processes and requirements described in this section will ensure that the cumulative impacts related to wastewater would be less than significant.

Level of Significance Before Mitigation: Impact 4.16-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

Impact 4.16-4: The project would not generate solid waste in excess and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. [Thresholds UTIL-4 and UTIL-5]

The General Plan Update is anticipated to introduce approximately 7,037 residents and 6,273 jobs into the Planning Area. As shown in Table 4.16-2, *Increase in Solid Waste Generation Rates*, this projected growth would result in an increase in solid waste of approximately 87.5 tons/day or 31,937.5 tons/year. These numbers are conservative because with continued recycling and waste-reduction programs implemented by the County, cities, and joint powers authority (JPAs), the waste generation rates would be reduced over time.

TABLE 4.16-2 INCREASE IN SOLID WASTE GENERATION RATES

Category	Increase in Residents	Solid Waste Generation Rate (PPD)	Solid Waste (PPD)	Increase In Solid Waste (Tons/Day)	Increase In Solid Waste (Tons/Year)
Residents	7,037	8.4	59,110.8	29.5	10,767.5
Jobs	6,273	24.2	115,806.6	58	21,170
Total			210,917.4	87.5	31,937.5

PPD = pounds per day
Source: CalRecycle 2023b

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Conservatively assuming that all of the solid waste generated is transported to the Eastern Regional Landfill MRF, an increase of 87.5 tons/day with the implementation of the proposed General Plan Update would be about 14.6 percent of the current residual capacity of the landfill. However, since the City of Colfax and its SOI would also be serviced by the Auburn Placer Disposal Transfer Station, then the solid waste generated from the proposed project would be easily accommodated by these two landfills.

During construction, future development projects would comply with CALGreen requirements, specifically recycling and/or salvaging for reuse of a minimum of 65 percent of nonhazardous construction and demolition waste generated during most “new construction” projects. Section 74-04.006, Amendments to CALGreen Building Standards Code, amends Section 5.408.1, Construction Waste Management, to include 2019 CALGreen requirements.

The proposed project would comply with the CALGreen Building Code Standards, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. Furthermore, the proposed project would also comply with the requirements of Assembly Bill (AB) 341 that mandates recycling for commercial land uses. Additionally, any organic waste generated in amounts over a certain threshold would be recycled in accordance with AB 1826. In addition, Senate Bill (SB) 1383 requires every jurisdiction to provide organic waste collection services to all residents and businesses.

All new development proposed under the proposed project, such as the addition or expansion of solid waste facilities, if needed, would be subject to subsequent project-level CEQA review. Construction activities would be required to comply with all federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.16-4 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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4.16.5 REFERENCES

California's Department of Resources Recycling and Recovery (CalRecycle). 2023a. SWIS Facility/Site Activity Details: Eastern Regional MRF (31-AA-0625). <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2558?siteID=2288>

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4.17 WILDFIRE

This chapter describes the regulatory framework and existing conditions in the City of Colfax related to wildfire and the potential impacts of the General Plan Update (proposed project). The regulatory framework and references for this chapter can be found in Appendix B and Appendix C, respectively.

4.17.1 EXISTING CONDITIONS

Wildfire Background

The term “wildfire” refers to fires that usually result from the ignition of dry grass, brush, or timber. Historically, wildfires commonly occurred in areas that are characterized by steep or heavily vegetated areas, which make suppression of the fire difficult. More recently, wildfires have been encroaching into more urban areas within the wildland-urban interface (WUI), threatening homes, businesses, and essential infrastructure. While wildfires play an important role in the ecology of many natural habitats, as urban development moves into areas susceptible to wildfire hazards, risks to human safety and property increase.

Types of Wildfires

There are three basic types of wildfires:

- **Crown fires** burn trees to their tops and are the most intense and dangerous wildland fires.
- **Surface fires** burn surface litter and duff and are known for being the easiest fires to extinguish and to cause the least damage. Brush and small trees enable surface fires to reach treetops, so are referred to as “ladder fuels.”
- **Underground fires** occur underground in deep accumulations of dead vegetation. These fires move very slowly and can be difficult to extinguish due to limited access (Natural Resources Canada 2018).

Wildfires burn in many types of vegetation—forest, woodland, scrub, chaparral, and grassland. Many species of native California plants are adapted to fire. Chaparral shrubs and conifer forests recover from fire. For example, many species of conifers have seed cones that require fire to open for them to reproduce (CAL FIRE 1999). Between 2010 and 2017, wildfires in California burned about 265,000 acres of forest land; 207,000 acres of scrub vegetation; 99,000 acres of grassland; 18,000 acres of desert vegetation; and 14,000 acres of other vegetation types (CAL FIRE 2018). Wildfires have been observed to be more frequent and growing in intensity the past several years, with 2,569,386 acres and 363,939 acres burning in 2021 and 2022, respectively (CAL FIRE 2023).

Wildfire Causes

Although the term “wildfire” suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned (Balch et al. 2017). The three most common types of human-caused wildfires are debris burning (e.g., logging slash, farm fields, trash), arson, and equipment

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use (Pacific Biodiversity Institute 2007). Power lines can also ignite wildfires through downed lines, vegetation contact, conductors that collide, and equipment failures (Texas Wildfire Mitigation Project 2018). Lightning is the most common cause of nature-induced wildfire (Balch et al. 2017).

An analysis of United States Forest Service (USFS) wildfire data from 1986 to 1996 determined that 95 percent of human-caused wildfires and 90 percent of all wildfires were within 0.5 mile of a road, and that about 61 percent of all wildfires and 55 percent of human-caused wildfires occurred within approximately 650 feet (200 meters) of a road. The study concluded that the increase in human-caused ignition greatly outweighs the benefits of increased access for firefighters (Pacific Biodiversity Institute 2007).

There are three primary methods of wildfire spread:

- **Embers.** Embers are the most prolific cause of home ignition, at a rate of two out of every three homes destroyed. Embers are glowing or burning pieces of vegetation or construction debris that are lofted during a wildfire and can move up to a mile ahead of a wildfire, especially during high winds. These small embers or sparks may fall on the vegetation near a home (on dry leaves, needles, or twigs on the roof) and subsequently ignite the home. Embers can travel several miles during high wind events, placing a potential risk to all structures without fire-resistant landscaping and construction within a mile of the fire (CAL FIRE 2019).
- **Direct Flame Contact.** Direct flame contact refers to the transfer of heat by direct flame exposure. Direct contact will heat the building materials of the home, and if the time and intensity of exposure is severe enough, windows will break, and materials will ignite.
- **Radiant Heat.** A house can catch fire from the heat that is transferred to it from nearby burning objects, even in the absence of direct flames or embers. By creating defensible space around homes, the risk from radiant heat is significantly reduced.

Secondary Effects of Wildfires

After a high-intensity wildfire, or crown fire, is suppressed, the burn scar is typically bare of its vegetative cover, which had supported the hillsides and steeper slopes. The intense heat from the fire can also cause a chemical reaction in the soil that makes it less porous, and the fire can destroy the root systems of shrubs and grasses that aid in stabilizing slope material. As a result, rainstorms increase the possibility of severe landslides and debris flows.

In addition to damaging natural environments, wildfires can injure and cause fatalities of residents and firefighters, as well as damaging or destroying structures and personal property. Wildfires also deplete water reserves, down power lines, disrupt communication services, create poor air quality, and block evacuation routes, which can isolate communities. Wildfires can also indirectly cause flooding if flood-control facilities become inadequate to handle increases in storm runoff, sediment, and debris that are likely to be generated from burn scars.

Colfax Planning Area

In Colfax, native vegetation, such as chaparral, oak woodlands, and grasslands provide fuel that allows fire to spread easily across large tracts of land. These plant species are capable of regeneration after a fire, making periodic wildfires a natural part of the ecology of these areas. The climate of the Colfax region keeps the grass dry and more readily combustible during fire season. Steep slopes bring grass and brush within reach of upward flames while impeding access of fire-fighting equipment. Seasonal drought conditions exacerbate fire hazards.

Because areas of the city with natural vegetation are extremely flammable during late summer and fall, wildfire is a serious hazard in undeveloped areas. Grassland fires are easily ignited, particularly in dry seasons. These fires are relatively easily controlled if they can be reached by fire equipment, although after a fire, the burned slopes are highly subject to erosion and gulying. While brush-lands are naturally adapted to frequent small fires, fire protection in recent decades has resulted in heavy fuel accumulation on the ground. Brush fires, particularly near the end of the dry season, tend to burn fast and very hot, threatening homes and leading to serious destruction of vegetative cover. A brush fire that spreads to a woodland can generate a destructive crown fire, which burns materials at the top of trees and jumps from treetop to treetop. Crown fires can be very intense and difficult to contain.

Wildland-Urban Interface Fires

The WUI is an area where buildings and infrastructure (e.g., cell towers, schools, water supply facilities) are in or adjacent to areas prone to wildfire. Wildfires and urban interface fires have occurred close to or encroached into the city, especially in the heavily fueled areas. The WUI is composed of both interface and intermix communities. In the WUI, efforts to prevent ignitions and limit wildfire losses hinge on hardening structures and creating defensible space through a multi-faceted approach, which includes engineering, enforcement, education, emergency response, and economic incentive. Different strategies in the defense and threat zones of the WUI help to limit the spread of fire and reduce the risk to people and property.

Wildfire is a constant threat to the City of Colfax. Wildfire and WUI fires occur relatively frequently. The entire city and surrounding areas are at a very high threat of wildfire.

Structural Fires

Colfax is also at risk from structural fires. These fires occur in built-up environments, destroying buildings and other human-made structures. These disasters are often due to faulty wiring or mechanical equipment and combustible construction materials. The absence of fire alarms and sprinkler systems often exacerbate the damages associated with a structural fire. Structural fires are largely from human accidents, although deliberate fires (arson) may be a cause of some events. Older buildings that lack modern fire safety features may face greater risk of damage from fires. To minimize fire damage and loss, the City's Fire Code, based on the California Fire Code, sets standards for building and construction. They require the provision of adequate water supply for firefighting, fire-retardant construction, and minimum street widths, among other things.

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Fire Hazard Severity Zones

The California Department of Forestry and Fire Prevention (CAL FIRE) establishes Fire Hazard Severity Zones (FHSZs), designating each as moderate, high, or very high severity. CAL FIRE is required to identify all areas in the state that are moderate, high, and very high, which includes local responsibility areas (LRAs). Incorporated areas, such as Colfax, are considered LRAs. CAL FIRE only designates very high fire hazard severity zones within LRAs. In unincorporated areas where State agencies provide fire protection services (known as State Responsibility Areas or SRAs), the State has identified moderate, high, and very high FHSZs.

Placer County Fire Department/CAL FIRE

Fire protection in the City of Colfax is provided by contract through the Placer County Fire Department and CAL FIRE. The City of Colfax participates in the Western Placer County Fire Chief's Association Cooperative Response Agreement, where fire agencies have agreed to automatically support each other on incidents using the closest available resource concept. No areas in Colfax are currently lacking access to fire protection services.

4.17.2 PROPOSED GENERAL PLAN POLICIES

The following policies from the City of Colfax General Plan Safety Element are relevant to the proposed project.

Safety Element

- **Policy 7.2.4:** Require detailed soils and geologic studies prior to approval for development in potentially hazardous areas. Require mitigation measures if significant hazards are identified.
- **Policy 7.2.5:** Avoid development in areas of steep slope and high erosion potential.
- **Policy 7.3.2:** Prevent fuel accumulation around any City-owned infrastructure where fires are known to occur.
- **Policy 7.3.3:** Maintain an adequate peak load water supply for fire suppression efforts in Colfax.
- **Policy 7.3.4:** Continue to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development to minimize property damage and loss of life.
- **Policy 7.3.7:** Promote the use of fire-resistant landscaping in public and private developments.
- **Policy 7.3.8:** Require fire protection plans for all new development projects, including plans for long-term, comprehensive, fuel reduction and management. The main components of a fire protection plan include:
 1. Risk Analysis
 2. Fire Response Capabilities
 3. Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
 4. Mitigation Measures and Design Considerations for Non-Conforming Fuel Modification
 5. Wildfire Education Maintenance and Limitations

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- **Policy 7.3.9:** Require review by the Planning Department prior to the issuance of development permits for proposed construction projects and conceptual landscaping plans. Plans for proposed development shall include, at a minimum:
 1. Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
 2. Development and maintenance of defensible space.
 3. Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access, and adequate water infrastructure for water supply and fire flow.
 4. Class A roof materials for new and replacement roofs.
 5. Location and source of anticipated water supply.
- **Policy 7.3.10:** Enforce fire-resistant landscaping and defensible space requirements for new residential and commercial development and require development standards that meet or exceed Title 14, CCR, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and Title 14, CCR, Division 1.5, Chapter 7, Subchapter 3, Article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). All new residential development must comply with California Fire Safe Regulations (Section 1276 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Article 5), as well as Chapter 17.122 of the Municipal Code, which requires a landscape design plan for projects in fire-prone areas that addresses fire safety and prevention, as well as defensible space.
- **Policy 7.3.12:** Coordinate with CAL FIRE and Placer County Fire Department, fire safe councils, and other agencies to maintain existing fuel breaks and emergency access routes for effective fire suppression.
- **Policy 7.3.13:** Support measures that help firefighting crews and emergency response teams respond to fire hazards or work under low-visibility conditions, such as high-visibility signage for streets and building addresses that meet or exceed the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).
- **Policy 7.3.17:** Identify existing public and private roadways in fire hazard areas not in compliance with contemporary fire-safe standards, including road standards, vegetation clearance, and other requirements of Sections 1273 and 1274 of the California Code of Regulations to the extent resources are available. Work at retrofitting City-owned roadways as needed to meet current standards and require private property owners to do the same, to the extent feasible and given the absence of other site constraints.
- **Policy 7.3.14:** Ensure that new development be located where fire and emergency services have sufficient capacity to meet project needs or require that they be upgraded to provide necessary capacity as part of the proposed development activities to ensure new development has adequate fire protection.
- **Policy 7.3.18:** Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).

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4.17.3 THRESHOLDS OF SIGNIFICANCE

If located in or near SRAs or lands classified as VHFHSZs, the proposed project would result in significant wildfire impacts if it would:

WILD-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.

WILD-2 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

WILD-3 Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

WILD-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

4.17.4 ENVIRONMENTAL IMPACTS

Impact 4.17-1: Development under the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. [Threshold WILD-1].

The City of Colfax does not have an adopted emergency response plan or emergency evacuation plan. However, the Placer County Local Hazard Mitigation Plan (LHMP) provides strategies and mitigation measures to address local fire hazards. Furthermore, the Placer County Community Wildfire Protection Plan (CWPP) identifies areas of high wildfire risk and proposes measures to prevent and mitigate the effects of wildfires in these areas. It outlines a coordinated approach between federal, State, and local agencies, as well as private stakeholders, to create defensible space, improve evacuation procedures, and enhance firefighting capabilities. No substantive land use changes are proposed under the General Plan Update. Buildout would not result in substantial changes to the circulation patterns or emergency access routes in the city or SOI, as identified in Figure 2, *Evacuation Routes*, of the General Plan Safety Element.

The Placer County Sheriff's Office and CAL FIRE conduct emergency preparedness activities in Colfax. The Placer County Sheriff's Office provides contract law enforcement services to the City of Colfax. Fire protection in the City of Colfax is provided by contract through the Placer County Fire Department and CAL FIRE. During an emergency, standard emergency response procedures of the Placer County Sheriff's Office and CAL FIRE are conducted in tandem. The City of Colfax participates in the Western Placer County Fire Chief's Association Cooperative Response Agreement, where fire agencies have agreed to automatically support each other on incidents using the closest available resource concept. No areas in Colfax are currently lacking access to fire protection services. Mutual-aid agreements are also maintained with numerous surrounding local, State, and federal agencies to allow for appropriate backup services in case of an emergency, disaster, or other similar event.

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Future development would be required to comply with applicable fire and building codes. To ensure emergency services in the city and SOI are not impaired by future development, all development projects in the city and SOI are reviewed by CAL FIRE, prior to approval. In accordance with the California Fire Code, CAL FIRE requires site design to consider fire access. Several of these requirements include vegetation management requirements, construction standards, and subdivision and building access, among others. New development is required to comply with these regulations to provide sufficient clear emergency vehicle access.

Additionally, the proposed General Plan contains the following policies would ensure effective emergency response:

- **Policy 7.3.13:** Support measures that help firefighting crews and emergency response teams respond to fire hazards or work under low-visibility conditions, such as high-visibility signage for streets and building addresses that meet or exceed the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).
- **Policy 7.3.17:** Identify existing public and private roadways in fire hazard areas not in compliance with contemporary fire-safe standards, including road standards, vegetation clearance, and other requirements of Sections 1273 and 1274 of the California Code of Regulations to the extent resources are available. Work at retrofitting City-owned roadways as needed to meet current standards and require private property owners to do the same, to the extent feasible and given the absence of other site constraints.
- **Policy 7.3.18:** Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).

Although the City of Colfax does not have an adopted emergency response plan or emergency evacuation plan, construction of new development or redevelopment could cause a temporary impairment of an evacuation route due to road closure. However, all future development, regardless of whether new development or redevelopment, is required to comply with adopted local, regional, and State plans and regulations addressing emergency access, response, and evacuation. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.17-1 would be less than significant.

Mitigation Measures

No mitigation measures are required.

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Impact 4.17-2: Development under the proposed project could exacerbate wildfire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to elevated particulate concentrations from a wildfire. [Threshold WILD-2]

The City of Colfax and its SOI are vulnerable to and at significant risk of wildfires. Bordered by forest and woodlands, the city is in proximity to areas with fuel mixes that could easily ignite and encroach into the community. During a wildfire event, people within the air basin would be exposed to elevated levels of particulates. The type and extent of vegetation and fuel, wind and climatic patterns, general topography and canyons, and other local characteristics make the city more vulnerable to wildfires.

Figure 3, *Fire Hazard Severity Zones*, in the General Plan Safety Element, depicts the CAL FIRE mapped VHFHSZs in Colfax and its SOI. The VHFHSZ includes areas potentially threatened by wildfires based on historical fire activity and prevalent vegetation types. The entire city is within a VHFHSZ. Thus, development associated with buildout of the General Plan Update would result in new development in VHFHSZs. To protect development in the VHFHSZ, the City requires adherence to a wide range of State and local codes (California Fire Code, CAL FIRE fire safe design requirements, CAL FIRE wildfire requirements, and other standards). Because development in these areas presents challenges for fire protection and suppression, development would be required to abide by those requirements. Additionally, several policies in the Safety Element emphasize and require fire-safe development in the city:

- **Policy 7.3.4:** Continue to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development to minimize property damage and loss of life.
- **Policy 7.3.7:** Promote the use of fire-resistant landscaping in public and private developments.
- **Policy 7.3.8:** Require fire protection plans for all new development projects, including plans for long-term, comprehensive, fuel reduction and management. The main components of a fire protection plan include:
 - Risk Analysis
 - Fire Response Capabilities
 - Fire Safety Requirements – Defensible Space, Infrastructure, and Building Ignition Resistance
 - Mitigation Measures and Design Considerations for Non-Conforming Fuel Modification
 - Wildfire Education Maintenance and Limitations
- **Policy 7.3.10:** Enforce fire-resistant landscaping and defensible space requirements for new residential and commercial development and require development standards that meet or exceed Title 14, CCR, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and Title 14, CCR, Division 1.5, Chapter 7, Subchapter 3, Article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). All new residential development must comply with California Fire Safe Regulations (Section 1276 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Article 5), as well as Chapter 17.122 of the Municipal Code, which requires a landscape design plan for projects in fire-prone areas that addresses fire safety and prevention, as well as defensible space.

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- **Policy 7.3.14:** Ensure that new development be located where fire and emergency services have sufficient capacity to meet project needs or require that they be upgraded to provide necessary capacity as part of the proposed development activities to ensure new development has adequate fire protection.
- **Policy 7.3.18:** Require proposed development to provide adequate access for fire and emergency vehicles and equipment that meets or exceeds the standards in the California Fire Safe Regulations (Sections 1273 and 1274 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Articles 2 and 3).

As shown in Figure 8, *Landslide Risk*, of the General Plan Safety Element, a significant portion of the north side of the city contains steep slopes with high landslide susceptibility. Construction of potential future development in these areas may require grading and site preparation activities that could change the slope of a single parcel or site. However, all potential future development within Colfax would be required to comply with the California Building Standards Code and SRA Fire Safe Regulations.

Other factors, such as vegetation, have the potential to exacerbate wildfire risks. During late summer and fall when temperatures are high, relative humidity is low, and winds are high, forests and brush vegetation can dry out, particularly in areas with unirrigated vegetation, becoming extremely flammable and increasing wildfire risks. The Placer County LHMP and Placer County CWPP contain several vegetation management, fuel reduction, fuel break, and chipper programs, and projects to reduce the uncontrolled spread of wildfire due to vegetation. Additionally, all potential future development within wildfire-prone areas in Colfax would be required to comply with SRA Fire Safe Regulations, Public Resources Code Section 4291, and the California Fire Code. These regulations have specific requirements for new development to create defensible space and extensive fuel reduction within 100 feet of a structure, an ember-resistant zone within 5 feet of a structure, and the overall maintenance of properties to reduce the risk of uncontrolled fires or the spread of fires to other properties.

Furthermore, the General Plan contains policies for existing, new, and redevelopment projects that integrate with the LHMP, CWPP, and other State and regional regulations to reduce wildfire risks associated with vegetation.

- **Policy 7.3.2:** Prevent fuel accumulation around any City-owned infrastructure where fires are known to occur.
- **Policy 7.3.7:** Promote the use of fire-resistant landscaping in public and private developments.
- **Policy 7.3.9:** Require review by the Planning Department prior to the issuance of development permits for proposed construction projects and conceptual landscaping plans. Plans for proposed development shall include, at a minimum:
 - Site plan, planting plan, planting palette, and irrigation plan to reduce the risk of fire hazards and with consideration to site conditions, including slope, structures, and adjacencies.
 - Development and maintenance of defensible space.
 - Multiple points of ingress and egress to improve evacuation, emergency response, and fire equipment access, and adequate water infrastructure for water supply and fire flow.

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- Class A roof materials for new and replacement roofs.
- Location and source of anticipated water supply.
- **Policy 7.3.10:** Enforce fire-resistant landscaping and defensible space requirements for new residential and commercial development and require development standards that meet or exceed Title 14, CCR, Division 1.5, Chapter 7, Subchapter 2, Articles 1-5 (commencing with section 1270) (SRA Fire Safe Regulations) and Title 14, CCR, Division 1.5, Chapter 7, Subchapter 3, Article 3 (commencing with section 1299.01) (Fire Hazard Reduction Around Buildings and Structures Regulations). All new residential development must comply with California Fire Safe Regulations (Section 1276 of the California Code of Regulations – Title 24, Division 1.5, Chapter 7, Article 5), as well as Chapter 17.122 of the Municipal Code, which requires a landscape design plan for projects in fire-prone areas that addresses fire safety and prevention, as well as defensible space.

Adherence to these building practices, fire safety regulations, and vegetation fuel management requirements would reduce the potential for exacerbating wildfire risks. However, due to the programmatic nature of this analysis, the unknown details and potential impacts of specific future potential development projects under the General Plan Update and the possibility of potential future development being located in wildfire-prone areas, impacts would still be potentially significant.

Level of Significance Before Mitigation: Impact 4.17-2 would be potentially significant.

Mitigation Measures

No feasible mitigation measures are available. Implementation of the General Plan Update could increase population, buildings, and infrastructure in wildfire-prone areas. With implementation of the General Plan Update policies and mandatory wildfire hazard reduction measures per State regulations, impacts related to exacerbating the risk of pollutant concentrations from wildfire and the uncontrolled spread of wildfire could be reduced, but not necessarily to a less-than-significant level.

As listed previously, the General Plan Update contains policies that require existing development, new, and redevelopment projects to create and maintain fire-safe vegetation around structures and roadways, enforcement of fire-safe standards, and creation of fuel breaks. These policies would not increase the number of people, buildings, and infrastructure, but would also not prohibit development under the proposed General Plan; however, they would provide the best wildfire hazard-reduction measures available.

However, the only way to fully avoid the wildfire impact from implementation of the proposed General Plan is to not allow development in areas within Very High Fire Hazard Severity Zones and the WUI, thereby eliminating the wildfire impact. However, doing so is not feasible or practical as the entire city is within a Very High Fire Hazard Severity Zone and the City has a responsibility to meet other obligations, such as promoting both economic development and corresponding residential development, as required by State housing law, within its adopted growth boundaries. This conclusion does not prevent a finding of less-than-significant impacts at the project level; however, due to potential unknown impacts from future development under the General Plan Update, impacts at the programmatic level would remain significant and unavoidable.

Level of Significance After Mitigation: Impact 4.17-2 would be significant and unavoidable.

Impact 4.17-3: The proposed project would not require the installation and maintenance of associated infrastructure in areas that are undeveloped or vacant, which could exacerbate fire risk or result in temporary or ongoing impacts to the environment. [Threshold WILD-3]

Buildout of the proposed General Plan would result in additional infrastructure, such as roadways and transmission lines, in underdeveloped and undeveloped areas of the Planning Area in order to serve new development. Some of this new infrastructure would likely be constructed in the WUI or VHFHSZ. These types of improvements would involve temporary construction and result in changes to the existing built environment. The installation and operation of new aboveground power transmission lines would create a higher risk of exacerbating wildfire risks compared to other infrastructure. However, the California Public Utilities Commission (CPUC) requires maintenance of vegetation around power lines, strict wire-to-wire clearances, annual inspections of aboveground power lines, and the preparation of fire prevention plans for aboveground power lines in high fire-threat districts. These measures would reduce the wildfire risks associated with the installation and maintenance of power lines.

Any development or redevelopment in wildfire-prone areas of the city would also be required to comply with building and design standards in the California Building Code and California Fire Code, which include provisions for fire-resistant building materials, the clearance of debris, and fire safety requirements during demolition and construction activities. Public Resources Code Section 4291 also requires vegetation around buildings or structures to maintain defensible space within 100 feet of a structure and an ember-resistant zone within 5 feet of a structure. Additionally, SRA Fire Safe Regulations would prevent structures from being placed within 30 feet of a roadway, reducing the potential for new roadways to exacerbate wildfire risks. These measures, along with Policy 7.3.2, which requires the prevention of fuel accumulation around any City-owned infrastructure where fires are known to occur; Policy 7.3.3, which requires an adequate peak-load water supply for fire-suppression efforts; and Policy 7.3.12, which requires the maintenance of fuel breaks, would minimize wildfire risks associated with the installation and maintenance of infrastructure.

Such infrastructure and maintenance activities would also be required to comply with the adopted State regulations, Colfax Municipal Code standards, and General Plan Update policies to mitigate the impact of infrastructure on the environment. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 4.17-3 would be less than significant.

Mitigation Measures

No mitigation measures are required.

WILDFIRE

Impact 4.17-4: The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. [Threshold WILD-4]

Catastrophic wildfires can create favorable conditions for other hazards, such as flooding and landslides during the rainy season. Wildfires on steep slopes can burn the vegetation that stabilizes the slope and create hydrophobic conditions that prevent the ground from absorbing water. This can lead to landslides, debris flows, and flooding. A project would result in a significant impact if—due to slopes, drainage patterns, or post-fire slope instability—it would expose people or structures to significant risks from landslides, debris flows, or flooding.

As discussed in Chapter 4.10, *Hydrology and Water Quality*, Colfax does not contain lands within the 100-year or 500-year floodplain. As discussed in Chapter 4.7, *Geology, Soils, and Mineral Resources*, the northern portions of the city are in landslide-susceptible areas, with moderate to high landslide potential areas coinciding with VHFHSZs.

Potential future development under the General Plan Update could contribute to post-fire slope instability or drainage changes upstream. However, Safety Element Policy 7.2.4 requires detailed soils and geologic studies prior to approval for development in potentially hazardous areas. It also requires mitigation measures if significant hazards are identified. Policy 7.2.5 requires that development is avoided in areas of steep slope and high erosion potential.

Additionally, all new development in the city is required to comply with State and local regulations, such as the California Building Code and Colfax Municipal Code. For example, Section 1803 of the 2022 California Building Code requires a geotechnical investigation that must assess existing landslide susceptibility on a project site. The Colfax Municipal Code Chapter 15.30, Grading, Erosion and Sediment Control, requires that prior to commencement of any grading within the city, the project applicant must meet with the city engineer or designee and complete a simple form application to outline what is proposed. The city engineer will then make a determination whether a permit is required and what other actions may be necessary before grading can commence.

Moreover, new development under the General Plan Update would be subject to several State and local regulations that would ensure future development would not substantially alter the existing drainage pattern of a site, resulting in increased runoff or erosion. For example, future development would be required to request coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit, Order No. Water Quality Order No. 2009-0000-DWQ (as amended by Order No. 2010-0014-DWQ and Order No. 2012-0006-DWQ), if the proposed project would result in one or more acres of land disturbance. To conform to the requirements of the MS4 General Permit, a SWPPP would need to be prepared. The SWPPP would specify best management practices (BMPs) to prevent construction pollutants, including eroded soils (such as topsoil), from moving off-site.

New development complying with these policies in the General Plan Update would not expose people or structures to downslope landslides or downstream flooding due to post-fire hazards. Furthermore, as identified in Impacts 4.17-1 and 4.17-2, development under the General Plan Update must also comply with

WILDFIRE

BMPs regarding wildfire prevention, action, and recovery as outlined in the Placer County LHMP and Placer County CWPP. All future development, regardless of the location, is required to comply with adopted local, regional, and State plans and regulations addressing wildfire prevention, which would minimize risks of post-fire hazards. As such, compliance with these policies and regulatory requirements would ensure impacts from post-fire instability would be less than significant.

Level of Significance Before Mitigation: Impact 4.17-4 would be less than significant.

Mitigation Measures

No mitigation measures are required.

WILDFIRE

4.17.5 REFERENCES

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5 *CEQA-Mandated Assessment*

Section 15126(b) of the California Environmental Quality Act (CEQA) Guidelines requires an Environmental Impact Report (EIR) to describe any significant impacts of the proposed project, including those that can be mitigated but not reduced to a level of insignificance. Significant impacts of a proposed project that cannot be reduced to a less-than-significant level are referred to as significant and unavoidable impacts. This chapter provides an overview of the significant and unavoidable impacts of the proposed project, as well as impacts found not to be significant, growth inducement, significant and unavoidable impacts, and significant irreversible changes.

A more detailed analysis of the effects the proposed project would have on the environment, and proposed mitigation measures to minimize significant environmental impacts, are provided in Chapters 4.1 through 4.17 of this EIR.

5.1 SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

Chapters 4.1 through 4.17 of this EIR evaluate the significant effects of the proposed project and provide mitigation for impacts that can be reduced to a less-than-significant level. Each chapter discusses the significant impact and provides a corresponding mitigation measure. The mitigation measures are summarized in the Executive Summary of this EIR.

5.2 SIGNIFICANT ENVIRONMENTAL EFFECTS WHICH CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

Pursuant to Section 15126.2(b) of the CEQA Guidelines, this EIR considers the significant environmental effects that cannot be avoided if the proposed project is implemented. Impacts of the proposed project can be reduced to less than significant except for:

Agricultural and Forestry Resources

- Impact 4.2-3: The proposed project would result in loss of forest land or conversion of forest land to non-forest use

Air Quality

- Impact 4.3-1: Construction activities associated with the proposed project would generate short-term emissions in exceedance of PCAPCD's threshold criteria

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- Impact 4.3-2: Long-term operation of the project would generate new operational emissions in exceedance of PCAPCD's threshold criteria
- Impact 4.3-3: The proposed project could expose sensitive receptors to substantial pollutant concentrations

Cultural Resources and Tribal Cultural Resources

- Impact 4.5-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5

Greenhouse Gases

- Impact 4.8-2: The proposed project would generate construction-based greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
- Impact 4.8-3: The proposed project would generate operational greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment

Hazards and Hazardous Materials

- Impact 4.9-7: The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires

Population and Housing

- Impact 4.13-1: The proposed project would directly induce substantial unplanned population growth

Transportation

- Impact 4.15-2: The project would conflict or be inconsistent with CEQA Guidelines, Section 15064.3, subdivision (b).

Wildfire

- Impact 4.18-1: Development under the proposed project could exacerbate wildfire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to elevated particulate concentrations from a wildfire

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5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES WHICH WOULD BE INVOLVED IN THE PROPOSED PROJECT SHOULD IT BE IMPLEMENTED

The CEQA Guidelines require that an EIR describe any significant irreversible environmental changes that would be caused by the proposed project if it is implemented. Specifically, Section 15126.2(c) of the CEQA Guidelines states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highways improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The following significant irreversible changes would be caused by implementation of the proposed project:

- Conversion of forestland to non-forest land uses to accommodate future demand as discussed in Section 4.2, Agricultural and Forestry Resources.
- Implementation of the proposed project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources; human resources; and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Operation of the proposed project would require the use of natural gas and electricity, petroleum based fuels, fossil fuels, and water. The commitment of resources required for the construction and operation of the proposed project would limit the availability of such resources for future generations or for other uses during the life of the project.
- An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries, and sewer and water services) would also be required. The energy and social services commitments would be long-term obligations in view of the low likelihood of returning the land to its original condition once it has been developed.
- The visual character of the Planning Area would be altered by the construction of new developments and redevelopment. Additional landscaping, grading, and construction in the Planning Area would also contribute to an altered visual character of the existing area. This would result in a permanent change in the character of the Planning Area and on and off site views in the project's vicinity.

The commitment of resources required for the future development under the proposed project would reduce the availability of resources for future generations or for other uses during the life of the proposed project.

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5.4 GROWTH-INDUCING IMPACT OF THE PROPOSED PROJECT

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. To address this issue, potential growth-inducing effects will be examined through analysis of four questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?
- Would this project result in the need to expand one or more public services to maintain desired levels of service?
- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?
- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this EIR.

Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

The proposed General Plan encourages growth in areas of the city either currently planned to accommodate development or planned to expand on existing development. The proposed General Plan would increase employment opportunities so that residents can live and work in the city. Reducing the need to commute outside the city will reduce vehicle miles travelled, thereby reducing greenhouse gas emissions. Because the growth is directed to areas already developed, it is not anticipated that major new infrastructure will be needed. The proposed project aims to pursue urban infill projects that would allow for more accessible transit and walkability, thus reducing vehicle miles traveled and subsequent greenhouse gas emissions.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

Over time, the City anticipates the need to expand services to meet the needs of growth envisioned in the General Plan. An increase in development would require an increased commitment to public services that would be considered a long-term commitment to maintain a desired level of service. This is considered a growth-inducing impact. It is not known at this point when such public facilities would be required or what the exact nature of these facilities would be. As a result, it cannot be determined what project-specific environmental impacts would occur from their construction and operation. The potential impacts would be identified during the facility planning process. There are several mechanisms in place to ensure there is adequate funding for expansion, such as annual budgets, development impact fees, and coordination with

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local and regional agencies. The growth anticipated in this General Plan is focused in areas of the city where development is already planned or served by public services.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

Development consistent with the General Plan may have significant impacts on the existing environment. Even though growth is directed to areas of the City that have already been graded or built up, development outside of these areas may impact sensitive biological resources. Impacts may also occur to historic resources, including historic landscape, and tribal cultural resources, depending on the location of the development. Between the standard conditions of approval, existing City ordinances, and procedures such as tribal consultation, these impacts can either be reduced to less than significant or require preparation of a project-specific EIR. Although the proposed project would have a direct growth-inducing effect, indirect growth-inducing effects would be minimized due to the balance of land uses in the proposed project.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Approval of the proposed project would not set a precedent that could encourage and facilitate other activities that could significantly affect the environment. Cities and counties in California periodically update their general plans pursuant to California Government Code Sections 65300 et seq. As discussed in Chapter 3, *Project Description*, the proposed project consists of the preparation of the Colfax General Plan Update, which includes revisions to the eight updated elements: Land Use Element, Community Design Element, Circulation Element, Housing Element, Noise Element, Safety Element, Conservation and Open Space Element, and the Economic Development Element. The Housing Element is a stand-alone Element and not analyzed in this DEIR.

Buildout projections for the proposed project are based on the theoretical buildout (dwelling units, population, nonresidential square footage, and employment) of each land use designation, which are calculated using the range of allowable densities. Buildout projections for the proposed project are shown in Table 3-2, *City of Colfax Buildout Projections*, in Chapter 3, *Project Description*. As shown in Table 3-2, Colfax is projected to house an estimated 7,037 residents by 2040. This is a 20.2 percent decrease from 2020. Additionally, 2,645 housing units, 6,273 jobs, 141 acres of retail space, and 105 acres of industrial uses are projected for 2040.

Although the proposed project does not include approval of physical development, it creates additional development capacity in the Planning Area. Furthermore, development projects would be induced more by market demands than by new development capacity created by land use changes included in the proposed Land Use Diagram. However, because approval of the proposed project would ultimately result in subsequent projects that would have their own environmental impacts, including potentially significant impacts, the proposed project is a precedent-setting and growth-inducing action.

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5.5 MITIGATION MEASURES PROPOSED TO MINIMIZE SIGNIFICANT EFFECTS

Mitigation measures linked to significant impacts are discussed in Chapters 4.1 through 4.17 of this EIR. The mitigation measures are also summarized in Table 1-1, *Summary of Environmental Impacts, Mitigation Measures, and Levels of Significance After Mitigation*, of the Executive Summary.

6. Alternatives

This chapter is intended to inform the public and decision makers of the feasible alternatives that would avoid or substantially lessen any significant effects of the proposed project.

6.1 PURPOSE AND SCOPE

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the proposed project.

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternatives analysis in an EIR. Key provisions are:

- “[T]he 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 15126.6[b])
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact.” (CEQA Guidelines 15126.6[e][1])
- “The no project analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.” (CEQA Guidelines 15126.6[e][2])
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.” (CEQA Guidelines 15126.6[f])
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries..., and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (CEQA Guidelines 15126.6[f][1]).

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- “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” CEQA Guidelines (15126.6[f][2][A])
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (CEQA Guidelines 15126.6[f][3])

Among the factors that may be considered when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent). No single one of these factors establishes a fixed limit on the scope of reasonable alternatives.

For each alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the primary project objectives.
- Evaluates the comparative merits of the alternative and the proposed project.

According to Section 15126.6(d) of the CEQA Guidelines, “[i]f an alternative would cause...significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

6.2 PROJECT OBJECTIVES

As discussed under Section 3.2, *Project Objectives*, in the Project Description of this EIR, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts.

- Address the current and future needs of residents, businesses, employees, and visitors of Colfax.
- Comply with the State regulations, including new laws such as climate adaptation.
- Engage community members as key decision makers for adaptation, community resiliency, and public safety.
- Update the General Plan without significant land uses changes.
- Address the protection, enhancement, use, and management of natural resources and the environment.
- Promote the public’s health, safety, and welfare.
- Play a critical role in establishing a positive environment for economic development.
- Address, identify, and promote ways to maintain or enhance economic opportunity, viability, and community well-being while protecting and restoring the natural environment.

6.2.1 SUMMARY OF SIGNIFICANT IMPACTS

The following are impacts associated with the General Plan Update that are considered significant and unavoidable.

Agricultural and Forestry Resources

- **Impact 4.2-3:** The proposed project would result in loss of forest land or conversion of forest land to non-forest use.

Air Quality

- **Impact 4.3-1:** Construction activities associated with the proposed project would generate short-term emissions in exceedance of PCAPCD's threshold criteria.
- **Impact 4.3-2:** Long-term operation of the project would generate new operational emissions in exceedance of PCAPCD's threshold criteria.
- **Impact 4.3-3:** The proposed project could expose sensitive receptors to substantial pollutant concentrations.

Cultural Resources and Tribal Cultural Resources

- **Impact 4.5-1:** The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

Greenhouse Gases

- **Impact 4.8-2:** The proposed project would generate construction-based greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
- **Impact 4.8-3:** The proposed project would generate operational greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Hazards and Hazardous Materials

- **Impact 4.9-7:** The project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Population and Housing

- **Impact 4.13-1:** The proposed project would directly induce substantial unplanned population growth.

Transportation

- **Impact 4.15-2:** The project would conflict or be inconsistent with CEQA Guidelines, Section 15064.3 (b).

Wildfire

- **Impact 4.18-1:** Development under the proposed project could exacerbate wildfire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to elevated particulate concentrations from a wildfire.

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6.3 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this EIR.

6.3.1 ALTERNATIVE LOCATION

The proposed General Plan Update covers the entire city and its sphere of influence (SOI). Alternative locations are typically included in an environmental document to avoid, lessen, or eliminate the significant impacts of a project by considering the proposed development in an entirely different location. To be feasible, development of off-site locations must be able to fulfill the project purpose and meet most of the project's basic objectives. Given the nature of the proposed project (a General Plan for the entire city and SOI), it is not possible to consider an off-site alternative because the city boundaries have been established through incorporation and the SOI established by the Local Agency Formation Commission (LAFCO). For this reason, an off-site alternative was considered infeasible pursuant to State CEQA Guidelines Section 15126.6(c) and was rejected as a feasible project alternative.

6.3.2 REDUCED DENSITY ALTERNATIVE

A reduced density alternative that would result in fewer residences and less nonresidential development would theoretically reduce traffic and thereby reduce community impacts, such as air quality, greenhouse gas (GHG) emissions, traffic, noise, and demand for utilities and public services. However, such an alternative would not achieve or would only partially achieve General Plan objectives of providing for growth of the city. This alternative could prevent the development of needed housing as projected by the California Department of Housing and Community Development (HCD), increase jobs in the city, or foster growth in the focus and identified opportunity areas rather than in sensitive areas or through annexation. By restricting growth, the environmental impact of the projected growth would increase development pressure elsewhere in the region. A reduced development density alternative could conflict with regional plans and would relocate impacts outside of the city.

6.3.3 NO RESIDENTIAL USES IN THE HISTORIC DOWNTOWN DISTRICT ALTERNATIVE

Under this alternative, no future residential development would be allowed in the city's Historic Downtown District. This alternative could result in reduced impacts for aesthetics and cultural resources. However, future projects under the General Plan Update would be evaluated on their aesthetic and historic compatibility with its surroundings and City design guidelines. In addition, the City's Historic Downtown District currently contains residential uses. Therefore, from a comprehensive level, removing housing from the downtown would not significantly reduce or eliminate impacts and instead might increase the severity of other impacts. For example, not allowing future residential uses in the downtown area, away from commercial and public transit areas, would increase vehicle miles traveled (VMT) compared to the proposed project. In addition, not allowing residential uses in the Historic Downtown District could also put a strain

on the amount of available land for development. This alternative was ultimately dismissed from further consideration because it would not reduce environmental impacts.

6.3.4 RESTRICTING WOOD-BURNING STOVES MANDATE

Under this alternative, the City of Colfax would set a mandatory program that would limit the use of wood burning stoves in new development, resulting in a reduction in emissions and fire hazards. Depending on the limit of enrollment and development, this could result in reduced impacts such as greenhouse gases and wildfire. This alternative was ultimately dismissed from further consideration due to uncontrollable outside factors such as outages from weather and fires.

6.4 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed, the following two alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project, but which may avoid or substantially lessen any of the significant effects of the proposed project. These alternatives are analyzed in detail in the following sections.

- **No Project/Existing General Plan** – This is the only EIR alternative that is specifically required by the CEQA Guidelines (Section 15126.6[e]). The No Project alternative does not represent a no-development or no-change scenario as the City has an existing General Plan. Further, the land use diagram in the existing General Plan is unchanged with the proposed project. This alternative will focus on the potential result of not updating the General Plan to include changes to State law that have occurred since the adoption of the current plan.
- **Increased Density** – As a General Plan Update, the City can consider changes to the land use pattern. A greater density and intensity would reduce the need for annexation in the future, which would reduce the potential to convert forest land to urban uses and protect biological resources. This alternative could also reduce VMT with corresponding reductions in air quality and GHG emission impacts.

An EIR must identify an “environmentally superior” alternative and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. Section 6.18 identifies the Environmentally Superior Alternative. The preferred land use alternative (proposed project) is analyzed in detail in Chapter 4 of this Draft EIR.

6.5 NO PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

The No Project/Existing General Plan Alternative (No Project Alternative) is required to discuss the existing conditions at the time the notice of preparation is published and evaluate what would reasonably be expected to occur in the foreseeable future if the proposed project is not approved (CEQA Guidelines, Section 15126.6[e]). Pursuant to CEQA, this alternative is also based on current plans and consistent with

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available infrastructure and community services. Therefore, the No Project/Existing General Plan Alternative assumes that the proposed project would not be adopted, and the development intensity assumed in the existing General Plan would be followed. Under this alternative, the Planning Area would not increase development potential with 819 parcels redesignating various land uses throughout the city.

6.5.1 AESTHETICS

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. The City's Municipal Code identifies development standards to ensure quality development in the city. While growth under the No Project Alternative would be subject to existing City policies and regulations pertaining to scenic resources, including policies in the existing General Plan, the proposed project includes goals, policies, and implementation measures that are more comprehensive and detailed than those in the existing General Plan. However, impacts related to aesthetics would be the same as the proposed project and would be less than significant under this alternative.

6.5.2 AGRICULTURE AND FORESTRY RESOURCES

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. Development under the No Project Alternative would be subject to the same State and federal regulations as the proposed project. The proposed General Plan's policies would help to minimize impacts to loss of woodland and other habitat types, and result in the planting of new trees. However, like the proposed project, the No Project Alternative could convert forested areas to non-forested uses to accommodate future development. Impacts to agriculture and forestry resources would also be significant and unavoidable under this alternative and would be the same as the proposed project.

6.5.3 AIR QUALITY

While the proposed project includes policies and development of uses that would result in efficiencies related to transportation and adjacency of uses that would generate fewer emissions per person, development intensity under the No Project Alternative would be greater than the proposed project. As analyzed within Chapter 4.3, *Air Quality*, emissions of ROG, NO_x, and PM₁₀ emissions are predicted to be less under the development allowed by the proposed General Plan compared with the development allowed by the existing General Plan. As shown in Table 3-2, *City of Colfax Buildout Projections*, in Chapter 3, *Project Description*, the proposed project would result in a reduction of 669 dwelling units, 99 jobs, 85 acres of retail uses, and 118 acres of industrial uses compared to the development under the existing General Plan. Therefore, air quality impacts would be greater compared to the proposed project, and would still result in significant and unavoidable impacts.

6.5.4 BIOLOGICAL IMPACTS

Under the No Project Alternative, biological resources impacts would be similar to the proposed project. The proposed project contains a comprehensive set of goals, policies, implementation measures, and regulations that mitigate impacts to biological resources. Future development under this alternative, as with the proposed project, would be required to comply with local, State, and federal regulations to minimize

impacts to potential sensitive natural communities. Impacts under this alternative, as with the proposed project, would be less than significant.

6.5.5 CULTURAL AND TRIBAL CULTURAL RESOURCES

Impacts under the No Project Alternative would be similar to the proposed project. Future development under this alternative and the proposed project could result in significant and unavoidable impacts to historic resources. Under the No Project Alternative, statutory requirements protecting cultural resources would still be in effect, but General Plan 2040 policies and implementation measures promoting cultural resource preservation would not be adopted. Additionally, compliance with California Health and Safety Code Section 7050.5(b) would reduce impacts to less than significant in the event that human remains are discovered during construction activities. Impacts under this alternative would be similar to those of the proposed project and remain significant and unavoidable in regard to impacts to historic resources.

6.5.6 ENERGY

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. As shown in Table 3-2, the proposed project's future potential development would result in a reduction of 669 dwelling units, 99 jobs, 85 acres of retail uses, and 118 acres of industrial uses compared to the future potential development under the existing General Plan. Development intensity under this alternative would be greater than the proposed project. As analyzed within Chapter 4.6, *Energy*, the City's electricity and natural gas demand would increase due to new energy consumption, but under the proposed General Plan Update, energy consumption would be less than under the existing General Plan. Therefore, energy use would be less intensive in terms of energy consumption per capita under the proposed project compared to the existing General Plan. Impacts under this alternative would be greater than the proposed project but would remain less than significant.

6.5.7 GEOLOGY, SOILS, AND MINERAL RESOURCES

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. Development under the No Project Alternative would be subject to the same local, State, and federal regulations as the proposed project; these regulations, as well as mitigation measures, would reduce the potential impacts to a less-than-significant level. Impacts under this alternative would be similar to the proposed project and would remain less than significant with mitigation measures incorporated.

Under both the No Project Alternative and the proposed project, development of non-mineral extraction uses would be allowed on land that overlies mapped MRZ-1 and MRZ-3 areas. Therefore, incompatible development in designated MRZ-1 and MRZ-3 areas, under both scenarios, could cause significant loss of valuable mineral resources for the region and state residents. This alternative would also require mitigation measures to reduce impacts to less than significant. Impacts under this alternative would be similar to the proposed project and would remain less than significant with mitigation measures incorporated.

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6.5.8 GREENHOUSE GAS EMISSIONS

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. As shown in Table 3-2, the proposed project's future potential development would result in a reduction of 669 dwelling units, 99 jobs, 85 acres of retail uses, and 118 acres of industrial uses compared to the future potential development under the existing General Plan. Development intensity under this alternative would be greater than the proposed project. Under this alternative, more GHGs would be emitted during construction due to the increased development expected and would remain significant and unavoidable. As analyzed within Chapter 4.8, *Greenhouse Gas Emissions*, the operational-related GHG emissions from buildout of the proposed General Plan would be less than the GHG emissions from buildout of the existing General Plan by approximately 24,589 metric tons annually. Chapter 4.8 also states that residential buildout in the proposed General Plan and existing General Plan would result in per-capita GHG emissions exceeding PCAPCD thresholds, while nonresidential buildout would result in emissions less than PCAPCD thresholds for both scenarios. Impacts under this alternative would be greater than the proposed project and would remain significant and unavoidable.

6.5.9 HAZARDS AND HAZARDOUS MATERIALS

Under both the No Project Alternative and the proposed project, new development would be subject to local, State, and federal regulations that would reduce the potential for hazards and hazardous materials impacts. However, the proposed General Plan Update contains new goals, policies, and implementation measures to further reduce potentially significant impacts. New development and population growth would result in an increase in demand for emergency services during disasters, which could affect the implementation of emergency response and evacuation plans. Under this alternative, the population, housing, and jobs projections are greater than the proposed project. Therefore impacts under this alternative could be greater than the proposed project, and impacts related to wildfire risk would also be significant and unavoidable.

6.5.10 HYDROLOGY AND WATER QUALITY

The No Project Alternative would have similar hydrology and water quality impacts as the proposed project. Future project-specific Water Quality Management Plans would be prepared that would identify best management practices for future development. Moreover, low-impact development and water quality treatment solutions prescribed in project-specific Water Quality Management Plans would be designed to support or enhance the regional best management practices and efforts implemented by the City. Future projects would be required to comply with federal, State, and local regulations, such as the National Pollutant Discharge Elimination System (NPDES) and Stormwater Pollution Prevention Plan (SWPPP). Although development under the No Project Alternative would be subject to local, State, and federal regulations that help to address hydrology and water quality impacts, the additional policies and actions related to hydrology and water quality in the proposed General Plan Update would not be adopted. Nonetheless, impacts under this alternative would be similar to the proposed project and remain less than significant.

6.5.11 LAND USE AND PLANNING

Under the No Project Alternative, the Plan Area would be developed under the current land use plan of the City's General Plan. The type of land uses allowed would be similar to those that would occur under the proposed General Plan Update. The proposed project would allow for either commercial, residential, or both types of development and offers flexibility to develop housing, if desired, with the new mixed-use land use designations.

Although neither the proposed project nor the No Project Alternative would physically divide existing communities within Colfax, the proposed General Plan Update includes new policies that would address impacts related to land use conflicts that are not included in the existing General Plan. Impacts under this alternative would be similar to the proposed project and would be less than significant.

6.5.12 NOISE

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. Development intensity under this alternative would be greater than the proposed project, and therefore, noise impacts would be increased compared to the proposed project. Impacts under this alternative, as with the proposed project, would be less than significant.

6.5.13 POPULATION AND HOUSING

Like the proposed project, this alternative would not displace housing or people. The General Plan Update is expected to result in a net decrease of 669 units, 1,778 residents, and 99 jobs compared to the existing projections. Under this alternative, the population, housing, and jobs projections are greater than the proposed project. Since the housing and job projections would exceed the SACOG estimates under the proposed project, these impacts would be greater in the existing General Plan and remain significant and unavoidable impact in regard to inducing unplanned growth.

6.5.14 PUBLIC SERVICES AND RECREATION

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. This alternative would result in a greater increase in population and jobs compared to the proposed project. In addition, the No Project Alternative would not include new General Plan Update policies and actions that address public services and recreation. Impacts to public services, including fire, police, school, library, and parks and recreational services would be greater than the proposed project but would remain less than significant.

6.5.15 TRANSPORTATION

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. The General Plan Update is expected to result in a net decrease of 669 units, 1,778 residents, and 99 jobs compared to the existing projections. Under this alternative, the population, housing, and jobs projections are greater than the proposed project; therefore, this alternative could

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potentially increase VMT compared to the proposed project. Impacts under this alternative would be greater than the proposed project and would remain significant and unavoidable.

6.5.16 UTILITIES AND SERVICE SYSTEMS

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. The General Plan Update is expected to result in a net decrease of 669 units, 1,778 residents, and 99 jobs compared to the existing projections. Under this alternative, the population, housing, and jobs projections would be greater than the proposed project. Therefore, impacts to the City's infrastructure systems would be increased under the No Project Alternative and impacts would remain less than significant with existing General Plan policies and compliance with City's Municipal Code.

6.5.17 WILDFIRE

Under the No Project Alternative, the Planning Area would be developed under the current land use plan of the City's General Plan. Under this alternative, the Planning Area would increase development potential throughout the city. An increased development potential could include an increase in population, buildings, and infrastructure in the Planning Area, which is entirely in a Very High Fire Hazard Severity Zone. In Colfax, native vegetation, such as chaparral, oak woodlands, and grasslands provide fuel that allows fire to spread easily across large tracts of land. This alternative would result in a greater increase in population and employment, compared to the proposed project. Therefore, wildfire impacts would be increased under the No Project Alternative and impacts would remain significant and unavoidable.

6.5.18 CONCLUSION

Impacts of the No Project Alternative would be similar for aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology, soils, mineral resources, hydrology and water quality, and land use and planning. Impacts to air quality, energy, GHG emissions, hazards and hazardous materials, noise, population and housing, public services and recreation, transportation, utilities and service systems, and wildfire would be greater than the proposed project. The No Project Alternative would generally meet the project objectives, but to a lesser extent.

6.6 INCREASED DENSITY ALTERNATIVE

Under the Increased Density Alternative, the City would establish a policy that on average new development will need to be at the 90th percentile of the density range established in the General Plan. Under normal circumstances, development is assumed to be in the approximate middle of the density range. HCD considers feasible development to be 80 percent of the density range when calculating housing potential in the Housing Element. One intent of this alternative is to encourage an efficient use of existing land, thereby reducing the need to annex large areas of land in the future. As shown in Table 6-1, *Proposed Project v. Increased Density Scenario*, the proposed project (Column "A") would require more land to meet the planning horizon population estimate of 7,037 persons for 2040 (see Table 3-2 *City of Colfax Buildout*

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Projections, in Chapter 3, *Project Description*). This alternative would require less land to accommodate the projected population.

TABLE 6-1 PROPOSED PROJECT V. INCREASED DENSITY SCENARIO

Residential Land Use Classifications	Range (Dwelling Units)	Column "A" Proposed Project (Acres)	Column "B" 90% Density (Acres)	A-B Difference
High-Density Residential (HDR)	10-29	15.3	12.1	3.2
Medium-Density Residential (MDR)	10-20	164.01	122.1	41.9
Low-Density Residential (LDR)	1-4	520.6	281.4	239.2
Downtown Mixed-Use (MU-1)	4-10	2.6	1.9	0.7
Mixed-Use (MU-2)	10-29	8.7	6.4	2.3
Total		711.3	424	287.3

This alternative would result in more intense development, such as increased lot coverage, higher or larger buildings, within the existing land use designations. Increased densities may further result in additional customers for transit and mixed-use projects. This alternative could change the character of the city by making it more urban than the rural/suburban nature of some neighborhoods. While land would be used more efficiently under this alternative, it could also result in changing the character of some neighborhoods in the city with taller and larger buildings. This alternative would reduce VMT compared to the proposed project, as more mixed use and housing would be encouraged on less land. While this alternative would result in a more efficient use of land with the same benefits, there may not be a market or acceptance of more intensive development within the city. This could create a demand for growth outside of the city, but within the SOI and beyond.

6.6.1 AESTHETICS

This alternative would include the proposed project’s goals, policies, and actions that are more comprehensive and detailed than those in the existing General Plan, which would reduce impacts to less than significant. It is likely that higher and larger buildings would be needed to meet the policy. In general, most buildings are less than three stories in the city. This alternative could result in higher buildings in some areas that could change the visual character of the city. However, all new development would be subject to the policies in the General Plan, and as the alternative does not include density outside of the existing density range, impacts to aesthetics would be greater than the proposed project but remain less than significant.

6.6.2 AGRICULTURE AND FORESTRY RESOURCES

Like the proposed project, this alternative would have no impact related to the conversion of Prime Farmland to nonagricultural use. The benefits under this alternative, as opposed to the proposed project, would be the reduced potential to convert forestland; however, some conversion would still occur. Therefore, impacts to forestland would remain significant and unavoidable but less than the proposed project.

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6.6.3 AIR QUALITY

This alternative assumes the same amount of development as the proposed project; however, on less land and with more efficient development. As this alternative promotes mixed-use development, the resultant greater pedestrian and transit use would reduce vehicle trips and associated emissions. Therefore, air quality impacts would be reduced compared to the proposed project. While impacts under this alternative would be less than those of the proposed project, they would likely remain significant and unavoidable.

6.6.4 BIOLOGICAL IMPACTS

The Increased Density Alternative would have a reduced impact on biological resources compared to the proposed General Plan Update, since less land would be developed. Under this alternative, increasing density in urban areas could lessen impacts to biological resources by avoiding expanding in rural areas and potentially impacting more habitat areas. Therefore, the impacts of this alternative would be less than those of the proposed project and would remain less than significant.

6.6.5 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

The goals, policies, standards, and actions that pertain to the designation and preservation of archaeological resources as stated in the General Plan EIR would be enforced, which would reduce impacts to less than significant. Additionally, compliance with California Health and Safety Code Section 7050.5(b) would reduce impacts to less than significant if human remains are discovered during construction activities. Ground-disturbing activities would still occur throughout the Planning Area under this alternative scenario. Development anticipated near historic properties of the city would still occur under this impact; therefore, historic resources impacts would remain significant and unavoidable under this alternative. Impacts under this alternative compared with the proposed project would be reduced slightly as more land would remain undisturbed but would remain significant and unavoidable since development can still occur near historic sites.

6.6.6 ENERGY

This alternative would likely result in larger buildings to accommodate the same population growth. In general, an apartment or mixed-used building uses less energy than a comparable number of single-family homes. Energy use would likely be less than the proposed project and would also be less than significant.

6.6.7 GEOLOGY, SOILS AND MINERAL RESOURCES

Under this alternative, development of urban land uses would occur, just as with the proposed General Plan Update. Impacts related to construction erosion and risks from seismic and soil hazards would occur in the same manner as anticipated for the proposed project. This alternative would involve construction of buildings or structures in the Planning Area and, as a result, potential hazards related to soils (e.g., liquefaction, soil expansion) could still occur. Although the overall amount of land needed to meet the target population for 2040 would be less compared to the proposed project, this alternative would result in earth

disturbance and resultant potential soil erosion impacts. Overall, the impacts are reduced slightly, even as the significance determination would remain the same as the proposed project.

Under both this Alternative and the proposed project, development of non-mineral extraction uses would be allowed on land that overlies mapped MRZ-1 and MRZ-3 areas. Therefore, incompatible development in designated MRZ-1 and MRZ-3 areas, under both scenarios, could cause significant loss of valuable mineral resources for the region and state residents. This alternative would also require mitigation measures to reduce impacts to less than significant. Overall, the impacts are reduced slightly since less land would be developed under this alternative; however, the impact would remain less than significant with mitigation measures incorporated.

6.6.8 GREENHOUSE GAS EMISSIONS

Under this alternative, increased density of development under this alternative could allow for alternative modes of travel in the city, which could result in fewer GHG emissions per unit. However, as noted in Section 4.8, *Greenhouse Gas Emissions*, due to the programmatic and conceptual nature of the proposed project and uncertainties related to future individual projects, it is uncertain whether future projects' GHG emissions would be below the Placer County Air Pollution Control District's significance threshold. Therefore, GHG emissions associated with the proposed project and this alternative would remain significant and unavoidable. Overall, the impacts would be reduced slightly, even as the significance determination would remain the same as with the proposed project.

6.6.9 HAZARDS AND HAZARDOUS MATERIALS

Under both the Increased Density Alternative and the proposed project, new development would be subject to local, State, and federal regulations that would reduce the potential for hazards and hazardous materials impacts. The proposed project and this alternative would result in less-than-significant impacts related to routine transport, use, or disposal or accidental release of hazardous materials; interference with an adopted emergency response plan; public health hazards from development on a known hazardous materials site; and hazardous materials near schools. Although this alternative would result in less land being developed, this alternative would have similar impacts as the proposed project since the entire City of Colfax is identified as a Very High Fire Hazard Severity Zone (VHFHSZ) in Local Responsibility Area. Therefore, impacts would be similar to the proposed project in regard to exposing people and structures in these wildfire areas. Impacts under this alternative would be similar and would remain significant and unavoidable as with the proposed project.

6.6.10 HYDROLOGY AND WATER QUALITY

This alternative would result in higher-density development potential within the Planning Area. Higher-density development (greater ground coverage) can change existing hydrology patterns. Implementation of this alternative would still involve stormwater discharges and increase impervious surfaces in urban land uses like the proposed project, but on less land. The proposed General Plan Update includes many policies to avoid adverse effects related to hydrology and water quality, including a no increase in peak-flow runoff policy for development projects in all drainage basins and the use of drainage systems to ensure water

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filtration and ongoing water quality in accordance with the City's MS4 permit. In addition, all policies and measures that are a part of the proposed General Plan Update would be included in this alternative. This alternative also assumes that future mixed-use development would comply with standard conditions for hydrology and water quality and impacts would be less than significant. The impact of this alternative on hydrology and water quality would be the same as that of the proposed project and would be less than significant.

6.6.11 LAND USE AND PLANNING

This alternative would not change the land use pattern of the city but would result in more development on each residential land use type. Under the Increased Density Alternative, higher buildings would be needed in the key focus areas to allow more density. This alternative could change the character of Colfax by making some of the neighborhoods more urban than suburban. While land would be used more efficiently under this alternative, it could also result in redevelopment or demolition of buildings and changing the character of the city with the addition of larger buildings. Implementation of this alternative would result in greater land use impacts than those anticipated from the proposed project.

6.6.12 NOISE

Noise during the construction phase of development would be slightly greater than estimated for the proposed project because larger buildings can take longer to construct. However, as with the proposed project, compliance with the City's Municipal Code would ensure that noise attenuation is provided to minimize temporary noise impacts associated with construction. Increases in vehicle noise levels would likely not be perceptible; however, due to existing high noise levels along major roadways in the city, noise impacts would be similar to the proposed project and would remain less than significant.

6.6.13 POPULATION AND HOUSING

This alternative would increase development intensity but would not change the amount of growth projected for the proposed project. The alternative would result in a more efficient use of land that could reduce the cost of some housing types. However, as this alternative would not increase the amount of population or employment growth when compared to the proposed project, impacts would be the same as the proposed project.

6.6.14 PUBLIC SERVICES AND RECREATION

In general, having more intensive development would reduce response times for services and increase use of existing parks. While the overall impact of services would be like those of the proposed project, in some neighborhoods, a substantial increase in population in one area would create increased demand for parks. However, as this alternative is assumed to include the same uses, only more densely developed, the demand for services and recreational uses would be the same as the proposed project. As the alternative would implement the policies of the proposed General Plan Update that would address the need for future services, such as parks, the impact of this alternative on public services would be the same as the proposed project and would result in a less-than-significant determination.

6.6.15 TRANSPORTATION

Because the increase in building size would place more residents and customers close to services, this alternative would reduce VMT. This alternative could encourage mobility options rather than driving and would support the goal of reduced VMT. The impact of this alternative on transportation would be less than the impact of the proposed project. However, it would remain significant and unavoidable due to the programmatic nature of the proposed project and uncertainty of individual projects.

6.6.16 UTILITIES AND SERVICE SYSTEMS

Larger buildings and those that might change existing land use could create an increased demand for utilities in some areas of the city. This could result in a need to upgrade or replace older (or smaller) water or sewer infrastructure to meet the new demand. The proposed project and alternative will also increase demand in some areas; therefore, the impact on utilities from this alternative would be similar to the proposed project.

6.6.17 WILDFIRE

The Increased Density Alternative would accommodate the same amount of growth as the proposed project but on less land. Under both the alternative and the proposed project people and infrastructure would be exposed to wildfire risk since the entire city is within a VHFHSZ. Under this alternative, impacts would be similar to the proposed project and would remain significant and unavoidable.

6.6.18 CONCLUSION

Under this alternative, increasing the development capacity throughout the Planning Area would increase impacts related to aesthetic resources, land use and planning, and utility demands when compared to the proposed General Plan Update. The reduction of acreages necessary to accommodate projected population growth and increase in land use efficiency would reduce impacts to forestland conversion, air quality, biological resources, energy, geology and soils, vehicle trip generation, and associated vehicle and GHG emissions. Since this alternative would include the adoption of the goals, policies, and implementation actions of the proposed General Plan Update and would comply with the same standards as the proposed project, it would generally meet the objectives of the proposed General Plan Update. Although impacts on forestland resources, air quality, GHG emissions, and transportation would be less than those of the proposed General Plan Update, they would remain significant and unavoidable, like those of the proposed project. The Increased Density Alternative would generally meet the project objectives. Although this alternative would require less land to achieve the target population in 2040, this alternative would also require more intensified development, increased lot coverage, taller buildings, and mixed-use projects that may not be feasible due to there not being a demand for these developments in the current and future market in Colfax.

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6.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6-2, *Alternatives Impact Comparison*, summarizes the environmental impacts of each of the alternatives when compared to the proposed General Plan Update. The table lists the level of significance of the impacts of the proposed General Plan Update to each environmental topic of the Draft EIR and shows whether the impacts anticipated under each proposed alternative would be less, similar, or greater than the proposed General Plan. It should be noted that all impacts identified as being significant and unavoidable (i.e., forest resources, air quality, cultural resources, GHGs, hazards and hazardous materials, population and housing, transportation, and wildfire) would remain significant and unavoidable under each alternative despite if the alternative would reduce the intensity of the impact.

TABLE 6-2 ALTERNATIVES IMPACT COMPARISON

Impact Area	Proposed General Plan	Alternatives	
		No Project	Increased Density
Aesthetics	LTS	=	+
Agricultural and Forestry Resources	SU ¹	=	-
Air Quality	SU ²	+	-
Biological Resources	LTS	=	-
Cultural Resources and Tribal Cultural Resources	SU ³	=	=
Energy	LTS	+	-
Geology, Soils and Mineral Resources	LTS	=	-
Greenhouse Gas Emissions	SU ⁴	+	-
Hazards and Hazardous Materials	SU ⁵	+	=
Hydrology and Water Quality	LTS	=	=
Land Use	LTS	=	+
Noise	LTS	+	=
Population and Housing	SU ⁶	+	=
Public Services	LTS	+	=
Transportation	SU ⁷	+	-
Utilities	LTS	+	+
Wildfire	SU ⁸	+	=

Notes:

¹ Impacts related to forestland

² Impacts related to construction activities and sensitive receptors

³ Impacts related to historical resources

⁴ Impacts related to construction and operational emissions

⁵ Impacts related to expose people or structures to wildland fires

⁶ Impacts related to induce substantial unplanned population growth

⁷ Impacts related to VMT

⁸ Impacts related to wildfire risk

(+) Impacts greater than the proposed General Plan Update

(=) Impact similar to the proposed General Plan Update

(-) Impacts less than the proposed General Plan Update

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In addition to comparing alternatives to the impacts of the proposed project, CEQA also requires that alternatives be evaluated against the primary project objectives. Table 6-3, *Primary Objectives Alternative Comparison*, notes whether the alternatives meet the primary project objectives. The Increased Density Alternative largely meets all of the project objectives while still accommodating the projected growth for the city.

TABLE 6-3 PRIMARY OBJECTIVES ALTERNATIVE COMPARISON

Primary Objective	No Project	Increased Density
Address the current and future needs of residents, businesses, employees, and visitors of Colfax.	Does not meet	Meets
Comply with the State regulations, including new laws such as climate adaptation.	Does not meet	Meets
Engage community members as key decision makers for adaptation, community resiliency, and public safety.	Meets	Meets
Update the General Plan without significant land uses changes.	Does not meet	Meets
Address the protection, enhancement, use, and management of natural resources and the environment.	Meets	Meets
Promote the public’s health, safety, and welfare.	Meets	Meets
Play a critical role in establishing a positive environment for economic development	Meets	Meets
Address, identify, and promote ways to maintain or enhance economic opportunity, viability and community well-being while protecting and restoring the natural environment	Does not meet	Meets

In addition to the discussion and comparison of impacts of a project and alternatives, Section 15126.6 of the CEQA Guidelines requires that an “environmentally superior” alternative be selected and the reasons for such a selection be disclosed. In general, the environmentally superior alternative is the alternative that would be expected to generate the fewest significant impacts, or which would reduce environmental impacts associated with a proposed project.

The Increased Density Alternative has the least impact to the environment because it is an environmentally superior alternative with regard to forestland conversion, air quality, biological resources, energy, geology and soils, GHG emissions, and vehicle miles traveled. Therefore, the Increased Density Alternative would then be chosen as Environmentally Superior. The Increased Density Alternative would also meet all of the proposed project’s objectives. While this alternative would result in reduced impacts compared to the proposed project, as noted above, there may not be demand for development at the densities assumed for this alternative in the current and future market in Colfax, which may cause it to be infeasible.

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Appendix A Hillside Development Guidelines

Appendices

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APPENDIX A: Hillside Development Guidelines

Section 1. Statement of Purpose

The following Hillside Development guidelines are intended to ensure the appropriate development of hillside areas.

The guidelines are for the use, development, or alteration of land in Hillside areas. The Guidelines are to be utilized to provide direction to encourage development which is sensitive to the unique characteristics common to hillside properties. The purpose for the Guidelines is to protect existing hillsides and to encourage innovation, to the extent that the end result is one which respects the hillside and is consistent with the goals and policies of these guidelines. The guidelines shall be used by the Planning Commission and the City council in evaluating those development proposals. We expect developments will innovate beyond the minimum guidelines herein specified.

The purpose of these guidelines is:

- A. To preserve and protect hillside areas in order to maintain the identity, image and environmental quality of the City of Colfax;
- B. To maintain an environmental equilibrium consistent with the native vegetation, animal life, geology, slopes, and drainage patterns;
- C. To facilitate hillside preservation through appropriate development guidelines of hillside areas. The guidelines are intended to provide direction and encourage development which is sensitive to the unique characteristics common to hillside properties including landform, vegetation and scenic quality among others. Innovation in design is encouraged as long as the end result is one which respects the hillside and is consistent with the purposes expressed in this section and in the goals and objectives of the General Plan;
- D. To ensure that development in the hillside areas shall be concentrated in those areas with the least environmental impact and shall be designed to fit the existing landform; consideration should be given to clustered housing.
- E. To preserve significant features of the natural topography, including swales, canyons, knolls, ridgelines, and rock outcrops. Development may necessarily affect natural features by, for example, roads crossing ridgelines. Therefore, a major design criterion shall be the minimization of such impacts;

- F. To provide a safe means of ingress and egress for vehicular and pedestrian traffic to and within hillside areas, with minimum disturbance to the natural terrain;
- G. To correlate intensity of development with the steepness of terrain in order to minimize grading, removal of vegetation, land instability and fire hazards;
- H. To provide in hillsides, alternative approaches to conventional flat land development practices by achieving land use patterns and intensities that are consistent with the natural characteristics of hill areas such as slopes, landform, vegetation and scenic quality; and
- I. To encourage the planning, design and development of home sites that provide maximum safety with respect to fire hazards, exposure to geological and geotechnic hazards, drainage, erosion and siltation, and materials of construction; provide the best use of natural terrain; and to prohibit development what will create or increase fire, flood, slide, or other safety hazards to public health, welfare, and safety.
- J. The intention of these Guidelines is not necessarily to reduce density, but to ensure a viable product, clustering should be considered, any unreasonable density will be questioned.

Section 2.

A. Definitions: The following definitions shall apply to this section:

CONTOUR: A line drawn on a plan which connects all points of equal elevation.

CONTOUR GRADING: A grading technique designed to result in earth forms which resemble natural terrain characteristics. Horizontal and vertical curve variations are often used for slope banks. Contour grading does not necessarily minimize the amount of cut and fill occurring.

CUT: The mechanical removal of earth material.

CUT AND FILLS: The excavating of earth material in one place and depositing of it as fill in an adjacent place.

DRIVEWAY: A means of access over private property to a single residential unit.

EFFECTIVE BULK: The effective visual bulk of a structure when seen from a distance of from below.

ELEVATION: Height or distance above sea level.

EROSION: The process by which the soil and rock components of the earth's crust are worn away and removed from one place to another by natural forces such as wind and water.

FILL: A deposit of earth material placed by artificial means.

FINISH GRADE: The final elevation of the ground surface after development, which is in conformity with the approved plan.

GRADING: To bring an existing surface to a designed form by excavating, filling, or smoothing operations.

HILLSIDE: Refers to a parcel of land which contains grades in excess of 10%.

NATURAL SLOPE: A slope which is not man-made. A natural slope may retain natural vegetation during adjacent grading operations, or it may be partially or completely removed and replanted.

PAD: A level area created by grading to accommodate development.

RIDGE: A long, narrow, conspicuous elevation of land.

ROADWAY: A means of access over private property to more than one residential unit.

SLOPE: An inclined ground surface, the inclination of which is expressed as a ratio of horizontal distance (run) to vertical distance (rise), or change in elevation. The percent of any given slope is determined by dividing the rise by the run, multiplied by 100.

SLOPE, MAN-MADE: A manufactured slope consisting wholly or partially of either cut or filled material.

SLOPE TRANSITION: The area where a slope bank meets the natural terrain or a level graded area either vertically or horizontally.

B. Hillside Designation

The following are guidelines for hillside slope categories to ensure that development will complement the character and topography of the land. The guidelines for one category may be applied to limited portions of the property in an adjacent category when a project is developed on property in more than one slope category. Clustering should be considered.

<u>Slope Category</u>	<u>% Natural Slope</u>	<u>Site Guidelines</u>
1	10 to 20	Special hillside architectural and design techniques that minimize grading are desired in this Slope

Category. Structures shall conform to the natural topography and natural grade by using techniques such as split-level foundations of greater than 18 inches, stem walls, stacking and clustering. conventional grading may be considered by the city for limited portions of a project when its plan includes special design features, extensive open space or significant use of green belts.

2

20 to 30

Development within this category shall be restricted to those sites where it can be shown that safety, environmental and aesthetic impacts can be minimized. Use of large lots, variable setbacks and variable building structural techniques such as stepped foundations are expected, Structures shall be designed to minimize the visual impact of their bulk and height. The shape, materials, and colors of structures shall blend with the natural environment. The visual and physical impact of driveways and roadways shall be minimized by eliminating sidewalks, and reducing their widths to the minimum required for emergency access and following natural contours, using grade separations where

necessary and otherwise minimizing grading.

3

30 and over

This is an excessive slope conditions and development is extremely limited.

C. Density within Single-Family Residential Zones.

The maximum number of residential dwelling units which may be permitted to be constructed on a given parcel of land shall be the calculated base zoning development limit less the number eliminated due to environmental constraints as determined pursuant to these guidelines.

The combined maximum "percentage of base zoning density allowed" shall not reduce total number of units to less than 25% of maximum base zoning for an individual project.

1. Environmental constraints - The maximum number of residential dwelling units shall be as determined by environmental assessment, unless such development constraints can be shown to have been eliminated or mitigated to the satisfaction of the Planning Commission or of the City Council on appeal.
2. Exemption - Other provisions of this subsection to the contrary notwithstanding, lots of record as of the date of adoption of these guidelines shall be entitled to a minimum of one dwelling unit, provided that required zoning and land development criteria are met.
3. Administration - These guidelines shall be administered in conjunction with the provisions of Title 9, Chapter 20 of the Colfax Municipal Code. Where a conflict or inconsistency exists, the more restrictive regulation shall apply,

D. Hillside Development Guidelines.

The following Hillside Development Guidelines are intended to ensure the appropriate development of hillside areas. The guidelines are for the use, development, or alteration of land in Hillside areas. The Guidelines are to be utilized to provide direction to encourage development which is sensitive to the unique characteristics common to hillside properties.

The purpose for the Guidelines is to protect existing hillsides and to encourage innovation, to the extent that the end result is one which respects the hillside and is consistent with the goals and policies of these guidelines. The Guidelines shall be used by the Planning Commission and the City

Council in evaluating those development proposals in which it is proposed to go beyond the minimum density standards herein specified,

Section 3. Application Filing Requirements

For all site development applications requiring Planning Commission review, the following information shall be submitted for proposed development areas in which topography exceeds 10%:

- A. A natural features map, which shall identify all existing slope banks, ridgelines, canyons, natural drainage courses, federally recognized blue line streams, rock outcroppings, and existing vegetation or accomplished by aerial photograph or site visit.
- B. A conceptual grading plan, which shall include the following items in addition to those required by the Municipal Code or as part of the submittal Requirements Checklist:
 - 1. A legend with appropriate symbols which should include, but not be limited to, the following items: significant retaining walls and curbs and burms, significant trees, spot elevations as identified by paragraph A, pad and finished floor elevations, and change in direction of drainage.
 - 2. A map with proposed fill areas colored in brown and -cut areas colored in red,
 - 3. Contours shall be shown for existing and natural land conditions and proposed work. Existing contours shall be depicted with a dashed line with every fifth contour darker, and proposed contours shall be depicted as above except with a solid line. Contours shall be shown according to the following schedule:

<u>Natural Slope</u>	<u>Maximum Interval Feet</u>
0% to 20%	2
Above 20%	5

- C. A slope analysis map for the purpose of determining the amount and location of land as it exists in its natural state falling into each slope category as specified below. For the slope map, the applicant shall use a base topographical map of the subject site, prepared and signed by a registered civil engineer or licensed land surveyor, which shall have a scale of not less than 1 inch to 100 feet and a contour interval may be 5 feet when the slope is more than 20 percent. This base topographical map shall include all adjoining properties within 150 feet of the site

boundaries. Delineate slope bands in the range of to 10 percent, 10 up to 20 percent, 20 up to 30 percent, 30 percent or greater. Also included shall be a tabulation of the land/area in each slope category specified in acres. The exact method for computing the percent slope and area of each slope category should be sufficiently described and presented so that a review can be readily made. Also, a heavy, solid line indicating the 10 percent grade differential shall be clearly marked on the plan, and an additional copy of the map shall be submitted with the slope percentage categories depicted in contrasting colors.

- D. Provide a sufficient number of slope profiles to clearly illustrate the extent of the proposed grading. A minimum of 3 slope profiles shall be included with the slope analysis. The slope profiles shall include the greatest topographical relief or differences as possible; more may be requested based on the project.
 - 1. At least two of the slope profiles shall be roughly parallel to each other and roughly perpendicular to existing contour lines.
- E. Both the slope analysis and slope profiles shall be stamped and signed by either a registered landscape architect, civil engineer, or land surveyor indicating the datum, source, and scale of topographic data used in the slope analysis and slope profiles, and attesting to the fact that the slope analysis and slope profiles have been accurately calculated and identified.
- F. Tentative maps and final maps shall accurately depict the building envelope for each lot when required by the Planning Director or Planning Commission.
- G. Exceptions to the filing requirements shall be determined by the city Planner or Planning Commission.

Section 4. Public Safety Standards

A. Fire Protection Standards

- 1. Review plans and obtain comments from Fire Marshall/Fire chief.

B. Grading.

The following standards define basic grading techniques which are consistent with the guidelines and avoid unnecessary cut and fill, Refer also to Code sections for site development.

- 1. Standards.
 - a. Grading shall be phased so that prompt revegetation or construction will control erosion. Where possible, only those areas which will be built on, resurfaced, or landscaped shall be

- disturbed. Top soil shall be stockpiled during rough grading and used on cut and fill slopes. Revegetation of cut and fill slopes shall occur within three (3) months (weather permitting) to the satisfaction of the City.
- b. Grading operations shall be planned to avoid the rainy season, October 15 to April 15.
 - c. Cut slopes for purposes of establishing building pads shall not exceed twenty (20) feet in height and fill slopes shall not exceed eight (8) feet in depth at any point on the site.
 - d. Retaining walls associated with lot pads are limited to:
 - i. Upslope (from the structure) walls not to exceed six (6) feet in height. Terraced retaining structures may be utilized which are separated by a minimum of three (3) feet and appropriate landscaping.
 - ii. Downslope (from structure, walls not to exceed three and ½ (3 ½) feet in height. Where an additional retained portion is necessary due to unusual or extreme conditions, (such as lot configuration, steep slope or road design) then the use of terraced retaining structures shall be considered on an individual lot basis. Terraced walls shall not exceed three (3) feet in height and shall be separated by a minimum of three (3) feet and appropriate landscaping. Terracing shall not be used as a typical solution within a development.
 - iii. Retaining walls which are an integral part of the structure shall not exceed eight (8) feet in height. Their visual impact shall be mitigated through contour grading and landscape techniques.
 - e. Contour grading techniques should be used to provide a variety of slope percentage and slope direction in a three-dimensional undulating pattern similar to existing, adjacent terrain, Hard edges left by cut and fill operations should be given a rounded appearance that closely resembles the adjacent natural contours.
 - f. Where possible, graded areas should be designed with manufactured slopes located on the uphill side of structures, thereby hiding the slope behind the structure.
 - g. The following factors shall be taken into consideration in the design of a project:
 - a. When space and proper drainage requirements can be met with approval by the City Engineer, rounding of slope tops and bottoms shall be accomplished.
 - b. When slopes cannot be rounded, vegetation shall be used to alleviate a sharp, angular appearance.

- c. A rounded and smooth transition shall be made when the planes of man-made and natural slopes intersect.
- d. When significant landforms are "sliced" for construction, the landforms shall be rounded as much as possible to blend into natural grade,
- e. Manufactured slope faces shall be varied to avoid excessive "flat-planed" surfaces.
- h. No manufactured slope shall exceed 30 feet in height between terraces or benches.

Examples of Design:

- a. Maintain roof lines below crest of ridgelines.
- b. Where cut or fill conditions are created, slopes should be varied rather than left at a constant angle which may be unstable or create an unnatural, rigid, "man-made" appearance.
- c. The angle of any graded slope should be gradually adjusted to the angle of the natural terrain.
- d. Hard edges left by cut and fill operations should be given a rounded appearance that closely resembles the natural contours of the land.
- e. Manufactured slopes adjacent to roadways should be modulate by sufficient berming, regrading, and landscaping to create visually interesting and pleasing streetscapes.

Section 5. Drainage

- A. Where a conflict exists between the provisions of this section and Chapter 70 of the Uniform Building Code, the drainage, soils and geology provisions of Chapter 70 shall prevail, unless in the opinion of the City Engineer, the provisions of this section meet sound engineering standards consistent with the standards of Chapter 70.
- B. Standards
 - 1. Debris basins, rip rap, and energy dissipating devices shall be provided where necessary to reduce erosion when grading is undertaken. Except for necessary flood control facilities, significant natural drainage courses shall be protected from grading activity. In instances where crossing is required, a natural crossing and bank protection shall be preferred over steel and concrete systems. Where brow ditches are required, they shall be naturalized with plant materials and native rocks.

2. Building and grading permits shall not be issued for construction on any site without an approved location for disposal of runoff waters, including but not limited to such facilities as a drainage channel, public street or alley, or private drainage easement.
3. All cuts shall be protected from erosion.
4. The use of cross lot drainage shall be subject to Planning Commission review and may be approved after demonstration that this method will not adversely affect the proposed lots or adjacent properties, and that it is absolutely required in order to minimize the amount of grading which would result with conventional drainage practices. Where cross lot drainage is utilized, the following shall apply:
 - a. Project Interiors - Drainage facilities may cross lots if an easement is provided and either within an improved, open v-swale gutter, which has a naturalized appearance, or within a closed drainage pipe which shall be a minimum twelve (12) inches in diameter. This drainage shall be conveyed to either a public street or to a drainage easement. If drainage is conveyed to a private easement, it shall be maintained by a homeowners association, otherwise the drainage shall be conveyed to a public easement. The easement width shall be determined on an individual basis and shall be dependent on appropriate hydrologic studies and access requirements.
 - b. Project Boundaries - Onsite drainage shall be conveyed in an improved open v-swale, gutter, which has a naturalized appearance or within an underground pipe in either a private drainage easement, which is to be maintained by a homeowner's association, or it shall be conveyed in a public easement. The easement width shall be dependent on appropriate hydrologic studies and access requirements.
 - c. Where possible, drainage channels should be placed in inconspicuous locations, and more importantly, they should receive a naturalizing treatment including native rock, colored concrete and landscaping, so that the structure appears as an integral part of the environment.
 - d. Natural drainage courses should be preserved and enhanced to the extent possible. Rather than filling them in, drainage features should be incorporated as an integral part of the project design.

Section 6. Access and Parking

A. Standards

1. Normal driveway slopes should not exceed 15%. Driveway grades up to a maximum of twenty (20) percent may be permitted under severe grading circumstance if approved by the City

Engineer, and shall be aligned with the natural contours of the land. Proper design considerations shall be employed, including such items as vertical curves and parking landings. In any case, parking landings shall be utilized on all drives over ten (10) percent grade.

2. Grooves for traction shall be incorporated into the construction of driveways with a slope of twenty (20) percent or combine a coarse paving matter into the construction.
3. Where retaining walls are necessary adjacent to roadways or within street setbacks, they shall be limited to three (3) feet in height in order to avoid obstruction of motorists' and pedestrians' field of view, and to create an aesthetically pleasing streetscape. No more than three (3), three (3) foot high terraced or stepped retaining wall shall be utilized which are separated by a minimum of three (3) feet and appropriate landscaping. Slopes not greater than fifty (50) percent (or 2:1) will be permitted upon review and approval by the Fire Marshall.
4. Driveways shall enter public/private streets maintaining adequate line of sight.
5. Cul-de-sacs to a maximum of 750 feet in length may be permitted with a maximum of 30 dwelling units, and to a maximum of 1000 feet in length with a maximum of 20 dwelling units and shall terminate with a turnaround area not less than 35 feet in radius to curb face. Interim dead-end roads which will be extended in the future shall not be defined as cul-de-sacs.
6. In major subdivisions with only one (1) primary access, a secondary emergency access shall be provided.
7. All other street improvement standards shall conform to standard plans and specifications for public streets of the City of Colfax, or as approved for each individual project.
8. The Planning Commission or City Council may approve modifications to the above right-of-way design standards provided such modifications are in substantial conformance with the objectives stated in this section, without the need for a variance application.
9. Roadways and driveways, where feasible, should conform to the natural landform. They should not greatly alter the physical and visual character of a hillside by creating large notches in ridgelines or by defining wide straight alignments or by building switch-backs on visually prominent hillside, split sections and parking bays should be utilized in the layout of hillside streets.
10. Where road construction is permitted in hillside areas, the extent of vegetation disturbance and visual disruption should be minimized by the combined use of retaining structures and

regrading to approximate the natural slope. The following techniques should be used where feasible:

- a. Utilize landform planting in order to create a natural appearance and provide a sense of privacy.
- b. Reduce the visual and safety impacts by use of terraced retaining walls and landscaping.
- c. Split roadways increase the amount and appearance of landscaping and the median can be used to handle drainage.

Section 7. Trails

- A. Trails are encouraged to be an integral part of a hillside area and can provide recreation areas for equestrian, hiking and biking uses. They can also function as a means to take up grade or to convey drainage.

In hillside areas, it is not always necessary to provide full improvements for trails. A more natural experience may be achieved, and the amount of grading required can be reduced, by providing minimal improvements in appropriate areas, such as undevelopable, steep slopes.

Section 8. Standards

- A. Standards.

1. The dimensions of a building parallel to the contour lines shall be maximized in order to limit the amount of cutting and filling and to better fit the house to the natural terrain.
2. Design of building sites should be sensitive to the natural terrain. Structures should be located in such a way as to minimize necessary grading and to preserve natural features such as prominent knolls or ridgelines.
3. Views of significant visual features as seen from both within and outside a hillside development should be preserved. The following provisions shall be taken into consideration:
 - a. Dwelling should be oriented to allow view opportunities, although such views may be limited. Residential privacy should not be unreasonably sacrificed.
 - b. Any significant public vista or view corridor as seen from a secondary, collector or major arterial should be protected.
4. Projects should incorporate variable setbacks, multiple orientations and other sit planning techniques to preserve open spaces, protect natural features and offer views to residents.

Section 9. Architecture

A. Standards.

1. The form, mass and profile of the individual buildings and architectural features should be designed to blend with the natural terrain and preserve the character and profile of the natural slope. Some techniques which may be considered include:
 - a. Split pads, stepped footings and grade separations to permit structure to step up the natural slope.
 - b. Detaching parts of a dwelling such as a garage.
 - c. Avoid the use of gable ends on downhill elevations. The slope of the roof should be oriented in the same direction as the natural slope and should not exceed natural slope contour by twenty (20) percent.
2. Avoid excessive cantilevers on downhill elevations.
3. Excavate underground or utilize below grade rooms to reduce effective bulk and to provide energy efficient and environmentally desirable spaces. However, the visible area of the building shall be minimized through a combined use of regrading and landscaping techniques.
4. Use roofs on lower levels for the deck open space of upper levels.
5. Building materials and color schemes should blend with the natural landscape of earth tones and natural chaparral vegetative growth.
6. To the extent possible, the width of a building measured in the direction of the slope, shall be minimized in order to limit the amount of cutting and filling and to better "fit" the house to the natural terrain.

Section 10. Fences and Landscaping

A. Standards.

1. Within the front yard (street to structure), walls and fencing, not exceeding six feet in height, visible from roadways or public rights-of-way shall be visually open and non-opaque.
2. Privacy walls and fences, not exceeding six feet in height, are permitted adjacent to structures or in rear yards, in order to provide a private outdoor area. Walls and fences shall be of materials and colors compatible with the structure's facade.

3. Native or naturalized plants or other plant species that blend with the landscape shall be utilized in all areas with required planting.
4. Fire retardant plant materials shall be utilized. Plants selected as ground cover, shrubs or trees shall be from the list as approved by the city.
5. A permanent irrigation system, for purposes of establishing and maintaining required planting, shall be installed on all slopes. The emphasis shall be toward using plant materials that will eventually need minimal irrigation. Water and energy conservation techniques shall be utilized including but not limited to such items as drip irrigation.
6. Slopes with required planting shall be planted with informal clusters of trees and shrubs to soften and vary the slope plane. Where slopes are 2:1 and five feet or greater in height, jute netting shall be used to help stabilize planting and minimize soil erosion.
7. Native vegetation shall be retained and supplemented within canyons and along natural drainage courses as allowed by state and federal resource agencies (State Department of Fish & Game, U.S. Fish and Wildlife, U.S. Army Corp. of Engineers).
8. Natural landform planting should be used to soften manufactured slopes, reduce impact of development on steep slopes or ridgelines, and provide erosion control.
9. Maintain a "vegetative backdrop" by replanting with approved trees. The vegetation should screen structures to the extent possible at maturity and preserve the appearance of the natural hillside.
10. Natural landform planting should be used to soften manufactured slopes, reduce the impact of development on steep slopes or ridgelines, and provide erosion control.

**Appendix B Vulnerability Assessment (Safety Element
Appendix)**

Appendices

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APPENDIX B: Vulnerability Assessment

POPULATIONS AND ASSETS	AGRICULTURAL AND ECOSYSTEM PESTS AND DISEASES	DROUGHT	EXTREME HEAT	FLOODING	HUMAN HEALTH HAZARDS	LANDSLIDES	SEVERE WEATHER	WILDFIRE
POPULATIONS								
Children age <10	-	-	V4	-	V3	-	-	V3
Households in poverty	-	V4	V4	V3	V4	V4	V3	V5
Immigrants and refugees	V4	-	V3	V2	V4	V3	V4	V3
Outdoor workers	V4	V4	V4	-	V4	-	V3	V4
Persons experiencing homelessness	-	-	V5	V3	V5	-	V4	V5
Persons in overcrowded households	-	-	V2	-	V3	-	V1	V3
Persons with chronic illnesses	-	-	V4	V3	V4	V2	V4	V3
Persons with disabilities	-	-	V3	V3	V3	V3	V3	V3
Persons with limited English proficiency	-	-	V2	V1	V3	V2	V3	V2
Persons without access to lifelines	-	-	V3	V3	V3	V3	V3	V3
Renters	-	-	V1	V2	V2	V3	V1	V2

POPULATIONS AND ASSETS	AGRICULTURAL AND ECOSYSTEM PESTS AND DISEASES	DROUGHT	EXTREME HEAT	FLOODING	HUMAN HEALTH HAZARDS	LANDSLIDES	SEVERE WEATHER	WILDFIRE
Seniors (65+)	-	-	V5	V2	V3	V3	V3	V4
Seniors living alone	-	-	V5	V3	V4	V4	V4	V5
Biking and hiking trails	V2	V3	-	V2	-	V4	V2	V4
Bridges	-	-	-	V3	-	-	V4	V3
Communication facilities	-	-	V2	-	-	-	V2	V3
Electrical substations	-	-	V2	V2	-	V3	V2	V2
Electrical transmission lines	V4	-	V3	V2	-	V4	V4	V5
Evacuation routes	V2	-	V2	V1	-	V3	V3	V4
Flood-control infrastructure	-	-	-	V2	-	V1	V2	V1
Major roads and highways	-	-	V1	V1	-	V3	V3	V4
Rail lines	-	-	V3	V2	-	V3	V3	V2
Single-access roads	V3	V2	-	V3	-	V4	V3	V5
Water and wastewater infrastructure	-	V2	V1	V3	-	-	V2	V3
Adult residential care facilities	-	-	V2	V1	-	V3	V3	V4

POPULATIONS AND ASSETS	AGRICULTURAL AND ECOSYSTEM PESTS AND DISEASES	DROUGHT	EXTREME HEAT	FLOODING	HUMAN HEALTH HAZARDS	LANDSLIDES	SEVERE WEATHER	WILDFIRE
Community facilities	-	-	V2	-	-	V2	V3	V4
Parks and open space	V3	V2	V1	V1	-	V2	V2	V4
Government buildings	-	-	V2	-	-	-	V3	V3
Homes and residential structures	V4	-	V2	V2	-	V4	V4	V4
Public safety buildings	-	-	V2	-	-	-	V3	V3
Schools	-	-	V3	-	-	-	V3	V3
Downtown Colfax	-	-	V3	V2	V3	-	V2	V3
Major employers	-	-	V2	-	V3	-	V2	V3
Outdoor recreation	-	V2	V4	V2	V3	V2	V2	V4
Water recreation sites	-	V5	V1	-	V3	V2	-	V2
Chaparral	V2	V3	V2	-	-	-	-	V3
Conifer forest	V5	V4	V5	-	-	-	V2	V5
Grasslands	V2	V3	V2	-	-	-	-	V4
Mountain scrub	V1	V4	V4	-	-	-	-	V1

POPULATIONS AND ASSETS	AGRICULTURAL AND ECOSYSTEM PESTS AND DISEASES	DROUGHT	EXTREME HEAT	FLOODING	HUMAN HEALTH HAZARDS	LANDSLIDES	SEVERE WEATHER	WILDFIRE
Valley and riparian woodlands	V2	V3	V2	V2	-	-	V2	V1
Communication services	-	-	V3	-	-	-	V4	V3
Emergency medical response	V3	-	V2	V2	V4	V3	V2	V2
Energy delivery	V4	V2	V4	V1	-	V2	V4	V4
Freight and shipping	-	-	V1	V2	V3	V3	V2	V1
Public safety response	V3	-	V2	V2	V2	V3	V2	V3
Water and wastewater	-	V3	V1	V3	-	-	V1	V3

Appendix C Regulatory Framework

Appendices

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1. Aesthetics

State Regulations

Caltrans Scenic Highway Program

In 1963, California's Scenic Highway Program was created to preserve and protect the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing this program are in the Streets and Highways Code, Sections 260 to 263. Caltrans oversees the program. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on three criteria described in Caltrans' Guidelines for Official Designation of Scenic Highways (2008) (Caltrans 2023):

- **Vividness.** The extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements.
- **Intactness.** The integrity of visual order and the extent to which the natural landscape is free from visual intrusions (e.g., buildings, structures, equipment, grading).
- **Unity.** The extent to which development is sensitive to and visually harmonious with the natural landscape.

California Building Code

The California Building Code, Part 2 of Title 24 in the California Code of Regulations (CCR), is based on the International Building Code and combines three types of building standards from three different origins:

- Building standards that have been adopted by state agencies without change from the International Building Code.
- Building standards that have been adopted and adapted from the International Building Code to meet California conditions.
- Building standards, authorized by the California legislature, which constitute extensive additions not covered by the International Building Code that have been adopted to address California concerns.

The California Building Code includes standards for outdoor lighting that are intended to improve energy efficiency and reduce light pollution and glare by regulating light power and brightness, shielding, and sensor controls.

AESTHETICS

Local Regulations

City of Colfax Municipal Code

Title 17 – Zoning

The City of Colfax Title 17, Zoning, identified the types of permitted land uses throughout the various districts. Division III, Use and Zone District Regulations, under this title identified applicable use regulations, criteria for site development, performance standards, and design regulations. These criteria, standards and regulations include specific for residential zoning, commercial and industrial zoning districts. Division V, Special Area and Specific Regulations, sets additional regulations for districts such as Emergency Shelters and Mineral Extraction and Processing areas.

Chapter 17.110 – Tree Preservation Guidelines

The Tree preservation guidelines set by the City aim to maintain natural scenic beauty, improve air and water quality, reduce soil erosion, preserve natural heritage values, and protect wildlife habitat. The city aims to reduce tree loss to reasonable levels while promoting cooperation between developers, citizens, and CalFire. These guidelines do not prohibit tree removal but consider CalFire defensive perimeter recommendations. City policy is to preserve trees through review of development activities, recognizing individual rights to develop property in a reasonable manner.

This chapter also requires tree removal plan identifying healthy trees, preserving them, and ensuring defensive perimeter protection, excluding clearing trees over six inches. This chapter establishes tree preservation requirements in the event that tree removal is unavoidable.

Chapter 17.166 - Design Guidelines

The design guidelines aim to improve Colfax's visual quality by utilizing basic elements like building materials, architectural styles, fonts, colors, landscaping, physical elements, and space for people. They are applicable to all Colfax city limits, except single-family residential zones. The official zone map is available at city hall.

This chapter also establishes considerations for lighting such as lighting should be downcast, mounted on reinforced pedestals, and concealed under canopy lighting; non-lighting is discouraged in historic district and lighting should be compatible with surrounding architecture, landscaping, and style.

Chapter 17.120 – Performance Standards

Performance standards enforce city control for agricultural, commercial, and industrial uses to measure potential nuisances objectively, ensure necessary control methods, and protect industries from arbitrary exclusion or persecution based on past uncontrolled production.

Section 17.120.060, Glare, of this chapter prohibits direct or sky-reflected glare from floodlights or high temperature processes.

AGRICULTURE AND FORESTRY RESOURCES

2. Agriculture and Forestry Resources

State Regulations

California General Plan Law

The California Government Code (§ 65302(d)) requires the general plan to include an open space and conservation element for the conservation, development, and utilization of natural resources—including water and its hydraulic force, forests, soils, rivers and other waters, harbors, fisheries, wildlife, minerals, and other natural resources. The conservation element must consider the effect of development on natural resources that are on public lands. The element must also cover:

- The reclamation of land and waters.
- Prevention and control of the pollution of streams and other waters.
- Regulation of the use of land for the accomplishment of the conservation plan.
- Prevention, control, and correction of the erosion of soils, beaches, and shores.
- Protection of watersheds.
- Location, quantity, and quality of the rock, sand, and gravel resources.
- Waterways, flood corridors, riparian habitats, and land that may accommodate floodwater for groundwater recharge and stormwater management.

In October 2017, the state legislature passed SB 732, which authorizes a city to develop an agricultural land component of the open space element or a separate agricultural element in its general plan. For local governments that choose this option, the bill authorizes the Department of Conservation to award grants, bond proceeds, and other assistance provided the element meets certain requirements.

Farmland Mapping and Monitoring Program

The California Natural Resources Agency is charged with restoring, protecting, and maintaining the state's natural, cultural, and historical resources. The State Department of Conservation (DOC) provides technical services and information to promote informed land use decisions and sound management of the State's

natural resources. DOC manages the Farmland Mapping and Monitoring Program (FMMP), which supports agriculture throughout California by developing maps and statistical data for analyzing land use impacts to farmland. FMMP publishes a field report for each county in the state. The most recent field report for Shasta County was published in 2018. The field report categorizes land by agricultural production potential, according to the following classifications:

AGRICULTURE AND FORESTRY RESOURCES

- **Prime Farmland** has the best combination of physical and chemical features able to sustain long-term agricultural production. Prime Farmland has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agriculture production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance** is like Prime Farmland, but with minor shortcomings, such as steeper slopes or less ability to store moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland** consists of lesser quality soils used to produce the state's leading agricultural crops. This land is usually irrigated but may include no irrigated orchards or vineyards as found in some climatic zones in California. Land must have been farmed at some time during the four years prior to the mapping date.
- **Farmland of Local Importance** includes dryland grain producing lands and farmlands that are presently irrigated but do not meet the soil characteristics of Prime or Statewide. They include lands zoned for agriculture by County Ordinance and the California Land Conservation Act as well as dry farmed lands, irrigated pasture lands, and other agricultural lands of significant economic importance to the County and include lands that have a potential for irrigation from Placer County water supplies (DOC 2018).
- **Grazing Land** is the land on which the existing vegetation is suited to the grazing of livestock.
- **Confined Animal Agriculture** lands include poultry facilities, feedlots, dairy facilities, and fish farms. In some counties, confined animal agriculture is a component of the farmland of local importance category.
- **Nonagricultural and Natural Vegetation** includes heavily wooded, rocky, or barren areas; riparian and wetland areas; grassland areas that do not qualify for grazing land due to their size or land management restrictions; small water bodies; and recreational water ski lakes. Constructed wetlands are also included in this category.
- **Semi-agricultural and Rural Commercial Land** includes farmstead, agricultural storage and packing sheds, unpaved parking areas, composting facilities, equine facilities, firewood lots, and campgrounds.
- **Vacant or Disturbed Land** includes open field areas that do not qualify for an agricultural category, mineral and oil extraction areas, off-road vehicle areas, electrical substations, channelized canals, and rural freeway interchanges.
- **Rural Residential Land** includes residential areas of one to five structures per 10 acres.
- **Urban and Built-Up Land** is occupied by structures with a building density of at least one unit per 1.5 acres, or approximately six structures to a 10-acre parcel. Common examples include residential structures, industrial structures, commercial structures, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment structures, and water control structures.
- **Water** is used to describe perennial water bodies with an extent of at least 40 acres.

AGRICULTURE AND FORESTRY RESOURCES

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, better known as the Williamson Act, conserves agricultural and open space lands through property tax incentives and voluntary restrictive land use contracts administered by local governments under State regulations. Private landowners voluntarily restrict their land to agricultural and compatible open space uses under minimum 10-year rolling term contracts, with counties and cities also acting voluntarily. In return, restricted parcels are assessed for property tax purposes at a rate consistent with their actual use, rather than potential market value. Nonrenewal status is applied to Williamson Act contracts that are within the nine-year termination process, during which the annual tax assessment for the property gradually increases.

Forestland and Timberland Protection

State regulations such as the Forest Taxation Reform Act of 1976 and the Z'berg-Nejedly Forest Practice Act of 1973 (California Forest Practice Act) provide for the preservation of forest lands from encroachment by other, incompatible land uses and for oversight of the management of forest practices and forest resources.

Public Resources Code Section 12220(g) defines "forest land" for the purposes of CEQA as land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water-quality, recreation, and other public benefits.

The California Timberland Productivity Act of 1982, like the Land Conservation Act, was passed to encourage the production of timber resources. Government Code Section 51104(g) defines "Timber," "Timberland," and "Timberland Production Zone" for the purposes of CEQA and "Timberland Preserve Zone," which may be used in city and county general plans.

- **"Timber"** means trees of any species maintained for eventual harvest for forest production purposes, whether planted or of natural growth, standing or down, on privately or publicly owned land, including Christmas trees, but does not mean nursery stock.
- **"Timberland"** means privately owned land, or land acquired for State forest purposes, which is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, and which is capable of growing an average annual volume of wood fiber of at least 15 cubic feet per acre.
- **"Timberland Production Zone" or "TPZ"** means an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h). With respect to the general plans of cities and counties, "Timberland Preserve Zone" means "Timberland Production Zone."

AGRICULTURE AND FORESTRY RESOURCES

Local Regulations

City of Colfax Municipal Code

Title 17 – Zoning

The City of Colfax Title 17, Zoning, identified the types of permitted land uses throughout the various districts. Division III, Use and Zone District Regulations, under this title identified applicable use regulations, criteria for site development, performance standards, and design regulations. These criteria, standards and regulations include specific for residential zoning, commercial and industrial zoning districts. Division V, Special Area and Specific Regulations, sets additional regulations for districts such as Emergency Shelters and Mineral Extraction and Processing areas.

Chapter 17.110 – Tree Preservation Guidelines

The Tree preservation guidelines set by the City aim to maintain natural scenic beauty, improve air and water quality, reduce soil erosion, preserve natural heritage values, and protect wildlife habitat. The city aims to reduce tree loss to reasonable levels while promoting cooperation between developers, citizens, and CalFire. These guidelines do not prohibit tree removal but consider CalFire defensive perimeter recommendations. City policy is to preserve trees through review of development activities, recognizing individual rights to develop property in a reasonable manner.

This chapter also requires tree removal plan identifying healthy trees, preserving them, and ensuring defensive perimeter protection, excluding clearing trees over six inches. This chapter establishes tree preservation requirements in the event that tree removal is unavoidable.

Chapter 12.16 – Trees

The Tree preservation guidelines set by the City aim to maintain natural scenic beauty, improve air and water quality, reduce soil erosion, preserve natural heritage values, and protect wildlife habitat. City policy is to preserve trees through review of development activities, recognizing individual rights to develop property in a reasonable manner.

This chapter also requires tree removal plan identifying healthy trees, preserving them, and ensuring defensive perimeter protection, excluding clearing trees over six inches. This chapter establishes tree preservation requirements in the event that tree removal is unavoidable.

2. Air Quality

AAQS have been adopted at the state and federal levels for criteria air pollutants. In addition, both the state and federal government regulate the release of TACs. Land uses in Colfax are subject to the rules and regulations imposed by the Placer County Air Pollution Control District, the California AAQS adopted by the California Air Resources Board (CARB), and National AAQS adopted by the US Environmental Protection Agency (EPA). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

Federal and State Regulations

Ambient Air Quality Standards

The Clean Air Act (CCA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The Clean Air Act allows states to adopt more stringent standards or include other pollutants. The California Clean Air Act, signed in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS.

The National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants, which are shown in Table 3-1, *Ambient Air Quality Standards for Criteria Pollutants*. These pollutants are ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

AIR QUALITY

Table 3-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard ^a	Federal Primary Standard ^b	Major Pollutant Sources
Ozone (O ₃) ^c	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20.0 ppm	35.0 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9.0 ppm	
Nitrogen Dioxide (NO ₂)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Particulate Matter (PM ₁₀) ^d	Annual Arithmetic Mean	20.0 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50.0 µg/m ³	150.0 µg/m ³	
Respirable Particulate Matter (PM _{2.5})	Annual Arithmetic Mean	12.0 µg/m ³	12.0 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35.0 µg/m ³	
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarterly	*	1.5 µg/m ³	
	Rolling 3-Month Average	*	0.15 µg/m ³	
Sulfates (SO ₄) ^e	24 hours	25 µg/m ³	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo ^f =0.23/km visibility of 10≥ miles	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size, and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

AIR QUALITY

Pollutant	Averaging Time	California Standard ^a	Federal Primary Standard ^b	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

* Standard has not been established for this pollutant/duration by this entity.

a. California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b. National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, 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 three years, are equal to or less than the standard.

c. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

d. 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 PM₁₀ 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.

e. On June 2, 2010, a new 1-hour SO₂ standard was established, and the existing 24-hour and annual arithmetic mean standards were revoked.

Source: CARB 2016

California has also adopted a host of other regulations that reduce criteria pollutant emissions.

- **AB 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Heavy-Duty (Tractor-Trailer) GHG Regulation.** The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling-resistance tires. Sleeper-cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. This rule has criteria air pollutant co-benefits.

AIR QUALITY

- **SB 1078 and SB 107: Renewables Portfolio Standards.** A major component of California’s Renewable Energy Program is the renewables portfolio standard established under Senate Bills 1078 (Sher) and 107 (Simitian). Under this standard, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010.
- **California Code of Regulations (CCR) Title 20: Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR secs. 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. This code reduces natural gas use from appliances.
- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. This code reduces natural gas use from buildings.
- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. This code reduces natural gas use from buildings.

Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act

Public exposure to TACs is a significant environmental health issue in California. In 1983, the California legislature enacted a program to identify the health effects of TACs and reduce exposure to them. The California Health and Safety Code defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health” (17 CCR sec. 93000). A substance that is listed as a hazardous air pollutant pursuant to Section 112(b) of the federal Clean Air Act (42 US Code sec. 7412[b]) is a toxic air contaminant. Under State law, the California Environmental Protection Agency, acting through CARB, is authorized to identify a substance as a TAC if it is an air pollutant that may cause or contribute to an increase in mortality or serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act set up a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit that TAC. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate “toxics best available control technology” to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10 Section 2485.: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.
- **13 CCR Chapter 10 Section 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- **13 CCR Section 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

Local Regulations

Placer County Air Pollution Control District (PCACPD)

Air quality planning efforts, along with determining successful state and local emission control measures, is guided by the air monitors that measure ambient air quality in the District. In sync with District sustainable goals, the District has identified the following strategies to achieve sustainable practices. The Planning and Monitoring Sustainable Target Goals: The Planning and Monitoring Section strives to improve the air quality in the Placer County and surrounding regions.

- Improve the air quality in the Placer County Region by obtaining Ambient Air Quality Standards for public health. Reduce greenhouse gas (GHG) Emissions by monitoring facilities and verifying compliance in order to meet AB32 goals.
- Reduce particulate matter and improve outdoor air quality from wood burning appliances. Reduce criteria air pollutants from mobile sources and other non-regulated sources.
- Fund projects that cost-effectively achieve nitrogen oxide (NOx), reactive organic gas (ROG), and diesel particulate matter (DPM) emission reductions from on and off road motor vehicles, area wide and stationary sources that are not required by law to reduce their emissions.
- Assist the six county Sacramento Federal Ozone Non-attainment Areas in attaining health based ambient air quality standards.
- Assist the Sacramento Federal Ozone Non-attainment Area in meeting transportation conformity determinations required by the Clean Air Act.

Air Quality Attainment Plan

AIR QUALITY

As a part of the MCAB federal ozone nonattainment area, the PCAPCD works with the other local air districts within the Sacramento area to develop a regional air quality management plan under the FCAA requirement. The regional air quality management plan is called the State Implementation Plan (SIP) which describes and demonstrates how Placer County, as well as the Sacramento nonattainment area, would attain the required federal ozone standard by the proposed attainment deadline. In accordance with the requirements of the FCAA, the PCAPCD, along with the other air districts in the region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Ozone Attainment Plan), adopted by the PCAPCD on February 19, 2009. The CARB determined that the Ozone Attainment Plan met federal Clean Air Act requirements and approved the Plan on March 26, 2009 as a revision to the SIP. Revisions to the Placer County portion of the SIP or Ozone Attainment Plan were made and adopted on August 11, 2011.

Placer County Sustainability Plan

The PCSP, adopted by the Placer County Board of Supervisors on January 28, 2020, includes goals and policies for energy efficiency and the reduction of GHGs. The PCSP is a planning document that outlines the programs and policies that are recommended for implementation by the community and the County to achieve the most significant GHG emission reductions in unincorporated County. In addition to reducing GHG emissions, implementation of the PCSP is intended to help achieve multiple community-wide goals, such as lowering energy costs, reducing air and water pollution, supporting local economic development, and improving public health and quality of life within Placer County.

City of Colfax Municipal Code

Chapter 15.30, Grading, Erosion and Sediment Control

This chapter is enacted for the purpose of regulating grading on private property in the City of Colfax to protect public health, safety, and welfare. It also aims to reduce environmental damage, watercourse pollution, and ensure that the intended use of a graded site is consistent with the Colfax Area General Plan, specific plans, and city ordinances.

Section 15.30.020, General requirements for grading, states that all grading in the city must comply with technical requirements of the Uniform Building Code, dust control, erosion control, waterways protection, sediment control, excavation, cut and fill, slope, and compaction. Failure to do so is considered a public nuisance.

Section 17.120.090 - Odors

No emission of odorous gases or other odorous matter shall be permitted in excess of the most recent standards adopted by the Placer County Air Pollution Control District and Placer County Department of Environmental Health. Any process which may involve the creation or emission of any odor shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system should fail.

Section 17.120.130 - Smoke and gas

No emission of visible smoke from any chimney or other source or gas in excess of the most recent standards adopted by the Placer County Air Pollution Control District shall be permitted.

Section 17.120.140 - Air pollution

No emission at any point shall be permitted which can cause damage to human or animal health, to vegetation or to other forms of property or which can cause any excessive soiling. No emission shall be permitted in excess of the most recent standards adopted by the Placer County Air Pollution Control District.

4. Biological Resources

Federal Regulations

Endangered Species Act

The Federal Endangered Species Act (ESA) protects fish and wildlife species, and their habitats, that have been identified by the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) as threatened or endangered. Endangered refers to species, subspecies, or distinct population segments that are in danger of extinction through all or a significant portion of their range. Threatened refers to species, subspecies, or distinct population segments that are likely to become endangered in the near future.

The ESA is administered by the USFWS and the NMFS. In general, NMFS is responsible for protection of ESA-listed marine species and anadromous fish, whereas other listed species are under USFWS jurisdiction. Provisions of ESA Sections 7 and 9 are relevant to the General Plan update and are summarized below.

Endangered Species Act Authorization Process for Federal Actions (Section 7)

Section 7 of the ESA provides a means for authorizing *take* of threatened and endangered species by federal agencies. Under Section 7, the federal agency conducting, funding, or permitting an action (the lead federal agency, such as the U.S. Army Corps of Engineers [USACE]) must consult with USFWS or NMFS, as appropriate, to ensure that the proposed action will not jeopardize endangered or threatened species or destroy or adversely modify designated critical habitat. If a proposed project "may affect" a listed species or designated critical habitat, the lead agency is required to prepare a biological assessment evaluating the nature and severity of the expected effect. In response, USFWS or NMFS issues a biological opinion, with a determination that the proposed action either:

- May jeopardize the continued existence of one or more listed species (jeopardy finding) or result in the destruction or adverse modification of critical habitat (adverse modification finding), or
- Will not jeopardize the continued existence of any listed species (no jeopardy finding) or result in adverse modification of critical habitat (*no adverse modification finding*).

BIOLOGICAL RESOURCES

The biological opinion issued by the USFWS or NMFS may stipulate discretionary “reasonable and prudent” conservation measures. If the project would not jeopardize a listed species, the USFWS or NMFS issues an incidental take statement to authorize the proposed activity.

Endangered Species Act Prohibitions (Section 9)

Section 9 of the ESA prohibits the take of any fish or wildlife species listed under the ESA as endangered. Take of threatened species also is prohibited under Section 9, unless otherwise authorized by federal regulations. In some cases, exceptions may be made for threatened species under ESA Section 4[d]; in such cases, the USFWS or NMFS issues a “4[d] rule” describing protections for the threatened species and specifying the circumstances under which take is allowed. *Take*, as defined by ESA, means “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” *Harm* is defined as “any act that kills or injures the species, including significant habitat modification.” In addition, Section 9 prohibits removing, digging up, cutting, and maliciously damaging or destroying federally listed plants on sites under federal jurisdiction.

Section 10

When no discretionary action is being taken by a federal agency but a project may result in the take of listed species, an incidental take permit under Section 10 of the ESA is necessary. The purpose of the incidental take permit is to authorize the take of federally listed species that may result from an otherwise lawful activity, not to authorize the activities themselves. To obtain an incidental take permit, an application must be submitted that includes a Habitat Conservation Plan (HCP). The purpose of the HCP planning process is to ensure that adequate minimization and mitigation for impacts to listed species and/or their habitat will occur.

Critical Habitat

For the purpose of designating Critical Habitat, habitat is defined as the abiotic and biotic setting that currently or periodically contains the resources and conditions necessary to support one or more life processes of a species. Critical Habitat designations identify, to the extent known and using the best scientific data available, physical or biological features essential to the conservation of the species. These include features that occur in specific areas and that are essential to support the life-history needs of the species, including but not limited to water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, or other features. A feature may be a single habitat characteristic, or a more complex combination of habitat characteristics. Features may include habitat characteristics that support ephemeral or dynamic habitat conditions (i.e., conditions that are temporary, short-term, and/or changing). Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity.

BIOLOGICAL RESOURCES

Clean Water Act, Section 404

The United States Army Corps of Engineers (Corps) regulates discharge of dredged or fill material into “waters of the United States.”¹ Any filling or dredging within waters of the United States requires a permit, which entails assessment of potential adverse impacts to Corps wetlands and jurisdictional waters and any mitigation measures that the Corps requires. Section 7 consultation with USFWS may be required for impacts to a federally listed species. If cultural resources may be present, Section 106 review may also be required. When a Section 404 permit is required, a Section 401 Water Quality Certification is also required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act

The federal Clean Water Act (CWA) was enacted as an amendment to the federal Water Pollution Control Act of 1972, which outlined the basic structure for regulating discharges of pollutants to waters of the United States. The CWA serves as the primary federal law protecting the quality of the nation’s surface waters, including lakes, rivers, and coastal wetlands.

The CWA empowers the US Environmental Protection Agency (EPA) to set national water quality standards and effluent limitations and includes programs addressing both point-source and nonpoint-source pollution. Point-source pollution is pollution that originates or enters surface waters at a single, discrete location, such as an outfall structure or an excavation or construction site. Nonpoint-source pollution originates over a broader area and includes urban contaminants in stormwater runoff and sediment loading from upstream areas. The CWA operates on the principle that all discharges into the nation’s waters are unlawful unless specifically authorized by a permit; permit review is the CWA’s primary regulatory tool. The following sections provide additional details on specific sections of the CWA.

Permits for Fill Placement in Waters and Wetlands (Section 404)

CWA 404 regulates the discharge of dredged and fill materials into waters of the United States. Waters of the United States refers to oceans, bays, rivers, streams, lakes, ponds, and wetlands. On June 22, 2020, the EPA and the Department of the Army published the Navigable Waters Protection Rule to define “Waters of the United States” (85 Federal Register 22250). The agencies streamlined the definition into four categories of jurisdictional waters, provided clear exclusions for many water features that traditionally have not been regulated, and defined terms in the regulatory text that have never been defined before.

¹ “Waters of the United States,” as applied to the jurisdictional limits of the Corps under the Clean Water Act, includes all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds whose use, degradation, or destruction could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes “navigable waters,” which is defined at Section 502(7) of the act as “waters of the United States, including the territorial seas.”

BIOLOGICAL RESOURCES

The Navigable Waters Protection Rule regulates traditional navigable waters and the core tributary systems that provide perennial or intermittent flow into them.

The four categories of federally regulated waters are:

- The territorial seas and traditional navigable waters.
- Perennial and intermittent tributaries to those waters.
- Certain lakes, ponds, and impoundments.
- Wetlands adjacent to jurisdictional waters.

Applicants must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States, including adjacent wetlands, before proceeding with a proposed activity. The USACE may issue either an individual permit evaluated on a case-by-case basis or a general permit evaluated at a program level for a series of related activities. General permits are preauthorized and are issued to cover multiple instances of similar activities expected to cause only minimal adverse environmental effects. Nationwide permits (NWP) are a type of general permit issued to cover particular fill activities. Each NWP specifies particular conditions that must be met for the NWP to apply to a particular project. Potential waters of the United States in the city would be under the jurisdiction of the Sacramento District of the USACE.

Compliance with CWA 404 requires compliance with several other environmental laws and regulations. The USACE cannot issue an individual permit or verify the use of a general permit until the requirements of the National Environmental Policy Act, ESA, and National Historic Preservation Act (NHPA) have been met. In addition, the USACE cannot issue or verify any permit until a water quality certification or a waiver of certification has been issued pursuant to CWA 401.

Permits for Stormwater Discharge (Section 402)

CWA 402 regulates construction-related stormwater discharges to surface waters through the National Pollutant Discharge Elimination System (NPDES) program, administered by the EPA. In California, the State Water Resources Control Board is authorized by the EPA to oversee the NPDES program through the Regional Water Quality Control Boards (RWQCB) (see the related discussion under “Porter-Cologne Water Quality Control Act” below). The city is under the jurisdiction of the Central Valley RWQCB.

NPDES permits are required for projects that disturb more than one acre of land. The NPDES permitting process requires the project applicant to file a public notice of intent (NOI) to discharge stormwater and prepare and implement a stormwater pollution prevention plan (SWPPP). The SWPPP includes a site map and a description of proposed construction activities. In addition, it describes the best management practices (BMP) that will be implemented to prevent soil erosion and discharge of other construction-related pollutants (e.g., petroleum products, solvents, paints, and cement) that could contaminate nearby

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water resources. Permittees are required to conduct annual monitoring and reporting to ensure that BMPs are correctly implemented and effective in controlling the discharge of stormwater-related pollutants.

Water Quality Certification (Section 401)

Under CWA 401, applicants for a federal license or permit to conduct activities that may result in the discharge of a pollutant into waters of the United States must obtain certification from the state in which the discharge would originate or, if appropriate, from the interstate water pollution control agency with jurisdiction over affected waters at the point where the discharge would originate. Therefore, all projects that have a federal component and may affect State water quality (including projects that require federal agency approval, such as issuance of a CWA 404 permit) also must comply with CWA Section 401. In California, the State Water Resources Control Board is authorized to issue CWA 401 water quality certification through the RWQCB. If the USACE determines a wetland is not subject to regulation under CWA 404, CWA 401 water quality certification is not required. However, the RWQCB may impose waste discharge requirements if fill material is placed into waters of the State (see the related discussion under “Porter-Cologne Water Quality Control Act,” below).

National Pollutant Discharge Elimination System Program

The federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from point sources (Section 402). The NPDES Permit Program is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States. The SWRCB issues both general and individual NPDES permits for certain activities.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code 703–711) implements international treaties between the US and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (i.e., rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR part 13 General Permit Procedures and 50 CFR part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

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State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect species that are on the federal and State lists, compliance with the federal ESA satisfies CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is consistent with CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of species that are only State listed, the project proponent must apply for a take permit under Section 2081(b) of the California Fish and Game Code.

California Fish and Game Code

Under the California Fish and Game Code, the CDFW provides protection from “take” for a variety of species. The CDFW also protects streams, water bodies and riparian corridors through the streambed alteration agreement process under Section 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying CDFW, incorporating necessary mitigation, and obtaining a streambed alteration agreement. CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (CNPPA) prohibits importation of rare and endangered plants into California, “take” of rare and endangered plants and sale of rare and endangered plants. CESA defers to the CNPPA, which ensures that State-listed plant species are protected when State agencies are involved in projects subject to CEQA. In this case, plants listed as rare under the CNPPA are not protected under CESA but under CEQA.

California Natural Communities

Sensitive natural communities are natural community types considered to be rare or of a “high inventory priority” by the CDFW. Although sensitive natural communities have no legal protective status under ESA or CESA, they are provided some level of consideration under CEQA. Appendix G of the CEQA Guidelines identifies potential impacts on a sensitive natural community as one of six criteria to consider in determining the significance of a proposed project. While no thresholds are established as part of this criterion, it serves as an acknowledgement that sensitive natural communities are an important resource and, depending on their rarity, should be recognized as part of the environmental review process. The level of significance of a

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project's impact on any particular sensitive natural community will depend on that natural community's relative abundance and rarity.

As an example, a discretionary project that has a substantial adverse effect on any riparian habitat, native grassland, valley oak woodland, and/or other sensitive natural community would normally be considered to have a significant effect on the environment. Further loss of a sensitive natural community could be interpreted as substantially diminishing habitat, depending on its relative abundance, quality and degree of past disturbance, and the anticipated impacts to the specific community type.

California Oak Woodlands Conservation Act

The California Oak Woodlands Conservation Act was enacted in 2001 to protect oak woodland habitats that were being diminished due to development, firewood harvesting, and agricultural conversions. The Oak Woodlands Conservation Program was established to provide funding opportunities for private landowners, conservation organizations, and cities and counties to conserve and restore oak woodlands.

The program authorizes the Wildlife Conservation Board to purchase oak woodland conservation easements and provide grants for land improvements and oak restoration efforts.

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (Water Code 13260(a)). Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into waters of the State, that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of WDRs for these activities. Although all waters of the United States that are within the borders of California are also waters of the state, the converse is not true (i.e., not all waters of the State are also waters of the United States). Thus, California retains authority to regulate discharges of waste into any waters of the state, regardless of whether the USACE has concurrent jurisdiction under CWA 404.

California Fish and Game Code Special Protections for Birds

In addition to protections contained within the California ESA and California Fish and Game Code § 3511 described above, the California Fish and Game Code includes several sections that specifically protect certain birds:

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- Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the California Fish and Game Commission or a mitigation plan approved by CDFW for mining operations.
- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 protects birds of prey (which includes eagles, hawks, falcons, kites, ospreys, and owls) and prohibits the take, possession, or destruction of any birds and their nests.
- Section 3505 makes it unlawful to take, sell, or purchase egrets, ospreys, and several exotic non-native species, or any part of these birds.
- Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

Lake or Streambed Alteration Agreements

Section 1602 of the California Fish and Game Code requires individuals or agencies to provide a Notification of Lake or Streambed Alteration to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed reviews the proposed actions and, if necessary, proposed measures to protect affected fish and wildlife resources. The final proposal mutually agreed upon by CDFW and the applicant is the Lake and Streambed Alteration Agreement.

Local Regulations

City of Colfax Municipal Code

Chapter 17.110 – Tree Preservation Guidelines

The Tree preservation guidelines set by the City aim to maintain natural scenic beauty, improve air and water quality, reduce soil erosion, preserve natural heritage values, and protect wildlife habitat. The city aims to reduce tree loss to reasonable levels while promoting cooperation between developers, citizens, and CalFire. These guidelines do not prohibit tree removal but consider CalFire defensive perimeter recommendations. City policy is to preserve trees through review of development activities, recognizing individual rights to develop property in a reasonable manner.

This chapter also requires tree removal plan identifying healthy trees, preserving them, and ensuring defensive perimeter protection, excluding clearing trees over six inches. This chapter establishes tree preservation requirements in the event that tree removal is unavoidable.

Chapter 12.16 – Trees

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The Tree preservation guidelines set by the City aim to maintain natural scenic beauty, improve air and water quality, reduce soil erosion, preserve natural heritage values, and protect wildlife habitat. City policy is to preserve trees through review of development activities, recognizing individual rights to develop property in a reasonable manner.

This chapter also requires tree removal plan identifying healthy trees, preserving them, and ensuring defensive perimeter protection, excluding clearing trees over six inches. This chapter establishes tree preservation requirements in the event that tree removal is unavoidable.

5. Cultural and Tribal Cultural Resources

5.1 REGULATORY FRAMEWORK

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) coordinates public and private efforts to identify, evaluate, and protect the nation’s historic and archaeological resources. The act authorized the National Register of Historic Places, which lists districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to consider the effects of their undertakings on historic properties. Section 106 review ensures that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process with assistance from state historic preservation offices.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites on federal and Indian lands.

Native American Graves Protection and Repatriation Act

NAGPRA is a federal law passed in 1990 that mandates museums and federal agencies to return certain Native American cultural items—such as human remains, funerary objects, sacred objects, or objects of cultural patrimony—to lineal descendants or culturally affiliated Indian tribes.

National Register of Historic Places

The NRHP is the nation’s official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archaeology, engineering, and culture. The NRHP recognizes resources of local, state, and national significance which have been documented and evaluated according to uniform standards and criteria.

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Authorized under the NHPA, the NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archaeological resources. The NRHP is administered by the National Park Service, which is part of the US Department of the Interior.

To be eligible for listing in the National Register, a resource must meet at least one of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of our history;
- Is associated with the lives of persons significant in our past;
- Embodies the distinctive characteristics of a type, period or method of construction, represents the work of a master, possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction;
- Has yielded, or may be likely to yield, information important in history or prehistory.

To retain historic integrity, a property will always possess several and often most of the aspects of integrity. These are location, design, setting, materials, workmanship, feeling, and association.

State Regulations

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires projects such as developments to identify impacts to environmental conditions from the Project, and to address impacts that are found to be potentially significant. Section 15064.5 of the state CEQA Guidelines states that projects that may cause a substantial adverse change to historic resources (including archaeological resources) may have a potentially significant impact. These guidelines identify four ways that a site may qualify as a significant historic resource for the purposes of complying with CEQA:

- If the resource is listed in the California Register of Historic Resources or is deemed eligible for listing by the State Historical Resources Commission.
- If the resource is included in a local register of historic resources (as described in Section 5020.1(k) of the state Public Resources Code),¹ or identified as significant in a survey that meets the requirements of Section 5024.1(g) of the state Public Resources Code (unless the weight of evidence shows that the resource is not significant).
- If the lead agency determines that the resource is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California. Such determinations must be supported by substantial evidence.

¹ According to the Public Resources Code, local registers are “a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.”

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- If the lead agency determines that the resource may meet the definition of a historical resource as defined in the state Public Resources Code Sections 5020.1(j) or 5024.1.

State CEQA Guidelines also define the responsibilities of a lead agency to determine if a project may have a significant effect on archaeological resources. If a project will demonstrably damage a unique archaeological resource, the guidelines allow a lead agency to require reasonable efforts to preserve the resources in place (the preferred approach) or to otherwise leave them in an undisturbed state. The Public Resources Code identifies mitigation actions to be taken if such resources are not preserved in place.

Additionally, Section 7050.5 of the California Health and Safety Code, Section 5097.98 of the California Public Resources Code, and Section 15064.5(d) of the state CEQA Guidelines outlines the procedures to be used if Native American human remains are unexpectedly found on non-federal land. The guidelines protect the remains from accidental or deliberate destruction or disturbance, and establish procedures to appropriately and sensitively address such a discovery. The guidelines also establish the Native American Heritage Commission (NAHC) to identify the most likely descendent of any remains and to mediate disputes regarding the disposition.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is intended to identify, evaluate, register, and protect historic and archaeological resources in California, in a manner very similar to NRHP. The register is managed by California's State Historical Resources Commission and includes the following four criteria:

- Be associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- Be associated with the lives of people important to local, California, or American history.
- Embody the distinct characteristics of a type, period, region, or method of construction; or represent the work of a master or possess high artistic value.
- Have yielded, or be potentially likely to yield, information important to the prehistory or history of the local area, California, or the nation.

Sites listed on the CRHR must also retain their integrity (the retention of location, design, setting, materials, workmanship, feeling, and association).

California Native American Heritage Commission

The NAHC is the primary state agency responsible for identifying and cataloging Native American cultural resources. It works to prevent irreparable damage to designated sacred sites and interference with expressions of Native American religion in California. The NAHC is authorized to identify the most likely descendant of Native American human remains found outside of a dedicated cemetery, who can then make

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recommendations on the treatment and disposition of the remains. The NAHC is also responsible for mediating disputes that may arise during the disposition of any remains.

California Native American Historical, Cultural and Sacred Sites Act

The California Native American Historical, Cultural and Sacred Sites Act applies to both State and private lands. This Act requires that upon discovery of human remains, construction or excavation activity cease and the county coroner be notified. If the remains are of Native American descent, the coroner must notify the NAHC. The NAHC then notifies the persons most likely to be descended from the Native American remains. This Act stipulates the procedures that descendants may follow for treating or disposing of the remains and associated grave goods.

California Government Code

California Government Code Section 65352.3-5, formerly known as Senate Bill (SB) 18, states that prior to the adoption or amendment of a city or county's general plan, or specific plans, the city or county shall consult with California Native American tribes that are on the contact list maintained by the NAHC. The intent of this legislation is to preserve or mitigate impacts on places, features and objects, as defined in PRC 5097.9 and PRC 5097.993, that are located within the city or county's jurisdiction. The bill also states that the city or county shall protect the confidentiality of information concerning the specific identity, location, character and use of those places, features and objects identified by Native American consultation. Government Code 65362.3-5 applies to all general and specific plans and amendments proposed after March 1, 2005.

California Senate Bill 18

Existing law provides limited protection for Native American precontact, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious sites, ceremonial sites, shrines, burial grounds, pre-contact ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites.

SB 18 (California Government Code Sections 65352.3 et seq.) was signed into law in September 2004 and went into effect on March 1, 2005. It places new requirements upon local governments for developments within or near "traditional tribal cultural places" (TTCP). Per SB 18, the law requires local jurisdictions to provide opportunities for involvement of California Native American tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Tribal Guidelines recommend that the NAHC provide written information as soon as possible but no later than 30 days after receiving a request to inform the lead agency if the proposed project is determined to be in proximity to a TTCP, and another 90 days for tribes to respond to a local government if they want to consult to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on the consultation duration. Forty-five days before the action is publicly considered by the local government council, the local government refers action to agencies, following the CEQA public review time frame. The CEQA public distribution list

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may include tribes listed by the NAHC who have requested consultation, or it may not. If the NAHC, the tribe, and interested parties agree upon the mitigation measures necessary for the proposed project, they would be included in the project's EIR. If both the City of Rancho Cucamonga and the tribe agree the adequate mitigation or preservation measures cannot be taken, neither party is obligated to take action.

SB 18 is triggered before the adoption, revision, amendment, or update of a city's or county's general plan. Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, the Final Tribal Guidelines advises that SB 18 requirements extend to specific plans as well, because state planning law requires local governments to use the same process for amendment or adoption of specific plans as general plans (defined in Government Code Section 65453). In addition, SB 18 provides a new definition of TTCP requiring a traditional association of the site with Native American traditional beliefs, cultural practices, or ceremonies, or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies (previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities). SB 18 law also amended Civil Code Section 815.3 and adds California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

Assembly Bill 52

Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to require that: (1) a lead agency provide notice to California Native American tribes that requested notice of projects proposed by the lead agency; and (2) the lead agency consult with any tribe that responded to the project notice within 30 days of receipt with a request for consultation. Topics that may be addressed during consultation include Tribal Cultural Resources, the potential significance of project impacts, the type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

A California Native American tribe is defined as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally recognized and unrecognized tribes.

Section 21074(a) of the PRC defines Tribal Cultural Resources for the purpose of CEQA as:

Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are any of the following:

- a. Included or determined to be eligible for inclusion in the CRHR; and/or
- b. Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
- c. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In

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applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a Historical Resource under CEQA, a Tribal Cultural Resource may also require additional consideration as a Historical Resource. Tribal Cultural Resources may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that request notification an opportunity to consult at the commencement of the CEQA process to identify Tribal Cultural Resources. Furthermore, because a significant effect on a Tribal Cultural Resource is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

Assembly Bill 168

AB 168 was signed in 2020 and extends the responsibility of a development proponent to consult with Native American tribes to streamlined ministerial approvals for affordable multifamily housing developments under SB 35. A development with streamlined ministerial approval under SB 35 is not subject to CEQA, allowing for such developments to occur without going through a CEQA review or screening process to determine if they would affect Tribal Cultural Resources.

AB 168 requires a development proponent to submit notice of its intent to apply for streamlined approval to the local government prior to the actual application submittal. The local government is then required to provide formal notice to each California Native American tribe that is culturally affiliated with the geographic area of the proposed development and to engage in a “scoping consultation” regarding the potential effects the proposed development could have on a potential Tribal Cultural Resource (California Code Section 65913.4(b)).

The scoping consultation must commence within 30 days after the proponent submits a notice of intent to apply for ministerial approval and must conclude before the proponent can submit the application.

This bill deems a project ineligible for the streamlined, ministerial approval process and requires it be subject to CEQA if:

- (A) The site of the proposed development is a Tribal Cultural Resource that is on a national, State, tribal, or local historic register list;
- (B) The local government and the California Native American tribe do not agree that no potential Tribal Cultural Resource would be affected by the proposed development; or
- (C) The local government and California Native American tribe find that a potential Tribal Cultural

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Resource could be affected by the proposed development and the parties do not document an enforceable agreement regarding the methods, measures, and conditions for treatment of those tribal cultural resources, as provided.

California Public Records Act

Sections 6253 and 6254.10 of the California Government Code (CGC) authorize state agencies to exclude archaeological site information from public disclosure under the California Public Records Act (CPRA) (CGC Sections 6250 et. seq.). In addition, the CPRA and California's open meeting law (The Brown Act, CGC Sections 56950 et. seq.) protect the confidentiality of Native American cultural place information. The CPRA (as amended, 2005) contains two exemptions that aid in the protection of records relating to Native American cultural places by permitting any state or local agency to deny a CRPA request and withhold from public disclosure:

...records of Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects described in Section 5097.9 and 5097.993 of the Public Resources Code maintained by, or in the possession of, the Native American Heritage Commission, another state agency, or local agency (CGC Section 6254[r])

...records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, another state agency, or local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency (CGC Section 6254.10).

Likewise, the Information Centers of the California Historical Resources Information System maintained by the Office of Historic Preservation prohibit public dissemination of records search and site location information. In compliance with these requirements, and those of the Code of Ethics for the Society of California Archaeology and the Register of Professional Archaeologists, the locations of cultural resources are considered restricted information with highly restricted distribution and are not publicly accessible.

California Public Resources Code Section 5097.9

Section 5097.9 of California's Public Resources Code prevents all public agencies or private parties using or operating public property under a contract made after June 30, 1977, from interfering with the free expression or exercise of Native American religion. This section of the Public Resources Code also prohibits damage to a sanctified Native American cemetery, place of worship, shrine, or religious or ceremonial site located on public property unless it is clearly and convincingly in the public interest to do so.

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California Health and Safety Code Section 7050.5

Section 7050.5 of the Health and Safety Code makes it a misdemeanor to intentionally disturb, mutilate, or remove interred human remains. It also requires that if human remains are discovered outside of a dedicated cemetery, any excavation or disturbance of the site stop until the county coroner makes a report. Under this section, if the county coroner determines the remains to be of a Native American, the coroner must contact the NAHC within 24 hours.

California Building Standards Code

Title 24 of the California Code of Regulations, known as the California Building Standards Code (CBSC) or simply "Title 24," contains the regulations that govern the construction of buildings in California. The CBSC includes 12 parts which include the California Building Code and California Historical Building Code with regulations for historic buildings.

Local Regulations

City of Colfax Municipal Code

Chapter 17.116 Design Guidelines

Chapter 17.116, Design Guidelines, of the City of Colfax's Municipal Code establishes a set of standard regulations that maintains and enhances the city's character and visual appearance in order to create a quality future community; and enhance the historic resources, qualities and character of the city. These guidelines are applicable to all zones within the city limits of Colfax, excepting therefrom single-family residential zones R-l-5, R-l-10, R-1-15, R-1-20 and R-1-40.

Chapter 17.200, Significant Buildings

Chapter 17.200, Significant Buildings, of the City of Colfax's Municipal Code prevents the demolition of significant buildings (special historic, cultural or aesthetic interest, and by virtue of that may have significant value to the community) unless it is needed for the development of a new building and after having a noticed public hearing and discretionary approval.

Chapter 17.84, Overlay and Special Purpose Zones

Chapter 17.84, Overlay and Special Purpose Zones, of the City of Colfax's Municipal Code establishes a historic zone necessary to achieve the cited mitigation of the community design element and implementation of the Colfax General Plan 2020. The purpose of the historic zone is to establish an area that will maintain and enhance the city's character in order to create a quality future community; and enhance the historic resources, qualities and character of the city.

6. Energy

Federal Regulations

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of U.S. crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE Standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. On March 30, 2020, the Environmental Protection Agency finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards, covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021–2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 mpg for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, on March 31, 2022, the National Highway Traffic Safety Administration finalized new fuel standards, which will increase fuel efficiency 8 percent annually for model years 2024 to 2025 and 10 percent annual for model year 2026. Overall, the new CAFE standards require a fleet average of 49 MPG for passenger vehicles and light trucks for model year 2026, which will be a 10 MPG increase relative to model year 2021 (NHTSA 2022).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The act sets increased corporate average fuel economy standards; the renewable fuel standard; appliance energy-efficiency standards; building energy-efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (USEPA 2022).

ENERGY

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for energy conservation improvements in commercial and residential buildings, fossil fuel production and clean coal facilities, and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, the National Energy Policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system.

State Regulations

Warren-Alquist Act

Established in 1974, the Warren-Alquist Act created the California Energy Commission (CEC) in response to the energy crisis of the early 1970s and the state's unsustainable growing demand for energy resources. The CEC's core responsibilities include advancing State energy policy, encouraging energy efficiency, certifying thermal power plants, investing in energy innovation, developing renewable energy, transforming transportation, and preparing for energy emergencies. The Warren-Alquist Act is updated annually to address current energy needs and issues, and its latest edition was updated in January 2023.

California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long-Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision, as well as goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This Plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy by 2020.¹
- All new commercial construction in California will be zero net energy by 2030.
- Heating, ventilation and air conditioning commonly referred to as “HVAC” will be transformed to ensure that its energy performance is optimal for California’s climate.
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long-Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector’s five billion-plus square feet of space accounts for 38 percent of the State’s power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, while space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of State’s electricity and gas use (CPUC 2011).

The CPUC and CEC have adopted the following goals to achieve zero net energy (ZNE) levels by 2030 in the commercial sector:

- **Goal 1.** New construction will increasingly embrace zero net energy performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.
- **Goal 2.** 50 percent of existing buildings will be retrofit to zero net energy by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.
- **Goal 3.** Transform the commercial lighting market through technological advancement and innovative utility initiatives.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

The California Renewables Portfolio Standard (RPS) was established in 2002 under SB 1078 and was amended in 2006, 2011, and 2018. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. Executive Order S 14 08 was signed in November 2008, which

¹ Zero net energy buildings are buildings that the total amount of energy used by the building on an annual basis is equal to or less than the amount of renewable energy created on the site.

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expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the California legislature in 2011 (SB X1-2). The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. For the year 2020, the three largest retail energy utilities provided an average of 43 percent of its supplies from renewable energy sources. Community choice aggregators provided an average of 41 percent of its supplies from renewable sources (CPUC 2021).

Senate Bill 350

Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes 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 upon 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 350 also provides for the transformation of the California Independent System Operator into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California Independent System Operator to those markets, pursuant to a specified process.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consists of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Senate Bill 1020

Senate Bill 1020 (SB 1020) was signed into law on September 16, 2022. It requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035 and 95 percent by 2040. Additionally, SB 1020 requires all state agencies to procure 100 percent of electricity from renewable energy and zero-carbon resources by 2035.

Energy Efficiency

California Building Energy Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title

24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for the consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Building Energy Efficiency Standards were adopted on May 9, 2018, and went into effect on January 1, 2020.

The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, went into effect starting January 1, 2020. The 2019 standards move toward cutting energy use in new homes by more than 50 percent and require installation of solar photovoltaic systems for single-family homes and multifamily buildings of three stories and less (CBSC 2018). The 2019 standards focus on four key areas: 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; and 4) nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings are generally 30 percent more energy efficient compared to the 2016 standards, and single-family homes are generally 7 percent more energy efficient (CEC 2018b). When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy compared to homes built to the 2016 standards (CEC 2018b).

Furthermore, on August 11, 2021, the CEC adopted the 2022 Building Energy Efficiency Standards, which were subsequently approved by the California Building Standards Commission in December 2021. The 2022 standards become effective and replace the existing 2019 standards on January 1, 2023. The 2022 standards would require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards also include prescriptive photovoltaic system and battery requirements for high-rise, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2021).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.² The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2022. The 2022 CALGreen update, which was approved as part of 2022 Energy Code became effective on January 1, 2023, and provides updates to the residential and non-residential voluntary measures.

Overall, the code is established to reduce construction waste, make buildings more efficient in the use of materials and energy, and reduce environmental impacts during and after construction. CALGreen has requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation

² The green building standards became mandatory in the 2010 edition of the code.

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conservation, and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency (CBSC 2022).

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the CEC on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non–federally regulated appliances. They contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines, dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California (California Code of Regulations Title 20, Parts 1600–1608). These standards are updated regularly to allow consideration of new energy efficiency technologies and methods.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under *Federal*, above). In January 2012, the California Air Resources Board (CARB) approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California’s Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions (CARB 2017).

Executive Order N-79-20

On September 23, 2020, Executive Order N-79-20 was issued, which sets a time frame for the transition to zero-emissions (ZE) passenger vehicles and trucks in addition to off-road equipment. It directs CARB to develop and propose the following:

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs (zero-emission vehicles) sold in the California toward the target of 100 percent of in-state sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.

- Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the EPA, and local air districts.

On August 25, 2022, CARB adopted the Advanced Clean Cars II (ACC II) regulations that codifies the EO goal of 100 percent of in-state sales of new passenger vehicles and trucks be ZE by 2035. Starting in year 2026, ACC II requires that 35 percent of new vehicles sold be ZE or plug-in hybrids.

Energy Storage

California has set ambitious long-term goals for energy storage beyond 2026 to support its clean energy and climate goals. The state aims to reach 100 percent carbon-free electricity by 2045, which will require significant investment in renewable energy sources like wind and solar, as well as energy storage technologies to balance the variability of these sources.

The California Independent System Operator (CAISO) has a total energy storage capacity of more than 3,160 megawatts (MW) as of June 2022 (CAISO 2022). This includes both large-scale and distributed energy storage systems, such as batteries, pumped hydroelectric storage, and thermal storage. CAISO is responsible for managing the electricity grid for much of California, and it has set a target of adding 3,300 MW of additional energy storage capacity by 2024 to support the integration of more renewable energy sources like wind and solar (CAISO 2022). As part of SB 100, load serving entities (LSEs) were required to procure no less than 1.3 gigawatts (GW) of energy storage capacity by 2020, and 3 GW by 2030. Additionally, the CPUC has established a target of 15 GW of energy storage capacity by 2030 (CPUC 2022).

The Integrated Resource Plan (IRP)

CAISO develops a coordinated grid management plan to integrate the generation and storage capacities of LSEs, called the Integrated Resource Plan (IRP). The IRP is a comprehensive planning document that outlines CAISO's forecasts for electricity demand, supply, and transmission needs over a 20-year planning horizon, as well as its strategies for integrating renewable energy resources and other grid services to meet those needs. The plan is developed in collaboration with LSEs, regulators, and other stakeholders, and is updated periodically to reflect changes in the energy landscape and evolving policy goals. Overall, the IRP plays a critical role in ensuring the reliability and resilience of California's electricity grid as the state continues to transition to a cleaner and more sustainable energy system.

When an individual Battery Energy Storage (BES) facility or generation infrastructure (i.e., solar panels) comes online in California, it is typically included in the IRP through a process known as the Interconnection Queue. The Interconnection Queue is managed by the CAISO, which oversees the operation of the State's electricity grid.

The Interconnection Queue

The Interconnection Queue is an application process that functions as a waiting list of proposed electricity generation and storage projects that are seeking to connect to the grid. When a new BES facility or generation infrastructure is proposed, the developer submits an application to CAISO to request an

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interconnection to the grid. CAISO evaluates the application to ensure that the facility meets technical and operational requirements, such as voltage regulation and frequency response, and that it can be integrated effectively into the grid.

Once the BES facility or generation infrastructure is approved by CAISO, it is assigned a point of interconnection on the grid, and its output is added to the IRP as a resource that can provide electricity and other grid services, such as frequency regulation or ramping support. The facility is then dispatched by CAISO based on its bids into the day-ahead and real-time electricity markets, and its output is used to help balance supply and demand on the grid in real-time.

Overall, the Interconnection Queue is an important mechanism for integrating new BES facilities and other electricity resources into the California grid, and for ensuring that the grid remains reliable and resilient as the state continues to transition to a cleaner and more sustainable energy system.

Local Regulations

City of Colfax Municipal Code

Chapter 15.04 - Green Building Standards Code

According to Chapter 15.04, Green Building Standards Code, the City has adopted the 2017 Green Building Standards Code, and according to Chapter 15.04, Energy Code, the City has adopted the 2017 California Energy Code.

Chapter 16.80 – Solar Energy

Under Chapter 16.80, Solar Energy, of Title 16, Subdivisions, of the city municipal code, all subdivisions requiring a tentative map must provide for future passive or natural heating or cooling opportunities. These include requirements for natural heating and natural cooling in structures.

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7. Geological, Soils, and Mineral Resources

Federal Regulations

Surface Mining and Reclamation Act (SMARA)

California's Surface Mining and Reclamation Act of 1975, referred to as SMARA, was enacted to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. Requirements for SMARA are codified under PRC §§ 2710 et. seq. Under state law, all mining operations are required to obtain permits prior to commencing operations and abide by local and state operating requirements. Mining operations are also required to have appropriate reclamation plans in place, provide financial assurances, and abide by state and local environmental laws.

Classification

The California Geological Survey Mineral Resources Project provides information about California's non-fuel mineral resources. The Mineral Resources Project classifies lands throughout the State that contain regionally significant mineral resources per SMARA. Non-fuel mineral resources include metals such as gold, silver, iron, and copper; industrial metals such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt and dimension stone; and construction aggregate including sand, gravel, and crushed stone. Development generally results in a demand for minerals, especially construction aggregate. Urban preemption of prime deposits and conflicts between mining and other uses throughout California led to passage of the SMARA which requires all cities and counties to incorporate in their General Plans the mapped designations approved by the State Mining and Geology Board.

The classification process involves the determination of Production-Consumption (P-C) Region boundaries, based on identification of active aggregate operations (Production) and the market area served (Consumption). The P-C regional boundaries are modified to include only those portions of the region that are urbanized or urbanizing and are classified for their aggregate content. An aggregate appraisal further evaluates the presence or absence of significant sand, gravel, or stone deposits that are suitable sources of aggregate. The classification of these mineral resources is a joint effort of the state and the local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as one of the four Mineral Resource Zones (MRZs), described below.

- **MRZ-1:** A Mineral Resource Zone where adequate information indicates that no significant mineral deposits are present or likely to be present.

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- **MRZ-2:** A Mineral Resource Zone where adequate information indicates that significant mineral deposits are present, or a likelihood of their presence and development should be controlled.
- **MRZ-3:** A Mineral Resource Zone where the significance of mineral deposits cannot be determined from the available data.
- **MRZ-4:** A Mineral Resource Zone where there is insufficient data to assign any other MRZ designation.

As part of the classification process, an analysis of site-specific conditions is utilized to calculate the total volume of aggregates within individually identified Resource Sectors. Resource Sectors are those MRZ-2 areas identified as having regional or statewide significance. Anticipated aggregate demand in the P-C Regions for the next 50 years is then estimated and compared to the total volume of aggregate reserves identified within the P-C Region.

Designation

Once a classification report has been completed, the State Mining and Geology Board may choose, based on recommendations from the State Geologist, to proceed with the second step in SMARA's mineral land identification process, designation of those mineral deposits that are of regional or statewide significance. In contrast to classifications, which inventories mineral deposits without regard to land use or land ownership, the purpose of a designation is to identify those deposits that are potentially available from a land-use perspective and are of prime importance in meeting future needs of the region or State.

International Building Code

The International Building Code (IBC) has been adopted throughout the United States and has been in use since 2007. The purpose of the IBC is to establish minimum regulations for building systems, including fire safety, building safety, foundation, wall and roof constructions, materials used in construction, elevators and escalators, and existing structures.

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1997 to "reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program." To accomplish this, the act established the National Earthquake Hazard Reduction Program (NEHRP), which refined the description of agency responsibilities, program goals, and objectives. NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help

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inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards.

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate state or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and other researchers. The Paleontological Resources Preservation Act incorporates key findings of a report, Fossils on Federal Land and Indian Lands, issued by the Secretary of Interior in 2000, which establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources.

Antiquities Act of 1906

The Antiquities Act of 1906 (Public Law [P.L.] 59-209; 16 United States Code [USC] 431-433, 34 Statute 225) has been cited in past efforts to protect paleontological resources on federal lands, and requires protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on federal lands. The Antiquities Act of 1906 forbids disturbance of any object of antiquity on federal land without a permit issued by the responsible managing agency.

State Regulations

California Alquist-Priolo Earthquake Fault Zoning Act

The California Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972, and amended, with its primary purpose being to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. This act (or state law) was a direct result of the 1971 San Fernando Earthquake, which was associated with extensive surface fault ruptures that damaged numerous homes, commercial buildings, and other structures. The act requires the State Geologist (California Geologic Survey, CGS) to delineate regulatory zones known as “earthquake fault zones” along faults that are “sufficiently active” and “well defined” and to issue and distribute appropriate maps to all affected cities, counties, and state agencies for their use in planning and controlling new or renewed construction. Pursuant to this act and as stipulated in Section 3603(a) of the California Code of Regulations, structures for human occupancy are not permitted to be placed across the trace of an active fault. The act also prohibits structures for human occupancy within 50 feet of the trace of an active fault, unless proven by an appropriate geotechnical investigation and report that the development site is not underlain by active branches of the active fault, as stipulated in Section 3603(a) of the California Code of Regulations. Furthermore, the act requires that cities and counties withhold development permits for sites within an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting, as stipulated in Section 3603(d) of the California Code of Regulations.

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Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was adopted by the state in 1990 for the purpose of protecting the public from the effects of fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The CGS prepares and provides local governments with seismic hazard zones maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures.

California Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission, and the code is under Title 24, Part 2, of the California Code of Regulations. The CBC provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground shaking with a specified probability at a site. The 2022 CBC took effect on January 1, 2023.

Requirements for Geotechnical Investigations

Requirements for geotechnical investigations are included in CBC Appendix J, Grading, Section J104; additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953 to 17955 and in CBC Section 1802. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness. CBC Section J106 sets forth requirements for inspection and observation during and after grading.

California Public Resources Code

The State of California Public Resources Code, Chapter 1.7, Sections 5097.5 and 30244, includes additional state level requirements for the assessment and management of paleontological resources. These statutes require reasonable mitigation of adverse impacts to paleontological resources resulting from development on state lands, define the removal of paleontological “sites” or “features” from state lands as a misdemeanor, and prohibit the removal of any paleontological “site” or “feature” from State land without permission of the jurisdictional agency. These protections apply only to State of California land.

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Local Regulations

City of Colfax Municipal Code

Chapter 15 – Building Code

The City of Colfax has incorporated and adopted the 2022 CBC with the City's amendments as Municipal Code Section 15.04.010. This section also outlines edits to the provisions of the CBC for development in Colfax.

Chapter 15.30 – Grading, Erosion and Sediment Control

This chapter is enacted for the purpose of regulating grading on private property in the City of Colfax to protect public health, safety, and welfare. It also aims to reduce environmental damage, watercourse pollution, and ensure that the intended use of a graded site is consistent with the Colfax Area General Plan, specific plans, and city ordinances.

Section 15.30.020, General requirements for grading, states that all grading in the city must comply with technical requirements of the Uniform Building Code, dust control, erosion control, waterways protection, sediment control, excavation, cut and fill, slope, and compaction. Failure to do so is considered a public nuisance.

Chapter 16.16 – Parcel Maps

The tentative map-parcel process shall apply to subdivisions as described in the Subdivision Map Act of the state, including subdivisions of up to sixty (60) acres and all other subdivisions for which a final map or parcel map is not otherwise required by the Subdivision Map Act of the state.

Chapter 16.24 – Final Maps

An approved tentative map-final map shall expire twenty-four (24) months after its approval. The council may grant extensions according to the provisions of the Subdivision Map Act.

Chapter 16.56 – Design and Improvement Standards

Lot design and improvement standards for site development and subdivisions must adhere to zoning provisions, Standard Specifications, and this chapter. Councils or approval authorities can approve projects with variances, ensuring special design standards prevail without requiring a variance application.

Chapter 16.64 – Sanitary Sewers

Chapter 16.64, Sanitary Sewers, of the Colfax Municipal Code provides the standards for the design of septic tanks and leaching fields. All installations must meet the requirements of the County Environmental Health

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Department and City Engineer. Furthermore, title 16.64.030 says that street sewer mains and house sewer lines shall be constructed in accordance with the Standard Specifications.

Section 17.122.100 – Grading Design Plan

For the efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted, as required by the city's grading ordinance as part of the landscape documentation package. A comprehensive grading plan prepared by a California licensed civil engineer for other city permits satisfies this requirement.

The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including Height of graded slopes; Drainage patterns; Pad elevations; Finish grade; and Stormwater retention improvements, if applicable.

8. Greenhouse Gas Emissions

8.1 REGULATORY FRAMEWORK

This section summarizes key federal, State, regional, and local regulations and programs related to GHG emissions resulting from the proposed Specific Plan.

Federal Regulations

The United States Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings did not themselves impose any emission reduction requirements but allowed the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (EPA 2009). To regulate GHGs from passenger vehicles, the EPA was required to issue an endangerment finding, which identifies emissions of six key GHGs: CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆. The first three are applicable to the project's GHG emissions inventory because they constitute the majority of GHG emissions. These are as follows:

- **US Mandatory Report Rule for Greenhouse Gases (2009).** In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MT) or more of CO₂e per year are required to submit an annual report.
- **Update to Corporate Average Fuel Economy Standards (2010 to 2012).** The current Corporate Average Fuel Economy (CAFE) standards (for models 2011 to 2016) incorporate stricter fuel economy requirements into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in a fleet average of 35.5 miles per gallon by 2016). Rulemaking to adopt these new standards was completed in 2010. The federal government issued new standards in 2012 for model years 2017 to 2025, which will require a fleet average of 54.5 miles per gallon in 2025. The EPA is reexamining the 2017 to 2025 emissions standards.
- **EPA Regulation of Stationary Sources under the Clean Air Act (Ongoing).** Pursuant to its authority under the Clean Air Act, the EPA has been developing regulations for new stationary sources such as power plants, refineries, and other large sources of emissions. Pursuant to the 2013 Climate Action Plan, the EPA was directed to also develop regulations for existing stationary sources. However, the EPA is reviewing the Clean Power Plan under the current Energy Independence Executive Order.

GREENHOUSE GAS EMISSIONS

State Regulations

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in Executive Order S-03-05, AB 32, SB 32, Executive Order B-30-15, and SB 375. These are summarized as follows:

- **Executive Order S-03-05.** Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction targets for the state:
 - 2000 levels by 2010.
 - 1990 levels by 2020.
 - 80 percent below 1990 levels by 2050.
- **Assembly Bill 32.** Also known as the Global Warming Solutions Act (2006), AB 32 was signed August 31, 2006, in order to reduce California’s contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-03-05. Under AB 32, California Air Resources Board (CARB) prepared the *2008 Climate Change Scoping Plan*, the *2014 Climate Change Scoping Plan*, and the *2017 Climate Change Scoping Plan*, which is discussed below.
 - CARB 2008 Scoping Plan. The 2008 Scoping Plan, adopted by CARB on December 11, 2008, identified that GHG emissions in California are anticipated to be approximately 596 MMTCO₂e in 2020. In December 2007, CARB approved a 2020 emissions limit of 427 MMTCO₂e (471 million tons) for the state. In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MTCO₂e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012.
 - First Update to the Scoping Plan. CARB completed a five-year update to the 2008 Scoping Plan, as required by AB 32. The First Update to the Scoping Plan, adopted at the May 22, 2014, board hearing, highlights California’s progress toward meeting the near-term 2020 GHG emission reduction goals defined in the 2008 Scoping Plan. As part of the update, CARB recalculated the 1990 GHG emission levels with the updated AR4 GWPs, and the 427 MMTCO₂e 1990 emissions level and 2020 GHG emissions limit, established in response to AB 32, are slightly higher at 431 MMTCO₂e (CARB 2014).

As identified in the Update to the Scoping Plan, California is on track to meeting the goals of AB 32. However, the update also addresses the state’s longer-term GHG goals in a post-2020 element. The post-2020 element provides a high-level view of a long-term strategy for meeting the 2050 GHG goals, including a recommendation for the State to adopt a midterm target. According to the Update to the Scoping Plan, local government reduction targets should chart a reduction trajectory that is consistent with or exceeds the trajectory created by statewide goals (CARB 2014). CARB identified that reducing emissions to 80 percent below 1990 levels will require a fundamental shift to efficient, clean energy in every sector of the economy. Progressing toward California’s 2050 climate targets will require significant acceleration of GHG reduction rates. Emissions from 2020 to 2050 will have to decline several times faster than the rate needed to reach the 2020 emissions limit (CARB 2014).

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- **Executive Order B-30-15.** Executive Order B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions within the state to 40 percent of 1990 levels by year 2030. Executive Order B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the state and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in Executive Order S-03-05. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.
- **Senate Bill 32 and Assembly Bill 197.** In September 2016, SB 32 and AB 197 were signed into law, making the Executive Order goal for year 2030 into a statewide mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.
 - 2017 Climate Change Scoping Plan Update. Executive Order B-30-15 and SB 32 required CARB to prepare another update to the Scoping Plan to address the 2030 target for the state. On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan) to address the 2030 target for the State. The 2017 Scoping Plan establishes a new emissions limit of 260 MMTCO₂e for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030 (CARB 2017a).

California's climate strategy will require contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (i.e., methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement local air pollution control efforts by the local air districts to tighten criteria air pollutants and toxic air contaminants (TACs) emissions limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle buses and trucks.
- Low Carbon Fuel Standard, with an increased stringency (18 percent by 2030).
- Implementation of SB 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of zero emission vehicle trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy, which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030.
- Continued implementation of SB 375.

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- Post-2020 Cap-and-Trade Program that includes declining caps.
- Development of a Natural and Working Lands Action Plan to secure California’s land base as a net carbon sink.

In addition to the statewide strategies listed above, the 2017 Scoping Plan also identified local governments as essential partners in achieving the State’s long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than 6 MTCO₂e or less per capita by 2030 and 2 MTCO₂e or less per capita by 2050. CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate goals that align with the statewide per capita targets and the State’s sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State’s 1990 emissions limit established under AB 32. For CEQA projects, CARB states that lead agencies have the discretion to develop evidenced-based numeric thresholds (mass emissions, per capita, or per service population)—consistent with the Scoping Plan and the State’s long-term GHG goals. To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from vehicle miles travelled (VMT), and direct investments in GHG reductions within the project’s region that contribute potential air quality, health, and economic co-benefits. Where further project design or regional investments are infeasible or not proven to be effective, CARB recommends mitigating potential GHG impacts through purchasing and retiring carbon credits.

The Scoping Plan scenario is set against what is called the business-as-usual (BAU) yardstick—that is, what the GHG emissions would look like if the State did nothing at all beyond the existing policies that are required and already in place to achieve the 2020 limit, as shown in Table 8-1. It includes the existing renewables requirements, advanced clean cars, the “10 percent” Low Carbon Fuel Standard, and the SB 375 program for more vibrant communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years. Also shown in the table, the known commitments are expected to result in emissions that are 60 MMTCO₂e above the target in 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved.

TABLE 8-1 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS REDUCTIONS GAP TO ACHIEVE THE 2030 GHG TARGET

Modeling Scenario	2030 GHG Emissions MMTCO₂e
Reference Scenario (Business-as-Usual)	389
With Known Commitments	320
2030 GHG Target	260
Gap to 2030 Target with Known Commitments	60

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TABLE 8-1 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS REDUCTIONS GAP TO ACHIEVE THE 2030 GHG TARGET

Modeling Scenario	2030 GHG Emissions MMTCO ₂ e
Source: CARB 2017a.	

Table 8-2 provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030.

TABLE 8-2 2017 CLIMATE CHANGE SCOPING PLAN EMISSIONS BY SECTOR TO ACHIEVE THE 2030 GHG TARGET

Scoping Plan Sector	1990 MMTCO ₂ e	2030 Proposed Plan Ranges MMTCO ₂ e	% Change from 1990
Agricultural	26	24-25	-8% to -4%
Residential and Commercial	44	38-40	-14% to -9%
Electric Power	108	30-53	-72% to -51%
High GWP	3	8-11	267% to 367%
Industrial	98	83-90	-15% to -8%
Recycling and Waste	7	8-9	14% to 29%
Transportation (including TCU)	152	103-111	-32% to -27%
Net Sink ^a	-7	TBD	TBD
Sub Total	431	294-339	-32% to -21%
Cap-and-Trade Program	NA	24-79	NA
Total	431	260	-40%

Notes: TCU = Transportation, Communications, and Utilities; TBD = To Be Determined.

a. Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

Source: CARB 2017a.

- Senate Bill 375.** In 2008, SB 375, the Sustainable Communities and Climate Protection Act, was adopted to connect the GHG emissions reductions targets established in the 2008 Scoping Plan for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 required CARB to establish GHG emissions reduction targets for each of the 18 metropolitan planning organizations (MPOs). The Metropolitan Transportation Commission (MTC) is the MPO for the nine-county San Francisco Bay Area region. Pursuant to the recommendations of the Regional Transportation Advisory Committee (RTAC), CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target.

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- 2017 Update to the SB 375 Targets. CARB is required to update the targets for the MPOs every eight years. CARB adopted revised SB 375 targets for the MPOs in March 2018 (CARB 2018). The updated targets become effective on October 1, 2018. The targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update (for SB 32), while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks relative to 2005; this excludes reductions anticipated from implementation of state technology and fuels strategies, and any potential future state strategies, such as statewide road user pricing.

The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translate into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCS to achieve the SB 375 targets. For next SCS update, CARB's updated targets for the MTC/ABAG region are a 10 percent per capita GHG reduction in 2020 from 2005 levels (compared to 7 percent under the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 15 percent). CARB foresees that the additional GHG emissions reductions in 2035 may be achieved from land use changes, transportation investment, and technology strategies (CARB 2018).

- **Senate Bill 1383.** On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 requires the State board, no later than January 1, 2018, to approve and begin implementing that comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also establishes targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the "Final Proposed Short-Lived Climate Pollutant Strategy," which identifies the State's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017b). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.
- **Assembly Bill 1493.** Also known as Pavley I, AB 1493 is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model year 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under the heading for Federal Regulations, above). In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under

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California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.¹

- **Executive Order S-01-07.** On January 18, 2007, the state set a new Low Carbon Fuel Standard for transportation fuels sold in California. Executive Order S-01-07 sets a declining standard for GHG emissions measured in carbon dioxide equivalent gram per unit of fuel energy sold in California. The Low Carbon Fuel Standard requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The Low Carbon Fuel Standard applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the "fuel cycle," using the most economically feasible methods.
- **Executive Order B-16-2012.** Signed on March 23, 2012, the State directed that CARB, the California Energy Commission, the Public Utilities Commission, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate zero-emissions vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). The executive order also directs the number of zero-emission vehicles in California's state vehicle fleet to increase through the normal course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are zero-emission by 2015 and at least 25 percent by 2020. Finally, the executive order sets a target of reducing GHG emissions from the transportation sector 80 percent below 1990 levels.
- **Senate Bills 1078, 107, and X1-2, and Executive Order S-14-08.** A major component of California's Renewable Energy Program is the renewable portfolio standard established under Senate Bill 1078 and 107. Executive Order S-14-08 was signed in November 2008, which expanded the State's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.
- **Senate Bill 350.** Signed in September 2015, SB 350 establishes tiered increases to the renewable portfolio standard of 40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 seeks to double the energy efficiency savings in electricity and natural gas through energy efficiency and conservation measures.
- **Executive Order B-55-18 and SB 100.** SB 100 and Executive Order B-55-18 were signed by Governor Brown on September 10, 2018. Under the existing RPS, 25 percent of retail sales are required to be from renewable sources by December 31, 2016, 33 percent by December 31, 2020, 40 percent by December 31, 2024, 45 percent by December 31, 2027, and 50 percent by December 31, 2030. SB 100 raises California's RPS requirement to 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also requires that retail

¹ See also the discussion on the update to the CAFE standards under Federal Laws, above. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California's Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

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sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030.

In addition to targets under AB 32 and SB32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative emissions thereafter. The Executive Order directs the California Natural Resources Agency, CalEPA, the Department of Food and Agriculture, and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

- **California Building Code: Building Energy Efficiency Standards.** Energy conservation standards for new residential and non-residential buildings were adopted in June 1977 and most recently revised in 2016 (Title 24, Part 6, of the California Code of Regulations). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On June 10, 2015, the California Energy Commission adopted the 2016 Building Energy Efficiency Standards, which went into effect on January 1, 2017. The 2016 Building Energy Efficiency Standards continues to improve upon the previous 2013 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. Under the 2016 Standards, residential and nonresidential buildings are 28 and 5 percent more energy efficient than the 2013 Standards, respectively (CEC 2015). While the 2016 standards do not achieve zero net energy, they do get very close to the State's goal and make important steps toward changing residential building practices in California. The 2019 Building Energy Efficiency Standards, which were adopted on May 9, 2018, go into effect starting January 1, 2020 (CEC 2015).

The 2019 standards move toward cutting energy use in new homes by more than 50 percent and will require installation of solar photovoltaic systems for single-family homes and multi-family buildings of three stories and less. Four key areas the 2019 standards will focus on are 1) smart residential photovoltaic systems; 2) updated thermal envelope standards (preventing heat transfer from the interior to exterior and vice versa); 3) residential and nonresidential ventilation requirements; and 4) nonresidential lighting requirements (CEC 2018a). Under the 2019 standards, nonresidential buildings will be 30 percent more energy efficient compared to the 2016 standards, and single-family homes will be 7 percent more energy efficient. When accounting for the electricity generated by the solar photovoltaic system, single-family homes would use 53 percent less energy than homes built to the 2016 standards (CEC 2018b).

- **California Building Code: CALGreen.** On July 17, 2008, California Green Building Standards Code (24 California Code of Regulations, Part 11, known as "CALGreen") were adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.² The mandatory provisions of the 2016 CalGreen building standards became effective on January 1, 2017. The CEC adopted the 2019 CALGreen on May 9, 2018, and it becomes effective January 1, 2020.

² The green building standards became mandatory in the 2010 edition of the code.

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- **2006 Appliance Efficiency Regulations.** Adopted by the California Energy Commission on October 11, 2006, the 2006 Appliance Efficiency Regulations (Title 20, California Code of Regulations, Sections 1601 through 1608) were approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. Though these regulations are now often viewed as “business-as-usual,” they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.
- **Solid Waste Regulations.** California’s Integrated Waste Management Act of 1989 (AB 939, Public Resources Code 40050 *et seq.*) set a requirement for cities and counties throughout the state to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity. AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multi-family residential land uses.

The California Solid Waste Reuse and Recycling Access Act (AB 1327, California Public Resources Code Sections 42900 *et seq.*) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own. Section 5.408 of the CalGreen also requires that at least 50 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1826, signed on October of 2014, requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions implement an organic waste recycling program to divert organic waste generated by businesses, including multi-family residential dwellings that consist of five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste.

- **Water Efficiency Regulations.** The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009 to 2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 requires urban water providers to adopt a water conservation target of 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or equivalent. AB 1881 also requires the Energy Commission, in consultation with the department, to adopt, by regulation, performance standards and labeling

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requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Local Regulations

City of Colfax Municipal Code

Section 15.04.010 – California Green Building Standards Code

The California Green Building Standards represents the first-in-the-nation mandatory green building standards code that aims to reduce GHG emissions from the built environment and often includes requirements for the installation of solar panels and other renewable energy and energy-efficient designs and technologies.

HAZARDS AND HAZARDOUS MATERIALS

9. Hazards and Hazardous Materials

Federal Regulations

United States Environmental Protection Agency

At the federal level, the chief environmental regulator is the US Environmental Protection Agency (EPA), whose mission is to protect human health and the environment. Butte County is designated within EPA Region IX, which includes Arizona, California, Hawaii, and New Mexico. The EPA maintains responsibility for cleanup of federal lands and waterways, and the State holds regulatory authority for all other lands.

Hazardous Material Databases

Information on hazardous materials is listed in a number of databases, including the federal Superfund list, which was created through the Comprehensive Environmental Response, Conservation, and Liability Act (CERCLA) of 1980; the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS); and the leaking underground storage tank (LUST) information system. These databases are also a primary source of information for legal disclosures, such as Phase I Environmental Site Assessments (ESAs), and to facilitate interagency cooperation.

Federal Emergency Management Agency

The primary mission of the Federal Emergency Management Agency (FEMA) is to reduce the loss of life and property and to protect the nation from all hazards, including natural disasters, acts of terrorism, and other human-made disasters, by leading and supporting a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation.

Disaster Mitigation Act

The Disaster Mitigation Act of 2000 requires a state mitigation plan as a condition of disaster assistance, adding incentives for increased coordination and integration of mitigation activities at the state level through the establishment of requirements for two different levels of state plans: "Standard" and "Enhanced." States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Disaster Mitigation Act also established a new requirement for local mitigation plans.

Federal Aviation Administration

The FAA is charged with the review of construction or alterations that occur in the vicinity of airports. Its role in reviewing these activities is to identify potential aeronautical hazards and prevent or minimize adverse impacts to the safe and efficient use of navigable airspace. The regulations in the Code of Federal Regulations (CFR), Title 14, Part 77 (or FAR Part 77), are designed to ensure that no permanent or

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temporary obstructions are allowed into the navigable air space that would endanger the public or limit the efficient use of airspace. Proposed structures are also evaluated against Terminal En Route Procedures, which ensure that an object does not adversely impact flight procedures. Tall structures, including buildings, construction cranes, and cell towers, in the vicinity of an airport can be hazardous to the navigation of airplanes. FAR Part 77 identifies the maximum height at which a structure would be considered an obstruction based on its proximity to the airport. All objects over 200 feet above ground level (AGL) are impacted by these regulations, and any object less than 200 feet AGL within 20,000 feet of an airport must be evaluated based on height and location relative to the airport.

Toxic Substances Control Act

Established in 1976 and amended on December 31, 2002, the Toxic Substances Control Act (TSCA) (15 United States Code [USC] Title 15, Sections 2601–2692) grants the EPA power to require proper reporting, record-keeping, and testing requirements related to chemical substances and/or mixtures. Specifically, the TSCA addresses the production, importation, use, and disposal of specific chemicals, including PCBs, asbestos, radon, and LBPs. The TSCA establishes the EPA’s authority to require the notification of the use of chemicals, require testing, maintain a TSCA inventory, and require those importing chemicals under Sections 12(b) and 13 to comply with certification and/or other reporting requirements. This federal legislation also phased out the use of asbestos-containing materials in new building materials and set requirements for the use, handling, and disposal of asbestos-containing materials. Disposal standards for lead-based paint wastes are also detailed in the TSCA.

The Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-To-Know Act (also known as Title III of the Federal Superfund Amendments and Reauthorization Act, or “SARA III”) (42 USC section 11001 et seq.) was established by the EPA to allow for emergency planning at the state and local level regarding chemical emergencies, to provide notification of emergency release of chemicals, and to address the community’s right to know about hazardous and toxic chemicals in their area. SARA III was designed to increase community access and knowledge about chemical hazards as well as facilitate the creation and implementation of state/ tribal emergency response commissions responsible for coordinating certain emergency response activities and appointing local emergency planning committees. Section 1910.1200(c) Title 29 of the CFR defines “chemicals or hazardous materials” for the purposes of SARA III.

Hazardous Materials Transportation Act—Safe Transport of Hazardous Materials

The USDOT regulates hazardous materials transportation between states under 49 CFR Chapter 1, Parts 100-185. In California, the California Department of Transportation (Caltrans) and the California Highway Patrol enforce federal law related to the transport of hazardous materials. Together, these agencies determine driver training requirements, load labeling procedures, and specifications for container types.

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and nonhazardous wastes. The legislation mandates that hazardous wastes be tracked from the point of generation to ultimate fate in the environment. This

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includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The act was intended to be comprehensive in encompassing both the prevention of and response to uncontrolled hazardous substances releases. The act deals with environmental response, providing mechanisms for reacting to emergencies and chronic hazardous material releases. In addition to procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection

State Regulations

California Health and Safety Code and Code of Regulations

California Health and Safety Code Chapter 6.95 and California Code of Regulations, Title 19, Section 2729, set out the minimum requirements for business emergency plans and chemical inventory reporting. These regulations require businesses to provide emergency response plans and procedures, training program information, and a hazardous material chemical inventory disclosing hazardous materials stored, used, or handled on-site. A business that uses hazardous materials or a mixture containing hazardous materials must establish and implement a business plan if the hazardous material is handled in certain quantities.

Department of Toxic Substance Control

The DTSC is a department of CalEPA and is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. The DTSC regulates hazardous waste in California primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Government Code Section 65962.5 directs DTSC to compile a list (commonly referred to as the Cortese List) of DTSC-listed hazardous waste facilities and sites, Department of Health Services (DHS) lists of contaminated drinking water wells, sites listed by the State Water Resources Control Board as having underground storage tank (UST) leaks and which have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material.

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California Building Code

The State of California provided a minimum standard for building design through the California Building Code (CBC), which is in Part 2 of Title 24 of the California Code of Regulations. Commercial buildings are plan-checked by the City for compliance with the CBC. Typical fire safety requirements of the CBC included; the installation of sprinklers, establishment of fire resistance standards for fire doors, certain building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildlife hazard areas.

State of California Multi-Hazard Mitigation Plan

The State of California Multi-Hazard Mitigation Plan (SHMP) is the official statement of the State's hazard identification, vulnerability analysis, and hazard mitigation strategy. The SHMP is also a federal requirement under the Disaster Mitigation Act of 2000 for the State of California to receive federal funds for disaster assistance grant programs. The goal of the SHMP, prepared by the Office of Emergency Services (OES), is to guide implementation activities to achieve the greatest reduction of vulnerability, which results in saved lives, reduced injuries, reduced property damages, and protection for the environment. The State OES is currently working with the California Office of Planning Research to incorporate hazard mitigation planning into General Plan guidelines.

California Fire Safety Regulations

There are number of State regulations pertaining to fire hazards, including the following.

- **Public Resources Code Fire Safe Regulations.** Section 4290 of the Public Resources Code (PRC) covers Fire Safe Regulations, establishing minimum road standards; signing for streets, roads, and buildings; private water supply resources; and wildland fuel modification. Section 4290 works in conjunction with building construction development standards in State Responsibility Areas (SRAs), which are State-identified lands or areas for which the California Department of Forestry and Fire Protection (CAL FIRE) has the primary responsibility to manage the public safety during a fire incident. SRAs are defined based on land ownership, population density, and land use. In Butte County, SRAs primarily consist of private property outside of incorporated areas and outside of the valley floor. For example, CAL FIRE does not have responsibility for densely populated areas, the valley area, or lands administered by the federal government. In addition, Section 4291 of the PRC requires annual defensible space of 100 feet to be provided around all structures in or adjoining any mountainous area or land covered with forest, brush, grass, or other flammable material.
- **Wildland-Urban Interface Code.** The California Building Commission adopted the Wildland-Urban Interface Codes in late 2005 with an effective date of January 2008. These new codes include provisions for ignition-resistant construction standards in fire-prone areas. More specifically, new buildings in any fire hazard severity zone within SRAs, any locally designated Very High Fire Hazard Severity Zone (VHFHSZ), or any Wildland-Urban Interface Fire Area must meet the requirements in the new codes. As part of the code revision process, fire hazard severity zones were evaluated and updated. The updated fire hazard severity zones are used by building officials to determine

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appropriate construction materials for new buildings in the wildland-urban interface. These zones are also used by property owners to comply with natural hazards disclosure requirements at the time of property sale, including wildland areas that may contain substantial forest fire risks and hazards, and VHFHSZs. These fire hazard severity zones are also used by local governments when updating their Safety Elements.

- **Uniform Fire Code.** This code may be adopted by counties and local jurisdictions with amendments and provides minimum standards for many aspects of fire prevention and suppression activities. These standards include provisions for access, water supply, fire protection systems, and the use of fire-resistant building materials. However, the Office of the State Fire Marshal (SFM), along with other State agencies, is in the process of developing and proposing a new Building and Fire Code for California using the 2006 International Building Code (IBC) and the International Fire Code (IFC) as the base document. Many jurisdictions choose to adopt their own version, as is the case in Butte County.
- **California Fire Code.** This is the official code for the State of California and all political subdivisions. It is in Part 9 of Title 24 of the CCR (Title 24 is commonly referred to as the California Building Standards Code). The California Fire Code is revised and published every three years by the California Building Standards Commission.
- **California Health and Safety Code.** This code regulates the abatement of fire-related hazards. It also requires that local jurisdictions enforce the Uniform Building Code, which provides standards for fire-resistant building and roofing materials, and other fire-related construction methods.
- **California Code of Regulations.** Title 19 of the CCR establishes regulations related to fire prevention and engineering measures for new construction.
- **Assembly Bill (AB) 337 (Bates Bill).** In response to the Oakland Hills fire of 1991, this bill was passed in 1992. It requires brush clearance and fire-resistant roof material (Class A, B, or C) to be used on all new construction that is in any fire hazard severity zone

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California. CAL FIRE ranks fire threat based on the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include no fire threat, moderate, high, and very high fire threat. CAL FIRE produced the 2019 Strategic Fire Plan for California, with goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments.

The Office of the State Fire Marshal is proposing amendments to, and the relocation of, the regulation in 14 CCR, Section 1280, which designates FHSZ in SRA. Within this section are referenced maps titled "Maps of the Fire Hazard Severity Zones (FHSZ) in State Responsibility Areas of California. November 21, 2022." These maps are being updated as part of the proposal pursuant to California PRC) Sections 4201- 4204.

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California Fire Code

The California Fire Code (CFC) is Part 9 of the California Building Standards Code (California Code of Regulations, Title 24). Updated every 3 years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Similar to the CBC, the CFC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. The latest edition of the California Fire Code is the 2022 edition with an effective date of January 1, 2023.

Federal and State Hazardous Materials-Specific Programs and Regulations

Asbestos-Containing Materials Regulations

Asbestos is a naturally occurring fibrous mineral that has been mined for its useful thermal properties and tensile strength. Asbestos-containing materials (ACM) are generally defined as either friable or nonfriable. Any material containing more than 1 percent asbestos is considered friable ACM; it is more likely to produce airborne fibers than nonfriable ACM and can be crumpled, pulverized, or reduced to powder by hand pressure. Nonfriable ACM contains 1 percent or less asbestos and it cannot be crumpled, pulverized, or reduced to powder by hand pressure. When left intact and undisturbed, ACM does not pose a health risk to building occupants. Potential for human exposure occurs when ACM becomes damaged and fibers become airborne and are inhaled. Inhalation of asbestos fibers can lead to various health problems, some extremely serious.

State-level agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for ACMs. Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations, and medical evaluation and monitoring are required for employees performing activities that could expose them to asbestos. The regulations include warnings that must be heeded and practices that must be followed to reduce the risk for asbestos emissions and exposure. Finally, federal, state, and local agencies must be notified prior to the onset of demolition or construction activities with the potential to release asbestos.

Lead-Based Paint

Lead-based paint (LBP), which can result in lead poisoning when consumed or inhaled, was widely used in the past to coat and decorate buildings. Lead poisoning can cause anemia and damage to the brain and nervous system, particularly in children. Like ACM, LBP generally does not pose a health risk to building occupants when left undisturbed; however, deterioration, damage, or disturbance will result in hazardous exposure. In 1978, the use of LBP was federally banned by the Consumer Product Safety Commission. Therefore, buildings built before 1978 are presumed to contain LBP, as are buildings built shortly thereafter during the gradual phase-out of LBP.

Cal/OSHA's Lead in Construction Standard is in Title 8, Section 1532.1 of the California Code of Regulations. The regulations address all of the following areas: permissible exposure limits; exposure assessment; compliance methods; respiratory protection; protective clothing and equipment; housekeeping; medical

HAZARDS AND HAZARDOUS MATERIALS

surveillance; medical removal protection; employee information, training, and certification; signage; record keeping; monitoring; and agency notification.

Polychlorinated Biphenyls

The EPA prohibited the use of polychlorinated biphenyls (PCBs) in the majority of new electrical equipment starting in 1979 and initiated a phase-out for much of the existing PCB-containing equipment. The inclusion of PCBs in electrical equipment and their handling are regulated by the provisions of the Toxic Substances Control Act (15 USC Sections 2601 et seq.). Relevant regulations include labeling and periodic inspection requirements for certain types of PCB-containing equipment and outline highly specific safety procedures for their disposal. The State of California likewise regulates PCB-laden electrical equipment and materials contaminated above a certain threshold as hazardous waste, and they must be treated, transported, and disposed of accordingly. At lower concentrations for non-liquids, regional water quality control boards may exercise discretion over the classification of such wastes

Regional Regulations

Central Valley Regional Water Quality Control Board

The Porter-Cologne Water Quality Act established the State Water Resources Control Board and divided the state into nine regional basins, each under the jurisdiction of an RWQCB. The Central Valley RWQCB (Region 5) regulates water quality in the Project area and has the authority to require groundwater investigations when the quality of groundwater or surface waters of the state is threatened, and to require remediation actions, if necessary.

The Central Valley Region is divided into three basins from north to south—the Sacramento River Basin, San Joaquin River Basin, and Tulare Lake Basin. The City of Colfax is in the Sacramento River Basin.

Placer County 2021 Local Hazard Mitigation Plan Update

The 2021 Local Hazard Mitigation Plan (LHMP) Update serves to update the 2016 FEMA-approved Placer County LHMP, aiming to reduce or eliminate long-term risk to people and property from hazards. The update demonstrates the community's commitment to hazard mitigation and helps decision-makers direct mitigation activities and resources. It also ensures Placer County and participating jurisdictions' continued eligibility for federal disaster assistance programs, such as the FEMA Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, and Flood Mitigation Assistance Program.

The City of Colfax adopted the Placer County Local Hazard Mitigation Plan (Resolution No. 02-2022). The City of Colfax follows the planning process detailed on Chapter 3, Planning Process, of the Base Plan.

Placer County Community Wildfire Protection Plan (CWPP)

The Placer County Community Wildfire Protection Plan aims to reduce wildfire-related damage to people, property, and ecological elements in western Placer County. The CWPP includes new and existing wildfire

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information for citizens, policymakers, and public agencies throughout western Placer County, California. Participants in this project include the Placer Sierra Fire Safe Council which incorporates the City of Colfax (Placer 2012).

Local Regulations

City of Colfax Emergency Operations Plan

The City of Colfax Emergency Operations Plan (EOP) Plan addresses the planned response for the City to emergencies associated with disasters, technological incidents, or other dangerous conditions created by either man or nature. It provides an overview of operational concepts, identifies components of the City emergency management organization, and describes the overall responsibilities of local, state, and federal entities (Placer 2021a).

City of Colfax Municipal Code

Municipal Code Section 17.152.050, Performance standards – Citywide, requires that “ A home occupation involving the storage of flammable or hazardous materials shall not be allowed unless the fire department approves, in writing, the amount and method of such storage of materials.”

Municipal Code Chapter 8.32, Hazardous Vegetation Abatement and Establishment of Defensible Space, This chapter aims to guide city structures in establishing defensible spaces, minimizing hazardous vegetation and combustible materials, promoting public safety, and establishing an enforcement process for compliance.

10. Hydrology and Water Quality

10.1 REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The federal Water Pollution Control Act (or Clean Water Act [CWA]) is the principal statute governing water quality. It establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the EPA authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to completely end all discharges and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates direct and indirect discharge of pollutants; sets water quality standards for all contaminants in surface waters; and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges; requires states to establish site-specific water quality standards for navigable bodies of water; and regulates other activities that affect treatment plants and recognizes the need for planning to address nonpoint sources of pollution. Section 402 of the CWA requires a permit for all point source (a discernable, confined, and discrete conveyance, such as pipe, ditch, or channel) discharges of any pollutant (except dredge or fill material) into waters of the United States.

National Pollutant Discharge Elimination System

Under the National Pollutant Discharge Elimination System (NPDES) program (under Section 402 of the CWA), all facilities the discharge pollutants from any point into water of the United States must have a NPDES permit. The term "pollutant" broadly applies to any type of industrial, municipal, and agricultural waste discharged into water. Point sources can be publicly owned treatment works (POTWs), industrial facilities, and urban runoff. (The NPDES program addresses certain agricultural activities, but the majority are considered nonpoint sources and are exempt from NPDES regulation). Direct sources discharge directly to receiving waters, and indirect sources discharges to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only for direct, point-source discharges. The National Pretreatment Program addresses industrial and commercial indirect discharges. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows (CSOs), and the Municipal Storm Water Program. Nonmunicipal sources industrial and commercial facilities. Specific NPDES program areas applicable to these industrial/commercial sources are: Process Wastewater Discharges, Non-Process

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Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues two basic permit types: individual and general. Also, the EPA has recently focused on integrating the NPDES program further into watershed planning and permitting.

The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well as construction sites one acre or more in size, must file for and obtain an NPDES permit. Another measure for minimizing and reducing pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels and storm drains, designed or used for collecting and conveying stormwater) is the EPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a City) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., Best Management Practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to one acre.

Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA) regulates drinking water quality nationwide and gives the U.S. Environmental Protection Agency (EPA) the authority to set drinking water standards, such as the National Primary Drinking Water regulations (NPDWRs or primary standards). The NPDWRs protect drinking water by limiting the levels of specific contaminants that can adversely affect public health. All public water systems that provide service to 25 or more individuals must meet these standards. Water purveyors must monitor for contaminants on fixed schedules and report to the EPA when a maximum contaminant level (MCL) is exceeded. MCL is the maximum permissible level of a contaminant in water that is delivered to any use of a public water system. Contaminants include organic and inorganic chemicals (e.g., minerals), substances that are known to cause cancer, radionuclides (e.g. uranium and radon), and microbial contaminants (e.g., coliform and E. coli). The MCL list typically changes every three years as the EPA adds new contaminants or revises MCLs. The California Department of Public Health's Division of Drinking Water and Environmental Management is responsible for implementation of the SDWA in California.

Federal Urban Flooding Awareness Act

In recent years, communities have become concerned with localized flooding. In 2015, Congress passed the Urban Flooding Awareness Act of 2015. Under this bill, the National Academy of Sciences will conduct a study on urban flooding. It defines "urban flooding" as the inundation of property in a built environment, particularly in more densely populated areas, caused by rain falling on increased amounts of impervious surface and overwhelming the capacity of drainage systems. The bill directs the National Academy of Sciences to evaluate the latest research, laws, regulations, policies, best practices, procedures, and institutional knowledge regarding urban flooding. The findings from this assessment will direct future federal policies on identifying, preventing, and mitigating urban flooding.

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National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as Flood Insurance Studies (FISs). Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas (SFHAs) on FIRMs.

The Flood Disaster Protection Act (FDPA) requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System (CRS), a system for crediting communities that implement measures to protect the natural and beneficial functions of their flood plains, as well as managing erosion hazards.

State Regulations

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (Water Code sections 13000 et seq.) is the basic water quality control law for California. Under this Act, the State Water Resources Control Board (SWRCB) has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The SWRCB, through its nine RWQCBs, carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan, or basin plan, that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water-quality conditions and problems. The City of Redding is within the Sacramento River Basin and is under the jurisdiction of the Central Valley RWQCB (Region 5). The Central Valley RWQCB Region is divided into three basins—the Sacramento River Basin, San Joaquin River Basin, and Tulare Lake Basin.

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The Central Valley RWQCB monitors surface water quality through implementation of the water quality control plan for the Sacramento and San Joaquin River Basins (Basin Plan) and designates beneficial uses for surface water bodies and groundwater in the basins. The Basin Plan was last revised in 2018 and describes the water quality that must be maintained to support the designated beneficial uses. It provides programs, projects, and other actions necessary to achieve the standards it established. The Basin Plan also contains water quality criteria for groundwater.

Statewide General Construction Permit

Construction projects of 1 acre or more are regulated under the Construction General Permit, Order No. 2012-0006-DWQ, issued by the SWRCB. Under the terms of the permit, applicants must file permit registration documents with the SWRCB prior to the start of construction, including a Notice of Intent, risk assessment, site map, Storm Water Pollution Prevention Plan (SWPPP), annual fee, and signed certification statement.

The SWPPP must demonstrate conformance with applicable BMPs, including a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project location. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants if there is a failure of the BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Categories of BMPs used in SWPPPs are described in Table 5.10-1, *Construction BMPs*. Some sites may require implementation of a Rain Event Action Plan. The Construction General Permit also requires applicants to comply with post-construction runoff reduction requirements.

Storm Water Pollution Prevention Plans

Pursuant to the CWA, in 2001, the SWRCB issued a statewide general NPDES Permit for storm water discharges from construction sites (NPDES No. CAS000002). Under this Statewide General Construction Activity permit, discharges of storm water from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Activity Permit must ensure that a SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect storm water runoff, and 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 monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

HYDROLOGY AND WATER QUALITY

Sustainable Groundwater Management Act Section 10720.1 of the Sustainable Groundwater Management Act (SGMA), effective January 1, 2015, established a framework of priorities and requirements to facilitate sustainable groundwater management throughout California. The legislative intent of the SGMA is for groundwater to be managed in California's groundwater basins by local public agencies and newly-formed Groundwater Sustainability Agencies (GSAs). Specifically, the SGMA establishes a definition of "sustainable groundwater management," requires that a Groundwater Sustainability Plan be adopted for the most important groundwater basins in California, establishes a timetable for adoption of Groundwater Sustainability Plans (GSPs), empowers local agencies to manage basins sustainably, establishes basic requirements for Groundwater Sustainability Plans, and provides for a limited State role.

Local Regulations

Placer County Storm Management Manual

The purpose of this manual is to address increasing growth in Placer County. Increasing growth has led to increasing problems associated with stormwater runoff. Much of the growth has occurred adjacent to streams which drain the region, resulting in significant damages to property, losses from disruption of commercial activities, and potential loss of life when the streams overflow.

Placer County Stormwater Quality Management

Placer County is a designated municipal permittee under the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES), which regulates stormwater flows into natural water bodies. The NPDES regulations require permitted areas to implement specific activities and actions to eliminate or control stormwater pollution. The goal of the stormwater quality program is:

- To reduce pollutants in stormwater runoff
- Eliminate non-stormwater discharges
- Lessen the long-term impacts of stormwater discharges from development, business and municipal activities.
- Educate the public about stormwater impacts

City of Colfax Municipal Code

Chapter 12.04 – Construction and Maintenance Standards

The City of Colfax has adopted a set of construction standards that are applied to the design of subdivisions and other development projects, streets, and utilities. The construction standards regulate the repair, improvement and construction or modification of streets, sewers, sidewalks, curbs, gutters and other public works of the city.

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Chapter 15.30 – Grading, Erosion and Sediment Control

This chapter is enacted for the purpose of regulating grading on private property in the City of Colfax to protect public health, safety, and welfare. It also aims to reduce environmental damage, watercourse pollution, and ensure that the intended use of a graded site is consistent with the Colfax Area General Plan, specific plans, and city ordinances.

Section 15.30.020, General requirements for grading, states that all grading in the city must comply with technical requirements of the Uniform Building Code, dust control, erosion control, waterways protection, sediment control, excavation, cut and fill, slope, and compaction. Failure to do so is considered a public nuisance.

Chapter 16.68 – Storm Drainage

Chapter 16.68, Storm Drainage, of the Colfax Municipal Code says the storm drain system shall be designed in accordance with the uniform storm drain design standards as developed and adopted by Placer County or the city. Under Chapter 16.68, the Placer County Storm Management Manual is adopted by reference and is to be used by the city as the basis for all master drainage plans.

Section 17.122.100 – Grading Design Plan

For the efficient use of water, grading of a project site shall be designed to minimize soil erosion, runoff, and water waste. A grading plan shall be submitted, as required by the city's grading ordinance as part of the landscape documentation package. A comprehensive grading plan prepared by a California licensed civil engineer for other city permits satisfies this requirement.

The project applicant shall submit a landscape grading plan that indicates finished configurations and elevations of the landscape area including Height of graded slopes; Drainage patterns; Pad elevations; Finish grade; and Stormwater retention improvements, if applicable.

11. Land Use and Planning

11.1 REGULATORY FRAMEWORK

Regional Regulations

Metropolitan Transportation Plan/Sustainable Communities Strategy for the Sacramento Region

The 2020 MTP/SCS is a long-range plan for transportation improvements in the region. The plan is based on projections for growth in population, housing, and jobs. SACOG determines the regional growth projections by evaluating baseline data (existing housing units and employees, jobs/housing ratio, and percent of regional growth share for housing units and employees), historic reference data (based upon five- and ten-year residential building permit averages and historic county-level employment statistics), capacity data (General Plan data for each jurisdiction), and current MTP data about assumptions used in the most recent MTP/SCS. SACOG staff then meets with each jurisdiction to discuss and incorporate more subjective considerations about planned growth for each area. Finally, SACOG makes a regional growth forecast for new homes and new jobs, based upon an economic analysis provided by a recognized expert in order to estimate regional growth potential based on market analysis and related economic data. This growth forecast is then incorporated into the MTP/SCS (SACOG 2023).

Placer County Local Agency Formation Commission (LAFCO)

The Placer County Local Agency Formation Commission (LAFCO) is an independent agency responsible for the implementation of the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Act). The Act, Government Code §56000 et seq., identifies the responsibilities of LAFCO, which include the review, approval, and/or denial of boundary changes, annexations, consolidations, special district formations, incorporations for cities and special districts, and the establishment of local “Spheres of Influence” (SOI) which are boundaries established for each governmental agency for future provision of services. The Placer County LAFCO promotes policies discouraging urban sprawl, preserving open-space and prime agricultural land, efficiently extending services, and promoting orderly development through providing housing for persons and families of all incomes.

Section 56001 of the Act states that direction should be “effected by the logical formation and modification of the boundaries of local agencies, with a preference granted to accommodating additional growth within or through the expansion of, the boundaries of those local agencies which can best accommodate and provide necessary governmental services and housing.” While Section 56001 promotes that a single multipurpose governmental agency “may be the best mechanism for establishing community

LAND USE AND PLANNING

service priorities especially in urban areas”, limited purpose agencies also play a critical role in providing services, especially in rural areas and areas in transition from rural to urban.

Local Regulations

City of Colfax Municipal Code

Title 17 – Zoning

The City of Colfax Municipal Code is the set of laws and ordinances adopted by the City Council. Title 17 (Zoning) of the municipal code regulates physical development in the community and enacts the goals and policies of the General Plan by classifying and regulating land uses. The zoning ordinance identifies different zoning designations, contains the development standards that apply to each, and discusses permitting requirements and development review.

12. Noise

Federal Regulations

United States Department of Housing and Urban Development

The United States Department of Housing and Urban Development (HUD) has set a goal of 65 dBA L_{dn} as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted by the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings typically provides more than 20 dBA of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dBA.

Highway Administration

Proposed federal or federal-aid highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of through-traffic lanes, requires an assessment of noise and consideration of noise abatement pursuant to Code of Federal Regulations Title 23, Part 772, “Procedures for Abatement of Highway Traffic Noise and Construction Noise.” The Federal Highway Administration (FHWA) has adopted noise abatement criteria (NAC) for sensitive receivers such as picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals—when “worst-hour” noise levels approach or exceed 67 dBA L_{eq} . The California Department of Transportation (Caltrans) has further defined “approaching” the NAC to be 1 dBA below the NAC for noise sensitive receivers (e.g., 66 dBA L_{eq} is considered approaching the NAC) (Caltrans 2020).

Federal Transit Administration

The Federal Transit Administration’s (FTA) Transit Noise and Vibration Impact Assessment Manual is a guidance manual developed by a federal agency.

The human reaction to various levels of vibration is highly subjective and varies from person to person. Table 12-1, *FTA Groundborne Vibration Criteria Human Annoyance*, shows the FTA’s vibration criteria to evaluate vibration-related annoyance due to resonances of the structural components of a building. These criteria are based on extensive research that suggests humans are sensitive to vibration velocities in the range of 8 to 80 Hz. For construction activities, presumed to occur only during daytime hours, the criteria would be 78 VdB at residential land uses.

TABLE 12-1 **FTA GROUNDBORNE VIBRATION CRITERIA: HUMAN ANNOYANCE**

NOISE

Land Use Category	Vibration Velocity Level (VdB)		
	Frequent Events ¹	Occasional Events ²	Infrequent Events ³
Category 1: Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
Category 2: Residences and buildings where people normally sleep.	72	75	80
Category 3: Institutional land uses with primarily daytime use.	75	78	83

Notes:

¹ More than 70 events per day.

² 30 to 70 events per day.

³ Fewer than 30 events per day.

⁴ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. For equipment that is more sensitive, a Detailed Vibration Analysis must be performed.

Source: Federal Transit Administration (FTA) 2018. *Transit Noise and Vibration Impact Assessment Manual*.

Vibration-Related Architectural Damage

Various types of buildings are sensitive to vibration, and these guidelines are often used to evaluate vibration impacts during construction. The construction-focused guidelines identify that an impact would occur if construction activities generate vibration that is strong enough to (a) physically damage buildings or (b) cause undue annoyance at sensitive receptors.

The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. However, structures amplify groundborne vibration, and wood-frame buildings such as typical residential structures are more affected by ground vibration than heavier buildings. The most conservative estimates are reflected in the FTA standards, shown in Table 12-2, *FTA Groundborne Vibration Criteria: Architectural Damage*. The threshold of 0.2 inches/second PPV will be applied to typical residential structures surrounding the project site.

TABLE 12-2 FTA GROUNDBORNE VIBRATION CRITERIA: ARCHITECTURAL DAMAGE

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Note: PPV = peak particle velocity

Source: Federal Transit Administration (FTA) 2018. *Transit Noise and Vibration Impact Assessment Manual*.

State Regulations

California Building Code

The California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Section 1207.11.2, Allowable Interior Noise Levels, requires that interior noise levels attributable to exterior sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

Residential structures within the noise contours identified above require an acoustical analysis showing that the structure has been designed to limit intruding noise in the prescribed allowable levels. To comply with these regulations, applicants of new the residential projects are required to submit an acoustical report in areas where noise and land use compatibility is a concern. The report is required to analyze exterior noise sources affecting the proposed dwelling site, predicted noise spectra at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measure or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met. If interior allowable noise levels are met by requiring that windows be inoperable or closed, the design for the structure must also specify the means that will be employed to provide ventilation and cooling, if necessary, to provide a habitable interior environment.

The State of California's noise insulation standards for non-residential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Proposed projects may use either the perspective method (Section 5.507.4.1) or the performance method (Section 5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA $L_{eq}(1 \text{ hr})$.

NOISE

General Plan Guidelines

The State of California, through its General Plan Guidelines, discusses how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at difference noise levels expressed in CNEL or L_{dn}. A conditionally acceptable analysis designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements. Local municipalities adopt these compatibility standards as part of their General Plan and modify them as appropriate for their local environmental setting.

Local Regulations

City of Colfax Municipal Code

Chapter 8.28 – Noise Standards

The City's noise regulations are implemented and enforced through the Colfax Municipal Code, Chapter 8.28, Noise Standards. The City's Noise standards state that it is unlawful for any person to make or continue or cause to be made or continued, any loud, unnecessary or unusual noise or any noise which either annoys, disturbs, injures or endangers the comfort, repose, health, safety or peace of others within the city when not in the normal or usual conduct of commercial or industrial business.

The performance of any construction, alteration or repair activities which require the issuance of any building, grading or other permit may occur only during Monday through Friday six a.m. to six p.m., Saturday eight a.m. to five p.m.; and Sundays and observed holidays: eight a.m. to five p.m.

Chapter 17.120 – Performance Standards

Chapter 17.120, Performance Standards- provides the following additional noise and vibration standards.

- **Noise:** It is unlawful for any business operation to make or continue or cause to be made or continued, any loud, unnecessary or unusual noise or any noise which either annoys, disturbs, injures or endangers the comfort, repose, health, safety or peace of others within the city when not in the normal or usual conduct of commercial or industrial business.
- **Vibrations:** No vibration (other than from a transportation facility or temporary construction work) shall be permitted which is discernible without instruments at the point of measurement set forth in Section 17.120.060 of this chapter.

13. Population and Housing

State Regulations

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This Plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department (HCD) estimates the relative share of California's projected population growth that would occur in each county based on California Department of Finance population projections and historical growth trends. These figures are compiled by HCD in a Regional Housing Needs Assessment (RHNA) for each region of California. Where there is a regional council of governments (COG), the HCD provides the RHNA to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares gives cities and counties the opportunity to comment on the proposed allocations.

State law recognizes the vital role local governments play in the supply and affordability of housing. To that end, California Government Code requires that the housing element achieve legislative goals to:

- Identify adequate sites to facilitate and encourage the development, maintenance, and improvement of housing for households of all economic levels, including persons with disabilities.
- Remove, as legally feasible and appropriate, governmental constraints to the production, maintenance, and improvement of housing for persons of all incomes, including those with disabilities.
- Assist in the development of adequate housing to meet the needs of low- and moderate-income households.
- Conserve and improve the condition of housing and neighborhoods, including existing affordable housing. Promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability.
- Preserve for lower income households the publicly assisted multifamily housing developments in each community.
- California housing element laws (California Government Code §§ 65580–65589) require that each city and county identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community commensurate with local housing needs.

POPULATION AND HOUSING

Housing Accountability Act

The Housing Accountability Act (HAA) requires that cities approve applications for residential development that are consistent with a city's general plan and zoning code development standards without reducing the proposed density. Examples of objective standards are those that are measurable and have clear criteria that are determined in advance, such as numerical setback, height limit, universal design, lot coverage requirement, or parking requirement. Under the HAA, an applicant is entitled to the full density allowed by the zoning and/or general plan provided the project complies with all objective general plan, zoning, and subdivision standards and provided that the full density proposed does not result in a specific, adverse impact on public health and safety and cannot be mitigated in any other way.

Assembly Bill (AB) 648 amends the HAA by increasing the documentation and standard of proof required for a local agency to legally defend its denial of low-to-moderate-income housing development projects. If the local agency considers the housing development project to be inconsistent, not in compliance, or not in conformity, this Bill requires the local agency to give the applicant, within specified time periods, written documentation identifying the provision or provisions and an explanation of the reason or reasons it considers the housing development to be inconsistent, not in compliance, or not in conformity. If the local agency fails to provide this documentation, the housing development project is deemed consistent, compliant, and in conformity with the applicable plan, program, policy, ordinance, standard, requirement, or other similar provision.

Senate Bill 330 (SB 330)

SB 330 Housing Crisis Act of 2019 states that until January 1, 2025, an application would be deemed complete if a preliminary application was submitted and it complied with the applicable objective general plan and zoning standards in effect at the time. The Planning and Zoning Law requires a public hearing be held on an application for a variance from the requirements of a zoning ordinance or an application for a conditional use permit. However, this Bill prohibits any City or County from conducting more than five hearings held pursuant to these provisions if a housing development project complies with the applicable objective general plan and zoning standards in effect at the time an application is deemed complete. Additionally, this Bill would reduce the time for which a lead agency can approve or disapprove a project from 120 days to 90 days. Furthermore, SB 330 prevents local governments from downzoning unless they upzone an equivalent amount elsewhere within their boundaries and suspends the enactment of local downzoning and housing construction moratoriums.

Regional Regulations

Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy

The Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the Sacramento region pro-actively links land use, air quality, and transportation needs. The MTP/SCS is federally required to be updated every four years. The SACOG board adopted the 2020 MTP/SCS and accompanying

POPULATION AND HOUSING

documents at a special board meeting on November 18, 2019. From 2020-2040, it is expected that 620,000 residents will come to the Sacramento Region. To address the growing population in the Sacramento region, local government leaders will need to work to revitalize existing communities, invest in post war suburbs and commercial corridors.

Local Regulations

City of Colfax Municipal Code

Title 17 – Zoning

The Zoning Ordinance is codified as Title 17 of the Colfax Municipal Code. The purpose of this title is to promote the public health, safety, and welfare of the City and to provide the economic and social advantages, which result from an orderly, planned use of the environment. The Zoning Ordinance implements the City’s General Plan, and establishes regulations governing the use, placement, spacing, and size of land and buildings. The Zoning Ordinance also describes various permits available through the Planning Division, when they are needed, and the process for obtaining permits.

PUBLIC SERVICES, PARKS, AND RECREATION

14. Public Services, Parks, and Recreation

State Regulations

California Fire Code

The 2019 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The Fire Code also establishes requirements intended to provide safety and assistance to firefighters and emergency responders during emergency operations. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout the State of California. The Fire Code includes regulations regarding fire- resistance-rated construction, fire protection systems such as alarm and sprinkler systems, fire services feature such as fire Local Regulations apparatus access roads, means of egress, fire safety during construction and demolition, and wildland-urban interface areas.

California Health and Safety Code

Additional state fire regulations are set forth in Section 13000 et seq. of the California Health and Safety Code, which include regulations for building standards, fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high rise building and childcare facility standards, and fire suppression training.

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8, Sections 1270, Fire Prevention, and 6773, Fire Protection and Fire Fighting Equipment, the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, 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.

California Senate Bill 50

California Senate Bill 50 Senate Bill (SB) 50, passed in 1998, provides a comprehensive school facilities financing and reform program and enables a statewide bond issue to be placed on the ballot. Under the provisions of SB 50, school districts are authorized to collect fees to offset the costs associated with increasing school capacity as a result of development and related population increases. The funding goes

PUBLIC SERVICES, PARKS, AND RECREATION

to acquiring school sites, constructing new school facilities, and modernizing existing school facilities. SB 50 establishes a process for determining the amount of fees developers would be charged to mitigate the impact of development on school districts from increased enrollment. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be “full and complete school facilities mitigation.”

Quimby Act

The Quimby Act, also known as Government Code Section 66477, Subdivision Map Act, was established in 1965 and provides provisions in the State Subdivision Map Act for the dedication of parkland and/or payment of in-lieu fees as a condition of approval of certain types of residential projects. Previously, a city or county could only use these fees to provide parks that served the developer’s proposed subdivision. However, Assembly Bill 1359 (AB 1359), signed in 2013, allows cities and counties to use developer-paid Quimby Act fees to provide parks in neighborhoods other than the one in which the developer’s subdivision is located. Overall, AB 1359 provides cities and counties with opportunities to improve parks and create new parks in areas that would not have benefited before. It also allows a city or county to enter a joint/shared-use agreement with one or more public districts to provide additional park and recreational access.

Local Regulations

City of Colfax Municipal Code

City of Colfax Municipal Code Chapter 2.28, Fire Department, establishes the duties of the Colfax Fire Department. Municipal Code Chapter 15.04.010, California Building Standards Code, adopts the California Fire Code Title 24, Part 9.

City of Colfax Parks and Recreation Master Plan

Established in 2007, the Colfax Parks and Recreation Master Plan examines the City’s current park and recreation resources and needs providing a park and recreation guide for the City based on today’s needs and future needs projected over the next 15 years. The Master Plan includes evaluation of a portion of the unincorporated area around the City under the jurisdiction of Placer County. The Colfax Parks and Recreation Master Plan includes Recreation Areas 3, 12, and 14 added the communities Weimar, Applegate, Gold Run, Dutch Flat, and Baxter.

15. Transportation

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Colfax General Plan Update to impact transportation facilities and circulation in the City of Colfax and its sphere of influence (SOI).

15.1.1 ENVIRONMENTAL SETTING

15.1.1.1 REGULATORY FRAMEWORK

State Regulations

California Air Resources Board (CARB), 2020 Mobile Source Strategy

In September 2021, CARB published the 2020 Mobile Source Strategy. The 2020 Strategy is a framework that identifies actions needed to meet the State's goals for the reduction of emissions of criteria pollutants, GHGs, and toxic air contaminants from mobile sources. The 2020 Mobile Source Strategy uses the same targets for reducing VMT as the 2016 Mobile Source Strategy and 2017 Climate Change Scoping Plan, which aim to reduce light-duty vehicle VMT by 15 percent by 2050 compared to business as usual. The 2020 Mobile Source Strategy identifies strategies that CARB can take to assist in achieving additional reductions and support implementation of regional SCSs. The 2020 Mobile Source Strategy identifies eight strategy areas for reducing VMT and are outlined in CARB's SB 375 Progress Report. The strategy areas are:

1. Increase Transportation Choices and Improve Access
2. Authorize and Implement Equitable Pricing of Transportation
3. Align State Funding Programs to Reduce Vehicle Travel and Achieve the State's Greenhouse Gas Emissions Reduction Goals
4. Shape the Deployment of New Mobility Options in Ways That Reduce VMT
5. Better Align Land Use Planning with the Scoping Plan's Goals
6. Accelerate Infill Housing Production
7. Support Local and Regional Partners to Implement VMT Reduction Measures
8. Elevate the State of Science to Inform the Development and Implementation of Sustainable Community and Transportation Policies

Senate Bill 743

On September 27, 2013, SB 743 was signed into law, starting a process that fundamentally changed transportation impact analysis as part of CEQA compliance. SB 743 generally eliminates auto delay, LOS, and other similar measures vehicular capacity or traffic congestion as the sole basis for determining significant

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impacts under CEQA. Pursuant to the CEQA Guidelines, the new criteria “shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses” (Public Resources Code Section 21099(b)(1)).

Pursuant to SB 743, the Natural Resources Agency adopted revisions to the CEQA Guidelines to implement SB 743 on December 28, 2018. The revised CEQA Guidelines establish new criteria for determining the significance of transportation impacts. Under the new Guidelines, VMT-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for land use are required beginning on July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements that require evaluation of LOS, but these metrics may no longer constitute the basis for determining transportation impacts under the CEQA.

Regional Regulations

Caltrans District 3 Active Transportation Plan (CAT Plan)

The CAT Plan aims to improve active transportation and transit safety in eleven counties including Placer County. The plan builds on the 2017 State Bicycle and Pedestrian Plan, Toward an Active California, and aims to address gaps in the bicycle and pedestrian network. It will guide Caltrans investments to provide safe and convenient options for users to walk and bike to jobs, services, and recreation areas (Caltrans 2022)

2018 Placer County Regional Bikeway Plan

In 2018, Placer County and the Transportation Planning Agency updated the Placer County Regional Bikeway Plan, aiming to enhance bikeways by creating a connected network. This plan offers more travel options, links to key destinations, and supports active lifestyles through increased recreation. The plan connects six incorporated cities and unincorporated community areas, focusing on on-road bicycle facilities and shared use paths – including the City of Colfax (Placer 2018).

2040 Regional Transportation Plan for Placer County

The current Regional Transportation Plan (RTP), adopted in 2019, plans out Placer County’s transportation system to the year 2040 and includes the City of Colfax. A RTP is a state mandated long-range planning document that outlines all transportation investments in Placer County over the next 20 years. As the Regional Transportation Planning Agency (RTPA) for Placer County (excluding the Tahoe Basin), PCTPA is responsible for developing, implementing, and regularly updating the RTP. The RTPs play a critical role in shaping the community, as they guide investments for all modes of transportation, including highways, local roadways, bus transit, passenger rail, freight, bicycles, pedestrians, and aviation (PCTPA 2019).

Placer County's RTP is coordinated with the Sacramento Area Council of Governments (SACOG)'s efforts to update their Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) for the entire six-county Sacramento region (PCTPA 2019).

Placer County Local Road Safety Plan

The Local Road Safety Plan (LRSP) is a requirement for Cycle 11 of the Highway Safety Improvement Program. The purpose of this document is to establish the framework and process for identifying, analyzing, and prioritizing roadway safety improvements on Placer's County streets. The planning process for the document determined priority locations for safety improvements. The document also identifies potential funding opportunities that would help to implement the plan (Placer 2021a).

Local Regulations

Traffic Mitigation Fee

The traffic mitigation fee (TM fee) is established by California Government Code, Chapter 5, Sections 66000 and 53077, 54997, and 54998 as amended. The city believes a development fee is necessary for community safety, welfare, and economic viability. A citywide traffic study and analysis identify impacted streets and intersections, establishing the fee based on these Government Code Sections. The Traffic Mitigation Fee is in Article II, Traffic Mitigation fee, under Chapter 16.36, Fees and Reimbursements, of the Colfax Municipal Code. The TM fee calculation involves dividing the total cost of improvements by the number of trips from projected development to calculate the cost per trip for mitigation improvements.

2018 Pavement Management Program

The City of Colfax began its Pavement Management Program (PMP) on May 10, 2017, with Resolution No. 17-2017 authorizing approval of a proposal by Coastland Engineering. The goal is to improve public street conditions by evaluating current and future pavement conditions. The PMP recommends an annual budget requirements for maintenance and rehabilitation of the City's street system (Colfax 2018).

Colfax Local Hazard Mitigation Plan

Under the Federal Disaster Act of 2000, jurisdictions are required to prepare Local Hazard Mitigation Plans (LHMPs) that are subject to state review. The City of Colfax LHMP assesses hazard vulnerabilities and identifies mitigation actions that the City will pursue in order to reduce the level of injury, property damage, and community disruption that might otherwise result from such events. The most recent update to the City of Colfax Local Hazard Mitigation Plan was adopted in 2021.

City of Colfax Municipal Code

Title 10 – Vehicles and Traffic

Title 10, Vehicles and Traffic, of the Colfax Municipal Code regulates traffic signs and signals; traffic on public and private roads; parking restrictions; turning movement restrictions; allowable speed limit under different circumstances; crosswalks and bicycle lanes; as well as many other chapters that deal with traffic restrictions.

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Chapter 10.40 – Trip Reduction Program

Chapter 10.40, Trip Reduction Program, of the Colfax Municipal Code was adopted to reduce vehicle emissions in Placer County and South Placer region, reduce vehicular trips and traffic congestion by minimizing home-to-work commuting. Optimize existing transportation facilities, reduce emissions, and contribute to federal and state ambient air quality standards compliance. Implement measures to achieve these goals and increase average vehicle ridership during peak commute periods, aiming to meet California Clean Air Act goals.

16. Utilities and Service Systems

Federal Regulations

Clean Water Act

The CWA regulates the discharge of pollutants into watersheds throughout the nation. It is the primary federal law governing water pollution. Under the CWA, the U.S. Environmental Protection Agency (US EPA) implements pollution control programs and sets wastewater standards. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants contained in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

MS4 Permits

MS4 Permits are NPDES permits issued by the EPA, by way of the SWRCB, and authorize governmental entities to discharge stormwater collected by their storm sewer systems to waters of the United States.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), an amendment to the Solid Waste Disposal Act of 1965, was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. The RCRA gives the United States Environmental Protection Agency (EPA) the authority to control hazardous waste from "cradle to grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also sets forth a framework for the management of nonhazardous solid wastes.

UTILITES AND SERVICE SYSTEMS

The federal Hazardous and Solid Waste Amendments are the 1984 amendments to the RCRA that focused on waste minimization and phasing out land disposal of hazardous waste as well as corrective action for releases. Some of the other mandates of this law include increased enforcement authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program. Amendments to the RCRA in 1986 enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

State Regulations

California Water Code

To assist with water suppliers, cities, and counties in integrating water and land use planning, the state passes Senate Bill (SB) 610, which is codified in the California Water Code Section 10910. The lead agency preparing a CEQA document shall identify any water system whose service area includes a project site and any water system adjacent to a project site that is, or may become, a public water system that may supply water for a project. If the lead agency is not able to identify any public water system that may supply water for a project, then the lead agency shall prepare a water assessment.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (Public Resources Code Sections 42900-42927) requires all California cities and counties to reduce the volume of waste deposited in landfills by 50 percent by the year 2000 and continue to remain at 50 percent or higher for each subsequent year. The purpose of this Act is to reduce, recycle, and reuse solid waste generated in the state to the maximum extent feasible.

The Act requires each California city and county to prepare, adopt, and submit to the California Department of Resources Recycling and Recovery (CalRecycle) a source reduction and recycling element (SRRE) that demonstrates how the jurisdiction will meet the Act's mandated diversion goals. Each jurisdiction's SRRE must include specific components, as defined in Public Resources Code Sections 41003 and 41303. In addition, the SRRE must include a program for management of solid waste generated in the jurisdiction that is consistent with the following hierarchy: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transportation and land disposal. Included in this hierarchy is the requirement to emphasize and maximize the use of all feasible source reduction, recycling, and composting options to reduce the amount of solid waste that must be disposed of by transformation and land disposal.

California Solid Waste Reuse and Recycling Access Act of 1991

This Act was passed by the State legislature and instructs the California Integrated Waste Management Board (now known as "CalRecycle") to draft a "model ordinance" for the disposal of construction waste associated with development projects. This Act also requires local agencies to ensure that development projects have adequate areas for the collection and loading of recyclable materials.

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Assembly Bill 341- Commercial Recycling Act

In 2011, AB 341 (Chapter 476, Statutes of 2011) was passed that sets a State policy goal of not less than 75 percent of solid waste that is generated to be source reduced, recycled, or composted by the year 2020. CalRecycle was required to submit a report to the legislature by January 1, 2014, outlining the strategy that will be used to achieve this policy goal. This Bill affects local governments in that each jurisdiction is required to implement a commercial solid waste recycling program that consists of education, outreach, and monitoring of businesses. An annual report of the progress of such efforts is required by law. CalRecycle is responsible for reviewing each jurisdiction's commercial recycling program.

Assembly Bill 1826- Mandatory Organics Recycling Act

Assembly Bill 1826 (AB 1826; California Public Resources Code Sections 42649.8 et seq.) requires recycling of organic matter by businesses, and multifamily residences of five or more units, generating such wastes in amounts over certain thresholds. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. Multifamily residences are not required to have a food waste diversion program. The City has implemented SB 1826 except for the food waste portion. The City has performed outreach and education, however the process and solution is an ongoing effort. Recycling and organics service recovery services are available. Food waste will be added into the City's processes as a recyclable organic Summer/Fall of 2023.

Senate Bill 1383- California's Short-Lived Climate Pollutant Reduction Act

California's Short-Lived Climate Pollutant Reduction law, often called SB 1383, establishes methane reduction targets for California. SB 1383 regulations went into effect on January 1, 2022. The regulations aim to divert 50% of organic waste from landfills below 2014 levels by 2020 and 75% by 2025. CalRecycle is implementing the regulations and has established an additional target that not less than 20% of currently disposed edible food is recovered for human consumption by 2025. SB 1383 also requires that jurisdictions conduct education and outreach on organics recycling to all residents, businesses (including those that generate edible food that can be donated), haulers, solid waste facilities, local food banks, and other food recovery organizations. Redding is on track to be in full compliance of SB 1383 by spring of 2024.

CALGreen Building Code

The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices related to materials conservation and resource efficiency. The provisions of this Code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in this Code, through the State of California.

Section 5.408, Construction Waste Reduction Disposal and Recycling, mandates that, in the absence of a more stringent local ordinance, a minimum of 50 percent of non-hazardous construction and demolition

UTILITES AND SERVICE SYSTEMS

debris must be recycled or salvaged. CalGreen requires an applicant to have a Waste Management Plan, for onsite sorting or construction debris, which is submitted to the City for approval.

The Waste Management Plan does the following:

- Identifies the materials to be diverted from disposal by recycling, reuse on a project or salvage for future use or sale.
- Specifies if materials will be sorted on-site or mixed for transportation to a diversion facility.
- Identifies the diversion facilities where the material collected can be taken.
- Identifies construction methods employed to reduce the amount of waste generated.
- Specifies that the amount of materials diverted shall be calculated by weight or volume, but not by both.

State Water Resources Control Board: Statewide General Waste Discharge Requirements

The General Waste Discharge Requirements specify that all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California need to develop a Sewer Master Plan. The plan evaluates existing sewer collection systems and provides a framework for undertaking the construction of new and replacement facilities to maintain proper levels of service. The master plan includes inflow and infiltration studies to analyze flow monitoring and water use data, a capacity assurance plan to analyze the existing system with existing land use and unit flow factors, a condition assessment and sewer system rehabilitation plan, and a financial plan with recommended capital improvements and financial models.

Urban Water Management Planning Act

In accordance with California Water Code, §10610-10656 and §10608 every urban water supplier that either provides over 3,000 acre-feet of water annually or serves more than 3,000 urban connections is required to submit an Urban Water Management Plan (UWMP). The Plan is prepared by urban water suppliers every five years to support the suppliers' long-term resource planning to ensure that adequate water supplies are available to meet the existing and future water needs.

California Green Building Standards Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards Code (CALGreen Code). The CALGreen Code is intended to encourage more sustainable and environmentally-friendly building practices, conserve natural resources, and promote the use of energy-efficient materials and equipment. Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Mandatory measures related to water

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conservation include water-conserving plumbing fixture and appliance requirements, including flow rate maximums, compliance with state and local water-efficient landscape standards for outdoor potable water use in landscape areas, and recycled water systems, where available. The CALGreen Code was most recently updated in 2022 and became effective January 1, 2023.

State Model Landscape Ordinance

The California Water Conservation in Landscaping Act, also known as the State Landscape Model Ordinance, was amended pursuant to Assembly Bill (AB) 2717 and AB 1881. AB 2717 required the Department of Water Resources (DWR) to adopt a model local water efficient landscape ordinance that each local agency may adopt and requires local agencies to adopt a water efficient landscape ordinance. AB 1881 required cities and counties to adopt landscape water conservation ordinances by January 31, 2010, or to adopt a different ordinance that was at least as effective in conserving water as the California Updated Model Water Efficient Landscape Ordinance (MWELO).

DWR updated the MWELO in 2015, consistent with the Governor's Executive Order B-29-15. The updated MWELO requires cities and counties to adopt landscape water conservation ordinance by February 1, 2016, or to adopt a different ordinance that is at least as effective in conserving water as the updated Model Ordinance. Residential, commercial, industrial, and institutional projects that include landscaped areas of 500 square feet or more must be MWELO-compliant (23 Cal. Code Regs. §§ 490 *et seq.*).

Assembly Bill 1668 (AB 1668) and Senate Bill 606 (SB 606)- Water Management Planning

AB 1668 and SB 606 build on Governor Brown's ongoing efforts to make water conservation a way of life in California and create a new foundation for long-term improvements in water conservation and drought planning. SB 606 and AB 1668 establish guidelines for efficient water use and a framework for the implementation and oversight of the new standards. These two bills strengthen the state's water resiliency in the face of future droughts with provisions that include:

- Establishing water use objectives and long-term standards for efficient water use that apply to urban retail water suppliers comprised of indoor residential water use, outdoor residential water use, commercial, industrial and institutional (CII) irrigation with dedicated meters, water loss, and other unique local uses.
- Providing incentives for water suppliers to recycle water.
- Identifying small water suppliers and rural communities that may be at risk of drought and water shortage vulnerability and provide recommendations for drought planning.
- Requiring both urban and agricultural water suppliers to set annual water budgets and prepare for drought.

UTILITES AND SERVICE SYSTEMS

Local Regulations

Placer County 2020 Urban Water Management Plan

Commented [JM1]: Update: <https://docs.pcwa.net/uwmp-2020>

The Urban Water Management Plan addresses Placer County Water Agency's water management planning efforts to ensure adequate water supply to meet retail and wholesale demands over the next 25 years. The 2020 UWMP specifically assesses the availability of supplies to meet future demands during normal, single-dry, and multiple dry years. Verification that future demands will not exceed supplies and assuring the availability of supplies in dry-year conditions are critical outcomes of this plan.

Wastewater Connection Fees

Article II of Chapter 13.08 outlines the Connection Permits and Charges associated with the City of Colfax's Sewer Service System. The City of Colfax charges any person making a new connection to the sewerage system that will increase the volume or change the physical character of the sewage already discharged from the premises; the base sewer impact fee shall initially be five thousand eight hundred dollars.

Placer County Stormwater Quality Management

Placer County is a designated municipal permittee under the U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES), which regulates stormwater flows into natural water bodies. The NPDES regulations require permitted areas to implement specific activities and actions to eliminate or control stormwater pollution. The goal of the stormwater quality program is:

- To reduce pollutants in stormwater runoff
- Eliminate non-stormwater discharges
- Lessen the long-term impacts of stormwater discharges from development, business and municipal activities.
- Educate the public about stormwater impacts

Placer County Storm Management Manual

The purpose of this manual is to address increasing growth in Placer County. Increasing growth has led to increasing problems associated with stormwater runoff. Much of the growth has occurred adjacent to streams which drain the region, resulting in significant damages to property, losses from disruption of commercial activities, and potential loss of life when the streams overflow.

Sewer Lateral Program

Homeowners are responsible for the sewer line which runs from their house to the main line. In 2007 as part of a comprehensive plan to maximize efficiency and minimize sewer spills, the City Council adopted Ordinance 499 which formulated the Sewer Lateral Program. The ordinance requires a valid sewer lateral certificate is in place BEFORE a property can be sold. The homeowner must obtain a permit, retain a licensed California plumber for an inspection in the presence of City staff, and make any necessary repairs to ensure the lateral line is free of blockages or leaks. The certificate is generally good for 10 years.

UTILITES AND SERVICE SYSTEMS

Sustainable Groundwater Management

Placer County is part of the West Placer Groundwater Sustainability Agency, a multi-agency group formed to monitor and manage the local groundwater basin in accordance with the Sustainable Groundwater Management Act.

Placer County, along with the cities of Roseville and Lincoln, and Placer County Water Agency, and in participation with the California American Water Company, adopted a Groundwater Sustainability Plan in 2022. The plan is a long-range planning document aimed at preservation and enhancement of portions of the North American groundwater basin (NASb). The plan outlines evaluation criteria, projects, and management actions to ensure continued health of the basin for continued use by our communities, agriculture, and the environment.

City of Colfax Municipal Code

Chapter 16.64 – Sanitary Sewers

Chapter 16.64, Sanitary Sewers, of the Colfax Municipal Code provides the standards for the design of septic tanks and leaching fields. All installations must meet the requirements of the County Environmental Health Department and City Engineer. Furthermore, title 16.64.030 says that street sewer mains and house sewer lines shall be constructed in accordance with the Standard Specifications.

Chapter 16.68 – Storm Drainage

Chapter 16.68, Storm Drainage, of the Colfax Municipal Code says the storm drain system shall be designed in accordance with the uniform storm drain design standards as developed and adopted by Placer County or the city. Under Chapter 16.68, the Placer County Storm Management Manual is adopted by reference and is to be used by the city as the basis for all master drainage plans.

17. Wildfire

Federal Regulations

Healthy Forests Restoration Act

The Healthy Forests Restoration Act (US Code Title 16, Chapter 84, Section 6501) was approved on December 3, 2003, to reduce wildfire risk to communities, municipal water supplies, and at-risk federal lands expediting projects designed to reduce hazardous fuels. This act provides regulations for the protection of watersheds, forests, and rangelands, such as the land surrounding Colfax, from catastrophic wildfires across the landscape (Federal Register 2001). Measures include improving systems to detect insect and disease infestations in hardwood forests; providing forestry assistance to state, private, and tribal landowners; facilitating research on large-scale treatments to reduce pest infestations; and entering into contracts with private landowners to manage their forests.

National Fire Protection Association Standards

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. NFPA standards are recommended (advisory) guidelines in fire protection but are not laws or "codes" unless adopted or referenced as such by the California Fire Code or local fire agency. Specific standards applicable to wildland fire hazards include, but are not limited to:

- NFPA 1141, Fire Protection Infrastructure for Land Development in Wildlands
- NFPA 1142, Water Supplies for Suburban and Rural Fire Fighting
- NFPA 1143, Wildland Fire Management
- NFPA 1144, Reducing Structure Ignition Hazards from Wildland Fire
- NFPA 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations

State Regulations

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. CAL FIRE provides fire assessment and firefighting services for lands within State Responsibility Areas (SRAs), conducts educational and training programs, provides fire planning guidance and mapping, and reviews General Plan Safety Elements to ensure compliance with state fire safety requirements.

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The Board of Forestry and Fire Protection is a government-appointed approval body within CAL FIRE. It is responsible for developing the general forest policy of the State, for determining the guidance policies of CAL FIRE, and for representing the State's interest in federal forestland in California. The Board of Forestry and Fire Protection also promulgates regulations and approves General Plan Safety Elements that are adopted by local governments for compliance with State statutes.

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. These responsibilities include regulating buildings in which people live, congregate, or are confined; controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; providing statewide direction for fire prevention within wildland areas; regulating hazardous liquid pipelines; developing and renewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These are accomplished through major programs, including engineering, education, enforcement, and support from the Board of Forestry and Fire Protection. For jurisdictions within SRAs or Very High Fire Hazard Severity Zones, the Land Use Planning Program division of the Office of State Fire Marshal reviews Safety Elements during the update process to ensure consistency with California Government Code, Section 65302(g)(3).

Together, the Board of Forestry and Fire Protection, Office of State Fire Marshal, and CAL FIRE protect and enhance the forest resources of all wildland areas of California that are not under federal jurisdiction. The CAL FIRE Land Use Planning Program and the Resource Protection Committee of the California Board of Forestry and Fire Protection reviewed the Colfax Safety Element.

Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates Fire Hazard Severity Zones as authorized under California Government Code Sections 51175 et seq. CAL FIRE considers many factors when designating fire severity zones, including fire history, existing and *potential* vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE designates Fire Hazard Severity Zones within three types of areas depending on what level of government is financially responsible for fire protection:

- LRA – Local Responsibility Area: Incorporated communities are financially responsible for wildfire protection. There is one severity zone in the LRA, which is the Very High Fire Hazard Severity Zone.
- SRA – State Responsibility Area: CAL FIRE and contracted counties are financially responsible for wildfire protection. There are three hazard zones in SRAs: moderate, high, and very high.
- FRA – Federal Responsibility Area: Federal agencies, such as the USFS, National Park Service, BLM, United States Department of Defense, United States Fish and Wildlife Service, and Department of the Interior are responsible for wildfire protection.

2018 Strategic Fire Plan for California

CAL FIRE produced the 2018 *Strategic Fire Plan for California*, which contains goals, objectives, and

policies to prepare for and mitigate the effects of fire on California's natural and built environments (CAL FIRE 2018). The 2018 *Strategic Fire Plan for California* focuses on fire prevention and suppression activities to protect lives, property, and ecosystems, in addition to providing natural resource management to maintain state forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2018 *Strategic Fire Plan for California* is the collaboration between communities to ensure fire suppression and natural resource management is successful (CAL FIRE 2018).

2021 California's Wildfire and Forest Resilience Action Plan

The Governor's Forest Management Task Force developed the *California's Wildfire and Forest Resilience Action Plan*, which is a framework for establishing healthy and resilient forests that can withstand and adapt to wildfire, drought, and climate change. This plan accelerates efforts to restore the health and resilience of California's forests, grasslands, and natural places; improves the fire safety of communities; and sustains the economic vitality of rural forested areas. CAL FIRE, in partnership with the USFS, intends to scale up forest thinning and prescribed fire, integrate climate adaptation into the statewide network of regional forest and community fire resilience plans, improve the electricity grid resilience, and promote sustainable land use.

State Responsibility Area and Very High Fire Hazard Severity Zone Fire-Safe Regulations

California Code of Regulations Title 14, Division 1.5, Chapter 7, Subchapter 2, SRA/VHFHSZ Fire Safe Regulations, establishes minimum wildfire protection standards for construction and development within the SRA and Very High Fire Hazard Severity Zone. These standards include basic emergency access and perimeter wildfire protection measures, signing and building numbering, private water supply resources for emergency fire use, and vegetation modification. These regulations apply to all residential, commercial, and industrial buildings within the SRA, the siting of new mobile homes, all tentative and parcel maps, and applications for building permits approved before 1991 where these standards were not proposed. Fire Safe Regulations also include a minimum setback of 30 feet for all buildings from property lines and/or the center of a road. Section 1273.08, Dead-End Roads, of these standards provide regulations for the maximum lengths of single-access roadways requiring the following:

- Parcels zoned for less than 1 acre: 800 feet
- Parcels zoned for 1 to 4.99 acres: 1,320 feet
- Parcels zoned for 5 to 19.99 acres: 2,640 feet
- Parcels zoned for 20 acres or larger: 5,280 feet

Fire Safe Regulations, Section 1299.03, Fire Hazard Reduction Around Buildings and Structure Requirements, provides defensible space requirements for areas within 30 feet of a structure (Zone 1) and between 30 and 100 feet from a structure (Zone 2). In Zone 1, all dead and dying plants are required to be removed and any flammable vegetation that could catch fire must be removed. In Zone 2,

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horizontal and vertical spacing among shrubs and trees must be created and maintained.

Public Resources Code Section 4291

Public Resources Code Section 4291, Mountainous, Forest-, Brush- and Grass-Covered Lands, is intended for any person who owns, leases, controls, operates, or maintains a building or structure in a mountainous area, forest-covered lands, shrub-covered lands, grass-covered lands, or land that is covered with flammable material, regardless of whether the property is within an SRA or Very High Fire Hazard Severity Zone. This section requires defensible space to be maintained within 100 feet from each side of a structure. An ember-resistant zone is also required within 5 feet of a structure and more intense fuel reduction is required between 5 and 30 feet of a structure.

California Building Standards Code

The California Building Standards Code (California Code of Regulations Title 24) provides 12 different codes for construction and buildings in California. This code is updated every three years, with the most recent version effective as of January 1, 2023.

Building Design Standards

The California Building Code (CBC), Part 2 of 24 California Code of Regulations, identifies building design standards, including those for fire safety. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. Commercial and residential buildings are plan checked by local city and county building officials for compliance with the CBC and any applicable local edits. Typical fire safety requirements of the CBC include the installation of sprinklers in buildings and other facilities; the establishment of fire-resistance standards for fire doors, building materials, and particular types of construction in high fire hazard severity zones; requirements for smoke-detection systems; exiting requirements; and the clearance of debris.

Materials and Methods for Exterior Wildfire Exposure

Chapter 7A of the CBC, Materials and Methods for Exterior Wildfire Exposure, prescribes building materials and construction methods for new buildings in a Fire Hazard Severity Zone or Wildland Interface Fire Area. Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing; exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures. Other requirements include vegetation management compliance, as prescribed in California Fire Code Section 4906 and Public Resources Code Section 4291.

California Fire Code

The California Fire Code incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official fire code for the State and all political

subdivisions. It is found in California Code of Regulations Title 24, Part 9 and, like the CBC, the California Fire Code is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions. The California Fire Code is a model code that regulates minimum fire safety regulations for new and existing buildings; facilities; storage; processes, including emergency planning and preparedness; fire service features; fire protection systems; hazardous materials; fire flow requirements; and fire hydrant locations and distribution. Typical fire safety requirements include installation of sprinklers in all buildings; the establishment of fire-resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

Wildland-Urban Interface Areas

Chapter 49 of the California Fire Code, Requirements for Wildland Urban Interface Fire Areas, applies to any geographical area identified as a Fire Hazard Severity Zone by CAL FIRE. This section defines Fire Hazard Severity Zones and connects to the SRA Fire Safe Regulation requirements for defensible space, as well as parallels requirements for wildfire protection, buildings construction, and hazardous vegetation fuel management in other sections of the California Code of Regulations and the Public Resources Code.

Fire Risk Reduction Community

A Fire Risk Reduction Community is a Board of Forestry and Fire Protection designation for local agencies in the SRA or Very High Fire Hazard Severity Zone that meet the Board-defined best practices for local fire planning. The requirements for this designation are found in California Code of Regulations, Title 14, Division 1.5, Chapter 7, Subchapter 1, Article 3, Section 1268.01, Criteria for Local Agencies that are Cities, City and County, or Counties. Local agencies must meet the following requirements to obtain this designation:

- Adopt a local ordinance designating Very High Fire Hazard Severity Zones and submit it to the Board.
- Submit the findings for all tentative and parcel maps approved for areas in SRA or Very High Fire Hazard Severity Zone to the Board, as well as a list of subdivisions since January 1, 2013.
- The Safety Element of the General Plan has been submitted to the Board for review within the last eight years, and all recommendations have been adopted.
- After July 1, 2022, a progress report on implementation of the most recent fire safety recommendations from the Board upon subdivision review in a Fire Safety Survey for each community reviewed within the jurisdiction must be submitted.

The City of Colfax has not received this designation.

California Public Utilities Commission

In 2007, wildfires in southern California were ignited by overhead utility power lines and aerial

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communication facilities near power lines. In response, the California Public Utilities Commission (CPUC) began considering and adopting regulations to protect the public from fire hazards posed by overhead power lines and nearby aerial communication facilities. The CPUC published a fire threat map—under Rulemaking 15-05-006, following procedures in Decision 17-01-009, revised by Decision 17-06-024—that adopted a work plan for the development of a utility high fire-threat district where enhanced fire safety regulations in Decision 17-12-024 apply (CPUC 2023). The fire regulations require electrical utilities to (CPUC 2017):

- Prioritize the correction of safety hazards.
- Correct nonimmediate fire risks in “Tier 2” (elevated fire threat) areas in the CPUC high fire-threat district within 12 months, and in “Tier 3” (extreme fire threat) areas within 6 months.
- Maintain increased clearances between vegetation and power lines in the high fire-threat district.
- Maintain stricter wire-to-wire clearances for new and reconstructed facilities in Tier 3 areas.
- Conduct annual inspections of overhead distribution facilities in rural areas of Tier 2 and Tier 3 areas.
- Prepare a fire prevention plan annually if overhead facilities exist in the high fire-threat district.

California Government Code

California Government Code Section 65302(g) and Section 65302.15 requires that safety elements be reviewed and revised as needed upon the revision of a Housing Element or Local Hazard Mitigation Plan (LHMP), but no less than every eight years, to ensure the goals, policies, actions, mapping, and background content are consistent with State regulations and reflect the best available information for wildfire risks, climate adaptation and resiliency, and emergency evacuation routes for certain residential areas. Communities with LHMP updates occurring after January 1, 2022, must also ensure their Safety Elements or LHMPs include an assessment of evacuation routes and their capacity, safety, and viability and evacuation locations under a range of emergency scenarios.

For wildfire and evacuation purposes, a Safety Element must include the following:

- Identify wildfire hazards with the latest fire severity zone maps from the Board of Forestry and Fire Protection, US Geological Survey, and other sources.
- Consider guidance given by the Office of Planning and Research’s (OPR) Fire Hazard Planning document.
- Demonstrate that the jurisdiction or contract agency and associated codes satisfactorily address adequate water supply, egress requirements, vegetation management, street signage, land use policies, and other criteria to protect from wildfires.
- Establish in the Safety Element (and other elements that must be consistent with it) a set of comprehensive goals, policies, and feasible implementation measures for protection of the community from unreasonable risks of wildfire.

- Identify evacuation constraints of residential parcels in hazard-prone areas.

Governor's Office of Planning and Research Fire Hazard Technical Advisory

The OPR *Fire Hazard Technical Advisory*, first published in 2015 and updated in 2020, is a planning guide for addressing fire hazards, reducing risk, and increasing resilience across California's diverse communities and landscapes. The guide provides a range of goals, policies, and programs for fire hazard prevention and mitigation, disaster preparedness, and emergency response and recovery. The 2020 update to the Technical Advisory includes specific land use strategies to reduce fire risk to buildings, infrastructure, and communities.

Regional Regulations

Placer County Local Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The Placer County LHMP, mostly recently updated in 2021 in accordance with the federal Disaster Mitigation Action of 2000 (DMA 2000), provides an assessment of natural hazards in the county and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards. The actions address hazards, as well as specific activities for, Wildland Fire, Flood, Agricultural Hazards, Severe Weather, Earthquakes, Avalanche, dam failure, landslides, Dam Overflow or Failure, and Pandemic (Placer 2021).

Placer County Community Wildfire Protection Plan

The Placer County CWPP is the result of an area-wide planning effort. In collaboration with the Placer County Fire Safe Alliance, Foresthill/Iowa Hill Fire Safe Council (FSC), Greater Auburn Area FSC, Greater Lincoln FSC, Placer Sierra FSC, California Department of Forestry and Fire Protection (CAL FIRE), United States Forest Service (USFS), Placer County Resource Conservation, other Placer County officials, numerous local fire departments and protection districts, and landowners, Placer County prepared and published the 2012 Placer County Community Wildfire Protection Plan (CWPP).

The plan incorporates new and existing information relating to wildfire, which is intended to serve and be of value to citizens, policy makers, and public agencies throughout western Placer County. The Placer County CWPP is a comprehensive document aimed at reducing the risk of wildfires in Placer County. The plan identifies areas of high wildfire risk and proposes measures to prevent and mitigate the effects of wildfires in these areas. It outlines a coordinated approach between federal, state, and local agencies, as well as private stakeholders, to create defensible space, improve evacuation procedures, and enhance firefighting capabilities. The CWPP also includes community outreach and education efforts to increase awareness and promote fire prevention and safety measures. The plan serves as a roadmap for improving wildfire resiliency in Placer County and provides a framework for future collaboration and planning.

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CAL FIRE NEU Strategic Fire Plan

The Nevada-Yuba-Placer Unit (NEU) Fire Management Plan is a product of the implementation of the State Fire Plan. The State Fire Plan provides an analysis procedure utilizing, in part, computer based geographical information data that is validated by experienced fire managers to assess fire fuel hazards and risks to design and implement mitigating activities. The plan identifies areas of high wildfire risk and proposes measures to prevent and mitigate the effects of wildfires in these areas. The NEU Fire Management Plan provides background information, fuels and fire data, proposed projects, and individual Battalion reports outlining mitigating activities commonly carried out each year. The NEU Fire Management Plan is CAL FIRE's local road map to create and maintain defensible landscapes to protect those assets vital to the state.

Local Regulations

City of Colfax Municipal Code

Chapter 2.60 – Emergency Services

The purpose of Chapter 2.60 of the Colfax Municipal Code is to provide for the preparation and carrying out of plans for the protection of persons and property within this City in the event of an emergency; the direction of the emergency organization; and the coordination of the emergency functions of this City with all other public agencies, corporations, organizations, and affected private persons. As indicated in Section 2.60.070, Emergency Plan, the director of emergency services is responsible for the development of the City's emergency plan, which shall provide the effective mobilization of all the resources of the City, both public and private, to meet any condition constituting a local emergency or state of emergency; and shall provide for the organization, powers and duties, and staff of the emergency organization.

Chapter 15.04 – Fire Code

According to Chapter 15.04 of the Colfax Municipal Code, the City adopted the 2017 California Fire Code.

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Appendix E NOP and NOP Comments Received

Appendices

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**NOTICE OF PREPARATION AND
NOTICE OF PUBLIC SCOPING MEETING**

Date: July 7, 2023

To: State Clearinghouse State Responsible Agencies State Trustee Agencies Other Public Agencies Interested Organizations	From: Emmanuel Ursu, Planning Director City of Colfax Planning Department 33 S Main Street Colfax, CA 95713
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Subject: Notice of Preparation (NOP) for the City of Colfax General Plan Update Environmental Impact Report (EIR) and Notice of Public Scoping Meeting

Lead Agency: City of Colfax

Project Title: City of Colfax General Plan 2040 Update

Project Area: City of Colfax and Sphere of Influence

Project Location: The City of Colfax is the eastern-most incorporated city in Placer County, located in the Sierra Nevada Foothills. Colfax is bordered by unincorporated Placer County lands. The city covers an area of 1.3 square miles and is bisected by Interstate 80 (I-80). Colfax is situated a few miles outside the Tahoe National Forest as I-80 begins its climb into the Sierra Nevada mountains. The City of Colfax is in the western part of Placer County, approximately 46 miles northeast of Sacramento and 68 miles southwest of Reno. Interstate and regional access to Colfax is provided by I-80 and Union Pacific Railroad which runs in a general north-south direction and bisects the city. Rail freight access is provided by the Union Pacific Railroad; Amtrak provides daily passenger service north and south of Colfax. Figure 1, *Regional Location*, shows the General Plan area in its regional context.

Scoping Meeting: 11 AM, Thursday, July 20, 2023

PURPOSE

In accordance with Section 15021 of the California Environmental Quality Act (CEQA) Guidelines, the City of Colfax, as lead agency, will prepare an Environmental Impact Report (EIR) for the Colfax General Plan Update 2040. (General Plan Update). Pursuant to Section 15082(a) of the CEQA Guidelines, the City of Colfax (City) has issued this Notice of Preparation (NOP) to provide responsible agencies, trustee agencies, and other interested parties with information describing the General Plan Update and its potential environmental effects. The City is soliciting your comments on the scope of the environmental analysis.

REVIEW PERIOD

Section 15082(b) of the CEQA Guidelines requires comments to be provided within 30 days of receipt of a NOP. In compliance with the time limits mandated by CEQA, the comment period for this NOP is from Friday July 7, 2023, through Monday, August 7, 2023. Please email your written comments to Emmanuel Ursu at planning@colfax-ca.gov, or physically mail them to City Hall, P.O. Box 702, 33 South Main St Colfax, CA 95713. Please include the name, email and/or telephone number of a contact person at your agency or organization who can answer questions about the comment.

SCOPING MEETING

The City will hold a Public Scoping Meeting at 11 AM on Thursday, July 20, 2023 for the EIR to describe the proposed project, the environmental review process, and to receive your verbal input on the information that should be included in the EIR.

PROJECT DESCRIPTION

The General Plan establishes the community's long-term vision for the future, including where people in Colfax will live, work, shop, and recreate. It serves as guidance for all zoning and land use decisions within the city. It will shape future housing, support job growth, foster healthy and resilient neighborhoods, protect and manage natural resources, ensure community safety, and promote social and economic equity. This General Plan Update does not make major changes in land use, but is focused on shortening the existing document, consolidating goals and policies into a more user-friendly document, and recognizing the need for different styles of development than were prevalent with the existing General Plan, adopted in 1998.

The General Plan policy document contains the goals and policies that will guide future decisions within the city and identifies implementation measures to ensure the vision and goals of the General Plan are carried out. The General Plan also contains a land use diagram, which serves as a general guide to the distribution of land uses throughout the city. The General Plan addresses all the elements required by State law, in addition to optional elements that the City has elected to include, as shown below:

- Land Use Element
- Community Design Element (Optional Element)
- Circulation Element
- Housing Element (Stand-alone Element)
- Noise Element
- Safety Element
- Conservation and Open Space Element
- Economic Development Element (Optional Element)

The General Plan land area consists of 903 acres (1.4 square miles) within the city limits, and 2,056.3 acres (3.2 square miles) within the Sphere of Influence. The total land area covered by this General Plan is 2,959.3 acres (4.6 square miles). Figure 2, *Proposed Land Use Plan Diagram* illustrates the proposed 2040 General Plan land use diagram.

Additional information regarding the General Plan Update can be found on the City's website:

ENVIRONMENTAL IMPACT REPORT

As all of the CEQA topics will be included in the EIR, the City has not prepared an Initial Study for this NOP as permitted in Section 15060(d) of the CEQA Guidelines. In accordance with §15166 of the CEQA Guidelines, the EIR will be included as a chapter in the General Plan as it satisfies the following requirements:

1. The general plan addresses all the points required to be in an EIR by Article 9 of these guidelines and
2. The document contains a special section or a cover sheet identifying where the general plan document addresses each of the points required.

Probable Environmental Effects/EIR Scope: The EIR for the proposed project will address the range of impacts that could result from adoption and implementation of the General Plan Update. Below is a list of environmental topics that will be examined in the EIR.

- Aesthetics
- Land Use and Planning
- Agricultural and Forestry Resources
- Mineral Resources
- Air Quality
- Noise
- Biological Resources
- Population and Housing
- Cultural Resource
- Public Services
- Energy
- Parks and Recreation
- Geology and Soils
- Transportation
- Greenhouse Gas Emissions
- Tribal Cultural Resources
- Hazards and Hazardous Materials
- Utilities and Service Systems
- Hydrology and Water Quality
- Wildfire

Date: July 7, 2023

Signature: 

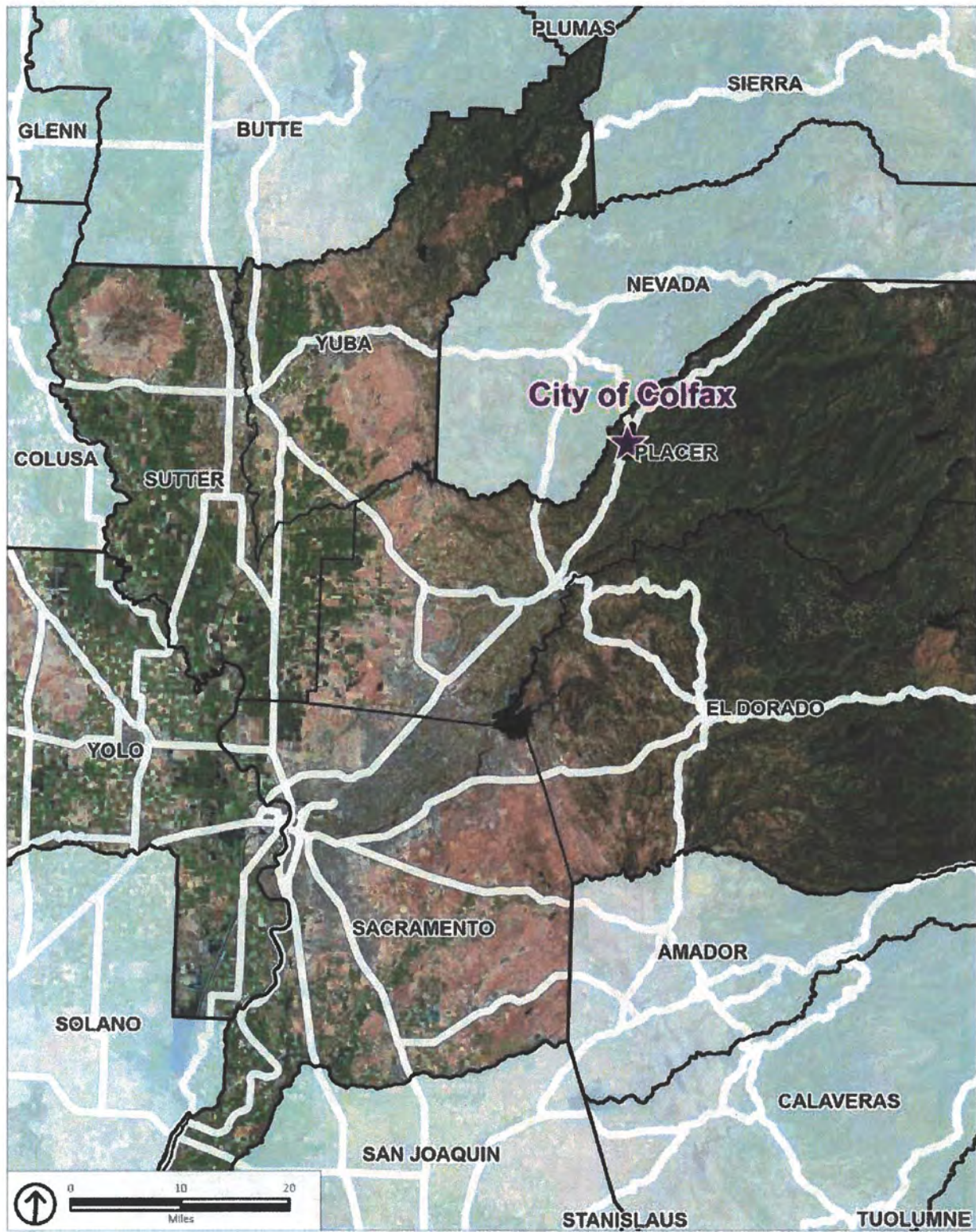
Title: Planning Director

Attachments:

Figure 1: Regional Location

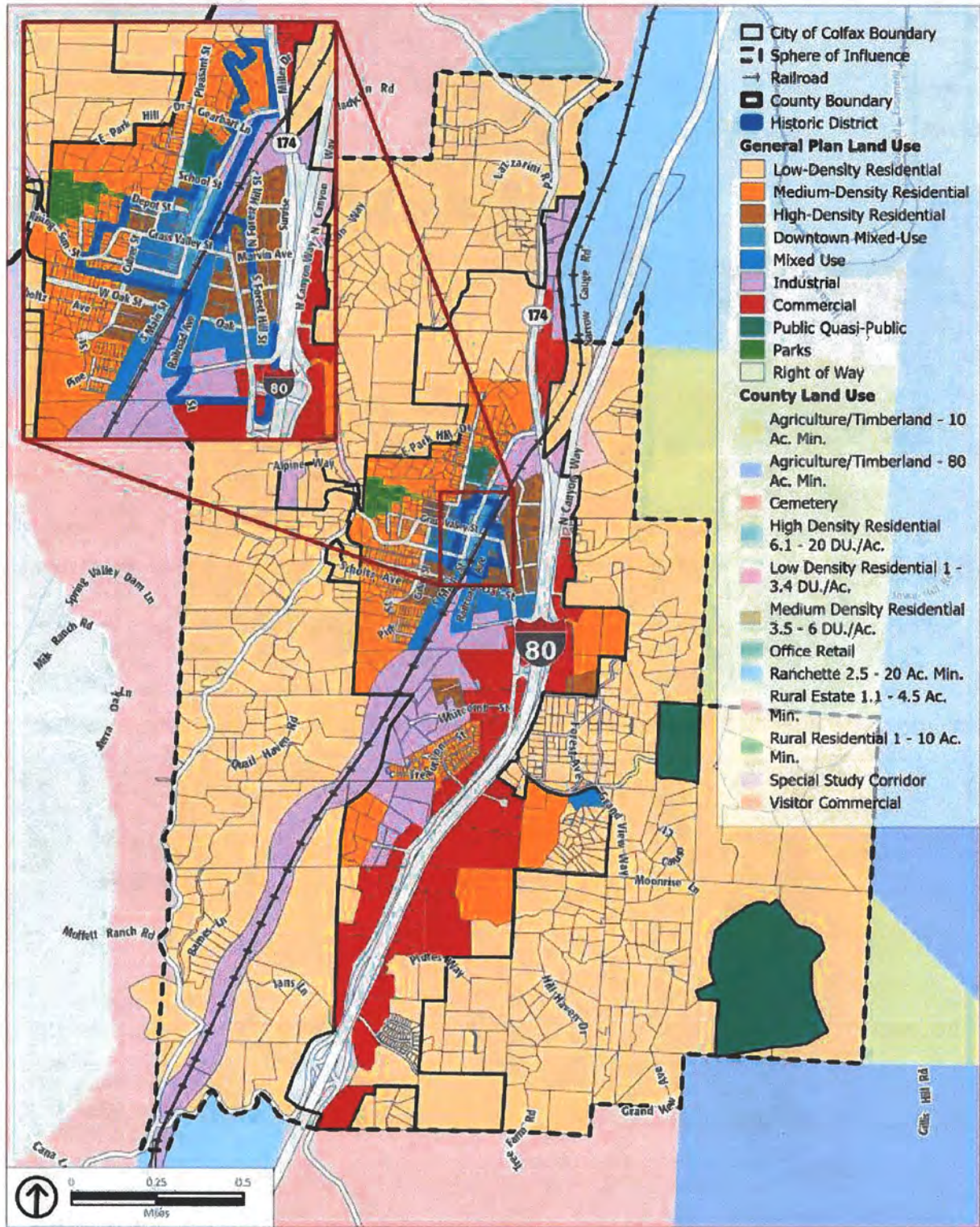
Figure 2: Proposed Land Use Plan Diagram

Figure 1: Regional Location



Source: City of Colfax, ESRI, PlaceWorks

Figure 2: Proposed Land Use Plan Diagram



Source: City of Colfax, ESRI, Placer County, 2022; PlaceWorks, 2022

NATIVE AMERICAN HERITAGE COMMISSION

July 21, 2023

Governor's Office of Planning & Research

Emmanuel Ursu
City of Colfax
33 S Main St.
Colfax, CA 95713

July 24 2023

STATE CLEARINGHOUSE

Re: 2023070105, City of Colfax General Plan 2040 Update, Placer County

Dear Mr. Ursu:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

[AB 52](#)



ACTING CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Sara Dutschke
Miwok

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Buffy McQuillen
Yokayo Pomo, Yuki,
Nomlaki

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Wayne Nelson
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AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subs. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
 - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation**: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation**. There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality**: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation**: Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Pricilla.Torres-Fuentes@nahc.ca.gov

Sincerely,

Pricilla Torres-Fuentes

Pricilla Torres-Fuentes
Cultural Resources Analyst

cc: State Clearinghouse



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
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GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



August 8, 2023

Governor's Office of Planning & Research

August 4 2023

Emmanuel Ursa, Planning Director
City of Colfax
PO Box 702
33 South Main Street
Colfax, CA 95713
planning@colfax-ca.gov

STATE CLEARINGHOUSE

Subject: NOTICE OF PREPARATION FOR THE CITY OF COLFAX GENERAL PLAN
2040 UPDATE ENVIRONMENTAL IMPACT REPORT
SCH# 2023070105

Dear Emmanuel Ursa:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of an Environmental Impact Report (EIR) from the City of Colfax for the Colfax General Plan 2040 Update (Project) in Placer County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants and their habitats. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project area consists of the City of Colfax (City) and the City's Sphere of Influence. The City covers an area of 1.4 square miles bisected by Interstate 80. The City's Sphere of Influence covers an additional 3.2 square miles.

The Project consists of the Colfax General Plan Update 2040. The Project includes the following elements: land use, community design, circulation, housing, noise, safety, conservation and open space, and economic development.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming EIR address the following:

Project Description

The Project description should include the whole action as defined in the CEQA Guidelines § 15378 and should include appropriate detailed exhibits disclosing the Project area including temporary impacted areas such as equipment stage area, spoils areas, adjacent infrastructure development, staging areas and access and haul roads if applicable.

As required by § 15126.6 of the CEQA Guidelines, the EIR should include an appropriate range of reasonable and feasible alternatives that would attain most of the basic Project objectives and avoid or minimize significant impacts to resources under CDFW's jurisdiction.

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Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the EIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends the EIR specifically include:

1. An assessment of all general habitat types located within the Project footprint, and a generalized map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following, *The Manual of California Vegetation*, second edition (Sawyer 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW recommends that the California Natural Diversity Database (CNDDDB), as well as previous studies performed in the area, be consulted to assess the potential presence of sensitive species and habitats. A nine United States Geologic Survey 7.5-minute quadrangle search is recommended to determine what may occur in the region, larger if the Project area extends past one quad (see *Data Use Guidelines* on the Department webpage www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data). Please review the webpage for information on how to access the database to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the Project. CDFW recommends that CNDDDB Field Survey Forms be completed and submitted to CNDDDB to document survey results. Online forms can be obtained and submitted at: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>.

Please note that CDFW's CNDDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site. Other sources for identification of species and habitats near or adjacent to the Project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System, California Native Plant Society Inventory, agency contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations.

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3. A complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code § § 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Species-specific surveys should be conducted in order to ascertain the presence of species with the potential to be directly, indirectly, on or within a reasonable distance of the Project activities. CDFW recommends the City rely on survey and monitoring protocols and guidelines available at: www.wildlife.ca.gov/Conservation/Survey-Protocols. Alternative survey protocols may be warranted; justification should be provided to substantiate why an alternative protocol is necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Some aspects of the Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought or deluge.
4. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The EIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the EIR:

1. The EIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA Guidelines, § 15064, subd. (f)). The EIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed, and it must permit the significant effects of the Project to be considered in the full environmental context.
2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The EIR should address Project-related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

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3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g., National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).
4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The EIR should discuss the Project's cumulative impacts to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

Mitigation Measures for Project Impacts to Biological Resources

The EIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the Project. CDFW also recommends the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the Project's significant impacts upon fish and wildlife and their habitat. For individual projects, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of CEQA (Guidelines § § 15126.4(a)(4)(B), 15064, 15065, and 16355). In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Several Fully Protected Species (Fish & G. Code §§ 3511 and 4700) have the potential to occur within or adjacent to the Project area, including, but not limited to: bald eagle (*Haliaeetus leucocephalus*), golden eagle (*Aquila chrysaetos*), California black rail (*Laterallus jamaicensis coturniculus*), and northern California ringtail (*Bassariscus astutus*). Fully protected species may not be taken or possessed at any time. Project activities described in the EIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends the EIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of

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migratory and breeding behaviors. CDFW recommends that the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce indirect impacts to fully protected species.

2. **Species of Special Concern:** Several Species of Special Concern (SSC) have the potential to occur within or adjacent to the Project area, including, but not limited to: California red-legged frog (*Rana draytonii*), northern goshawk (*Accipiter gentilis*), loggerhead shrike (*Lanius ludovicianus*), yellow warbler (*Setophaga petechia*), California spotted owl (*Strix occidentalis occidentalis*), olive-sided fly catcher (*Contopus cooperi*), Sierra Nevada mountain beaver (*Aplodontia rufa californica*), Fisher (*Pekania pennanti*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), spotted bat (*Euderma maculatum*), western pond turtle (*Emys marmorata*), and coast horned lizard (*Phrynosoma blainvillii*). Project activities described in the EIR should be designed to avoid any SSC that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the EIR fully analyze potential adverse impacts to SSC due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends the City include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce impacts to SSC.
3. **Sensitive Plant Communities:** CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDDB and are included in *The Manual of California Vegetation* (Sawyer 2009). The EIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.
4. **Native Wildlife Nursery Sites:** CDFW recommends the EIR fully analyze potential adverse impacts to native wildlife nursery sites, including but not limited to bat maternity roosts. Based on review of Project materials, aerial photography, and observation of the site from public roadways, the Project site contains potential nursery site habitat for structure and tree roosting bats and is near potential foraging habitat. Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment, (Fish & G. Code, § 4150; Cal. Code of Regs, § 251.1). CDFW recommends that the EIR fully identify the Project's potential impacts to native wildlife nursery sites, and include appropriate avoidance, minimization and mitigation measures to reduce impacts or mitigate any potential significant impacts to bat nursery sites.
5. **Mitigation:** CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the EIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of

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Project impacts. For unavoidable impacts, onsite habitat restoration, enhancement, or permanent protection should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

The EIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

6. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in the regional ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be appropriately timed to ensure the viability of the seeds when planted. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project. Examples may include retention of woody material, logs, snags, rocks, and brush piles. Fish and Game Code sections 1002, 1002.5 and 1003 authorize CDFW to issue permits for the take or possession of plants and wildlife for scientific, educational, and propagation purposes. Please see our website for more information on Scientific Collecting Permits at www.wildlife.ca.gov/Licensing/Scientific-Collecting#53949678-regulations-.

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7. *Nesting Birds*: Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory nongame native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Potential habitat for nesting birds and birds of prey is present within the Project area. The Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project footprint and its vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take must be included in the EIR.

CDFW recommends the EIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The EIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. In addition to larger, protocol level survey efforts (e.g., Swainson's hawk surveys) and scientific assessments, CDFW recommends a final preconstruction survey be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted earlier.

8. *Moving out of Harm's Way*: The Project is anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, the City should state in the EIR a requirement for a qualified biologist with the proper handling permits, will be retained to be onsite prior to and during all ground- and habitat-disturbing activities. Furthermore, the EIR should describe that the qualified biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The EIR should also describe qualified biologist qualifications and authorities to stop work to prevent direct mortality of special-status

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species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss.

9. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as the sole mitigation for impacts to rare, threatened, or endangered species as these efforts are generally experimental in nature and largely unsuccessful. Therefore, the EIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species.

The EIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the EIR should be made a condition of approval of the Project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time. To avoid deferring mitigation in this way, the EIR should describe avoidance, minimization and mitigation measures that would be implemented should the impact occur.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (Fish & G. Code § 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed or candidate CESA species, either through construction or over the life of the Project.

State-listed or candidate species with the potential to occur in the area include but are not limited to: foothill yellow-legged frog (*Rana boylei*), willow fly catcher (*Empidonax traillii*), and western bumble bee (*Bombus occidentalis*).

The EIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To facilitate the issuance of an ITP, if applicable, CDFW recommends the EIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both State and federally listed species may be present within the Project vicinity.

City of Colfax General Plan 2040 Update

August 4, 2023

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Native Plant Protection Act

The Native Plant Protection Act (Fish & G. Code §1900 *et seq.*) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of State-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Lake and Streambed Alteration Program

The EIR should identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access and staging areas). The environmental document should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-mentioned features and associated biological resources/habitats that may occur because of the Project. If it is determined the Project will result in significant impacts to these resources the EIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;
2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
3. Deposit debris, waste or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the EIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts to fish and wildlife resources. Notifications for projects involving (1) sand, gravel or rock

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extraction, (2) timber harvesting operations, or (3) routine maintenance operations must be submitted using paper notification forms. All other LSA Notification types must be submitted online through CDFW's Environmental Permit Information Management System (EPIMS). For more information about EPIMS, please visit <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS>. More information about LSA Notifications, paper forms and fees may be found at <https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA>.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all needed information for CDFW to determine the extent of fish and wildlife resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

CDFW relies on the lead agency environmental document analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.
2. Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Based on review of Project materials, aerial photography, and observation of the Project area from public roadways, the Project area supports several tributaries to the Bear River, North Fork American River, and associated riparian habitat. CDFW recommends the EIR fully identify the Project's potential impacts to streams and/or associated vegetation and wetlands.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, §

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21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDDB. The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov.

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the City and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

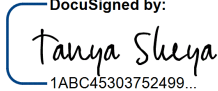
CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670.

CDFW appreciates the opportunity to comment on the Notice of Preparation of the EIR for the Project and recommends that the City address CDFW's comments and concerns in the forthcoming EIR. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

If you have any questions regarding the comments provided in this letter or wish to schedule a meeting and/or site visit, please contact Patrick Moeszinger, Senior Environmental Scientist (Specialist) at (916) 767-3935 or patrick.moeszinger@wildlife.ca.gov.

Sincerely,

DocuSigned by:

1ABC45303752499...

Tanya Sheya
Environmental Program Manager

ec: Dylan Wood, Senior Environmental Scientist (Supervisory)
Patrick Moeszinger, Senior Environmental Scientist (Specialist)
Department of Fish and Wildlife

Office of Planning and Research, State Clearinghouse, Sacramento

City of Colfax General Plan 2040 Update

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Literature Cited

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California.
<http://vegetation.cnps.org/>

Central Valley Regional Water Quality Control Board

7 August 2023

Emmanuel Ursu
City of Colfax
33 South Main Street
Colfax, CA 95713
planning@colfax-ca.gov

COMMENTS TO REQUEST FOR REVIEW FOR THE NOTICE OF PREPARATION FOR THE DRAFT ENVIRONMENTAL IMPACT REPORT, COLFAX GENERAL PLAN UPDATE, SCH#2023070105, PLACER COUNTY

Pursuant to the State Clearinghouse's 7 July 2023 request, the Central Valley Regional Water Quality Control Board (Central Valley Water Board) has reviewed the *Request for Review for the Notice of Preparation for the Draft Environmental Impact Report* for the Colfax General Plan Update, located in Placer County.

Our agency is delegated with the responsibility of protecting the quality of surface and groundwaters of the state; therefore our comments will address concerns surrounding those issues.

I. Regulatory Setting

Basin Plan

The Central Valley Water Board is required to formulate and adopt Basin Plans for all areas within the Central Valley region under Section 13240 of the Porter-Cologne Water Quality Control Act. Each Basin Plan must contain water quality objectives to ensure the reasonable protection of beneficial uses, as well as a program of implementation for achieving water quality objectives with the Basin Plans. Federal regulations require each state to adopt water quality standards to protect the public health or welfare, enhance the quality of water and serve the purposes of the Clean Water Act. In California, the beneficial uses, water quality objectives, and the Antidegradation Policy are the State's water quality standards. Water quality standards are also contained in the National Toxics Rule, 40 CFR Section 131.36, and the California Toxics Rule, 40 CFR Section 131.38.

The Basin Plan is subject to modification as necessary, considering applicable laws, policies, technologies, water quality conditions and priorities. The original Basin Plans were adopted in 1975, and have been updated and revised periodically as required, using Basin Plan amendments. Once the Central Valley Water Board has adopted a Basin Plan amendment in noticed public hearings, it must be approved by the State Water Resources Control Board (State Water Board), Office of

Administrative Law (OAL) and in some cases, the United States Environmental Protection Agency (USEPA). Basin Plan amendments only become effective after they have been approved by the OAL and in some cases, the USEPA. Every three (3) years, a review of the Basin Plan is completed that assesses the appropriateness of existing standards and evaluates and prioritizes Basin Planning issues. For more information on the *Water Quality Control Plan for the Sacramento and San Joaquin River Basins*, please visit our website:

http://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/

Antidegradation Considerations

All wastewater discharges must comply with the Antidegradation Policy (State Water Board Resolution 68-16) and the Antidegradation Implementation Policy contained in the Basin Plan. The Antidegradation Implementation Policy is available on page 74 at:

https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_2018_05.pdf

In part it states:

Any discharge of waste to high quality waters must apply best practicable treatment or control not only to prevent a condition of pollution or nuisance from occurring, but also to maintain the highest water quality possible consistent with the maximum benefit to the people of the State.

This information must be presented as an analysis of the impacts and potential impacts of the discharge on water quality, as measured by background concentrations and applicable water quality objectives.

The antidegradation analysis is a mandatory element in the National Pollutant Discharge Elimination System and land discharge Waste Discharge Requirements (WDRs) permitting processes. The environmental review document should evaluate potential impacts to both surface and groundwater quality.

II. Permitting Requirements

Construction Storm Water General Permit

Dischargers whose project disturb one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), Construction General Permit Order No. 2009-0009-DWQ. Construction activity subject to this permit includes clearing, grading, grubbing, disturbances to the ground, such as stockpiling, or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For more information on the Construction General Permit, visit the State Water Resources Control Board website at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Phase I and II Municipal Separate Storm Sewer System (MS4) Permits¹

The Phase I and II MS4 permits require the Permittees reduce pollutants and runoff flows from new development and redevelopment using Best Management Practices (BMPs) to the maximum extent practicable (MEP). MS4 Permittees have their own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification component. The MS4 permits also require specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.

For more information on which Phase I MS4 Permit this project applies to, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/municipal_permits/

For more information on the Phase II MS4 permit and who it applies to, visit the State Water Resources Control Board at:

http://www.waterboards.ca.gov/water_issues/programs/stormwater/phase_ii_municipal.shtml

Industrial Storm Water General Permit

Storm water discharges associated with industrial sites must comply with the regulations contained in the Industrial Storm Water General Permit Order No. 2014-0057-DWQ. For more information on the Industrial Storm Water General Permit, visit the Central Valley Water Board website at:

http://www.waterboards.ca.gov/centralvalley/water_issues/storm_water/industrial_general_permits/index.shtml

Clean Water Act Section 404 Permit

If the project will involve the discharge of dredged or fill material in navigable waters or wetlands, a permit pursuant to Section 404 of the Clean Water Act may be needed from the United States Army Corps of Engineers (USACE). If a Section 404 permit is required by the USACE, the Central Valley Water Board will review the permit application to ensure that discharge will not violate water quality standards. If the project requires surface water drainage realignment, the applicant is advised to contact the Department of Fish and Game for information on Streambed Alteration Permit requirements. If you have any questions regarding the Clean Water Act Section 404 permits, please contact the Regulatory Division of the Sacramento District of USACE at (916) 557-5250.

Clean Water Act Section 401 Permit – Water Quality Certification

If an USACE permit (e.g., Non-Reporting Nationwide Permit, Nationwide Permit, Letter of Permission, Individual Permit, Regional General Permit, Programmatic

¹ Municipal Permits = The Phase I Municipal Separate Storm Water System (MS4) Permit covers medium sized Municipalities (serving between 100,000 and 250,000 people) and large sized municipalities (serving over 250,000 people). The Phase II MS4 provides coverage for small municipalities, including non-traditional Small MS4s, which include military bases, public campuses, prisons and hospitals.

General Permit), or any other federal permit (e.g., Section 10 of the Rivers and Harbors Act or Section 9 from the United States Coast Guard), is required for this project due to the disturbance of waters of the United States (such as streams and wetlands), then a Water Quality Certification must be obtained from the Central Valley Water Board prior to initiation of project activities. There are no waivers for 401 Water Quality Certifications. For more information on the Water Quality Certification, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/water_quality_certification/

Waste Discharge Requirements – Discharges to Waters of the State

If USACE determines that only non-jurisdictional waters of the State (i.e., “non-federal” waters of the State) are present in the proposed project area, the proposed project may require a Waste Discharge Requirement (WDR) permit to be issued by Central Valley Water Board. Under the California Porter-Cologne Water Quality Control Act, discharges to all waters of the State, including all wetlands and other waters of the State including, but not limited to, isolated wetlands, are subject to State regulation. For more information on the Waste Discharges to Surface Water NPDES Program and WDR processes, visit the Central Valley Water Board website at: https://www.waterboards.ca.gov/centralvalley/water_issues/waste_to_surface_water/

Projects involving excavation or fill activities impacting less than 0.2 acre or 400 linear feet of non-jurisdictional waters of the state and projects involving dredging activities impacting less than 50 cubic yards of non-jurisdictional waters of the state may be eligible for coverage under the State Water Resources Control Board Water Quality Order No. 2004-0004-DWQ (General Order 2004-0004). For more information on the General Order 2004-0004, visit the State Water Resources Control Board website at: https://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2004/wqo/wqo2004-0004.pdf

Dewatering Permit

If the proposed project includes construction or groundwater dewatering to be discharged to land, the proponent may apply for coverage under State Water Board General Water Quality Order (Low Threat General Order) 2003-0003 or the Central Valley Water Board’s Waiver of Report of Waste Discharge and Waste Discharge Requirements (Low Threat Waiver) R5-2018-0085. Small temporary construction dewatering projects are projects that discharge groundwater to land from excavation activities or dewatering of underground utility vaults. Dischargers seeking coverage under the General Order or Waiver must file a Notice of Intent with the Central Valley Water Board prior to beginning discharge.

For more information regarding the Low Threat General Order and the application process, visit the Central Valley Water Board website at: http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2003/wqo/wqo2003-0003.pdf

For more information regarding the Low Threat Waiver and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/waivers/r5-2018-0085.pdf

Limited Threat General NPDES Permit

If the proposed project includes construction dewatering and it is necessary to discharge the groundwater to waters of the United States, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. Dewatering discharges are typically considered a low or limited threat to water quality and may be covered under the General Order for *Limited Threat Discharges to Surface Water* (Limited Threat General Order). A complete Notice of Intent must be submitted to the Central Valley Water Board to obtain coverage under the Limited Threat General Order. For more information regarding the Limited Threat General Order and the application process, visit the Central Valley Water Board website at:

https://www.waterboards.ca.gov/centralvalley/board_decisions/adopted_orders/general_orders/r5-2016-0076-01.pdf

NPDES Permit

If the proposed project discharges waste that could affect the quality of surface waters of the State, other than into a community sewer system, the proposed project will require coverage under a National Pollutant Discharge Elimination System (NPDES) permit. A complete Report of Waste Discharge must be submitted with the Central Valley Water Board to obtain a NPDES Permit. For more information regarding the NPDES Permit and the application process, visit the Central Valley Water Board website at: <https://www.waterboards.ca.gov/centralvalley/help/permit/>

If you have questions regarding these comments, please contact me at (916) 464-4684 or Peter.Minkel2@waterboards.ca.gov.

Peter Minkel

Peter Minkel
Engineering Geologist

cc: State Clearinghouse unit, Governor's Office of Planning and Research,
Sacramento



August 7, 2023

SENT VIA E-MAIL: planning@colfax-ca.gov

City of Colfax
 Emmanuel Ursu, Planning Director
 33 S Main Street
 Colfax, CA 95713

SUBJECT: Notice of Preparation for the City of Colfax General Plan Update Environmental Impact Report

Mr. Ursu,

Thank you for submitting the Notice of Preparation for the City of Colfax General Plan Update Environmental Impact Report to the Placer County Air Pollution Control District (District) for review and comment. The comments below are for your consideration.

1. The District's CEQA Thresholds of Significance for criteria pollutants and Greenhouse Gas (GHG) are summarized in the tables below:

Criteria Pollutant Thresholds								
Construction Phase			Operational Phase Project-Level			Operational Phase Cumulative-Level		
ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀
(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
82	82	82	55	55	82	55	55	82

Greenhouse Gas Thresholds			
Bright-line Threshold 10,000 MT CO ₂ e/yr			
Efficiency Matrix			
Residential		Non-residential	
Urban	Rural	Urban	Rural
(MT CO ₂ e/capita)		(MT CO ₂ e/1,000sf)	
4.5	5.5	26.5	27.3
De Minimis Level 1,100 MT CO ₂ e/yr			

The District recommends applying the District's adopted thresholds to determine the level of significance for related criteria pollutants and GHG impacts.

2. The District's California Environmental Quality Act (CEQA) Air Quality 2017 Handbook (Handbook) provides recommended analytical approaches and feasible mitigation measures when preparing air quality analyses for land use projects. The Handbook is available on the District's website at <http://www.placerair.org/landuseandceqa/ceqaairqualityhandbook>. Except where noted below additional detail relating to the following recommended items can be found within the Handbook.
 - Colfax is located within the Mountain Counties Air Basin (MCAB) and is under the jurisdiction of the District. The MCAB is designated as nonattainment for federal and state ozone (O₃) standards, and unclassified for the federal particulate matter standard (PM_{2.5}). Within the Air Quality section, the District recommends the discussion include the area designations for the federal and state standards for the MCAB.

- The California Emissions Estimator Model (CalEEMod) is recommended when estimating related air pollutants emissions from construction and operational phases. CalEEMod quantifies criteria pollutant emissions, including greenhouse gases (GHGs) from construction and operation (including vehicle use), as well as GHG emissions from energy production, solid waste handling, vegetation planting and/or removal, and water conveyance. In addition, CalEEMod calculates the benefits from implementing mitigation measures, including GHG mitigation measures, developed and approved by CAPCOA.

The District requests copies of all modeling analysis files during the review of the DEIR for public review and comment.

- In the event the air quality analysis demonstrates the potential to cause or generate significant adverse air quality related impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during construction and operation to minimize or eliminate significant adverse air quality impacts. Additional mitigation measures can be found in the District's CEQA Handbook within the following related appendices.

Appendix A. District Rules and Regulations (Construction and Operational)

Appendix C. Recommended Mitigation Measures (Construction)

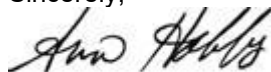
Appendix E. Recommended Mitigation Measures (Operational)

Appendix F. Mitigation Measures (Greenhouse Gases)

- The District recommends a CALINE 4 modeling analysis for carbon monoxide (CO) concentration be performed and discussed within the environmental document either of the following scenarios is true for any intersection. A site-specific CO dispersion modeling analysis should evaluate the potential local CO emission impact at roadway intersections:
 - A traffic study for the project indicates that the peak-hour LOS on one or more streets or at one or more intersections (both signalized and non-signalized) in the project vicinity will be degraded from an acceptable LOS (e.g., A, B, C, or D) to an unacceptable LOS (e.g., E or F); or
 - A traffic study indicates that the project will substantially worsen an already existing unacceptable peak-hour LOS on one or more streets or at one or more intersections in the project vicinity. "Substantially worsen" includes situations where a delay would increase by 10 seconds or more when project-generated traffic is included.

Thank you for allowing the District this opportunity to review the project proposal. Please do not hesitate to contact me at 530.745.2327 or ahobbs@placer.ca.gov if you have any questions.

Sincerely,



Ann Hobbs
Associate Planner
Planning & Monitoring Section

Appendix F Air Quality and Greenhouse Gas Emissions Assessment

Appendices

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Air Quality & Greenhouse Gas Emissions Assessment

City of Colfax General Plan Update Colfax, California

Prepared For:

PlaceWorks
101 Parkshore Drive, Suite 200
Folsom, California 95630

Prepared By:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

55 Hanover Lane
Chico, CA 95926

July 2023

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- Attachment A – CalEEMod Output File for Air Quality and Greenhouse Gas Emissions - Proposed General Plan Update
- Attachment B – CalEEMod Output File for Air Quality and Greenhouse Gas Emissions - Existing General Plan 2020

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
ATCM	Airborne toxics control measure
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAFE	Corporate Average Fuel Economy
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CEQA	California Environmental Quality Act
CH ₄	Methane
CNG	Compressed Natural Gas
CO	Carbon monoxide
County	Placer County
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalents
DPM	Diesel particulate matter
EO	Executive Order
GHG	Greenhouse gas emissions
HRA	Health Risk Assessment
HVAC	Heating, Ventilation, and Air Conditioning
IPCC	Intergovernmental Panel on Climate Change

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
I-80	Interstate 80
µg/m ³	Micrograms per cubic meter
lbs	Pounds
LNG	Liquefied Natural Gas
MCAB	Mountain Counties Air Basin
MPO	Metropolitan Planning Organization
N ₂ O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Safety Administration
NO ₂	Nitrogen dioxide
NO _x	Nitrous oxides
OEHHA	Office of Environmental Health Hazard Assessment
O ₃	Ozone
parts per million	ppm
PCAPCD	Placer County Air Pollution Control District
PM ₁₀	Coarse particulate matter
PM _{2.5}	Fine particulate matter
Project	Grace Development Park Project
ROG	Reactive organic gases
SAFE	Safer Affordable Fuel Efficient
SCS	Sustainable Communities Strategy
SB	Senate Bill
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
TACs	Toxic air contaminants
USEPA	U.S. Environment Protection Agency
VMT	Vehicle Miles Traveled

1.0 INTRODUCTION

This report describes the potential impacts to air quality and greenhouse gas (GHG) emissions due to the implementation of the proposed City of Colfax General Plan Update. This section describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential air quality and/or GHG-related impacts, and identifies General Plan policies and feasible mitigation measures that could minimize any potentially significant impacts. This report was prepared using methodologies and assumptions recommended in the rules and regulations of the Placer County Air Pollution Control District (PCAPCD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations.

1.1 Project Location and Description

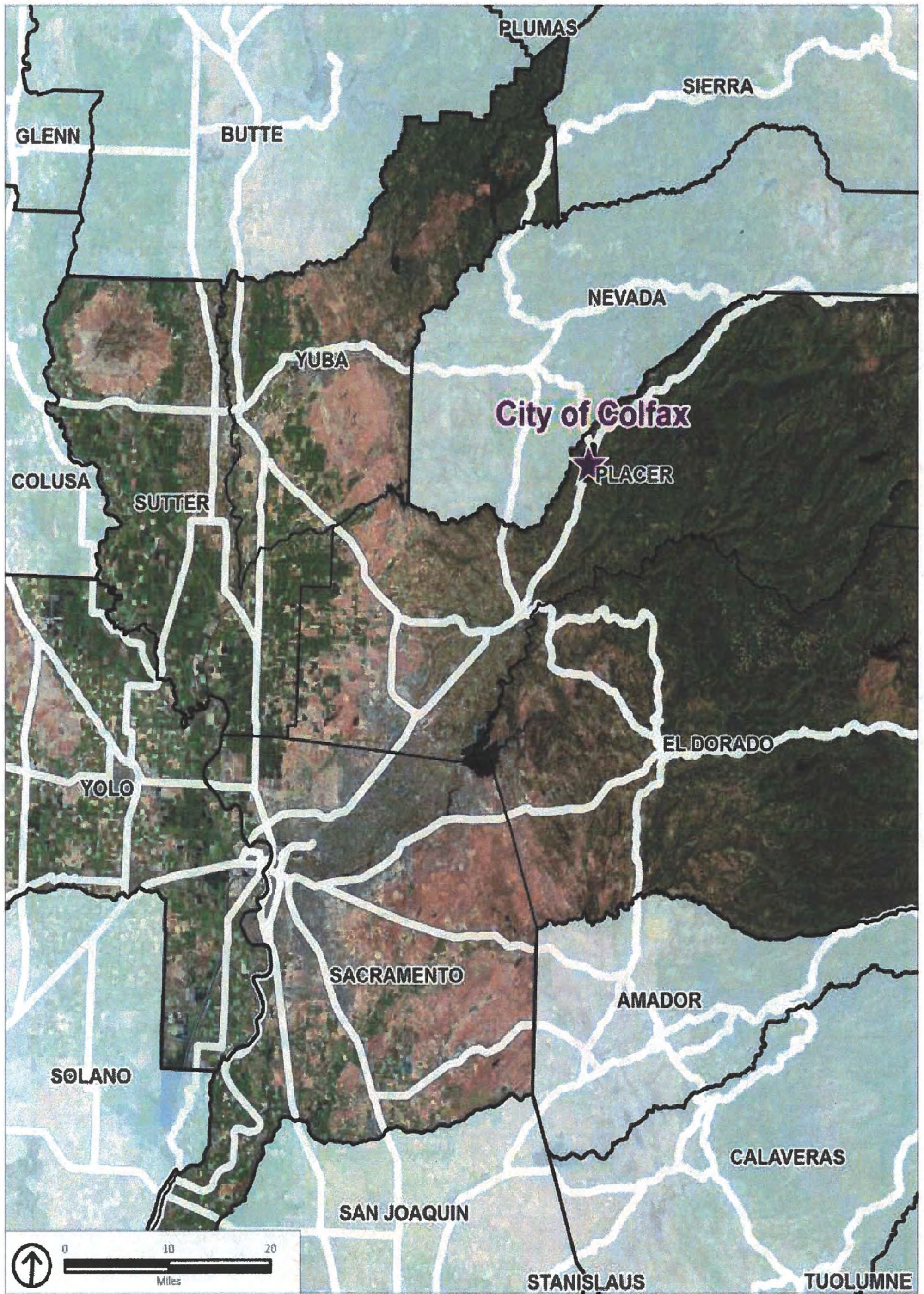
The City of Colfax is the eastern-most incorporated city in Placer County, located in the Sierra Nevada Foothills. Colfax is bordered by unincorporated Placer County lands. The city covers an area of 1.3 square miles and is bisected by Interstate 80 (I-80). Colfax is situated a few miles outside the Tahoe National Forest as I-80 begins its climb into the Sierra Nevada mountains. The City of Colfax is in the western part of Placer County, approximately 46 miles northeast of Sacramento and 68 miles southwest of Reno. Interstate and regional access to Colfax is provided by I-80 and Union Pacific Railroad which runs in a general north-south direction and bisects the city. Rail freight access is provided by the Union Pacific Railroad; Amtrak provides daily passenger service north and south of Colfax. Figure 1-1, Regional Location, shows the General Plan area in its regional context.

The General Plan establishes the community's long-term vision for the future, including where people in Colfax will live, work, shop, and recreate. It serves as guidance for all zoning and land use decisions within the city. It will shape future housing, support job growth, foster healthy and resilient neighborhoods, protect and manage natural resources, ensure community safety, and promote social and economic equity. The proposed General Plan Update does not make major changes in land use, but is focused on shortening the existing document, consolidating goals and policies into a more user-friendly document, and recognizing the need for different styles of development than were prevalent with the existing "General Plan 2020", adopted in 1998. The proposed General Plan Update policy document contains the goals and policies that will guide future decisions within the city and identifies implementation measures to ensure the vision and goals of the General Plan are carried out. The General Plan Update also contains a land use diagram, which serves as a general guide to the distribution of land uses throughout the city. The General Plan Update addresses all the elements required by State law, in addition to optional elements that the City has elected to include, as listed here:

- Land Use Element
- Community Design Element (Optional Element)
- Circulation Element
- Housing Element (Stand-alone Element)
- Noise Element

- Safety Element
- Conservation and Open Space Element
- Economic Development Element (Optional Element)

The General Plan land area consists of 903 acres (1.4 square miles) within the city limits, and 2,056.3 acres (3.2 square miles) within the Sphere of Influence. The total land area covered by this General Plan is 2,959.3 acres (4.6 square miles). Figure 1-2, Proposed Land Use Plan Diagram, illustrates the proposed 2040 General Plan land use diagram.

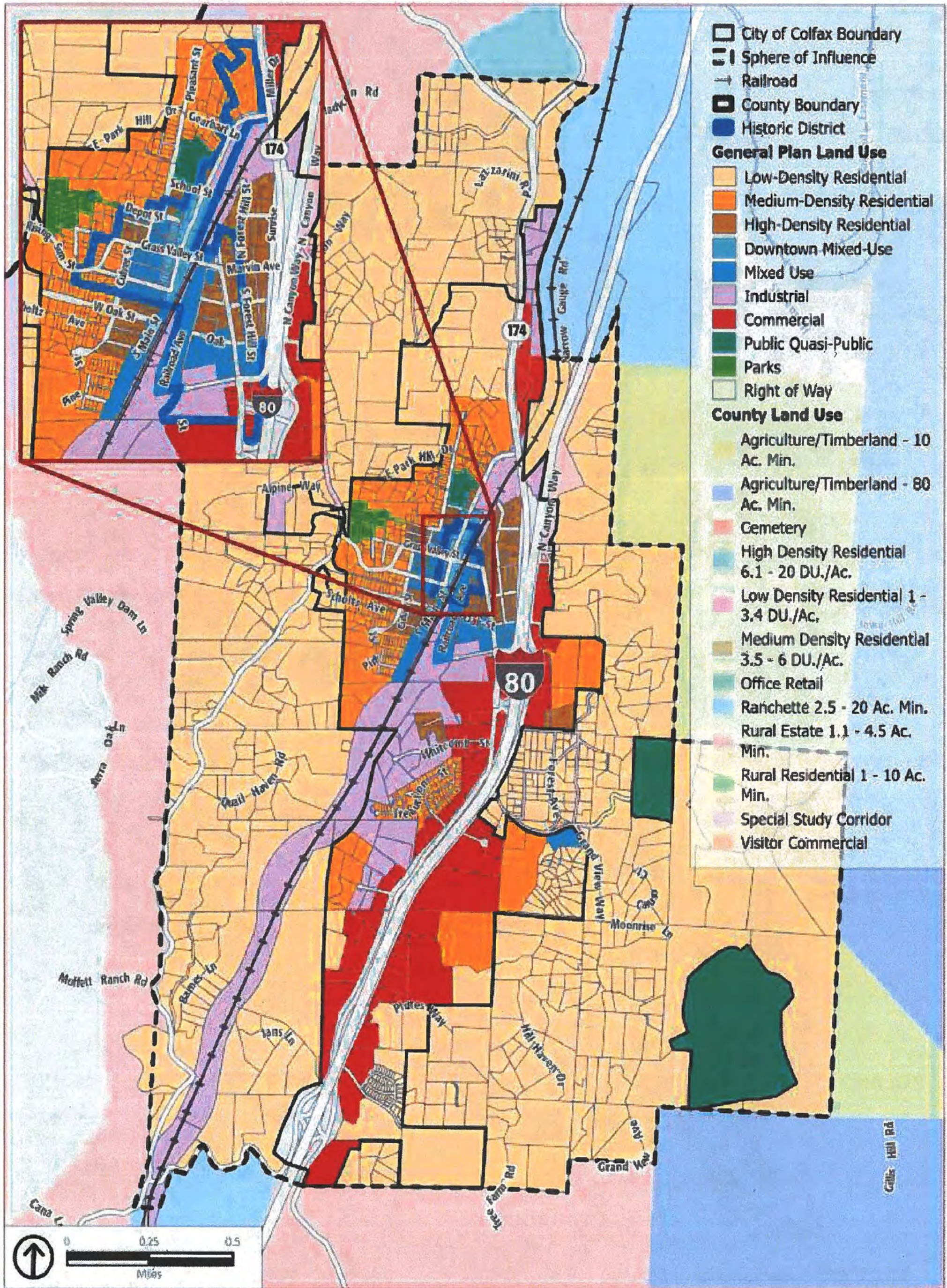


Source: City of Colfax, ESRI, PlaceWorks



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 1-1. Regional Location



Source: City of Colfax, ESRI, Placer County, 2022; PlaceWorks, 2022



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Figure 1-2. Proposed Land Use Plan Diagram

2.0 AIR QUALITY

2.1 Environmental Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, together with the current regulatory structure that applies to the Mountain Counties Air Basin (MCAB), in which Colfax is located, pursuant to the regulatory authority of the PCAPCD. The PCAPCD is responsible for establishing and enforcing local air quality rules and regulations that address the requirements of federal and state air quality laws.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the City of Colfax.

2.1.1 Mountain Counties Air Basin

The California Air Resources Board (CARB) divides the state into air basins that share similar meteorological and topographical features. Colfax is located in the central portion of Placer County, which is encompassed by the MCAB. The MCAB consists of nine counties or portions of counties stretching from Plumas County on the north to Mariposa County on the south. The MCAB exhibits large variations in terrain and consequently exhibits large variations in climate, both of which affect air quality. The western portions of the basin slope relatively gradually, with deep river canyons running from southwest to northeast toward the crest of the Sierra Nevada range. East of the divide, the slope of the Sierra is steeper, but river canyons are relatively shallow.

Because of the region's topographical features and meteorological conditions, the MCAB is more sensitive to negative impacts on air quality than most other areas of California. The prevailing wind direction over the county is westerly. However, the terrain has a great influence on local winds, so that wide variability in wind direction can be expected. Afternoon winds are generally channeled up-canyon, while nighttime winds generally flow down-canyon. Winds are, in general, stronger in spring and summer and weaker in fall and winter. Periods of calm winds and clear skies in fall and winter often result in strong, ground-based inversions forming in mountain valleys. These layers of very stable air restrict the dispersal of pollutants, trapping these pollutants near the ground, representing the worst conditions for local air pollution occurring in the county.

Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the surface. Local pollutant sources in the MCAB are trapped by frequent inversions, which limit the volume of air into which they can be mixed and in turn result in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources such as motor vehicles, chimney smoke, and forest burning are trapped in the basin. This is the most common meteorological condition contributing to air quality degradation in the area.

The second-most common meteorological condition contributing to air quality degradation is transport from the Sacramento Valley and the Bay Area into the region. This meteorological condition is strongest during the warmer summer months and contributes approximately 30 percent of the ozone and airborne particulate matter pollution in the region. The lowest pollution regimes are associated with the fall and winter months and contribute approximately 10 percent of the pollution to the region. Similar to other areas, when winds are strong enough to break up basin inversion layers, pollution is generally blown outside of the region and the air quality is typically good. However, when fall and winter winds are weak, this regime is associated with persistent local inversions and the associated buildup of local pollutants.

2.1.1.1 Meteorological Influences on Air Quality

Regional flow patterns affect air quality by directing pollutants downwind of sources. Localized meteorological conditions, such as moderate winds, disperse pollutants and reduce pollutant concentrations. Because of the topographical features and meteorological conditions, the MCAB is more sensitive to negative impacts on air quality than most other areas of California. Cold temperatures and mild winds often result in temperature inversions in which upper layers of warmer air trap colder air near the surface. Local pollutant sources in the MCAB are trapped by frequent inversions, which limit the volume of air into which they can be mixed and in turn results in elevated pollutant concentrations. The most frequent episodes of high pollution occur during local basin inversions, when emissions from local sources such as motor vehicles, chimney smoke, and forest burning are trapped in the basins. Local air basin inversions in the Placer County portion of the MCAB are a result of the cold temperatures of Lake Tahoe, which contribute to the occurrence of subsidence and radiation inversions throughout the year. Another common meteorological condition contributing to air quality degradation is transport from the Sacramento Valley and the Bay Area into the region. This meteorological condition is strongest during the warmer summer months and contributes approximately 30 percent of the pollutant, O₃, and airborne particulate matter pollution in the region. The lowest pollution regimes are associated with the fall and winter months and contribute approximately 10 percent of the pollution to the region. Similar to other areas, when winds are strong enough to break up basin inversion layers, pollution is generally blown outside of the region and the air quality is typically good. However, when fall and winter winds are weak, this regime is associated with persistent local inversions and the associated buildup of local pollutants.

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O₃), coarse particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Summary of Criteria Air Pollutants Sources and Effects

Pollutant	Major Manmade Sources	Human Health and Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO ₂	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O ₃	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N ₂ O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM _{2.5} & PM ₁₀	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.

Source: California Air Pollution Control Offices Association (CAPCOA 2013)

2.1.2.1 Carbon Monoxide

CO in the urban environment is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes,

lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x, such as NO and NO₂, attribute to the formation of O₃ and PM_{2.5}. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

Ozone (O₃) is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) also known as reactive organic gases (ROG) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. Sunlight and hot weather cause ground-level O₃ to form. Ground-level O₃ is the primary constituent of smog. Because O₃ formation occurs over extended periods of time, both O₃ and its precursors are transported by wind and high O₃ concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O₃ levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O₃ exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Sulfur Dioxide

SO₂ is a colorless gas with a pungent odor, however sulfur dioxide can react with other particulates in the atmosphere to form particulates which contribute to the haze effect. SO₂ standards have been developed by the EPA to regulate all sulfur oxides, however SO₂ is by far the most abundant sulfur oxide in the atmosphere. Currently, SO₂ is primarily a result of the burning of fossil fuels for power generation and other industrial sources. Modern regulations on diesel fuel have greatly reduced the amount of SO₂ in the atmosphere and there are currently no areas in California that have nonacceptable levels of SO₂, by state or federal standards.

2.1.2.5 Particulate Matter

Particulate matter includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM₁₀) and small than or equal to 2.5 microns in diameter (PM_{2.5}). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM₁₀ is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM₁₀ generally settles out of the atmosphere rapidly and is not readily transported over large distances. PM_{2.5} is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x, sulfur oxides (SO_x) and VOCs. PM_{2.5} can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high PM_{2.5} and PM₁₀ levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Carcinogenic TACs can also have noncarcinogenic health hazard levels.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children (whose lungs are still developing) and the elderly (who may have other serious health problems). Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's PM_{2.5} air quality problems. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

2.1.3.1 Diesel Exhaust

Most recently, CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-

headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.1.4 Ambient Air Quality

Ambient air quality in Colfax can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potently affecting the Colfax region. As described in detail below, the region is designated nonattainment for the federal standards of O₃ and is nonattainment for the state standards of O₃ and PM₁₀. Placer County contains several air quality monitors throughout the area, which capture the ambient concentrations of O₃, PM_{2.5} and PM₁₀. The Colfax – City Hall air quality monitoring station is located at 33 South Main Street monitors O₃ and PM_{2.5}. The Roseville air quality monitoring station (N. Sunrise Boulevard, Roseville, CA) is the closest PM₁₀ monitoring station to Colfax, approximately 28 miles to the southwest. Table 2-2 summarizes the air quality data from the most recent years that is relevant to Colfax. Ambient emission concentrations will vary due to localized variations in emission sources and climate, yet these measurements should be considered “generally” representative of ambient concentrations in the city.

Table 2-2. Summary of Ambient Air Quality Data in Colfax			
Pollutant Scenario	2019	2020	2021
O₃			
Max 1-hour concentration (ppm)	0.102	0.129	0.097
Max 8-hour concentration (ppm) (state/federal)	0.077 / 0.077	0.093 / 0.092	0.083 / 0.083
Number of days above 1-hour standard (state/federal)	1 / 0	4 / 1	1 / 0
Number of days above 8-hour standard (state/federal)	7 / 4	18 / 18	18 / 17
PM₁₀**			
Max 24-hour concentration (µg/m ³) (state/federal)	63.1 / 61.3	244.3 / 251.8	150.7 / 155.7
Number of days above 24-hour standard (state/federal)	2.0 / 0.0	38.0 / 5.3	11.0 / 1.1
PM_{2.5}			
Max 24-hour concentration (µg/m ³) (state/federal)	20.6 / *	167.6 / *	186.8 / *
Number of days above federal 24-hour standard	*	*	*

Source: CARB 2022a

Note: ** = PM₁₀ measurements were taken from the N. Sunrise Boulevard Roseville air quality monitoring station. This is the closest monitor to Colfax that provides data for PM₁₀, and the only air quality monitoring station in Placer County that monitors PM₁₀.

* = Insufficient data available

µg/m³ = micrograms per cubic meter; ppm = parts per million

The USEPA and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) for O₃, PM₁₀, and PM_{2.5} are

based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for Colfax portion of Placer County is presented in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the Colfax Portion of Placer County		
Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Nonattainment
PM ₁₀	Nonattainment	Unclassified
PM _{2.5}	Unclassified	Unclassified/Attainment
CO	Unclassified	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment

Source: CARB 2022b

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. As shown above, sometimes areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The Colfax region is designated nonattainment for the federal standards of O₃ and is nonattainment for the state standards of O₃ and PM₁₀ (CARB 2022b).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Because placement of sensitive land uses falls outside CARB’s jurisdiction, CARB developed and approved the Air Quality and Land Use Handbook: A Community Health Perspective (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB’s recommendations on the siting of new sensitive land uses identified in Table 2-4 were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources.

Table 2-4. CARB Recommendations on Siting New Sensitive Land Uses Near Air Pollutant Sources

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units per day, or where transport refrigeration units unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities

Source: CARB 2005

The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic TACs that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and 1,3-butadiene from passenger vehicles. In 2017, CARB provided a supplemental technical advisory to the handbook for near-roadway air pollution exposure, Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Strategies include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution (or the dilution of pollution in the air), or remove pollution from the air (CARB 2017).

2.2 Regulatory Framework

2.2.1 Federal

2.2.1.1 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the Colfax region for the criteria pollutants.

2.2.2 State

2.2.2.1 California Clean Air Act

The California Clean Air Act (CCAA) allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California’s State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

2.2.2.2 California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to

attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The PCAPCD is the agency responsible for ensuring that NAAQS and CAAQS are not exceeded. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (including 2018 updates), the PM₁₀ Implementation/Maintenance Plan and Re-Designation Request (2010), and PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area (2013) constitute the current SIP for Placer County. These air quality planning documents present comprehensive strategies to reduce the O₃ precursor pollutants (ROG and NO_x) as well as PM emissions from stationary, area, mobile, and indirect sources.

2.2.2.3 Pavley Fuel Efficiency Standards.

Pavley I is a clean-car standard that reduces emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.

2.2.2.4 California Code of Regulations (CCR) Title 20: Appliance Energy Efficiency Standards.

The 2006 Appliance Efficiency Regulations (20 CCR secs. 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non– federally regulated appliances. This code reduces natural gas use from appliances.

2.2.2.5 24 CCR, Part 6: Building and Energy Efficiency Standards and Part 11: Green Building Standards Code

Part 6: Building and Energy Efficiency Standards establishes energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977. This code reduces natural gas use from buildings. Part 11: Green Building Standards Code establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. This code reduces natural gas use from buildings.

2.2.2.6 Tanner Air Toxics Act & Air Toxics “Hot Spot” Information and Assessment Act

CARB’s Statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to

designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the "Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.3 Local

2.2.3.1 Placer County Air Pollution Control District

The PCAPCD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The PCAPCD responsibilities include preparing plans for the attainment of ambient air quality standards, adopting and enforcing air pollution rules, issuing permits for and inspecting stationary air pollution sources, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, and implementing state and federal programs and regulations. The PCAPCD has also adopted various rules and regulations that are designed to reduce and control pollutant emissions from project's construction and operational activities. The following provisions applicable to the Proposed Project are summarized as follows:

- **Rule 202 Visible Emissions:** A person shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three (3) in any one (1) hour which is: a.) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or b.) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in section (A) above.
- **Rule 205 Nuisance:** A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which causes 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 businesses or property.
- **Rule 218 Architectural Coating:** To limit the quantity of volatile organic compounds in architectural coating supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.

- **Rule 228 Fugitive Dust:** To reduce the amount of particulate matter entrained in the ambient air, or discharge into the ambient air, as a result of anthropogenic (manmade) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.
- **Rule 502 New Source Review:** The purpose of this rule is to provide for the review of new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct for such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.

To assist local jurisdictions in the evaluation of air quality impacts under CEQA, the PCAPCD has published a guidance document for the preparation of the air quality portions of environmental documents that include thresholds of significance to be used in evaluating land use proposals. Thresholds of significance are based on a source’s projected impacts and are a basis from which to apply mitigation measures. PCAPCD’s CEQA thresholds have also been used to determine air quality impacts in this analysis. If a project’s individual emissions exceed its identified significance thresholds, the Project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulatively considerable.

The PCAPCD’s established thresholds of significance for air quality for construction and operational activities of land use development projects are shown in Table 2-5.

Table 2-5. PCAPCD Significance Thresholds – Pounds per day		
Air Pollutant	Construction Phase Project Level	Operational Phase Project Level
ROG	82	55
NO _x	82	55
CO	--	--
SO ₂	--	--
PM ₁₀	82	82
PM _{2.5}	--	--

Source: PCAPCD 2017

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project’s individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulatively considerable.

2.2.3.2 City of Colfax Municipal Code

Section 16.36.040, *Air quality mitigation fees*, requires that development applications in which the initial study environmental assessment identifies potentially significant impact(s) on air quality must be reviewed by the PCAPCD and incorporate, as conditions of approval, PCAPCD-recommended mitigation measures for air quality impacts. Development applications requiring PCAPCD review must pay all fees incurred by the City of Colfax based on the PCAPCD's fee agreement established rate of sixty-two dollars (\$62.00). In the event the proposed development requires air quality studies and analyses, the applicant must pay all fees incurred by the City of Colfax for consulting firms, as well as PCAPCD review costs of such studies at the rate of sixty-two dollars (\$62.00)/hour, which may be modified from time to time by resolution.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Threshold of Significance

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

- 1) Conflict with or obstruct implementation of any applicable air quality plan.
- 2) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- 3) Expose sensitive receptors to substantial pollutant concentrations.
- 4) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

2.3.2 Methodology

Impacts related to air quality resulting from implementation (construction and operation) of the proposed General Plan Update are discussed below. Air quality impacts were assessed in accordance with methodologies recommended by the PCAPCD. The impact analysis is based on calculations of the criteria air pollutant and O₃ precursor emissions that would result from projected future growth at buildout of the General Plan Update.

Compared with buildout of the City of Colfax under the existing "General Plan 2020", buildout of the proposed General Plan Update would allow for an additional 218 high density residential units and an additional 329 low density residential units. Conversely, compared with buildout of the City of Colfax under the existing General Plan 2020, buildout of the proposed General Plan Update would reduce the amount of allowable medium-heavy density residential by 733 units and the amount of medium density residential by 175 units. Further, compared with buildout of the City of Colfax under the existing General Plan 2020, buildout of the proposed General Plan Update would reduce the amount of allowable commercial and

industrial building space by 308,315 square feet and 734,000 square feet, respectively¹. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with operations from a variety of land use projects.

2.3.3 Impact Analysis

2.3.3.1 Project Construction-Generated Criteria Air Quality Emissions

The General Plan Update would accommodate future development for residential, commercial, recreational, and industrial uses. The future development and other physical changes that could result from the implementation of the General Plan Update would generate construction-related emissions of criteria air pollutants and O₃ precursors, including ROG, NO_x, PM₁₀, and PM_{2.5} from site preparation (e.g., excavation, clearing), off-road equipment, material delivery, worker commute trips, and other activities (e.g., building construction, asphalt paving, application of architectural coatings). Typical construction activities that could occur with land use development include use of all-terrain forklifts, cranes, pick-up and fuel trucks, compressors, loaders, backhoes, excavators, dozers, scrapers, pavement compactors, welders, concrete pumps, concrete trucks, and off-road haul trucks as well as other diesel-powered equipment as necessary. Fugitive dust emissions of PM₁₀ and PM_{2.5} would be associated primarily with site preparation and grading and would vary as a function of the soil silt content, soil moisture, wind speed, acreage of disturbance, and mobile sources. Emissions of O₃ precursors would occur from the exhaust of construction equipment and on-road vehicles. Paving and the application of architectural coatings would also result in off-gas emissions of ROG. PM₁₀ and PM_{2.5} would also be emitted from off-road equipment and vehicle exhaust.

Construction activities associated with the proposed General Plan Update would occur over the buildout horizon of the plan, causing short-term emissions of criteria air pollutants. For the proposed General Plan Update, which is a broad policy plan, it is not possible to determine whether the scale and phasing of individual projects would exceed the PCAPCD's thresholds of criteria pollutants of concern, as identified in Table 2-5 above, due to project-level variability and uncertainties related to future individual projects in terms of detailed site plans, construction schedules, equipment requirements, etc., which are not currently determined or even proposed. Nonetheless, depending on how development proceeds, construction-generated emissions associated with the proposed General Plan Update could potentially exceed PCAPCD thresholds of significance. Overall, air quality emissions related to construction must be addressed on a project-by-project basis, and information regarding specific development projects, soil types, and the locations of receptors would be needed to quantify the level of impact associated with construction activity.

As previously described, Section 16.36.040, *Air quality mitigation fees*, requires that development applications in which the initial study environmental assessment identifies potentially significant impact(s) on air quality must be reviewed by the PCAPCD and incorporate, as conditions of approval, PCAPCD-

¹ To identify commercial and industrial building square footage, City-provided employment projections under both the existing General Plan 2020 and proposed General Plan Update were used coupled with average building area per employee data from the U.S. Green Building Council (2008).

recommended mitigation measures. The PCAPCD has promulgated methodology protocols for the preparation of air quality analyses. For instance, the PCAPCD has adopted thresholds of significance depicting the approximate level of construction-generated emissions that would result in a potentially significant impact (i.e., violation of an ambient air quality standard) for each pollutant of concern. The significance criteria established by the PCAPCD may be relied upon to make a determination of impact significance level. In addition, the PCAPCD recommends appropriate emissions modeling input parameters for the Placer County region in addition to other recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements.

Projects estimated to exceed PCAPCD significance thresholds are required to implement mitigation measures in order to reduce air pollutant emissions as much as feasible. Such measures would be required to be implemented per Colfax Municipal Code Section 16.36.040 and could include the requirement that all construction equipment employ the use of the most efficient diesel engines available, which are able to reduce NO_x, PM₁₀, and PM_{2.5} emissions by 60–90 percent (e.g., EPA-classified Tier 3 and/or Tier 4 engines²), and/or that construction equipment be equipped with diesel particulate filters. Other PCAPCD recommended air pollutant reduction measures include, but are not limited to, the following:

- The fueling of all off-road and portable diesel powered equipment with CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).
- The prohibition of all on and off-road diesel equipment from idling for more than 5 minutes and the posting of signs in the designated queuing areas and/or job sites to remind drivers and operators of the 5 minute idling limit.
- The prohibition of diesel idling within 1,000 feet of sensitive receptors.
- The prohibition of locating staging and queuing areas within 1,000 feet of sensitive receptors.
- The use of electrified equipment when feasible.
- The substitution of gasoline-powered in place of diesel-powered equipment, where feasible.
- The use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.
- The requirement that contractors repower equipment with the cleanest engines available.
- The requirement that construction equipment use installed California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>

² NO_x emissions are primarily associated with use of diesel-powered construction equipment (e.g., graders, excavators, rubber-tired dozers, tractor/loader/backhoes). The Clean Air Act of 1990 directed the EPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards.

On May 11, 2004, the EPA signed the final rule introducing Tier 4 emission standards, which are currently phased-in over the period of 2008-2015. The Tier 4 standards require that emissions of PM and NO_x be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

- The requirement that the contractor prepare a dust control plan when the disturbed area is more than one (1) acre.
- The reduction of the amount of disturbed areas where possible.
- The use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site, and the requirement to increase watering frequency whenever wind speeds exceed 15 mph, using reclaimed (non-potable) water whenever possible.
- The spraying of all dirt stock-pile areas daily as needed.
- The requirement that all roadways, driveways, sidewalks, etc. be paved as soon as possible, with building pads laid as soon as possible after grading unless seeding or soil binders are used.
- The requirement to show all fugitive dust mitigation measures on grading and building plans.
- The requirement that the contractor or builder designate a person or persons to monitor the fugitive dust emissions and enhance the implementation of the measures as necessary to minimize dust complaints, reduce visible emissions below 20 percent opacity, and prevent transport of dust offsite.

Furthermore, all development projects in Colfax are subject to PCAPCD rules and regulations adopted to reduce air pollutant emissions. For example, PCAPCD Rule 202, *Visible Emissions*, states that no person shall discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three (3) in any one (1) hour which is: a.) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or b.) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described above. Rule 205, *Nuisance*, states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes 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 businesses or property. Rule 218, *Architectural Coating*, requires a limit on the quantity of volatile organic compounds in architectural coating supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the county. Rule 228, *Fugitive Dust*, requires the reduction of the amount of particulate matter entrained in the ambient air, or discharge into the ambient air, as a result of anthropogenic (manmade) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions.

While the PCAPCD has promulgated methodology protocols for the preparation of air quality analyses, and future development projects allowed under the proposed General Plan Update that are projected to exceed PCAPCD significance thresholds are required to implement mitigation measures in order to reduce air pollutant emissions as much as feasible, PCAPCD significance thresholds may still be exceeded as a result of construction activities allowed under the proposed General Plan Update. Since it cannot be guaranteed that construction of future projects allowed under the proposed General Plan Update would generate air pollutant emissions below PCAPCD significance thresholds due to the programmatic and conceptual nature of the proposed General Plan Update and uncertainties related to future individual projects, this is considered a significant impact. As such, due to nonattainment status for O₃, construction activities associated with implementation of the General Plan Update may result in adverse air quality impacts to

surrounding land uses and may contribute to the existing air quality condition in the city. Therefore, impacts due to construction emissions would be significant.

2.3.3.2 Project Operations Criteria Air Quality Emissions

The proposed General Plan Update would accommodate new development that would operate through the planning horizon year. New residential, commercial, industrial, and recreational development facilitated by the proposed General Plan Update would result in long-term area-, energy-, and mobile-source emissions. Area source emissions are the combination of many small emission sources that include use of outdoor landscape maintenance equipment, use of consumer products such as cleaning products, use of fireplaces and hearths, and periodic reapplication of architectural coatings. Criteria pollutants generated from energy sources are principally from the onsite use of natural gas and other heating fuels; electricity consumption is not included in energy source emissions as those potential emissions would be generated as the result of the operation of an electricity generation facility which may or may not be within the same air basin and under the same attainment status as the end-use. Mobile source emissions result from the vehicle activity associated with the operation of a given land use development project. It should be noted that the proposed General Plan Update would not itself authorize specific development to occur within the city. Future development projects would be subject to the City's standard CEQA review process and would be required to assess project-specific emissions in relation to the PCAPCD significance thresholds. Although specific project-level information for potential future development is not available at this time and the estimation of emissions resulting from future development would be speculative, anticipated average daily emissions were quantified and presented in Table 2-6 in order to provide an estimate of the potential overall area, energy, and mobile source emissions resulting from the proposed General Plan Update based on the calculation methodology provided in Section 2.3.2, Methodology.

Table 2-6. Operational Criteria Air Pollutant Emissions			
Emission Source	Pollutant (Pounds per Day)		
	ROG	NO_x	PM₁₀
<i>Proposed General Plan Update Buildout Emissions</i>			
Mobile	273	335	844
Area (hearths, consumer products)	992	23	149
Energy (onsite natural gas use)	3	52	4
Total Average lbs/day:	1,268	413	997
<i>PCAPCD Daily Significance Threshold</i>	<i>55 pounds/day</i>	<i>55 pounds/day</i>	<i>82 pounds/day</i>
Exceed PCAPCD Daily Significance Threshold?	Yes	Yes	Yes
<i>Existing General Plan 2020 Buildout Emissions</i>			
Mobile	319	389	976
Area (hearths, consumer products)	970	21	138
Energy (onsite natural gas use)	3	59	5
Total Average lbs/day:	1,292	469	1,119
<i>PCAPCD Daily Significance Threshold</i>	<i>55 pounds/day</i>	<i>55 pounds/day</i>	<i>82 pounds/day</i>
Exceed PCAPCD Daily Significance Threshold?	Yes	Yes	Yes

Source: CalEEMod version 2022.1. Refer to Attachment A and Attachment B for Model Data Outputs.

As shown by Table 2-6, the criteria air pollutant emissions from buildout of the proposed General Plan Update are generally the same as air pollutant emissions from buildout of the existing General Plan 2020 buildout. Specifically, ROG emissions under the proposed General Plan Update could be expected to be reduced by approximately 24 pounds daily while emissions of NO_x and PM₁₀ could be expected to be reduced by approximately 56 pounds per day and 122 pounds per day, respectively. However, as shown in Table 2-6, buildout of the General Plan Update would still result in ROG, NO_x, and PM₁₀ emissions greater than PCAPCD thresholds.

The General Plan Update does propose several policy provisions that would assist to reduce the generation of criteria air pollutants from mobile sources. For instance, proposed Policy 3.2.1 would require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking. The promotion of these alternative forms of transportation contributes to less dependency on automobiles, a source of criteria air pollutants. Similarly, Policy 3.2.2 proposes to promote the

development of bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible. Proposed Policy 3.2.3 seeks to ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as “sidewalks to nowhere.” Additionally, Implementation Measure 3.2.C proposes to develop a Walkways, Trails, and Bikeways Master Plan that incorporates the recommendations of the City of Colfax Bikeway Master Plan, and other planning proposals as appropriate, to plan the location and development of future trails and active transportation routes in the city and the vicinity. The Master Plan will also consider connection of the city bicycle network with the countywide bicycle network, collaboration with the County in development of a countywide bicycle network, the provision of signage where automobile traffic merges with or intersects bicycle traffic to notify automobile drivers of the presence of cyclists, the repairing or developing railroad crossings in a way that allows safe crossing by bicycles and pedestrians, and the timing of traffic lights and sensitivity of traffic sensing equipment to accommodate bicycles. Lastly, proposed Policy 3.3.2 would require transportation systems planned and constructed in conjunction with significant development projects, including roads, trails, bikeways, and other improvements, to provide links to the existing transportation network.

Development projects accommodated by the proposed General Plan would be analyzed on a case-by-case basis when detailed information regarding operational activities is known. Future projects would be subject to the proposed General Plan Update policies identified above, as well as PCAPCD and State rules and regulations, including, but not limited to those identified in Section 2.2, Regulatory Framework. Nonetheless, buildout of the General Plan Update would result in regional operational emissions that exceed the PCAPCD’s significance thresholds. As such, this impact is significant.

2.3.3.3 Project Consistency with Air Quality Planning

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. Similarly, under state law, the CCAA requires an air quality attainment plan to be prepared for areas designated as nonattainment with regard to the federal and state ambient air quality standards. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date.

As previously described, the PCAPCD is the agency responsible for enforcing many federal and state air quality requirements and for establishing air quality rules and regulations. The PCAPCD attains and maintains air quality conditions in Placer County. They achieve this through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. As part of this effort, the PCAPCD has developed input to the SIP. The 2017 Sacramento Regional 2008 8-Hour Ozone Attainment and Reasonable Further Progress Plan (including 2018 updates), the PM₁₀

Implementation/Maintenance Plan and Re-Designation Request (2010), and PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area (2013) constitute the current SIP for Placer County and include the PCAPCD's plans and control measures for attaining air quality standards. These air quality attainment plans are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, state regulations, and federal controls describing how the state will attain ambient air quality standards.

As shown by Table 2-6, emissions of ROG, NO_x, and PM₁₀ emissions are predicted to be less at the buildout of Colfax under the development allowed by the proposed General Plan Update compared with the buildout of Colfax under the development allowed by the existing General Plan 2020. Specifically, ROG emissions under the proposed General Plan Update could be expected to be reduced by approximately 24 pounds daily while emissions of NO_x and PM₁₀ could be expected to be reduced by approximately 56 pounds per day and 122 pounds per day, respectively. The reduction of regional pollutants is the underlying goal of PCAPCD's air quality planning efforts and while buildout of the General Plan Update would result in regional operational emissions that exceed the PCAPCD's significance thresholds (see Table 2-6), these emissions would be less than what will otherwise be generated without adoption of the proposed General Plan Update. For this reason, the proposed General Plan Update is consistent with PCAPCD's air quality planning efforts and the Project would not conflict with or obstruct implementation of PCAPCD's air quality plans.

2.3.3.4 Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis.

Construction-Generated Air Contaminants

Construction of the Project would result in temporary emissions of ROG, NO_x, CO, PM₁₀, PM_{2.5}, and the TAC, DPM. As previously described, TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health. Sources of the TAC, DPM, during construction activities include off-road construction vehicle and equipment use and on-road vehicle use for material and soil hauling. Identification of potential impacts to sensitive receptors resulting from individual project-generated TACs would require project-specific information for future individual land use development projects that is not currently known. Therefore, assessment of future development projects facilitated by the proposed General Plan Update that would be subject to CEQA would undergo their own review of potential construction-related localized impacts and identify appropriate and feasible mitigation to implement to reduce potentially significant impacts. Implementation of appropriate PCAPCD-recommended pollutant reduction measures would reduce construction emissions for future individual development projects; however, because individual project-specific information is not available, it is not possible to determine whether implementation of the PCAPCD reduction measures would reduce health risk-related impacts to sensitive receptors or identify additional quantifiable mitigation measures that would reduce project-specific construction emissions to

ensure that localized emissions generated during construction of future development projects under the General Plan Update do not expose sensitive receptors to substantial pollutant concentrations. As such, this impact would be significant.

Operational Air Contaminants

Common sources of operational TAC emissions are stationary sources (e.g., diesel backup generators and gasoline stations), which are subject to PCAPCD permit requirements. Another common and often more significant source type is on-road motor vehicles on high-volume roads, such as I-80, and off-road sources such as diesel-powered trains traveling on the Union Pacific Railroad corridor. As previously described, CARB developed and approved the Air Quality and Land Use Handbook: A Community Health Perspective (2005) to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB's recommendations on the siting of new sensitive land uses identified in Table 2-4 above were based on a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources.

The proposed General Plan Update contains policy provisions that are generally consistent with the CARB Air Quality and Land Use Handbook. For example, proposed Implementation Measure 2.1.A discourages sensitive residential land uses from pollutant hotspot locations such as busy roadways by instead supporting commercial development on arterial streets and at major intersections near I-80 interchanges. This is consistent with the proposed General Plan Land Use map, which substantially limits new sensitive residential development in areas adjacent to I-80 and the Union Pacific Railroad. Implementation Measure 2.1.B seeks to place supportive land uses near to the railroad and prohibits placing sensitive uses, such as residences, where they could jeopardize use of rail. Implementation Measure 2.1.C would require the location of industrial and commercial land uses away from noise sensitive land uses, which also includes TAC-sensitive land uses such as residences, thereby prohibiting the development of any substantial commercial or industrial source of TAC emissions in the vicinity of residential land uses. Additionally, Implementation Measure 2.1.D states that to protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise generating uses, which often consist of sources of TAC emissions such as manufacturing facilities and/or distribution centers, thereby prohibiting the development of TAC-sensitive land uses in the vicinity of most sources of stationary TAC sources. Lastly, Policy 5.3.2 requires that new development be compatible with the existing urban area where they are proposed. These proposed policies of the General Plan Update effectively assist to reduce human health impacts and exposure of sensitive receptors to substantial pollutant concentrations.

2.3.3.5 Odors

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

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word “strong” to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Construction activities that have the potential to emit odors from the operation of diesel equipment, generation of fugitive dust, and paving (asphalt). Odors and similar emissions from construction would be intermittent and temporary, and generally would not extend beyond the construction area. While odors could be generated during construction activities, the proposed General Plan Update would not directly result in construction of any development project. Identification of potential impacts to odor receptors resulting from construction-generated odors, such as equipment exhaust, would require project-specific information for future individual land use development projects that is not currently known. Nonetheless, odors generated from the operation of diesel equipment are short-term in nature and rapidly dissipate and be diluted by the atmosphere downwind of the odor sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors generated under the General Plan Update would not adversely affect a substantial number of people to odor emissions.

According to the PCAPCD CEQA Handbook (2017), facilities/land uses that have the potential to produce odors during standard operations and may require special attention in the environmental review process include the following:

- Wastewater Treatment Plants
- Sanitary Landfills
- Composting/Green Waste Facilities
- Recycling Facilities
- Chemical Manufacturing Plants

- Painting/Coating Operations
- Agricultural Operations
- Slaughterhouse/Food Packaging Plants

Per the PCAPCD (2017), if a land use project proposes any of the above type of land uses, which have the potential to cause significant odor impacts, the odor impacts should be identified and discussed in the environmental document so mitigation measures may be identified. These guidelines further state that the most effective mitigation strategy is to provide a sufficient distance, or buffer zone, between the source and the receptor(s). The greater the distance between an odor source and receptor, the less odor impact when it reaches the receptor. The PCAPCD CEQA Handbook (2017) provides an Odor Screening Distances table which lists recommended buffer distances for a variety of odor-generating facilities. Consideration of PCAPCD's recommended buffer distances would be required for all future development under the proposed General Plan Update per Section 16.36.040 of the City Municipal Code, which requires incorporation, as conditions of approval, of PCAPCD-recommended mitigation measures. Additionally, Section 17.120.090, *Odors*, also addresses potential odor impacts by requiring that no emission of odorous gases or other odorous matter be permitted in excess of the most recent standards adopted by the PCAPCD and Placer County Department of Environmental Health. Any process which may involve the creation or emission of any odor shall be provided with a secondary safeguard system so that control will be maintained if the primary safeguard system should fail. Lastly, PCAPCD Rule 205, *Nuisance*, states that no person shall discharge from any source whatsoever such quantities of air contaminants or other material which causes 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 businesses or property. These existing requirements would minimize odor emissions from adversely affecting a substantial number of people within the city, and impacts would be less than significant.

2.3.3.6 Cumulative Air Quality Impacts

The cumulative area of analysis is the MCAB, which includes Colfax. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Furthermore, per PCAPCD guidance, projects generating emissions that exceed the regional significance thresholds would not only be considered to result in a significance project-level impact but would also be considered to result in a cumulative impact. Thus, the impacts previously discussed are evaluated in the cumulative context and no additional cumulative analysis is needed.

In summary, the proposed General Plan Update is expected to generate construction and operational emissions that would exceed PCAPCD thresholds. Implementation of proposed General Plan Policies and PCAPCD-recommended mitigation measures would reduce construction and operational emissions for future projects under the proposed General Plan Update; however, due to the programmatic nature of this Draft EIR, it cannot be determined whether this would reduce emissions below the specified thresholds during construction or operation.

Implementation of the General Plan Update would be consistent with the PCAPCD's air quality planning efforts and would not conflict with or obstruct implementation of PCAPCD's air quality plans. Emissions of ROG, NO_x, and PM₁₀ emissions are predicted to be less at the buildout of Colfax under the development allowed by the proposed General Plan Update compared with the buildout of Colfax under the development allowed by the existing General Plan 2020. The reduction of regional pollutants is the underlying goal of PCAPCD's air quality planning efforts and while buildout of the General Plan Update would result in regional operational emissions that exceed the PCAPCD's significance thresholds, these emissions would be less than what will otherwise be generated without adoption of the proposed General Plan Update.

While it is not possible to determine whether implementation of the PCAPCD reduction measures would reduce health risk-related impacts to sensitive receptors or identify additional quantifiable mitigation measures that would reduce project-specific construction emissions to ensure that localized emissions generated during construction of future development projects under the General Plan Update do not expose sensitive receptors to substantial pollutant concentrations, proposed policies of the General Plan Update would effectively reduce human health impacts and exposure of sensitive receptors to substantial pollutant concentrations during the operations of these future development projects. Furthermore, any odor generating uses under the proposed General Plan Update would be subject to the provisions of the City's Municipal Code and the PCAPCD ensuring that impacts related to odors and other emissions are less than significant.

Overall, cumulative impacts to air quality are considered significant.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O). Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the

last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013).

Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: (1) USEPA 2016a; (2) USEPA 2016b; (3) USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2022, CARB released the 2022 edition of the California GHG inventory covering calendar year 2020 emissions. In 2020, California emitted 369.2 million gross metric tons of CO₂e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California’s GHG emissions in 2020, accounting for approximately 38 percent of total GHG emissions in the state. Continuing the downward trend from previous years, transportation emissions decreased 27 million metric tons of CO₂e in 2020, though the intensity of this decrease was most likely from light duty vehicles after shelter-in-place orders were enacted in response to the COVID-19 pandemic. Emissions from the electricity sector account for 16 percent of the inventory and have remained at a similar level as in 2019 despite a 44 percent decrease in in-state hydropower generation (due to below average precipitation levels), which was more than compensated for by a 10 percent growth in in-state solar generation and cleaner imported

electricity incentivized by California’s clean energy policies. California’s industrial sector accounts for the second largest source of the state’s GHG emissions in 2020, accounting for 23 percent (CARB 2022c).

3.2 Regulatory Framework

3.2.1 Federal

3.2.1.1 Update to Corporate Average Fuel Economy Standard (2017 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon in 2025. However, on March 30, 2020, the USEPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. Under SAFE, the fuel economy standards will increase 1.5 percent per year compared to the 5.0 percent per year under the CAFE standards established in 2012. Overall, SAFE requires a fleet average of 40.4 miles per gallon for model year 2026 vehicles (85 Federal Register 24174 (April 30, 2020)). On December 21, 2021, under the direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration (NHTSA) repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, the National Highway Traffic Safety Administration (NHTSA) announced new proposed fuel standards on March 31, 2022. Fuel efficiency under the new standards proposed will increase 8.0 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 miles per gallon for passenger vehicles and light trucks for model year 2026, which would be a 10 miles per gallon increase relative to model year 2021 (NHTSA 2022).

3.2.2 State

3.2.2.1 Executive Order S-3-05

EO S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California’s air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

3.2.2.2 Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant

to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the State, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

3.2.2.3 Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

3.2.2.4 Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008, which became effective in January 2009, helps facilitate AB 32's GHG reduction goals by addressing the emissions from passenger vehicles. The main objectives of the bill aim to reduce GHG emissions through extensive transportation, housing, and land use planning. SB 375 directs CARB to establish regional targets to reduce GHG emissions from passenger vehicle use. CARB administers 2020 and 2035 targets for each of the regions throughout the State. The corresponding metropolitan planning organizations (MPOs) in each region are required to prepare and adopt a Sustainable Communities Strategy (SCS) which help adhere to the CARB administered targets. Sustainable Community Strategies play a vital role in regional transportation plans by allowing transportation, land use, and housing strategies to align with the State's GHG emission goals. Project Plans that are consistent with their region's SCS may be subject to a more streamlined CEQA process.

3.2.2.5 Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

3.2.2.6 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2022 California Building Codes include provisions related to energy efficiency to reduce energy consumption and greenhouse gas emissions from buildings. Some of the key energy efficiency components of the codes are:

1. Energy Performance Requirements: The codes specify minimum energy performance standards for the building envelope, lighting, heating and cooling systems, and other components.
2. Lighting Efficiency: The codes require that lighting systems meet minimum efficiency standards, such as the use of energy-efficient light bulbs and fixtures.
3. HVAC Systems: The codes establish requirements for heating, ventilation, and air conditioning (HVAC) systems, including the use of high-efficiency equipment, duct sealing, and controls.
4. Building Envelope: The codes include provisions for insulation, air sealing, glazing, and other building envelope components to reduce energy loss and improve indoor comfort.
5. Renewable Energy: The codes encourage the use of renewable energy systems, such as photovoltaic panels and wind turbines, to reduce dependence on non-renewable energy sources.
6. Commissioning: The codes require the commissioning of building energy systems to ensure that they are installed and operate correctly and efficiently.

Overall, the energy efficiency provisions of the 2022 California Building Codes aim to reduce the energy consumption of buildings, lower energy costs for building owners and occupants, and reduce the environmental impact of the built environment. The 2022 Building Energy Efficiency Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The exact amount by which the 2022 Building Codes are more efficient compared to the 2019 Building Codes would depend on the specific provisions that have been updated and the specific building being considered. However, in general, the 2022 Building Codes have been updated to include increased requirements for energy efficiency, such as higher insulation and air sealing standards, which are intended to result in more efficient buildings. The 2022 standards are a major step toward meeting Zero Net Energy.

3.2.3 Local

3.2.3.1 Placer County Air Pollution Control District

In October of 2016, the PCAPCD adopted GHG emission thresholds to assist the district in attaining the GHG reduction goals established by AB 32 and SB 32. The updated thresholds adopted a 3-tier suite of significance thresholds for the land use operational phase GHG emissions. Specifically, the PCAPCD has adopted a bright-line numeric threshold emission level of 1,100 metric tons of CO₂e per year for operations of a land use project and 10,000 metric tons of CO₂e per year for construction. For a land use project, it can be considered as less than cumulatively considerable and be excluded from future GHG impact analysis if its operational phase GHG emissions are equal to or less than 1,100 metric tons of CO₂e per year. A land use project with GHG operational emissions between 1,100 metric tons and 10,000 metric tons of CO₂e per year can still be found less than cumulatively considerable when the results of the project's related efficiency analysis meet one of conditions in the efficiency thresholds for that applicable land use setting and land use type. Table 3-2 shows the adopted 3-tier significance thresholds for the land use operational phase GHG emissions.

Construction Threshold	Operational Thresholds			
10,000 metric tons of CO ₂ e annually	Bright line Number Screening Threshold 1,100 metric tons of CO ₂ e annually			
	Efficiency Matrix Threshold			
	Residential		Non-Residential	
	Urban	Rural	Urban	Rural
	4.5 metric tons of CO ₂ e/capita	5.5 metric tons of CO ₂ e/capita	26.5 metric tons of CO ₂ e/capita	27.3 metric tons of CO ₂ e/capita

Sources: PCAPCD 2017

Any project that falls below these thresholds would be found to have a less than significant impact on GHG emissions, and, thus, would not conflict with any state or regional GHG emission reduction goals. Projects that would result in emissions above the threshold would not necessarily result in substantial impacts if certain efficiency matrices are met. The efficiency matrix is calculated on a per capita basis.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to GHG emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHG’s do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency’s discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines § 15064.4(a) states that lead agencies “shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project’s GHG emissions or rely on a “qualitative analysis or other performance-based standards.” (14 California Code of Regulations [CCR] 15064.4(b)). A lead agency may use a “model or methodology” to estimate GHG emissions and has the discretion to select the model or methodology it considers “most appropriate to enable decision makers to intelligently take into account the project’s incremental contribution to climate change.” (14 CCR 15064.4(c)). Section 15064.4(b) provides

that the lead agency should consider the following when determining 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.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

As previously described, the PCAPCD adopted GHG emission thresholds to assist the district in attaining the GHG reduction goals established by AB 32 and SB 32. For the purpose of this evaluation, the Project is compared to the PCAPCD GHG thresholds. Operational emissions are specifically compared to the PCAPCD's efficiency thresholds since these are calculated on a per capita basis and therefore the most appropriate thresholds to employ for a programmatic analysis involving a General Plan Update.

3.3.2 Methodology

Impacts related to GHG emissions resulting from implementation (construction and operation) of the proposed General Plan Update are discussed below. GHG impacts were assessed in accordance with methodologies recommended by the PCAPCD. The impact analysis is based on calculations of the GHG emissions that would result from projected future growth at buildout of the General Plan Update.

Compared with buildout of the City of Colfax under the existing General Plan 2020, buildout of the proposed General Plan Update would allow for an additional 218 high density residential units and an additional 329 low density residential units. Conversely, compared with buildout of the City of Colfax under the existing General Plan 2020, buildout of the proposed General Plan Update would reduce the amount of allowable medium-heavy density residential by 733 units and the amount of medium density residential by 175 units. Further, compared with buildout of the City of Colfax under the existing General Plan 2020, buildout of the proposed General Plan Update would reduce the amount of allowable commercial and industrial building space by 308,315 square feet and 734,000 square feet, respectively³. Where GHG emission quantification was required, emissions were modeled using CalEEMod, version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with operations from a variety of land use projects.

³ To identify commercial and industrial building square footage, City-provided employment projections under both the existing General Plan 2020 and proposed General Plan Update were used coupled with average building area per employee data from the U.S. Green Building Council (2008).

3.3.3 Impact Analysis

3.3.3.1 ***Project Construction-Generated Greenhouse Gas Emissions Resulting in Conflicts with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases***

The General Plan Update would accommodate future development for residential, commercial, recreational, and industrial uses. The future development and other physical changes that could result from the implementation of the General Plan Update would generate construction related GHG emissions from worker commute trips, haul trucks carrying supplies and materials to and from the construction site, and off-road construction equipment (e.g., dozers, loaders, excavators).

Construction activities associated with the proposed General Plan Update would occur over the buildout horizon of the plan, causing short-term GHG emissions. For the proposed General Plan Update, which is a broad policy plan, it is not possible to determine whether the scale and phasing of individual projects would exceed the PCAPCD's GHG construction threshold of 10,000 metric tons of CO₂e annually, due to project-level variability and uncertainties related to future individual projects in terms of detailed site plans, construction schedules, equipment requirements, etc., which are not currently determined or even proposed. Nonetheless, depending on how development proceeds, construction-generated GHG emissions associated with the proposed General Plan Update could potentially exceed the PCAPCD threshold of significance. Overall, GHG emissions related to construction must be addressed on a project-by-project basis, and information regarding specific development projects, soil types, and the locations of receptors would be needed to quantify the level of impact associated with construction activity.

As previously described, Section 16.36.040, *Air quality mitigation fees*, requires that development applications in which the initial study environmental assessment identifies potentially significant impact(s) related to emissions must be reviewed by the PCAPCD and incorporate, as conditions of approval, PCAPCD-recommended mitigation measures. The PCAPCD has promulgated methodology protocols for the preparation of GHG analyses. For instance, the PCAPCD has adopted thresholds of significance depicting the approximate level of construction-generated emissions that would result in a potentially significant impact, as described. The significance criteria established by the PCAPCD may be relied upon to make a determination of impact significance level. In addition, the PCAPCD recommends appropriate emissions modeling input parameters for the Placer County region in addition to other recommended procedures for evaluating potential air quality impacts during the environmental review process consistent with CEQA requirements.

Projects estimated to exceed PCAPCD significance thresholds are required to implement mitigation measures in order to reduce GHG emissions as much as feasible. Such measures would be required to be implemented per Colfax Municipal Code Section 16.36.040 and include, but are not limited to, the following:

- The fueling of all off-road and portable diesel powered equipment with CARB certified motor vehicle diesel fuel (non-taxed version suitable for use off-road).

- The prohibition of all on and off-road diesel equipment from idling for more than 5 minutes and the posting of signs in the designated queuing areas and/or job sites to remind drivers and operators of the 5 minute idling limit.
- The use of electrified equipment when feasible.
- The use of alternatively fueled construction equipment on-site where feasible, such as compressed natural gas (CNG), liquefied natural gas (LNG), propane or biodiesel.
- The requirement that contractors repower equipment with the cleanest engines available.
- The requirement that construction equipment use installed California Verified Diesel Emission Control Strategies. These strategies are listed at: <http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>

While the PCAPCD has promulgated methodology protocols for the preparation of GHG analyses, and future development projects allowed under the proposed General Plan Update that are projected to exceed the PCAPCD significance threshold are required to implement mitigation measures in order to reduce GHG emissions as much as feasible, the PCAPCD significance threshold may still be exceeded as a result of construction activities allowed under the proposed General Plan Update. Since it cannot be guaranteed that construction of future projects allowed under the proposed General Plan Update would generate GHG emissions below the PCAPCD significance threshold due to the programmatic and conceptual nature of the proposed General Plan Update and uncertainties related to future individual projects, this is considered a significant impact.

3.3.3.2 Project Operational Greenhouse Gas Emissions Resulting in Conflicts with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

Development under the proposed General Plan Update would contribute to global climate change through direct and indirect emissions of GHG from land uses within the city. A General Plan does not directly result in development without additional approvals. However, the General Plan Update would guide and facilitate development throughout the city. Before any development can occur in the city, it must be analyzed for consistency with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits. Future development projects would be subject to the City's standard CEQA review process and would be required to assess project-specific emissions in relation to the PCAPCD significance thresholds. Although specific project-level information for potential future development is not available at this time and the estimation of emissions resulting from future development would be speculative, anticipated maximum annual GHG emissions were quantified and presented in Table 3-3 in order to provide an estimate of the potential overall GHG emissions resulting from the proposed General Plan Update based on the calculation methodology provided in Section 3.3.2, Methodology.

Table 3-3. Operational-Related Greenhouse Gas Emissions	
Emission Source	CO₂e Emissions (Metric Tons/Year)
<i>Proposed General Plan Update Buildout Emissions</i>	
Mobile	133,320
Area	4,757
Energy	17,957
Water	956
Waste	2,011
Refrigerants	57
Total	159,058
<i>Existing General Plan 2020 Buildout Emissions</i>	
Mobile	154,260
Area	4,412
Energy	21,086
Water	1,286
Waste	2,513
Refrigerants	90
Total	183,647

Sources: CalEEMod 2022.1. Refer to Attachment A and B for Model Data Outputs.

Notes: Emission projections are predominantly based on CalEEMod model Defaults for Placer County.

As shown by Table 3-6, the GHG emissions from buildout of the proposed General Plan Update would be less than the GHG emissions from buildout of the existing General Plan 2020 buildout by approximately 24,589 metric tons annually. This is largely due to the reduced population projected under buildout of the proposed General Plan Update compared with buildout of the existing General Plan 2020.

The operational emissions identified in Table 3-3 are specifically compared to the PCAPCD’s efficiency thresholds since these are calculated on a per capita basis and therefore the most appropriate thresholds to employ for a programmatic analysis involving a General Plan Update. Residential emissions are compared to the rural residential threshold of 5.5 metric tons of CO₂e annually per capita and nonresidential emissions are compared to the rural nonresidential threshold 27.3 metric tons of CO₂e annually per capita. This approach is used to identify the emissions level for which the growth allowed under the General Plan Update would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions. An advantage of the service population approach is its application to both residential land uses and employment-oriented land uses. The per capita metric represents the rates of emissions needed to achieve a fair share of the state’s emission reduction mandate. The use of “fair share” in this instance indicates the GHG efficiency level that, if applied statewide or to a defined geographic area, would meet the Statewide GHG emissions reduction targets.

The City had provided population and employment projections for both the existing General Plan 2020 and proposed General Plan Update. Based on these numbers, GHG emissions are compared to the PCAPCD’s efficiency thresholds, as shown in Table 3-4.

Table 3-4. Greenhouse Gas Emissions per Capita		
	Proposed General Plan Update Buildout Emissions	Existing General Plan 2020 Buildout Emissions
Residential Land Uses		
Residential Emissions	99,673	103,210
Population	17,006	17,966
Residential CO₂e Emissions per Capita	5.8	5.7
<i>Rural Residential Per Capita Threshold</i>	5.5	5.5
Exceed Rural Residential Per Capita Threshold?	Yes	Yes
Nonresidential Land Uses		
Nonresidential Emissions	59,388	80,435
Employees/Jobs	7,406	6,895
Nonresidential CO₂e Emissions per Capita	8.01	11.66
<i>Rural Nonresidential Per Capita Threshold</i>	27.3	27.3
Exceed Rural Nonresidential Per Capita Threshold?	No	No

As shown by Table 3-4, buildout of the residential components of both the proposed General Plan Update and existing General Plan 2020 would result in per capita GHG emissions greater than PCAPCD thresholds, while buildout of the nonresidential components of both the proposed General Plan Update and existing General Plan 2020 would result in per capita GHG emissions less than PCAPCD thresholds.

The General Plan Update does propose several policy provisions that would assist to reduce the generation of GHG emissions from mobile sources. For instance, proposed Policy 3.2.1 would require that design of new construction, and major remodel of existing buildings, allow for alternative forms of transportation by providing necessary facilities, such as bicycle racks, walkways, paths, and connections, as well as ride share parking. The promotion of these alternative forms of transportation contributes to less dependency on automobiles, a source of GHG emissions. Similarly, Policy 3.2.2 proposes to promote the development of

bikeways, sidewalks, pedestrian pathways, and multi-use paths that connect residential neighborhoods with other neighborhoods, schools, employment centers, commercial centers and public open space, and that separate bicyclists, skateboarders, and pedestrians from vehicular traffic whenever possible. Proposed Policy 3.2.3 seeks to ensure that pedestrian facilities follow logical routes providing connections between transportation nodes and land uses, including bicycle and pedestrian connections to transit stops, buses that can accommodate bicycles, and park-and-ride lots, so that the pedestrian facilities serve the transportation needs of residents, and are not constructed as “sidewalks to nowhere.” Additionally, Implementation Measure 3.2.C proposes to develop a Walkways, Trails, and Bikeways Master Plan that incorporates the recommendations of the City of Colfax Bikeway Master Plan, and other planning proposals as appropriate, to plan the location and development of future trails and active transportation routes in the city and the vicinity. The Master Plan will also consider connection of the city bicycle network with the countywide bicycle network, collaboration with the County in development of a countywide bicycle network, the provision of signage where automobile traffic merges with or intersects bicycle traffic to notify automobile drivers of the presence of cyclists, the repairing or developing railroad crossings in a way that allows safe crossing by bicycles and pedestrians, and the timing of traffic lights and sensitivity of traffic sensing equipment to accommodate bicycles. Lastly, proposed Policy 3.3.2 would require transportation systems planned and constructed in conjunction with significant development projects, including roads, trails, bikeways, and other improvements, to provide links to the existing transportation network.

Development projects accommodated by the proposed General Plan Update would be analyzed on a case-by-case basis when detailed information regarding operational activities is known. Future projects would be subject to the proposed General Plan Update policies identified above, as well as PCAPCD and State rules and regulations. Nonetheless, buildout of the General Plan Update would result in residential emissions that exceed the PCAPCD’s per capita rural residential significance threshold. As such, this impact is significant.

3.3.3.3 Cumulative Greenhouse Gas Emissions Impacts

General Plan Update-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Therefore, impacts under Impact 3.3.3.2 are not project-specific impacts to global warming, but the proposed General Plan Update’s contribution to this cumulative impact. As discussed, buildout of the General Plan Update would result in residential emissions that exceed the PCAPCD’s per capita rural residential significance threshold. Therefore, the proposed General Plan Update-related GHG emissions and their contribution to global climate change would be cumulatively considerable, and GHG emissions impacts would be significant.

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LIST OF ATTACHMENTS

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Attachment B – CalEEMod Output File for Air Quality Greenhouse Gas Emissions – Existing General Plan 2020

CalEEMod Output File for Air Quality and Greenhouse Gas Emissions – Proposed General Plan Update

Colfax Proposed General Plan Update Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Colfax Proposed General Plan Update
Operational Year	2040
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.30
Precipitation (days)	56.0
Location	46 N Main St, Colfax, CA 95713, USA
County	Placer-Mountain Counties
City	Colfax
Air District	Placer County APCD
Air Basin	Mountain Counties
TAZ	459
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	494	Dwelling Unit	32.9	474,240	0.00	0.00	1,314	—

Apartments Low Rise	502	Dwelling Unit	35.9	532,120	0.00	0.00	1,335	—
Condo/Townhouse	1,211	Dwelling Unit	173	1,283,660	0.00	0.00	3,220	—
Single Family Housing	4,187	Dwelling Unit	2,093	8,164,650	49,041,732	0.00	10,928	—
Strip Mall	1,034	1000sqft	155	1,034,483	0.00	0.00	—	—
Industrial Park	1,019	1000sqft	187	1,019,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3,654	470	674	894	1,567	891	78,688	1,039,084	1,117,771	709	45.8	853	1,149,983
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3,599	519	673	894	1,567	891	78,688	991,179	1,069,866	711	49.3	360	1,102,701
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,269	410	159	839	997	369	21,146	912,863	934,009	536	42.8	552	960,716
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	232	74.8	28.9	153	182	67.4	3,501	151,135	154,636	88.8	7.08	91.4	159,058

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	301	322	5.60	894	899	232	—	884,349	884,349	23.2	38.7	507	896,972
Area	3,350	95.7	664	—	664	655	74,214	45,418	119,632	223	3.63	—	126,286
Energy	2.99	51.8	4.14	—	4.14	4.14	—	107,854	107,854	12.7	0.96	—	108,459
Water	—	—	—	—	—	—	1,001	1,463	2,464	103	2.47	—	5,771
Waste	—	—	—	—	—	—	3,472	0.00	3,472	347	0.00	—	12,149
Refrig.	—	—	—	—	—	—	—	—	—	—	—	347	347
Total	3,654	470	674	894	1,567	891	78,688	1,039,084	1,117,771	709	45.8	853	1,149,983
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	293	375	5.61	894	899	232	—	837,781	837,781	26.0	42.2	13.1	851,032
Area	3,303	91.6	664	—	664	654	74,214	44,080	118,295	223	3.62	—	124,944
Energy	2.99	51.8	4.14	—	4.14	4.14	—	107,854	107,854	12.7	0.96	—	108,459
Water	—	—	—	—	—	—	1,001	1,463	2,464	103	2.47	—	5,771
Waste	—	—	—	—	—	—	3,472	0.00	3,472	347	0.00	—	12,149
Refrig.	—	—	—	—	—	—	—	—	—	—	—	347	347
Total	3,599	519	673	894	1,567	891	78,688	991,179	1,069,866	711	49.3	360	1,102,701
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	273	335	5.26	839	844	218	—	792,984	792,984	23.4	38.5	205	805,260
Area	992	22.6	149	—	149	147	16,673	10,562	27,235	50.1	0.82	—	28,731
Energy	2.99	51.8	4.14	—	4.14	4.14	—	107,854	107,854	12.7	0.96	—	108,459
Water	—	—	—	—	—	—	1,001	1,463	2,464	103	2.47	—	5,771

Waste	—	—	—	—	—	—	3,472	0.00	3,472	347	0.00	—	12,149
Refrig.	—	—	—	—	—	—	—	—	—	—	—	347	347
Total	1,269	410	159	839	997	369	21,146	912,863	934,009	536	42.8	552	960,716
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	49.9	61.2	0.96	153	154	39.8	—	131,287	131,287	3.88	6.38	34.0	133,320
Area	181	4.12	27.2	—	27.2	26.8	2,760	1,749	4,509	8.29	0.14	—	4,757
Energy	0.55	9.45	0.76	—	0.76	0.76	—	17,857	17,857	2.10	0.16	—	17,957
Water	—	—	—	—	—	—	166	242	408	17.0	0.41	—	956
Waste	—	—	—	—	—	—	575	0.00	575	57.5	0.00	—	2,011
Refrig.	—	—	—	—	—	—	—	—	—	—	—	57.4	57.4
Total	232	74.8	28.9	153	182	67.4	3,501	151,135	154,636	88.8	7.08	91.4	159,058

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	7.87	8.80	0.16	25.1	25.3	6.53	—	24,788	24,788	0.63	1.07	14.2	25,136
Apartments Low Rise	12.0	13.4	0.24	38.2	38.4	9.93	—	37,691	37,691	0.96	1.63	21.7	38,221
Condo/Town house	28.9	32.3	0.57	92.1	92.7	23.9	—	90,923	90,923	2.31	3.92	52.2	92,203

Single Family Housing	117	131	2.33	373	375	97.0	—	368,433	368,433	9.37	15.9	212	373,617
Strip Mall	126	128	2.14	340	342	88.4	—	337,253	337,253	9.27	15.1	193	342,166
Industrial Park	9.43	9.55	0.16	25.4	25.6	6.62	—	25,260	25,260	0.69	1.13	14.4	25,628
Total	301	322	5.60	894	899	232	—	884,349	884,349	23.2	38.7	507	896,972
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	7.67	10.2	0.16	25.1	25.3	6.53	—	23,478	23,478	0.70	1.17	0.37	23,843
Apartments Low Rise	11.7	15.6	0.24	38.2	38.4	9.93	—	35,699	35,699	1.06	1.77	0.56	36,255
Condo/Town house	28.1	37.6	0.58	92.1	92.7	23.9	—	86,119	86,119	2.56	4.28	1.35	87,459
Single Family Housing	114	152	2.33	373	375	97.0	—	348,964	348,964	10.4	17.3	5.49	354,393
Strip Mall	122	148	2.14	340	342	88.4	—	319,585	319,585	10.5	16.5	5.00	324,758
Industrial Park	9.17	11.1	0.16	25.4	25.6	6.62	—	23,937	23,937	0.79	1.23	0.37	24,324
Total	293	375	5.61	894	899	232	—	837,781	837,781	26.0	42.2	13.1	851,032
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	1.33	1.69	0.03	4.36	4.38	1.13	—	3,727	3,727	0.11	0.18	0.97	3,784
Apartments Low Rise	1.90	2.43	0.04	6.24	6.28	1.62	—	5,339	5,339	0.15	0.26	1.39	5,420
Condo/Town house	4.58	5.85	0.09	15.0	15.1	3.91	—	12,879	12,879	0.37	0.62	3.34	13,075
Single Family Housing	20.3	25.9	0.42	66.6	67.0	17.3	—	56,981	56,981	1.62	2.73	14.8	57,850
Strip Mall	20.4	23.6	0.36	56.8	57.1	14.8	—	48,866	48,866	1.53	2.43	12.6	49,640

Industrial Park	1.46	1.69	0.03	4.06	4.09	1.06	—	3,496	3,496	0.11	0.17	0.90	3,551
Total	49.9	61.2	0.96	153	154	39.8	—	131,287	131,287	3.88	6.38	34.0	133,320

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	1,247	1,247	0.20	0.02	—	1,260
Apartments Low Rise	—	—	—	—	—	—	—	1,247	1,247	0.20	0.02	—	1,259
Condo/Town house	—	—	—	—	—	—	—	3,492	3,492	0.56	0.07	—	3,526
Single Family Housing	—	—	—	—	—	—	—	19,950	19,950	3.23	0.39	—	20,147
Strip Mall	—	—	—	—	—	—	—	5,037	5,037	0.81	0.10	—	5,087
Industrial Park	—	—	—	—	—	—	—	11,919	11,919	1.93	0.23	—	12,037
Total	—	—	—	—	—	—	—	42,891	42,891	6.94	0.84	—	43,315
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	1,247	1,247	0.20	0.02	—	1,260
Apartments Low Rise	—	—	—	—	—	—	—	1,247	1,247	0.20	0.02	—	1,259

Condo/Town house	—	—	—	—	—	—	—	3,492	3,492	0.56	0.07	—	3,526
Single Family Housing	—	—	—	—	—	—	—	19,950	19,950	3.23	0.39	—	20,147
Strip Mall	—	—	—	—	—	—	—	5,037	5,037	0.81	0.10	—	5,087
Industrial Park	—	—	—	—	—	—	—	11,919	11,919	1.93	0.23	—	12,037
Total	—	—	—	—	—	—	—	42,891	42,891	6.94	0.84	—	43,315
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	206	206	0.03	< 0.005	—	209
Apartments Low Rise	—	—	—	—	—	—	—	206	206	0.03	< 0.005	—	208
Condo/Town house	—	—	—	—	—	—	—	578	578	0.09	0.01	—	584
Single Family Housing	—	—	—	—	—	—	—	3,303	3,303	0.53	0.06	—	3,336
Strip Mall	—	—	—	—	—	—	—	834	834	0.13	0.02	—	842
Industrial Park	—	—	—	—	—	—	—	1,973	1,973	0.32	0.04	—	1,993
Total	—	—	—	—	—	—	—	7,101	7,101	1.15	0.14	—	7,171

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.10	1.72	0.14	—	0.14	0.14	—	2,184	2,184	0.19	< 0.005	—	2,190

Apartments Low Rise	0.11	1.93	0.16	—	0.16	0.16	—	2,445	2,445	0.22	< 0.005	—	2,452
Condo/Town house	0.42	7.10	0.57	—	0.57	0.57	—	9,012	9,012	0.80	0.02	—	9,037
Single Family Housing	1.80	30.8	2.49	—	2.49	2.49	—	39,035	39,035	3.45	0.07	—	39,143
Strip Mall	0.13	2.40	0.18	—	0.18	0.18	—	2,860	2,860	0.25	0.01	—	2,868
Industrial Park	0.43	7.90	0.60	—	0.60	0.60	—	9,428	9,428	0.83	0.02	—	9,454
Total	2.99	51.8	4.14	—	4.14	4.14	—	64,963	64,963	5.75	0.12	—	65,144
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.10	1.72	0.14	—	0.14	0.14	—	2,184	2,184	0.19	< 0.005	—	2,190
Apartments Low Rise	0.11	1.93	0.16	—	0.16	0.16	—	2,445	2,445	0.22	< 0.005	—	2,452
Condo/Town house	0.42	7.10	0.57	—	0.57	0.57	—	9,012	9,012	0.80	0.02	—	9,037
Single Family Housing	1.80	30.8	2.49	—	2.49	2.49	—	39,035	39,035	3.45	0.07	—	39,143
Strip Mall	0.13	2.40	0.18	—	0.18	0.18	—	2,860	2,860	0.25	0.01	—	2,868
Industrial Park	0.43	7.90	0.60	—	0.60	0.60	—	9,428	9,428	0.83	0.02	—	9,454
Total	2.99	51.8	4.14	—	4.14	4.14	—	64,963	64,963	5.75	0.12	—	65,144
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.02	0.31	0.03	—	0.03	0.03	—	362	362	0.03	< 0.005	—	363
Apartments Low Rise	0.02	0.35	0.03	—	0.03	0.03	—	405	405	0.04	< 0.005	—	406
Condo/Town house	0.08	1.30	0.10	—	0.10	0.10	—	1,492	1,492	0.13	< 0.005	—	1,496

Single Family Housing	0.33	5.61	0.45	—	0.45	0.45	—	6,463	6,463	0.57	0.01	—	6,481
Strip Mall	0.02	0.44	0.03	—	0.03	0.03	—	473	473	0.04	< 0.005	—	475
Industrial Park	0.08	1.44	0.11	—	0.11	0.11	—	1,561	1,561	0.14	< 0.005	—	1,565
Total	0.55	9.45	0.76	—	0.76	0.76	—	10,755	10,755	0.95	0.02	—	10,785

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3,010	91.6	664	—	664	654	74,214	44,080	118,295	223	3.62	—	124,944
Consumer Products	268	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	25.7	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	46.2	4.10	0.32	—	0.32	0.24	—	1,337	1,337	0.06	0.01	—	1,342
Total	3,350	95.7	664	—	664	655	74,214	45,418	119,632	223	3.63	—	126,286
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	3,010	91.6	664	—	664	654	74,214	44,080	118,295	223	3.62	—	124,944
Consumer Products	268	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	25.7	—	—	—	—	—	—	—	—	—	—	—	—
Total	3,303	91.6	664	—	664	654	74,214	44,080	118,295	223	3.62	—	124,944

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	123	3.76	27.2	—	27.2	26.8	2,760	1,640	4,400	8.29	0.13	—	4,647
Consumer Products	48.9	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	4.68	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.15	0.37	0.03	—	0.03	0.02	—	109	109	< 0.005	< 0.005	—	110
Total	181	4.12	27.2	—	27.2	26.8	2,760	1,749	4,509	8.29	0.14	—	4,757

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	31.1	28.4	59.5	3.19	0.08	—	162
Apartments Low Rise	—	—	—	—	—	—	31.6	28.9	60.5	3.25	0.08	—	165
Condo/Town house	—	—	—	—	—	—	76.3	69.7	146	7.83	0.19	—	398
Single Family Housing	—	—	—	—	—	—	264	789	1,053	27.2	0.66	—	1,928
Strip Mall	—	—	—	—	—	—	147	134	281	15.1	0.36	—	765
Industrial Park	—	—	—	—	—	—	452	412	864	46.4	1.11	—	2,353
Total	—	—	—	—	—	—	1,001	1,463	2,464	103	2.47	—	5,771

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	31.1	28.4	59.5	3.19	0.08	—	162
Apartments Low Rise	—	—	—	—	—	—	31.6	28.9	60.5	3.25	0.08	—	165
Condo/Town house	—	—	—	—	—	—	76.3	69.7	146	7.83	0.19	—	398
Single Family Housing	—	—	—	—	—	—	264	789	1,053	27.2	0.66	—	1,928
Strip Mall	—	—	—	—	—	—	147	134	281	15.1	0.36	—	765
Industrial Park	—	—	—	—	—	—	452	412	864	46.4	1.11	—	2,353
Total	—	—	—	—	—	—	1,001	1,463	2,464	103	2.47	—	5,771
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	5.15	4.70	9.86	0.53	0.01	—	26.8
Apartments Low Rise	—	—	—	—	—	—	5.23	4.78	10.0	0.54	0.01	—	27.3
Condo/Town house	—	—	—	—	—	—	12.6	11.5	24.2	1.30	0.03	—	65.8
Single Family Housing	—	—	—	—	—	—	43.7	131	174	4.50	0.11	—	319
Strip Mall	—	—	—	—	—	—	24.3	22.2	46.5	2.50	0.06	—	127
Industrial Park	—	—	—	—	—	—	74.8	68.3	143	7.68	0.18	—	390
Total	—	—	—	—	—	—	166	242	408	17.0	0.41	—	956

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	201	0.00	201	20.1	0.00	—	702
Apartments Low Rise	—	—	—	—	—	—	204	0.00	204	20.4	0.00	—	713
Condo/Town house	—	—	—	—	—	—	492	0.00	492	49.1	0.00	—	1,720
Single Family Housing	—	—	—	—	—	—	1,310	0.00	1,310	131	0.00	—	4,583
Strip Mall	—	—	—	—	—	—	585	0.00	585	58.5	0.00	—	2,048
Industrial Park	—	—	—	—	—	—	681	0.00	681	68.1	0.00	—	2,383
Total	—	—	—	—	—	—	3,472	0.00	3,472	347	0.00	—	12,149
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	201	0.00	201	20.1	0.00	—	702
Apartments Low Rise	—	—	—	—	—	—	204	0.00	204	20.4	0.00	—	713
Condo/Town house	—	—	—	—	—	—	492	0.00	492	49.1	0.00	—	1,720
Single Family Housing	—	—	—	—	—	—	1,310	0.00	1,310	131	0.00	—	4,583
Strip Mall	—	—	—	—	—	—	585	0.00	585	58.5	0.00	—	2,048
Industrial Park	—	—	—	—	—	—	681	0.00	681	68.1	0.00	—	2,383

Total	—	—	—	—	—	—	3,472	0.00	3,472	347	0.00	—	12,149
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	33.2	0.00	33.2	3.32	0.00	—	116
Apartments Low Rise	—	—	—	—	—	—	33.7	0.00	33.7	3.37	0.00	—	118
Condo/Town house	—	—	—	—	—	—	81.4	0.00	81.4	8.14	0.00	—	285
Single Family Housing	—	—	—	—	—	—	217	0.00	217	21.7	0.00	—	759
Strip Mall	—	—	—	—	—	—	96.9	0.00	96.9	9.69	0.00	—	339
Industrial Park	—	—	—	—	—	—	113	0.00	113	11.3	0.00	—	394
Total	—	—	—	—	—	—	575	0.00	575	57.5	0.00	—	2,011

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	3.40	3.40
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.81	3.81
Condo/Town house	—	—	—	—	—	—	—	—	—	—	—	9.19	9.19

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	58.5	58.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.44	6.44
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	265	265
Total	—	—	—	—	—	—	—	—	—	—	—	347	347
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	3.40	3.40
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	3.81	3.81
Condo/Town house	—	—	—	—	—	—	—	—	—	—	—	9.19	9.19
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	58.5	58.5
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	6.44	6.44
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	265	265
Total	—	—	—	—	—	—	—	—	—	—	—	347	347
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	0.56	0.56
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	0.63	0.63
Condo/Town house	—	—	—	—	—	—	—	—	—	—	—	1.52	1.52
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	9.68	9.68
Strip Mall	—	—	—	—	—	—	—	—	—	—	—	1.07	1.07

Industrial Park	—	—	—	—	—	—	—	—	—	—	—	43.9	43.9
Total	—	—	—	—	—	—	—	—	—	—	—	57.4	57.4

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
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Apartments Mid Rise	2,687	2,426	2,020	932,460	35,268	31,832	26,516	12,237,289
Apartments Low Rise	3,675	4,086	3,153	1,335,485	48,225	53,627	41,373	17,526,447
Condo/Townhouse	8,865	9,858	7,605	3,221,658	116,335	129,367	99,806	42,279,936
Single Family Housing	39,525	39,944	35,799	14,254,252	518,716	524,211	469,812	187,067,923
Strip Mall	45,848	43,490	21,134	15,322,991	477,296	452,742	220,017	159,517,560
Industrial Park	3,434	2,588	1,264	1,096,146	35,749	26,945	13,154	11,411,249

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	148
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	346
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	151

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	351
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	363
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	848
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	628
Gas Fireplaces	2094
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1465
Conventional Wood Stoves	209
Catalytic Wood Stoves	209
Non-Catalytic Wood Stoves	209
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
21170706.75	7,056,902	3,080,225	1,026,742	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	2,231,799	204	0.0330	0.0040	6,813,491
Apartments Low Rise	2,231,324	204	0.0330	0.0040	7,629,964
Condo/Townhouse	6,247,746	204	0.0330	0.0040	28,119,354
Single Family Housing	35,697,145	204	0.0330	0.0040	121,799,936
Strip Mall	9,012,493	204	0.0330	0.0040	8,923,037
Industrial Park	21,326,994	204	0.0330	0.0040	29,417,532

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	16,236,014	0.00

Apartments Low Rise	16,498,945	0.00
Condo/Townhouse	39,801,241	0.00
Single Family Housing	137,611,721	608,715,269
Strip Mall	76,626,764	0.00
Industrial Park	235,643,750	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	372	—
Apartments Low Rise	378	—
Condo/Townhouse	912	—
Single Family Housing	2,430	—
Strip Mall	1,086	—
Industrial Park	1,264	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0

Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.2	annual days of extreme heat
Extreme Precipitation	21.0	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	16.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	3	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	3	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	74.1

AQ-PM	7.72
AQ-DPM	14.2
Drinking Water	38.9
Lead Risk Housing	26.8
Pesticides	0.00
Toxic Releases	3.61
Traffic	26.3
Effect Indicators	—
CleanUp Sites	74.9
Groundwater	49.8
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	23.9
Solid Waste	70.4
Sensitive Population	—
Asthma	36.4
Cardio-vascular	8.84
Low Birth Weights	14.5
Socioeconomic Factor Indicators	—
Education	18.8
Housing	66.9
Linguistic	0.08
Poverty	42.6
Unemployment	13.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
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Economic	—
Above Poverty	50.69934557
Employed	33.01680996
Median HI	52.52149365
Education	—
Bachelor's or higher	46.63159245
High school enrollment	8.879763891
Preschool enrollment	67.99692031
Transportation	—
Auto Access	67.17567047
Active commuting	11.53599384
Social	—
2-parent households	66.61106121
Voting	89.50340049
Neighborhood	—
Alcohol availability	77.5439497
Park access	18.24714487
Retail density	9.405877069
Supermarket access	41.63993327
Tree canopy	99.2429103
Housing	—
Homeownership	68.76684204
Housing habitability	71.01244707
Low-inc homeowner severe housing cost burden	20.59540613
Low-inc renter severe housing cost burden	78.26254331
Uncrowded housing	69.47260362
Health Outcomes	—

Insured adults	64.22430386
Arthritis	0.0
Asthma ER Admissions	75.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	34.3
Cognitively Disabled	4.6
Physically Disabled	49.3
Heart Attack ER Admissions	79.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	97.7
SLR Inundation Area	0.0
Children	64.0

Elderly	24.7
English Speaking	98.1
Foreign-born	0.5
Outdoor Workers	28.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.8
Traffic Density	10.4
Traffic Access	23.0
Other Indices	—
Hardship	39.4
Other Decision Support	—
2016 Voting	88.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	11.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Proposed General Plan Buildout specifications per City of Colfax.

CalEEMod Output File for Air Quality and Greenhouse Gas Emissions – Existing General Plan 2020

Colfax Existing General Plan 2020 Buildout Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Colfax Existing General Plan 2020 Buildout
Operational Year	2040
Lead Agency	—
Land Use Scale	Plan/community
Analysis Level for Defaults	County
Windspeed (m/s)	2.30
Precipitation (days)	56.0
Location	46 N Main St, Colfax, CA 95713, USA
County	Placer-Mountain Counties
City	Colfax
Air District	Placer County APCD
Air Basin	Mountain Counties
TAZ	459
EDFZ	4
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.14

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Low Rise	1,235	Dwelling Unit	103	1,309,100	0.00	0.00	3,286	—

Apartments Mid Rise	276	Dwelling Unit	18.4	264,960	0.00	0.00	733	—
Condo/Townhouse	1,386	Dwelling Unit	198	1,469,160	0.00	0.00	3,685	—
Single Family Housing	3,858	Dwelling Unit	1,929	7,523,100	45,188,202	0.00	10,261	—
Strip Mall	1,343	1000sqft	195	1,342,798	0.00	0.00	—	—
Industrial Park	1,753	1000sqft	322	1,753,000	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3,507	525	623	1,042	1,665	74,113	1,201,950	1,276,063	824	53.2	1,131	1,313,653
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3,442	582	623	1,042	1,665	74,113	1,146,089	1,220,203	828	57.3	556	1,258,525
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1,293	469	148	970	1,118	21,093	1,055,819	1,076,912	665	50.0	778	1,109,234
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	236	85.7	27.1	177	204	3,492	174,803	178,295	110	8.29	129	183,646

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	354	377	6.53	1,042	1,048	—	1,031,343	1,031,343	27.2	45.2	591	1,046,094
Area	3,149	89.1	612	—	612	68,383	42,195	110,578	205	3.35	—	116,710
Energy	3.39	58.9	4.68	—	4.68	—	126,633	126,633	15.1	1.18	—	127,363
Water	—	—	—	—	—	1,393	1,778	3,170	143	3.43	—	7,770
Waste	—	—	—	—	—	4,338	0.00	4,338	434	0.00	—	15,176
Refrig.	—	—	—	—	—	—	—	—	—	—	540	540
Total	3,507	525	623	1,042	1,665	74,113	1,201,950	1,276,063	824	53.2	1,131	1,313,653
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	345	439	6.54	1,042	1,048	—	977,062	977,062	30.5	49.4	15.3	992,550
Area	3,093	84.4	611	—	611	68,383	40,617	109,000	205	3.34	—	115,126
Energy	3.39	58.9	4.68	—	4.68	—	126,633	126,633	15.1	1.18	—	127,363
Water	—	—	—	—	—	1,393	1,778	3,170	143	3.43	—	7,770
Waste	—	—	—	—	—	4,338	0.00	4,338	434	0.00	—	15,176
Refrig.	—	—	—	—	—	—	—	—	—	—	540	540
Total	3,442	582	623	1,042	1,665	74,113	1,146,089	1,220,203	828	57.3	556	1,258,525
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	319	389	6.09	970	976	—	917,504	917,504	27.3	44.7	238	931,740
Area	970	21.3	138	—	138	15,363	9,903	25,266	46.2	0.76	—	26,645
Energy	3.39	58.9	4.68	—	4.68	—	126,633	126,633	15.1	1.18	—	127,363
Water	—	—	—	—	—	1,393	1,778	3,170	143	3.43	—	7,770
Waste	—	—	—	—	—	4,338	0.00	4,338	434	0.00	—	15,176
Refrig.	—	—	—	—	—	—	—	—	—	—	540	540
Total	1,293	469	148	970	1,118	21,093	1,055,819	1,076,912	665	50.0	778	1,109,234

Annual	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	58.3	71.1	1.11	177	178	—	151,903	151,903	4.52	7.40	39.3	154,260
Area	177	3.88	25.1	—	25.1	2,543	1,640	4,183	7.64	0.13	—	4,411
Energy	0.62	10.7	0.85	—	0.85	—	20,966	20,966	2.50	0.20	—	21,086
Water	—	—	—	—	—	231	294	525	23.7	0.57	—	1,286
Waste	—	—	—	—	—	718	0.00	718	71.8	0.00	—	2,513
Refrig.	—	—	—	—	—	—	—	—	—	—	89.5	89.5
Total	236	85.7	27.1	177	204	3,492	174,803	178,295	110	8.29	129	183,646

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	29.5	32.9	0.59	93.9	94.5	—	92,725	92,725	2.36	4.00	53.3	94,030
Apartments Mid Rise	4.40	4.92	0.09	14.0	14.1	—	13,849	13,849	0.35	0.60	7.96	14,044
Condo/Townhouse	33.1	36.9	0.66	105	106	—	104,063	104,063	2.65	4.49	59.8	105,527
Single Family Housing	108	120	2.15	344	346	—	339,483	339,483	8.63	14.7	195	344,260
Strip Mall	163	166	2.78	441	444	—	437,768	437,768	12.0	19.6	250	444,145
Industrial Park	16.2	16.4	0.28	43.8	44.1	—	43,456	43,456	1.19	1.94	24.8	44,089
Total	354	377	6.53	1,042	1,048	—	1,031,343	1,031,343	27.2	45.2	591	1,046,094

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	28.7	38.3	0.59	93.9	94.5	—	87,825	87,825	2.61	4.36	1.38	89,192
Apartments Mid Rise	4.28	5.72	0.09	14.0	14.1	—	13,117	13,117	0.39	0.65	0.21	13,321
Condo/Townhouse	32.2	43.0	0.66	105	106	—	98,564	98,564	2.93	4.89	1.55	100,097
Single Family Housing	105	140	2.15	344	346	—	321,543	321,543	9.57	16.0	5.06	326,546
Strip Mall	159	193	2.78	441	444	—	414,833	414,833	13.6	21.4	6.49	421,548
Industrial Park	15.8	19.1	0.28	43.8	44.1	—	41,179	41,179	1.35	2.12	0.64	41,845
Total	345	439	6.54	1,042	1,048	—	977,062	977,062	30.5	49.4	15.3	992,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	4.67	5.97	0.10	15.3	15.4	—	13,134	13,134	0.37	0.63	3.41	13,334
Apartments Mid Rise	0.74	0.95	0.02	2.43	2.45	—	2,083	2,083	0.06	0.10	0.54	2,114
Condo/Townhouse	5.24	6.70	0.11	17.2	17.3	—	14,740	14,740	0.42	0.71	3.83	14,964
Single Family Housing	18.7	23.9	0.38	61.3	61.7	—	52,504	52,504	1.49	2.52	13.6	53,304
Strip Mall	26.4	30.7	0.46	73.7	74.2	—	63,430	63,430	1.98	3.15	16.4	64,434
Industrial Park	2.51	2.91	0.04	6.99	7.03	—	6,014	6,014	0.19	0.30	1.55	6,109
Total	58.3	71.1	1.11	177	178	—	151,903	151,903	4.52	7.40	39.3	154,260

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	3,068	3,068	0.50	0.06	—	3,098
Apartments Mid Rise	—	—	—	—	—	—	697	697	0.11	0.01	—	704
Condo/Townhouse	—	—	—	—	—	—	3,996	3,996	0.65	0.08	—	4,036
Single Family Housing	—	—	—	—	—	—	18,382	18,382	2.97	0.36	—	18,564
Strip Mall	—	—	—	—	—	—	6,538	6,538	1.06	0.13	—	6,602
Industrial Park	—	—	—	—	—	—	20,504	20,504	3.32	0.40	—	20,707
Total	—	—	—	—	—	—	53,185	53,185	8.60	1.04	—	53,711
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	3,068	3,068	0.50	0.06	—	3,098
Apartments Mid Rise	—	—	—	—	—	—	697	697	0.11	0.01	—	704
Condo/Townhouse	—	—	—	—	—	—	3,996	3,996	0.65	0.08	—	4,036
Single Family Housing	—	—	—	—	—	—	18,382	18,382	2.97	0.36	—	18,564
Strip Mall	—	—	—	—	—	—	6,538	6,538	1.06	0.13	—	6,602
Industrial Park	—	—	—	—	—	—	20,504	20,504	3.32	0.40	—	20,707
Total	—	—	—	—	—	—	53,185	53,185	8.60	1.04	—	53,711
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	508	508	0.08	0.01	—	513
Apartments Mid Rise	—	—	—	—	—	—	115	115	0.02	< 0.005	—	117

Condo/Townh	—	—	—	—	—	—	662	662	0.11	0.01	—	668
Single Family Housing	—	—	—	—	—	—	3,043	3,043	0.49	0.06	—	3,073
Strip Mall	—	—	—	—	—	—	1,082	1,082	0.18	0.02	—	1,093
Industrial Park	—	—	—	—	—	—	3,395	3,395	0.55	0.07	—	3,428
Total	—	—	—	—	—	—	8,805	8,805	1.42	0.17	—	8,892

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.28	4.74	0.38	—	0.38	—	6,016	6,016	0.53	0.01	—	6,032
Apartments Mid Rise	0.06	0.96	0.08	—	0.08	—	1,220	1,220	0.11	< 0.005	—	1,223
Condo/Townhouse	0.48	8.13	0.66	—	0.66	—	10,314	10,314	0.91	0.02	—	10,343
Single Family Housing	1.66	28.3	2.29	—	2.29	—	35,968	35,968	3.18	0.07	—	36,068
Strip Mall	0.17	3.11	0.24	—	0.24	—	3,712	3,712	0.33	0.01	—	3,722
Industrial Park	0.75	13.6	1.03	—	1.03	—	16,219	16,219	1.44	0.03	—	16,264
Total	3.39	58.9	4.68	—	4.68	—	73,449	73,449	6.50	0.14	—	73,652
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.28	4.74	0.38	—	0.38	—	6,016	6,016	0.53	0.01	—	6,032
Apartments Mid Rise	0.06	0.96	0.08	—	0.08	—	1,220	1,220	0.11	< 0.005	—	1,223

Condo/Townhouse	0.48	8.13	0.66	—	0.66	—	10,314	10,314	0.91	0.02	—	10,343
Single Family Housing	1.66	28.3	2.29	—	2.29	—	35,968	35,968	3.18	0.07	—	36,068
Strip Mall	0.17	3.11	0.24	—	0.24	—	3,712	3,712	0.33	0.01	—	3,722
Industrial Park	0.75	13.6	1.03	—	1.03	—	16,219	16,219	1.44	0.03	—	16,264
Total	3.39	58.9	4.68	—	4.68	—	73,449	73,449	6.50	0.14	—	73,652
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.05	0.86	0.07	—	0.07	—	996	996	0.09	< 0.005	—	999
Apartments Mid Rise	0.01	0.18	0.01	—	0.01	—	202	202	0.02	< 0.005	—	203
Condo/Townhouse	0.09	1.48	0.12	—	0.12	—	1,708	1,708	0.15	< 0.005	—	1,712
Single Family Housing	0.30	5.17	0.42	—	0.42	—	5,955	5,955	0.53	0.01	—	5,971
Strip Mall	0.03	0.57	0.04	—	0.04	—	615	615	0.05	< 0.005	—	616
Industrial Park	0.14	2.48	0.19	—	0.19	—	2,685	2,685	0.24	0.01	—	2,693
Total	0.62	10.7	0.85	—	0.85	—	12,160	12,160	1.08	0.02	—	12,194

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2,774	84.4	611	—	611	68,383	40,617	109,000	205	3.34	—	115,126
Consumer Products	292	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	27.6	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	55.4	4.67	0.41	—	0.41	—	1,578	1,578	0.07	0.01	—	1,584
Total	3,149	89.1	612	—	612	68,383	42,195	110,578	205	3.35	—	116,710
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	2,774	84.4	611	—	611	68,383	40,617	109,000	205	3.34	—	115,126
Consumer Products	292	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	27.6	—	—	—	—	—	—	—	—	—	—	—
Total	3,093	84.4	611	—	611	68,383	40,617	109,000	205	3.34	—	115,126
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	114	3.46	25.1	—	25.1	2,543	1,511	4,054	7.64	0.12	—	4,282
Consumer Products	53.4	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	5.03	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	4.99	0.42	0.04	—	0.04	—	129	129	0.01	< 0.005	—	129
Total	177	3.88	25.1	—	25.1	2,543	1,640	4,183	7.64	0.13	—	4,411

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	77.8	71.0	149	7.99	0.19	—	405
Apartments Mid Rise	—	—	—	—	—	17.4	15.9	33.3	1.78	0.04	—	90.6
Condo/Townhouse	—	—	—	—	—	87.3	79.7	167	8.96	0.21	—	455
Single Family Housing	—	—	—	—	—	243	727	970	25.0	0.61	—	1,777
Strip Mall	—	—	—	—	—	191	174	365	19.6	0.47	—	993
Industrial Park	—	—	—	—	—	777	710	1,486	79.8	1.91	—	4,049
Total	—	—	—	—	—	1,393	1,778	3,170	143	3.43	—	7,770
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	77.8	71.0	149	7.99	0.19	—	405
Apartments Mid Rise	—	—	—	—	—	17.4	15.9	33.3	1.78	0.04	—	90.6
Condo/Townhouse	—	—	—	—	—	87.3	79.7	167	8.96	0.21	—	455
Single Family Housing	—	—	—	—	—	243	727	970	25.0	0.61	—	1,777
Strip Mall	—	—	—	—	—	191	174	365	19.6	0.47	—	993
Industrial Park	—	—	—	—	—	777	710	1,486	79.8	1.91	—	4,049
Total	—	—	—	—	—	1,393	1,778	3,170	143	3.43	—	7,770
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	12.9	11.8	24.6	1.32	0.03	—	67.1
Apartments Mid Rise	—	—	—	—	—	2.88	2.63	5.51	0.30	0.01	—	15.0
Condo/Townhouse	—	—	—	—	—	14.5	13.2	27.7	1.48	0.04	—	75.3

Single Family Housing	—	—	—	—	—	40.2	120	161	4.14	0.10	—	294
Strip Mall	—	—	—	—	—	31.6	28.8	60.4	3.24	0.08	—	164
Industrial Park	—	—	—	—	—	129	117	246	13.2	0.32	—	670
Total	—	—	—	—	—	231	294	525	23.7	0.57	—	1,286

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	502	0.00	502	50.1	0.00	—	1,755
Apartments Mid Rise	—	—	—	—	—	112	0.00	112	11.2	0.00	—	392
Condo/Townhouse	—	—	—	—	—	563	0.00	563	56.2	0.00	—	1,969
Single Family Housing	—	—	—	—	—	1,230	0.00	1,230	123	0.00	—	4,303
Strip Mall	—	—	—	—	—	760	0.00	760	75.9	0.00	—	2,659
Industrial Park	—	—	—	—	—	1,172	0.00	1,172	117	0.00	—	4,099
Total	—	—	—	—	—	4,338	0.00	4,338	434	0.00	—	15,176
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	502	0.00	502	50.1	0.00	—	1,755
Apartments Mid Rise	—	—	—	—	—	112	0.00	112	11.2	0.00	—	392

Condo/Townh	—	—	—	—	—	563	0.00	563	56.2	0.00	—	1,969
Single Family Housing	—	—	—	—	—	1,230	0.00	1,230	123	0.00	—	4,303
Strip Mall	—	—	—	—	—	760	0.00	760	75.9	0.00	—	2,659
Industrial Park	—	—	—	—	—	1,172	0.00	1,172	117	0.00	—	4,099
Total	—	—	—	—	—	4,338	0.00	4,338	434	0.00	—	15,176
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	83.1	0.00	83.1	8.30	0.00	—	291
Apartments Mid Rise	—	—	—	—	—	18.5	0.00	18.5	1.85	0.00	—	64.8
Condo/Townhouse	—	—	—	—	—	93.2	0.00	93.2	9.31	0.00	—	326
Single Family Housing	—	—	—	—	—	204	0.00	204	20.4	0.00	—	712
Strip Mall	—	—	—	—	—	126	0.00	126	12.6	0.00	—	440
Industrial Park	—	—	—	—	—	194	0.00	194	19.4	0.00	—	679
Total	—	—	—	—	—	718	0.00	718	71.8	0.00	—	2,513

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	9.38	9.38
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1.90	1.90

Condo/Townh	—	—	—	—	—	—	—	—	—	—	10.5	10.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	53.9	53.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	8.36	8.36
Industrial Park	—	—	—	—	—	—	—	—	—	—	456	456
Total	—	—	—	—	—	—	—	—	—	—	540	540
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	9.38	9.38
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	1.90	1.90
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	10.5	10.5
Single Family Housing	—	—	—	—	—	—	—	—	—	—	53.9	53.9
Strip Mall	—	—	—	—	—	—	—	—	—	—	8.36	8.36
Industrial Park	—	—	—	—	—	—	—	—	—	—	456	456
Total	—	—	—	—	—	—	—	—	—	—	540	540
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	1.55	1.55
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.31	0.31
Condo/Townhouse	—	—	—	—	—	—	—	—	—	—	1.74	1.74
Single Family Housing	—	—	—	—	—	—	—	—	—	—	8.92	8.92
Strip Mall	—	—	—	—	—	—	—	—	—	—	1.38	1.38
Industrial Park	—	—	—	—	—	—	—	—	—	—	75.5	75.5
Total	—	—	—	—	—	—	—	—	—	—	89.5	89.5

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—
-------	---	---	---	---	---	---	---	---	---	---	---	---

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	9,040	10,053	7,756	3,285,506	118,640	131,931	101,784	43,117,853
Apartments Mid Rise	1,501	1,355	1,129	520,970	19,704	17,785	14,815	6,837,028
Condo/Townhouse	10,146	11,282	8,704	3,687,215	133,146	148,062	114,229	48,389,753

Single Family Housing	36,420	36,805	32,986	13,134,202	477,957	483,020	432,896	172,368,771
Strip Mall	59,513	56,451	27,433	19,889,821	619,549	587,677	285,591	207,059,816
Industrial Park	5,908	4,453	2,174	1,885,715	61,500	46,353	22,629	19,630,931

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	371
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	865
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	83
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	193
Conventional Wood Stoves	0

Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Condo/Townhouse	—
Wood Fireplaces	0
Gas Fireplaces	416
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	970
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	579
Gas Fireplaces	1929
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	1350
Conventional Wood Stoves	193
Catalytic Wood Stoves	193
Non-Catalytic Wood Stoves	193
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
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21396798	7,132,266	4,643,697	1,547,899	—
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5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	5,489,413	204	0.0330	0.0040	18,770,928
Apartments Mid Rise	1,246,916	204	0.0330	0.0040	3,806,728
Condo/Townhouse	7,150,599	204	0.0330	0.0040	32,182,844
Single Family Housing	32,892,186	204	0.0330	0.0040	112,229,318
Strip Mall	11,698,556	204	0.0330	0.0040	11,582,439
Industrial Park	36,689,127	204	0.0330	0.0040	50,607,393

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	40,590,035	0.00
Apartments Mid Rise	9,071,133	0.00
Condo/Townhouse	45,552,865	0.00
Single Family Housing	126,798,668	560,884,525

Strip Mall	99,464,434	0.00
Industrial Park	405,381,250	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	931	—
Apartments Mid Rise	208	—
Condo/Townhouse	1,044	—
Single Family Housing	2,282	—
Strip Mall	1,410	—
Industrial Park	2,174	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

Condo/Townhouse	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Condo/Townhouse	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Industrial Park	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.2	annual days of extreme heat
Extreme Precipitation	21.0	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	16.3	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about $\frac{3}{4}$ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	3	0	0	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	0	0	0	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	3	1	1	3
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	1	1	1	2
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	74.1
AQ-PM	7.72
AQ-DPM	14.2

Drinking Water	38.9
Lead Risk Housing	26.8
Pesticides	0.00
Toxic Releases	3.61
Traffic	26.3
Effect Indicators	—
CleanUp Sites	74.9
Groundwater	49.8
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	23.9
Solid Waste	70.4
Sensitive Population	—
Asthma	36.4
Cardio-vascular	8.84
Low Birth Weights	14.5
Socioeconomic Factor Indicators	—
Education	18.8
Housing	66.9
Linguistic	0.08
Poverty	42.6
Unemployment	13.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	50.69934557

Employed	33.01680996
Median HI	52.52149365
Education	—
Bachelor's or higher	46.63159245
High school enrollment	8.879763891
Preschool enrollment	67.99692031
Transportation	—
Auto Access	67.17567047
Active commuting	11.53599384
Social	—
2-parent households	66.61106121
Voting	89.50340049
Neighborhood	—
Alcohol availability	77.5439497
Park access	18.24714487
Retail density	9.405877069
Supermarket access	41.63993327
Tree canopy	99.2429103
Housing	—
Homeownership	68.76684204
Housing habitability	71.01244707
Low-inc homeowner severe housing cost burden	20.59540613
Low-inc renter severe housing cost burden	78.26254331
Uncrowded housing	69.47260362
Health Outcomes	—
Insured adults	64.22430386
Arthritis	0.0

Asthma ER Admissions	75.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	34.3
Cognitively Disabled	4.6
Physically Disabled	49.3
Heart Attack ER Admissions	79.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	97.7
SLR Inundation Area	0.0
Children	64.0
Elderly	24.7
English Speaking	98.1

Foreign-born	0.5
Outdoor Workers	28.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	96.8
Traffic Density	10.4
Traffic Access	23.0
Other Indices	—
Hardship	39.4
Other Decision Support	—
2016 Voting	88.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	11.0
Healthy Places Index Score for Project Location (b)	59.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Existing General Plan Buildout specifications per City of Colfax.

Appendix G City of Colfax General Plan Update Energy Consumption Calculations

Appendices

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Operational Energy Consumption of Proposed GP Buildout		
Land Use Type	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
Apartments Mid Rise	2,231,799	6,813,491
Apartments Low Rise	2,231,324	7,629,964
Condo/Townhouse	6,247,746	28,119,354
Single Family Housing	35,697,145	121,799,936
Strip Mall	9,012,493	8,923,037
Industrial Park	21,326,994	29,417,532
TOTAL	76,747,501	202,703,314

Operational Energy Consumption of Existing GP Buildout		
Land Use Type	Electricity (kWh/yr)	Natural Gas (kBTU/yr)
Apartments Mid Rise	5,489,413	18,770,928
Apartments Low Rise	1,246,916	3,806,728
Condo/Townhouse	7,150,599	32,182,844
Single Family Housing	32,892,186	112,229,318
Strip Mall	11,698,556	11,582,439
Industrial Park	36,689,127	50,607,393
TOTAL	95,166,797	229,179,650

Source: ECORP 2023 (Appendix F)

Year 2040 Energy Consumption per capita (Proposed General Plan)		
Source	Annual Energy Consumption	Per Capita Consumption
Building – Electricity	76,747,501	10,906.81
Building – Natural Gas	202,703,314	28,806.75
Transportation – Electricity	8,305,383	1,180.30
Transportation – Natural Gas	75,754	10.77
Transportation – Diesel	1,649,934	234.48
Transportation – Gasoline	13,206,423	1,876.80

City vs County Per Capita Energy Consumption Comparison

Placer County	
2021 Electricity Usage (Gwh)	3055.96
2021 Gas Consumption (millions of therms)	94.41
Source: California Energy Commission Energy Report: https://ecdms.energy.ca.gov/gasbycounty.aspx	
2021 Total Population	410,305
Source: Department of Finance 2023: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/	
Countywide per capita electricity consumption (mwh)	7.45
Countywide per capita gas consumption (therms)	230.10
Project Buildout	
Existing population	2,016
Source: Department of Finance 2023: https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/	
Population under buildout	7,037
Total population with buildout	9,053
Per capita electricity consumption under buildout (mWh)	8.48
Per capita gas consumption under buildout (therms)	223.97

Operation-Related Vehicle Fuel/Energy Usage (Proposed General Plan)

PROJECT LAND USE COMMUTE

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Proposed Passenger Vehicles	388,540,915	13,206,423	18,155,751	1,649,934	673,845	75,754	22,671,153	8,305,383
Total	388,540,915	13,206,423	18,155,751	1,649,934	673,845	75,754	22,671,153	8,305,383

Land Use (Proposed General Plan)

Operational Land Use			
Vehicle type	Fleet percent	VMT	
		CalEEMod Default	Total
LDA	49.03%	210,856,730	210,856,730
LDT1	3.96%	17,031,543	17,031,543
LDT2	23.30%	100,212,331	100,212,331
MDV	14.45%	62,119,795	62,119,795
LHD1	2.93%	12,601,179	12,601,179
LHD2	0.73%	3,121,699	3,121,699
MHD	1.64%	7,065,724	7,065,724
HHH	1.02%	4,388,917	4,388,917
OBUS	0.10%	427,391	427,391
UBUS	0.05%	232,368	232,368
MCY	2.39%	10,288,130	10,288,130
SBUS	0.10%	444,314	444,314
MH	0.29%	1,250,275	1,250,275
	100.00%	430,040,404	430,040,404

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartment Mid Rise	2,687	2,426	2,020	932,460	35,268	31,832	26,516	12,237,289
Apartment Low Rise	3,675	4,086	3,153	1,335,485	48,225	53,627	41,373	17,526,447
Condo/Townhouse	8,865	9,858	7,605	3,221,658	116,335	129,367	99,806	42,279,936
Single Family Housing	39,525	39,944	35,799	14,254,252	518,716	524,211	469,812	187,067,923
Strip Mall	45,848	43,490	21,134	15,322,991	477,296	452,742	220,017	159,517,560
Industrial Park	3,434	2,588	1,264	1,096,146	35,749	26,945	13,154	11,411,249

Source: ECORP 2023 (Appendix F)

Colfax Proposed General Plan Update Detailed Report, 7/18/2023

PROPOSED CONDITIONS				
Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	90.40%	0.19%	0.00%	9.41%
LDT1	99.43%	0.01%	0.00%	0.56%
LDT2	98.29%	0.40%	0.00%	1.31%
MDV	96.77%	1.37%	0.00%	1.86%
LHD1	62.85%	36.01%	0.00%	1.14%
LHD2	37.61%	61.28%	0.00%	1.11%
MHD	24.27%	74.17%	0.83%	0.73%
HHH	0.04%	92.82%	6.55%	0.59%
OBUS	45.29%	47.44%	6.95%	0.58%
UBUS	27.57%	0.00%	72.38%	0.05%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	46.06%	24.15%	29.24%	0.54%
MH	65.80%	34.20%	0.00%	0.00%

<< Equal to T6 (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

<< Equal to T7 (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

<< Motor coach, all other buses, and OBUS (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

PROPOSED CONDITIONS												
Vehicle type	VMT	Gasoline			Diesel			CNG			Electricity	
		mpg	Gallons	VMT	mpg	Gallons	VMT	mpg	Gallons	VMT	m/kWh	kWh
LDA	190,616,153	36.10	5,280,765	398,525	53.53	7,444	0	0.00	0	19,842,052	2.69	7,385,115
LDT1	16,933,795	30.87	548,606	2,104	30.02	70	0	0.00	0	95,645	2.78	34,343
LDT2	98,495,976	30.06	3,276,502	399,555	40.05	9,976	0	0.00	0	1,316,800	2.82	466,429
MDV	60,111,523	24.58	2,445,253	852,328	29.81	38,999	0	0.00	0	1,155,744	2.76	419,496
LHD1	7,919,482	10.97	722,218	4,538,036	16.47	275,578	0	0.00	0	143,661	1.54	0
LHD2	1,174,153	9.79	119,917	1,912,891	13.95	137,094	0	0.00	0	34,655	1.56	0
MHD	1,714,832	5.36	319,785	5,240,621	9.40	557,807	58,651	0.00	0	51,619	0.00	0
HHH	1,887	4.65	406	4,073,838	7.38	551,851	287,359	5.48	52,438	25,986	0.55	0
OBUS	193,573	5.33	36,335	202,758	8.60	23,577	29,713	0.00	0	2,462	0.00	0
UBUS	64,061	10.20	6,280	0	10.46	0	168,189	7.21	23,316	118	0.57	0
MCY	10,288,130	41.94	245,283	0	0.00	0	0	0.00	0	0	0.00	0
SBUS	204,668	10.88	18,813	107,302	8.80	12,187	129,933	0.00	0	2,410	0.95	0
MH	822,683	4.42	186,261	427,593	9.35	45,751	0	0.00	0	0	0.00	0
	388,540,915		13,206,423	18,155,751		1,649,934	673,845		75,754	22,671,153		8,305,383

Operation-Related Vehicle Fuel/Energy Usage (Existing General Plan)

PROJECT LAND USE COMMUTE

Vehicle Type	Gas		Diesel		CNG		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Proposed Passenger Vehicles	449,403,969	15,275,145	20,999,762	1,908,389	779,399	87,621	26,222,479	9,606,381
Total	449,403,969	15,275,145	20,999,762	1,908,389	779,399	87,621	26,222,479	9,606,381

Land Use (Existing General Plan)

Operational Land Use			
Vehicle type	Fleet percent	VMT	
	CalEEMod Default	CalEEMod Default	Total
LDA	49.03%	243,886,417	243,886,417
LDT1	3.96%	19,699,452	19,699,452
LDT2	23.30%	115,910,107	115,910,107
MDV	14.45%	71,850,560	71,850,560
LHD1	2.93%	14,575,093	14,575,093
LHD2	0.73%	3,610,698	3,610,698
MHD	1.64%	8,172,535	8,172,535
HHH	1.02%	5,076,419	5,076,419
OBUS	0.10%	494,340	494,340
UBUS	0.05%	268,767	268,767
MCY	2.39%	11,899,716	11,899,716
SBUS	0.10%	513,913	513,913
MH	0.29%	1,446,125	1,446,125
	100.00%	497,404,152	497,404,152

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	9,040	10,053	7,756	3,285,506	116,640	131,931	101,784	43,117,853
Apartments Mid Rise	1,501	1,355	1,129	520,970	19,704	17,785	14,815	6,837,028
Condo/Townhouse	10,146	11,282	8,704	3,687,218	133,146	148,062	114,229	46,389,753

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Single Family Housing	36,420	36,805	32,986	13,154,202	477,957	483,020	432,896	172,366,771
Strip Mall	59,513	56,451	27,433	19,889,821	619,549	587,877	285,591	207,069,816
Industrial Park	5,908	4,453	2,174	1,865,715	61,600	46,353	22,629	19,630,931

Source: ECRP 2023 (Appendix F)

PROPOSED CONDITIONS				
Vehicle type	Gas percent	Diesel percent	CNG percent	Electricity percent
LDA	90.40%	0.19%	0.00%	9.41%
LDT1	99.43%	0.01%	0.00%	0.56%
LDT2	98.29%	0.40%	0.00%	1.31%
MDV	96.77%	1.37%	0.00%	1.86%
LHD1	62.85%	36.01%	0.00%	1.14%
LHD2	37.61%	61.28%	0.00%	1.11%
MHD	24.27%	74.17%	0.83%	0.73%
HHH	0.04%	92.82%	6.55%	0.59%
OBUS	45.29%	47.44%	6.95%	0.58%
UBUS	27.57%	0.00%	72.38%	0.05%
MCY	100.00%	0.00%	0.00%	0.00%
SBUS	46.06%	24.15%	29.24%	0.54%
MH	65.80%	34.20%	0.00%	0.00%

<< Equal to T6 (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

<< Equal to T7 (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

<< Motor coach, all other buses, and OBUS (<https://www.arb.ca.gov/msei/downloads/emfac2014/emfac2014-vol3-technical-documentation-052015.pdf>)

PROPOSED CONDITIONS												
Vehicle type	VMT	Gasoline		Diesel		CNG		Electricity		kWh		
		mpg	Gallons	mpg	Gallons	mpg	Gallons	m/kWh	kWh			
LDA	220,475,251	36.10	6,107,972	460,952	53.53	8,611	0	0.00	22,950,213	2.69	8,541,957	
LDT1	19,586,392	30.87	634,542	2,433	30.02	81	0	0.00	110,627	2.78	39,723	
LDT2	113,924,894	30.06	3,789,750	462,143	40.05	11,538	0	0.00	1,523,071	2.82	539,493	
MDV	69,527,702	24.58	2,828,290	986,071	29.81	33,078	0	0.00	1,336,786	2.76	485,208	
LHD1	9,160,030	10.97	835,350	5,248,898	16.47	318,746	0	0.00	166,165	1.54	0	
LHD2	1,358,078	9.79	138,701	2,212,537	13.95	158,570	0	0.00	40,084	1.56	0	
MHD	1,983,453	5.36	369,878	6,061,539	9.40	645,185	67,838	0.00	59,705	0.00	0	
HHH	2,182	4.65	469	4,711,984	7.38	638,296	332,373	5.48	60,652	30,057	0.55	0
OBUS	223,895	5.33	42,026	234,519	8.60	27,270	34,367	0.00	0	2,848	0.00	0
UBUS	74,096	10.20	7,263	0	10.46	0	194,535	7.21	26,969	136	0.57	0
MCY	11,899,716	41.94	283,706	0	0.00	0	0	0.00	0	0.00	0	0
SBUS	236,728	10.88	21,760	124,111	8.80	14,096	150,287	0.00	0	2,788	0.95	0
MH	951,552	4.42	215,438	494,573	9.35	52,918	0	0.00	0	0	0.00	0
	449,403,969		15,275,145	20,999,762		1,908,389	779,399		87,621	26,222,479		9,606,381

Placer	2040 T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	151.3106194	2282155.617	2282155.617	0	444707.9627	363.1885388	0
Placer	2040 T7 Single Dump Class 8	Aggregate	Aggregate	Electricity	59.45602604	1298172.439	0	1298172.439	174743.6388	0	2366768.501
Placer	2040 T7 Single Dump Class 8	Aggregate	Aggregate	Natural Gas	2.028578738	34301.53835	34301.53835	0	5962.074054	5.769892499	0
Placer	2040 T7 Single Other Class 8	Aggregate	Aggregate	Diesel	375.1137277	5430061.348	5430061.348	0	1102474.25	849.9252643	0
Placer	2040 T7 Single Other Class 8	Aggregate	Aggregate	Electricity	186.2860058	3715511.088	0	3715511.088	547502.0225	0	6773949.547
Placer	2040 T7 Single Other Class 8	Aggregate	Aggregate	Natural Gas	6.236758396	93631.75448	93631.75448	0	18330.0824	15.90700341	0
Placer	2040 T7 SWCV Class 8	Aggregate	Aggregate	Diesel	106.4564686	2153252.757	2153252.757	0	152786.3238	706.9669876	0
Placer	2040 T7 SWCV Class 8	Aggregate	Aggregate	Electricity	52.35133763	1058028.346	0	1058028.346	75134.63976	0	1968515.386
Placer	2040 T7 SWCV Class 8	Aggregate	Aggregate	Natural Gas	10.66572997	215735.306	215735.306	0	15307.45566	41.21490177	0
Placer	2040 T7 Tractor Class 8	Aggregate	Aggregate	Diesel	925.2004887	19698947.75	19698947.75	0	4194266.887	2732.676464	0
Placer	2040 T7 Tractor Class 8	Aggregate	Aggregate	Electricity	135.5839387	3345995.577	0	3345995.577	614650.8042	0	6092086.937
Placer	2040 T7 Tractor Class 8	Aggregate	Aggregate	Natural Gas	3.022718601	64700.30993	64700.30993	0	13703.0716	10.92416804	0
Placer	2040 T7 Utility Class 8	Aggregate	Aggregate	Diesel	14.53918035	186498.8566	186498.8566	0	58063.67063	29.48292076	0
Placer	2040 T7 Utility Class 8	Aggregate	Aggregate	Electricity	6.574896366	105957.6385	0	105957.6385	26257.50613	0	199496.8599
Placer	2040 T7IS	Aggregate	Aggregate	Gasoline	0.326997177	13612.26397	13612.26397	0	2139.41696	2.92784097	0
Placer	2040 T7IS	Aggregate	Aggregate	Electricity	0.156903118	9496.168867	0	9496.168867	1026.556848	0	19082.02645
Placer	2040 UBUS	Aggregate	Aggregate	Gasoline	12.3011045	272795.2456	272795.2456	0	16089.84469	26.74053639	0
Placer	2040 UBUS	Aggregate	Aggregate	Diesel	7.062306488	258795.4337	258795.4337	0	9237.496886	24.73366915	0
Placer	2040 UBUS	Aggregate	Aggregate	Electricity	108.9865176	3977770.077	0	3977770.077	142554.365	0	6934224.294
Placer	2040 UBUS	Aggregate	Aggregate	Natural Gas	1.961751802	71887.62049	71887.62049	0	2565.971357	9.965905586	0

Appendix H Noise and Vibration Assessment

Appendices

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**Noise and Vibration Impact Assessment
for the
City of Colfax General Plan Update**

City of Colfax, California

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July 2023

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ATTACHMENTS

- Attachment A – Baseline (Existing) Noise Measurements
- Attachment B – FHWA Highway Traffic Noise Prediction Model

LIST OF ACRONYMS AND ABBREVIATIONS

CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CBC	California Building Code
City	City of Colfax
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	Decibel is A-weighted
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
HUD	Housing and Urban Development
HVAC	Heating, ventilation, and air conditioning
Hz	Hertz
I-80	Interstate 80
L _{dn}	Day-night average sound level
L _{eq}	Measure of ambient noise
L _{max}	The maximum A-weighted noise level during the measurement period.
L _{min}	The minimum A-weighted noise level during the measurement period.
NIOSH	National Institute for Occupational Safety and Health
PPV	Peak particle velocity
RMS	Root mean square
SEL	Single Event Level
SR 174	State Route 174
UPRR	Union Pacific Railroad
USEPA	United States Environmental Protection Agency
VdB	Vibration Velocity Level

1.0 INTRODUCTION

This report describes the potential impacts of noise due to the implementation of the proposed City of Colfax General Plan Update. This section describes the regulatory framework and existing conditions, identifies criteria used to determine impact significance, provides an analysis of the potential noise impacts, and identifies proposed General Plan Update policies and feasible mitigation measures that could minimize any potentially significant impacts.

1.1 Project Location and Description

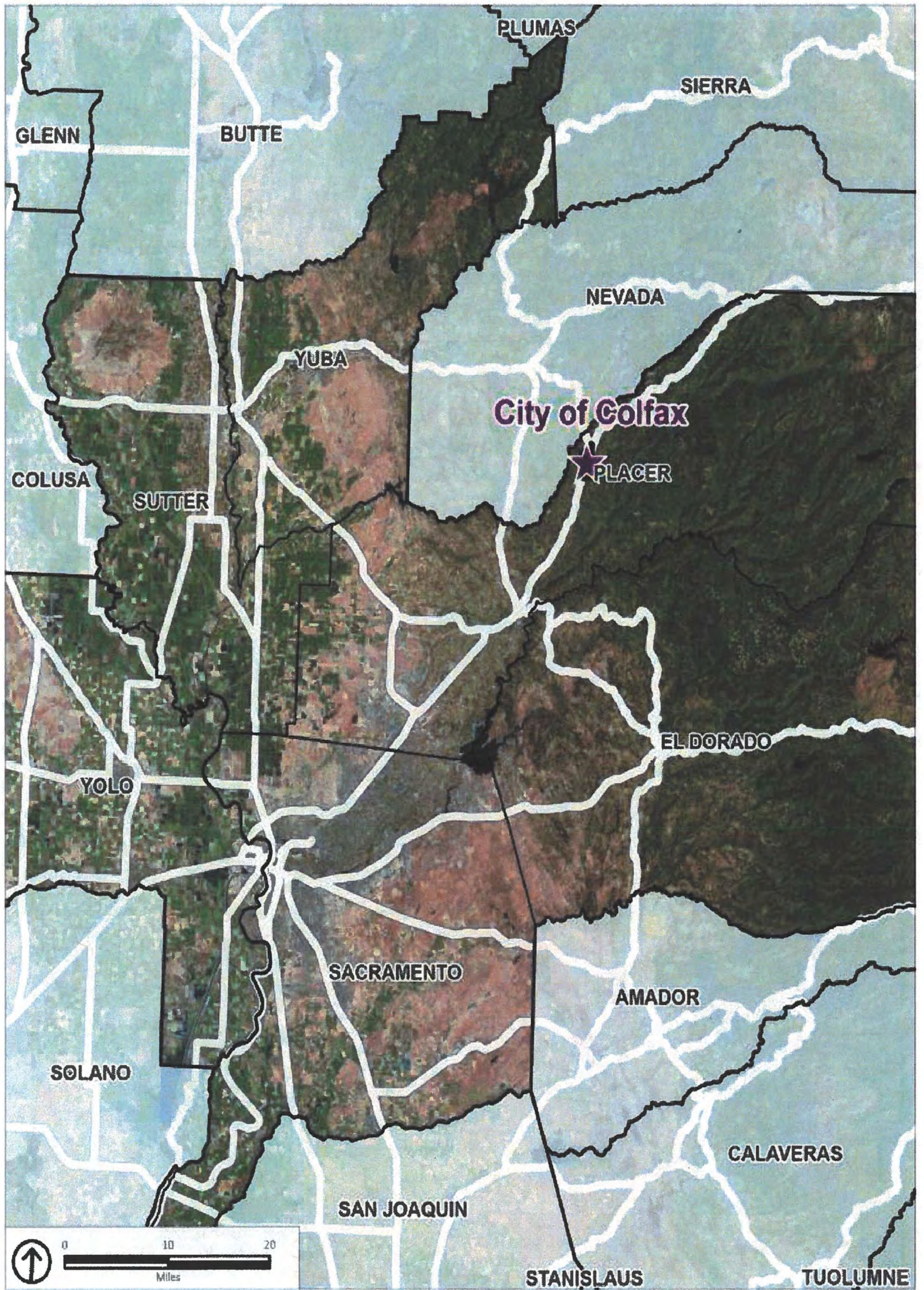
The City of Colfax is the eastern-most incorporated city in Placer County, located in the Sierra Nevada Foothills. Colfax is bordered by unincorporated Placer County lands. The city covers an area of 1.3 square miles and is bisected by Interstate 80 (I-80). Colfax is situated a few miles outside the Tahoe National Forest as I-80 begins its climb into the Sierra Nevada mountains. The City of Colfax is in the western part of Placer County, approximately 46 miles northeast of Sacramento and 68 miles southwest of Reno. Interstate and regional access to Colfax is provided by I-80 and Union Pacific Railroad which runs in a general north-south direction and bisects the city. Rail freight access is provided by the Union Pacific Railroad; Amtrak provides daily passenger service north and south of Colfax. Figure 1-1, *Regional Location*, shows the General Plan area in its regional context.

The General Plan establishes the community's long-term vision for the future, including where people in Colfax will live, work, shop, and recreate. It serves as guidance for all zoning and land use decisions within the city. It will shape future housing, support job growth, foster healthy and resilient neighborhoods, protect and manage natural resources, ensure community safety, and promote social and economic equity. The proposed General Plan Update does not make major changes in land use, but is focused on shortening the existing document, consolidating goals and policies into a more user-friendly document, and recognizing the need for different styles of development than were prevalent with the existing "General Plan 2020", adopted in 1998. The proposed General Plan Update policy document contains the goals and policies that will guide future decisions within the city and identifies implementation measures to ensure the vision and goals of the General Plan are carried out. The General Plan Update also contains a land use diagram, which serves as a general guide to the distribution of land uses throughout the city. The General Plan Update addresses all the elements required by State law, in addition to optional elements that the City has elected to include, as listed here:

- Land Use Element
- Community Design Element (Optional Element)
- Circulation Element
- Housing Element (Stand-alone Element)
- Noise Element
- Safety Element

- Conservation and Open Space Element
- Economic Development Element (Optional Element)

The General Plan land area consists of 903 acres (1.4 square miles) within the city limits, and 2,056.3 acres (3.2 square miles) within the Sphere of Influence. The total land area covered by this General Plan is 2,959.3 acres (4.6 square miles). Figure 1-2, *Proposed Land Use Plan Diagram*, illustrates the proposed 2040 General Plan land use diagram.

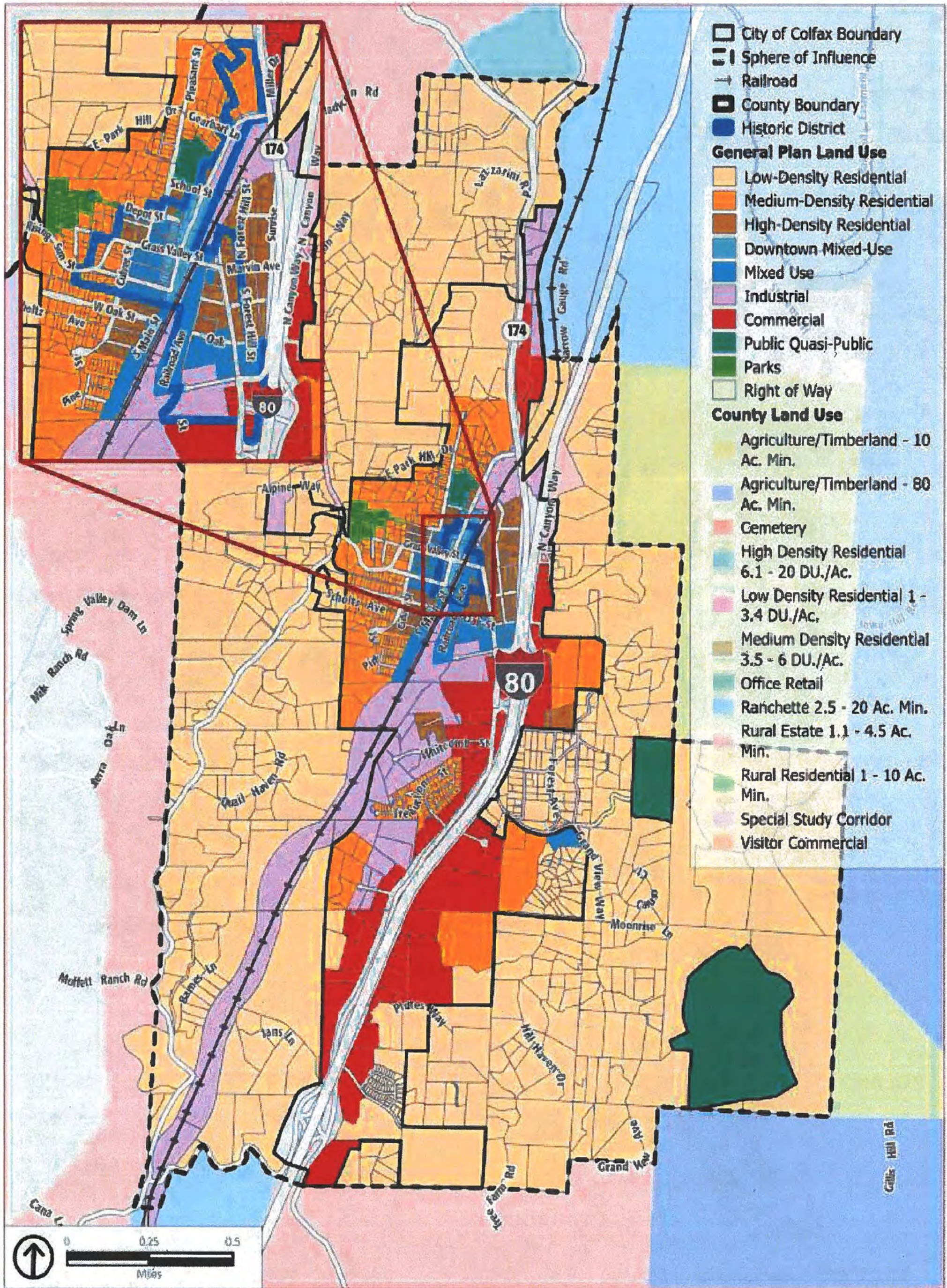


Source: City of Colfax, ESRI, PlaceWorks



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Figure 1-1. Regional Location



Source: City of Colfax, ESRI, Placer County, 2022; PlaceWorks, 2022



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Figure 1-2. Proposed Land Use Plan Diagram

2.0 ENVIRONMENTAL SETTING

2.1 Noise and Vibration Fundamentals

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Therefore, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

2.1.1 Noise Exposure and Community Noise

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people

is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in $L_{dn}/CNEL$). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **L_{max}** is the instantaneous maximum noise level for a specified period of time.
- **L_{min}** is the minimum, instantaneous noise level experienced during a given period of time.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively.

Table 2-1, *Common Noise Descriptors*, provides a list of other common acoustical descriptors.

Table 2-1. Common Acoustical Descriptors	
Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA “weighting” during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA “weighting” added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

2.1.2 Sound Measurements

As previously described, sound pressure is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dBA is 10 times more intense than 1 dBA, 20 dBA is 100 times more intense, and 30 dBA is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dBA. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). When the standard logarithmic dB is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration 2018). For example, a 65-dBA source of sound, such as a truck, when joined by another 65 dBA source results in a sound amplitude of 68 dBA, not 130 dBA (i.e., doubling the source strength increases the sound pressure by three dBA). Under the decibel scale, three sources of equal loudness together would produce an increase of five dBA.

Typical noise levels associated with common noise sources are depicted in Figure 2-1, *Common Noise Levels*.

Time variation in noise exposure is typically expressed in terms of a steady-state energy level equal to the energy content of the time varying period (called L_{eq}), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time it is less than this level. This level also represents the level exceeded 30 minutes in an hour. Similarly, the L_2 , L_8 and L_{25} values represent the noise levels that are exceeded 2, 8, and 25 percent of the time, or 1, 5, and 15 minutes per hour. These " L_n " values are typically used to demonstrate compliance for stationary noise sources with a city's noise ordinance, as discussed below. Other values typically noted during a noise survey are the L_{min} and L_{max} . These values represent the minimum and maximum root-mean-square noise levels obtained over the measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and at night, State law requires that, for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL) or Day-Night Noise Level (L_{dn}). As described above, the CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 p.m. to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The L_{dn} descriptor uses the same methodology but only adds a 10 dBA increment between 10:00 p.m. and 7:00 a.m. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher).

2.1.3 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
<u>Jet Fly-over at 300m (1000 ft)</u>	110	<u>Rock Band</u>
<u>Gas Lawn Mower at 1 m (3 ft)</u>	100	
<u>Diesel Truck at 15 m (50 ft), at 80 km (50 mph)</u>	90	<u>Food Blender at 1 m (3 ft)</u>
<u>Noisy Urban Area, Daytime</u>	80	<u>Garbage Disposal at 1 m (3 ft)</u>
<u>Gas Lawn Mower, 30 m (100 ft)</u>	70	<u>Vacuum Cleaner at 3 m (10 ft)</u>
<u>Commercial Area</u>		<u>Normal Speech at 1 m (3 ft)</u>
<u>Heavy Traffic at 90 m (300 ft)</u>	60	
<u>Quiet Urban Daytime</u>	50	<u>Large Business Office</u>
		<u>Dishwasher Next Room</u>
<u>Quiet Urban Nighttime</u>	40	<u>Theater, Large Conference Room (Background)</u>
<u>Quiet Suburban Nighttime</u>		<u>Library</u>
	30	<u>Bedroom at Night,</u>
<u>Quiet Rural Nighttime</u>		<u>Concert Hall (Background)</u>
	20	<u>Broadcast/Recording Studio</u>
	10	
<u>Lowest Threshold of Human Hearing</u>	0	<u>Lowest Threshold of Human Hearing</u>

Source: California Department of Transportation (Caltrans) 2020a

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL or L_{dn} is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.3.1 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.3.2 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.1.3.3 Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain.

2.1.4 Noise Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes, as well as stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6.0 dB (dBA) for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3.0 dBA for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed. For line sources, an overall attenuation rate of 3.0 dB per doubling of distance is assumed (Federal Highway Administration [FHWA] 2017a).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about 5 dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2017b). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction of 35 dBA or greater. To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (California Department of Transportation [Caltrans] 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. 2006). Generally, in exterior noise environments ranging from 60 dBA CNEL to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typical residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in

each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class 28. In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques following California Building Code (CBC) methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.5 Vibration Fundamentals

Vibration is an oscillating motion in the earth. Like noise, vibration is transmitted in waves, but through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard. Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or humanmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. As with noise, vibration can be described by both its amplitude and frequency. Amplitude can be characterized in three ways—displacement, velocity, and acceleration. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1-second period (Federal Transit Administration 2018).

Table 2-2, *Human Reaction and Damage to Buildings from Typical Vibration Levels*, displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Table 2-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

Peak Particle Velocity (inches/second)	Approximate Vibration Velocity Level (VdB)	Human Reaction	Effect on Buildings
0.006–0.019	64–74	Range of threshold of perception	Vibrations unlikely to cause damage of any type
0.08	87	Vibrations readily perceptible	Threshold at which there is a risk of architectural damage to extremely fragile historic buildings, ruins, ancient monuments
0.1	92	Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities	Threshold at which there is a risk of architectural damage to fragile buildings. Virtually no risk of architectural damage to normal buildings
0.25	94	Vibrations may begin to annoy people in buildings	Threshold at which there is a risk of architectural damage to historic and some old buildings
0.3	96	Vibrations may begin to feel severe to people in buildings	Threshold at which there is a risk of architectural damage to older residential structures
0.5	103	Vibrations considered unpleasant by people subjected to continuous vibrations	Threshold at which there is a risk of architectural damage to new residential structures and Modern industrial/commercial buildings

Source: Caltrans 2020b

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2-2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earth moving that requires the use of heavy-duty equipment.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

3.0 REGULATORY FRAMEWORK

3.1 Federal Regulations

3.1.1 Federal Highway Administration

Proposed federal or federal-aided highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes the horizontal or vertical alignment or increases the number of through-traffic lanes, require an assessment of noise and consideration of noise abatement per 23 Code of Federal Regulations Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise." The Federal Highway Administration (FHWA) has adopted noise abatement criteria for sensitive receivers—such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals—when "worst-hour" noise levels approach or exceed 67 dBA L_{eq} (Caltrans 2020a).

3.1.2 U.S. Environmental Protection Agency

In addition to FHWA standards, the United States Environmental Protection Agency (USEPA) has identified the relationship between noise levels and human response. The USEPA has determined that over a 24-hour period, an L_{eq} of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an L_{eq} of 55 dBA and interior levels at or below 45 dBA. These levels are relevant to planning and design and useful for informational purposes, but they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community; therefore, they are not mandated.

The USEPA also set 55 dBA L_{dn} as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program requirements and goals, as well as the difficulty of actually achieving a goal of 55 dBA L_{dn} , have settled on the 65 dBA L_{dn} level as their standard. At 65 dBA L_{dn} , activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

3.1.3 United States Department of Housing and Urban Development

The United States Department of Housing and Urban Development (HUD) has set the goal of 65 dBA L_{dn} as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted within the State of California.) Although HUD does not specify acceptable interior noise levels, standard construction of residential dwellings typically provides 20 dBA or more of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dBA.

3.1.4 Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) thresholds of significance assist in the evaluation of increased traffic noise. The 2000 FICON findings provide guidance as to the significance of changes in

ambient noise levels due to transportation noise sources. FICON recommendations are based on studies that relate aircraft and traffic noise levels to the percentage of persons highly annoyed by the noise. FICON's measure of substantial increase for transportation noise exposure is as follows:

- If the existing ambient noise levels at existing and future noise-sensitive land uses (e.g., residential, etc.) are less than 60 dBA CNEL and the project creates a readily perceptible 5 dBA CNEL or greater noise level increase and the resulting noise level would exceed acceptable exterior noise standards; or
- If the existing noise levels range from 60 to 65 dBA CNEL and the project creates a barely perceptible 3 dBA CNEL or greater noise level increase and the resulting noise level would exceed acceptable exterior noise standards; or
- If the existing noise levels already exceed 65 dBA CNEL and the project creates a community noise level increase of greater than 1.5 dBA CNEL.

3.1.5 National Institute of Occupational Safety and Health

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

3.1.6 Aircraft Noise Standards

The Federal Aviation Administration Advisory Circular Number 150 5020 2, entitled "Noise Assessment Guidelines for New Helicopters" recommends the use of a cumulative noise measure, the 24-hour equivalent sound level [$L_{eq}(24)$], so that the relative contributions of the heliport and other sound sources within the community may be compared. The $L_{eq}(24)$ is similar to the L_{dn} used in assessing the impacts of fixed wing aircraft. The helicopter $L_{eq}(24)$ values are obtained by logarithmically adding the single-event level (SEL) values over a 24-hour period.

Public Law 96 193 also directs the Federal Aviation Administration to identify land uses which are "normally compatible" with various levels of noise from aircraft operations. Because of the size and complexity of many major hub airports and their operations, Federal Aviation Regulation Part 150 identifies a large number of land uses and their attendant noise levels. These recommended noise levels are included in Table 3-1, Federal Aviation Administration Normally Compatible Community Sound Levels.

Table 3-1. Federal Aviation Administration Normally Compatible Community Sound Levels

Type of Area	Leq (24)
Residential Suburban Urban City	57 67 72
Commercial	72
Industrial	77

Source: Federal Aviation Administration Advisory Circular 1983

Notes: The Leq is the Equivalent Continuous Noise Level, which describes sound levels that vary over time, resulting in a single decibel value that takes into account the total sound energy over the period of time of interest.

3.2 State Regulations

3.2.1 State of California General Plan Guidelines

The State of California, through its General Plan Guidelines, discusses how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels, expressed in CNEL. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements. The General Plan Guidelines provide cities with recommended community noise and land use compatibility standards that can be adopted or modified at the local level based on conditions and types of land uses specific to that jurisdiction.

3.2.2 California Building Code

The State of California provides a minimum standard for building design through Title 24, Part 2, of the California Code of Regulations, commonly referred to as the "California Building Code" (CBC). The CBC is updated every three years. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. The City of Colfax Building Code is presented in Chapter 15.04 of the City's Municipal Code.

The State of California's noise insulation standards for non-residential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Future individual project may use either the prescriptive method (Section 5.507.4.1) or the performance method (5.507.4.2)

to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA $L_{eq(1hr)}$.

3.2.3 Airport Noise Standards

California Code of Regulations Title 21, Section 5012, establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Noise-sensitive land uses are generally incompatible in locations where the aircraft exterior noise level exceeds 65 dBA CNEL, unless an aviation easement for aircraft noise has been acquired by the airport proprietor. Assembly Bill 2776 requires any person who intends to sell or lease residential properties in an Airport Influence Area to disclose that fact to the person buying the property.

3.3 Local Regulations

3.3.1 City of Colfax General Plan

The City of Colfax proposed General Plan Update goals and policies that are relevant to noise are primarily contained in the Noise Element. As part of the proposed General Plan Update, some existing General Plan goals and policies would be amended, substantially changed, or new policies would be added. Applicable goals and policies are identified and assessed for their effectiveness and potential to result in an adverse physical impact later in this chapter under Section 5.2, *Impact Discussion*.

3.3.2 City of Colfax Municipal Code

The City's Municipal Code includes various directives pertaining to noise. The Municipal Code is organized by title, chapter, and section. Provisions related to noise and vibration impacts are included in Title 8, *Health and Safety*.

Chapter 8.28, *Noise Standards*, establishes regulations to protect the inhabitants of the City against all forms of nuisances. Section 8.28.010, *Noise Standards*, presents the following pertaining to the construction and repair of buildings:

- The performance of any construction, alteration or repair activities which require the issuance of any building, grading or other permit may occur only during the following hours:
 - Monday through Friday 6:00 a.m. to 6:00 p.m.
 - Saturdays 8:00 a.m. to 5:00 p.m.
 - Sundays and observed holidays 8:00 a.m. to 5:00 p.m.

Any noise from the above activities shall not produce noise levels in excess of the following:

- Saturdays: 80 dBA when measured at the property line or at a distance of twenty-five feet, whichever is greater.
- Sundays and observed holidays: 70 dBA when measured at the property line or at a distance of twenty-five feet, whichever is greater.

The building official may grant a permit for building activities during other time periods for emergency work or extreme hardship. Any permit so granted shall be of specified limited duration and may be subject to any conditions necessary to limit or minimize the effect of any noise permitted thereby.

4.0 EXISTING CONDITIONS

4.1 Noise Sensitive Land Uses

Some land uses are considered more sensitive to noise levels than others due to the duration and nature of time people spend at these uses. In general, residences are considered most sensitive to noise as people spend extended periods of time in them, including the nighttime hours. Therefore, noise impacts affecting rest and relaxation, sleep, and communication are highest at residential uses. Schools, hotels, hospitals, nursing homes, and recreational uses are also considered to be more sensitive to noise, as activities at these land uses involve rest, recovery, relaxation, and concentration, and increased noise levels tend to disrupt such activities. Places such as churches, libraries, and cemeteries, where people tend to pray, study, and/or contemplate, are also sensitive to noise but, due to the limited time people spend at these uses, impacts are usually tolerable. Commercial and industrial uses are considered the least noise sensitive.

4.2 Existing Noise Environment

Noise sources are typically categorized as mobile or stationary. Most mobile sources are transportation related from vehicles operating on roadways, fixed railways, and aircraft and airport operations. Off-road construction equipment is also considered a mobile source. Stationary noise sources typically include machinery; fabrication; heating, ventilation, and air conditioning systems; compressors and generators; and landscape maintenance equipment. Stationary noise sources generated by light industrial and commercial activities can result in noise-related land use conflicts when these operations (e.g., loading docks or equipment operations) are adjacent to residential land uses (colocation). The dominant noise sources within the city includes community noise from automobile traffic, most potently from I-80 and State Route 174 (SR 174). The Union Pacific Railroad railway corridor is another potent source of noise in Colfax.

4.2.1 Existing Community Noise

In order to quantify existing ambient noise levels within the city, ECORP Consulting, Inc. conducted nine short-term noise measurements (15-minutes) on July 10, 2023. These noise measurements are representative of typical existing noise exposure during the daytime. The 15-minute measurements were taken between 9:30 a.m. and 1:10 p.m. The sound level meter used for noise monitoring was a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. The measurement locations, described below, are shown in Figure 4-1, *Existing Noise Measurement Locations*, and the results are reported in Table 4-1 below.

- **Location 1** is at the end of Canyon Creek Drive, adjacent to an undeveloped property and House 301. The location is located in the southern portion of Colfax. A 15-minute noise measurement began at 9:30 a.m. on Monday, July 10, 2023. The noise environment is characterized primarily by barking dogs, resident conversations, and vehicles on local roadways. Noise levels generally ranged from 38.5 dBA to 63.5 dBA.

- **Location 2** is on Old Illinoistown Road, just east of the Winner Chevrolet and adjacent to the driveway of 1550 Old Illinoistown Road. A 15-minute noise measurement began at 9:51 a.m. on Monday, July 10, 2023. The noise environment is characterized primarily by cars traveling on Old Illinoistown Road and other roadways in the area. Traffic noise levels generally ranged from 51.0 dBA to 74.4 dBA.
- **Location 3** is on Sierra Oaks Drive, adjacent to undeveloped land and the Sierra Oaks Estates residential development. A 15-minute noise measurement began at 10:18 a.m. on Monday, July 10, 2023. The noise environment is characterized primarily by people talking, birds chirping, and cars traveling on Iowa Hills Road and Sierra Oaks Drive. Traffic noise levels generally ranged from 35.3 dBA to 64.1 dBA.
- **Location 4** is on Canyon Court, between the Canyon View Apartments and Standlock Bottle Shop. A 15-minute noise measurement began at 10:43 a.m. on Monday, July 10, 2023. The noise environment is characterized primarily by cars passing by as well as highway noise from I-80. Traffic noise levels generally ranged from 51.0 dBA to 70.1 dBA.
- **Location 5** is on Knorr Swiss, approximately 0.25 miles from SR 74. A 15-minute noise measurement began at 11:06 a.m. on Monday, July 10, 2023. The noise environment is characterized primarily by cars on SR 174. Traffic noise levels generally ranged from 44.6 dBA to 61.9 dBA.
- **Location 6** is on Pleasant Street, adjacent to House 200 (residence). A 15-minute noise measurement began at 11:33 a.m. on Monday, July 10, 2023. The noise environment is characterized primarily by cars passing by. Traffic noise levels generally ranged from 38.2 dBA to 68.2 dBA.
- **Location 7** is on the Pine Street and Lincoln Street Intersection. A 15-minute noise measurement began at 12:01 p.m. on Monday, July 10, 2023. The noise environment is characterized primarily by people talking and vehicles passing by on roadways. Traffic noise levels generally ranged from 33.0 dBA to 60.6 dBA.
- **Location 8** is on the end of cul-de-sac on Whitcomb Avenue. A 15-minute noise measurement began at 12:25 p.m. on Monday, July 10, 2023. The noise environment is characterized primarily by cars passing by on roadways. Traffic noise levels generally ranged from 39.1 dBA to 58.6 dBA.
- **Location 9** is on South Auburn Street, adjacent to the entrance of the Church of Jesus Christ of Latter-day Saints. A 15-minute noise measurement began at 12:55 p.m. on Monday, July 10, 2023. The noise environment is characterized primarily by cars passing by on roadways. Traffic noise levels generally ranged from 52.6 dBA to 64.0 dBA.



Figure 4-1 Noise Measurement Locations Map

Table 4-1. Existing (Baseline) Noise Measurements					
Short-Term					
Location Number	Location Description	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
1	End of Canyon Creek Drive adjacent to undeveloped property and House 301.	46.5	38.5	63.5	9:30 a.m. – 9:45 a.m.
2	On Old Illinoistown Road east of the Winner Chevrolet adjacent to driveway 1550.	57.7	51.0	74.4	9:51 a.m. – 10:06 a.m.
3	On Sierra Oaks Drive adjacent to undeveloped land and Sierra Oaks Estates residential development.	42.2	35.3	64.1	10:18 a.m. – 10:33 a.m.
4	On Canyon Court between the Canyon View Apartments and Standlock Bottle Shop.	59.8	51.0	70.1	10:43 a.m. – 10:58 a.m.
5	On Knorr Swiss approximately 0.25 miles from State Route 174.	50.1	44.6	61.9	11:06 a.m. – 11:21 a.m.
6	On Pleasant Street adjacent to House 200.	50.3	38.2	68.2	11:33 a.m. – 11:48 a.m.
7	Pine Street and Lincoln Street Intersection.	40.8	33.0	60.6	12:01 p.m. – 12:16 p.m.
8	End of cul-de-sac on Whitcomb Avenue.	42.9	39.1	58.6	12:25 p.m. – 12:40 p.m.
9	On South Auburn Street, adjacent to the entrance to the Church of Jesus Christ of Latter-day Saints.	57.3	52.6	64.0	12:55 p.m. – 1:10 p.m.

Source: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Attachment A for noise measurement outputs.

Notes: L_{eq} is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. L_{min} is the minimum noise level during the measurement period and L_{max} is the maximum noise level during the measurement period.

As shown in Table 4-1, the ambient recorded noise levels range from 40.8 dBA to 59.8 dBA L_{eq} over the course of the nine short-term noise measurements taken throughout the city. The most common noise in the Project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) on area roadways. The city is also influenced by typical residential noise (people talking, dogs barking, heating and cooling units, etc.).

4.2.2 Existing Traffic Noise

Traffic noise levels depend primarily on the speed of the traffic and the volume of trucks. The primary source of noise from automobiles is high-frequency tire noise, which increases with speed. Trucks and older automobiles produce engine and exhaust noise, and trucks can also generate wind noise. Tire noise from cars is produced at ground level (i.e., where the tire contacts the road), whereas truck noise can be generated at a height of 10 to 15 feet above the road, depending on the height of the exhaust pipe(s) and engine. As a result, sound walls are not as effective at reducing truck noise unless they are very tall.

The dominant noise source within the City of Colfax is vehicle traffic on its roadways, primarily I-80 and SR 174. Existing roadway noise levels were calculated for roadway segments throughout Colfax. This task was accomplished using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Appendix Attachment B) and traffic volumes from Fehr & Peers Transportation Consultants (2023). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by California Department of Transportation (Caltrans). The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in Table 4-2, Existing Roadway Noise Levels.

Table 4-2. Existing Roadway Noise Levels						
Roadway Segment	Volume (Average Daily Trips)	CNEL at 50 Feet	Distance to CNEL Contour (feet)			
			70 dBA	65 dBA	60 dBA	55 dBA
Interstate 80						
All of Colfax	30,500	75.1	109	234	505	1,087
Auburn Avenue						
South of I-80 WB Ramps	4,608	57.2	-	-	33	70
Between I-80 WB Ramps and SR 174 Overcrossing	6,768	58.9	-	-	42	91
Between SR 174 Overcrossing and Central Street	9,261	60.3	-	-	51	112
Between Central Street and Grass Valley Street	5,535	58.0	-	-	37	80
Canyon Way						
North of I-80 EB Ramp	801	49.6	-	-	-	-
Between I-80 EB Ramps and SR 174 Overcrossing	4,914	57.5	-	-	34	74
Between SR 174 Overcrossing and Iowa Hill Road	1,719	52.9	-	-	-	36
Between Illinoistown Road and I-80 EB Ramp	1,440	57.4	-	-	33	72
South of I-80 EB Ramp	324	50.9	-	-	-	-
Grass Valley Street						
West of Rising Sun Road	198	43.6	-	-	-	-
Between Rising Sun Road and Main Street	3,771	56.4	-	-	-	62
Between Main Street and Auburn Avenue	5,409	57.9	-	-	36	78
East of Auburn Avenue	45	37.1	-	-	-	-
Rising Sun Road						
East of Ben Taylor Road/Tokayana Way	27	34.9	-	-	-	-
Between Ben Taylor Road and Grass Valley Street	3,744	56.3	-	-	-	61
Main Street						

Table 4-2. Existing Roadway Noise Levels						
South of Grass Valley Street	1,881	53.3	-	-	-	39
Between Grass Valley Street and Dinky Avenue	1,791	53.1	-	-	-	38
Between Dinky Avenue and Central Street	1,404	52.1	-	-	-	-
Forest Hill Street						
Between Grass Valley Street and Dinky Avenue	54	37.9	-	-	-	-
Central Street (SR 174)						
North of Main Street	4,779	64.7	-	48	103	223
Between Main Street and Auburn Avenue	4,293	62.1	-	32	69	149
West of Auburn Avenue	243	38.1	-	-	-	-
Dinky Avenue						
East of Foresthill Street	9	30.1	-	-	-	-
Between Main Street and Foresthill Street	27	34.9	-	-	-	-
Tokayana Way/Ben Taylor Road						
North of Rising Sun Road	3,222	58.3	-	-	38	83
South of Rising Sun Road	1,179	53.9	-	-	-	42
West of Ben Taylor Road	27	37.5	-	-	-	-
North of Placer Hills Road	549	50.6	-	-	-	-
South of Placer Hills Road	1,053	53.4	-	-	-	39
Placer Hills Road						
Between Tokayana Way and I-80 WB Ramp	1,026	50.7	-	-	-	-
Between Illinoistown Road and I-80 WB Ramp	1,548	52.5	-	-	-	34

Source: Traffic noise levels on all City of Colfax roadways were calculated using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers Transportation Consultants 2023.

Existing noise contours for the I-80, SR 174 and heavily traveled roadways within the City are presented in Figure 4-2, *Existing Traffic Noise Contours*. The noise contours shown in Figure 4-2 represent the predicted noise level based on roadway volumes, the percent of trucks, speed, and other factors.

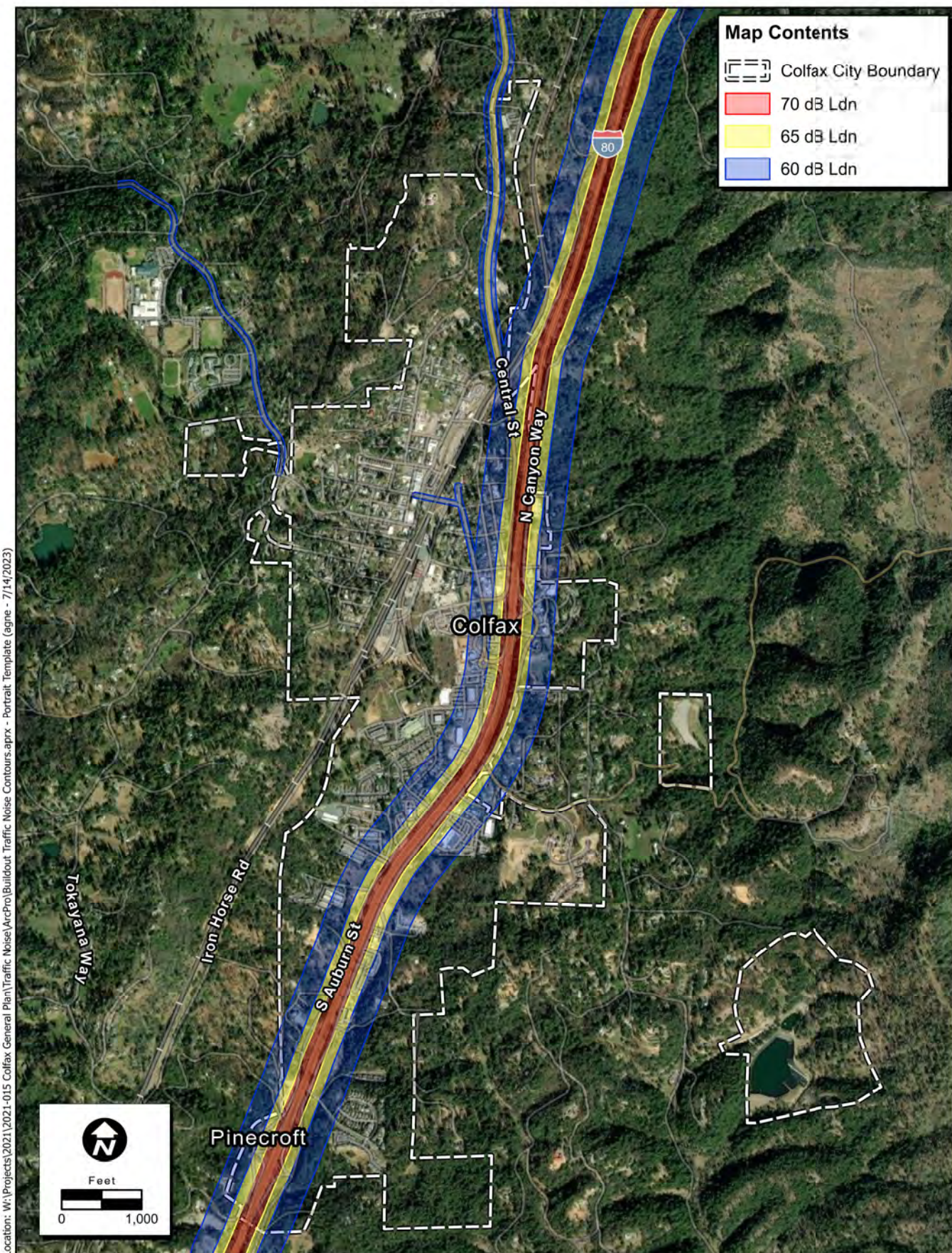


Figure 4-2 Existing Traffic Noise Contours

4.2.3 Existing Rail Noise

Railway noise is also a major mobile noise source throughout the city. The Union Pacific Railroad rail line runs through the western portion of the city adjacent to Mian Street. Currently, there are approximately 25 freight trains and 2 Amtrak trains per day traversing the city. Noise levels for the rail line were calculated using the methodology contained in the Federal Transit Administration's Transit Noise and Vibration Impact Assessment manual. It was assumed that the train's warning horn was blown within 1/4 mile of all grade crossings and stations. Due to the size of the city, grade crossings, and station in Colfax, the train horn dominates the existing train noise contours shown in Figure 4-3, *Existing Railway Noise Contours*.

4.2.4 Existing Aircraft Noise

Aircraft overflight occurs regularly as the city is near the Tahoe Regional Airport, however the city is not within an airport overflight area and is outside of any airport noise contours.

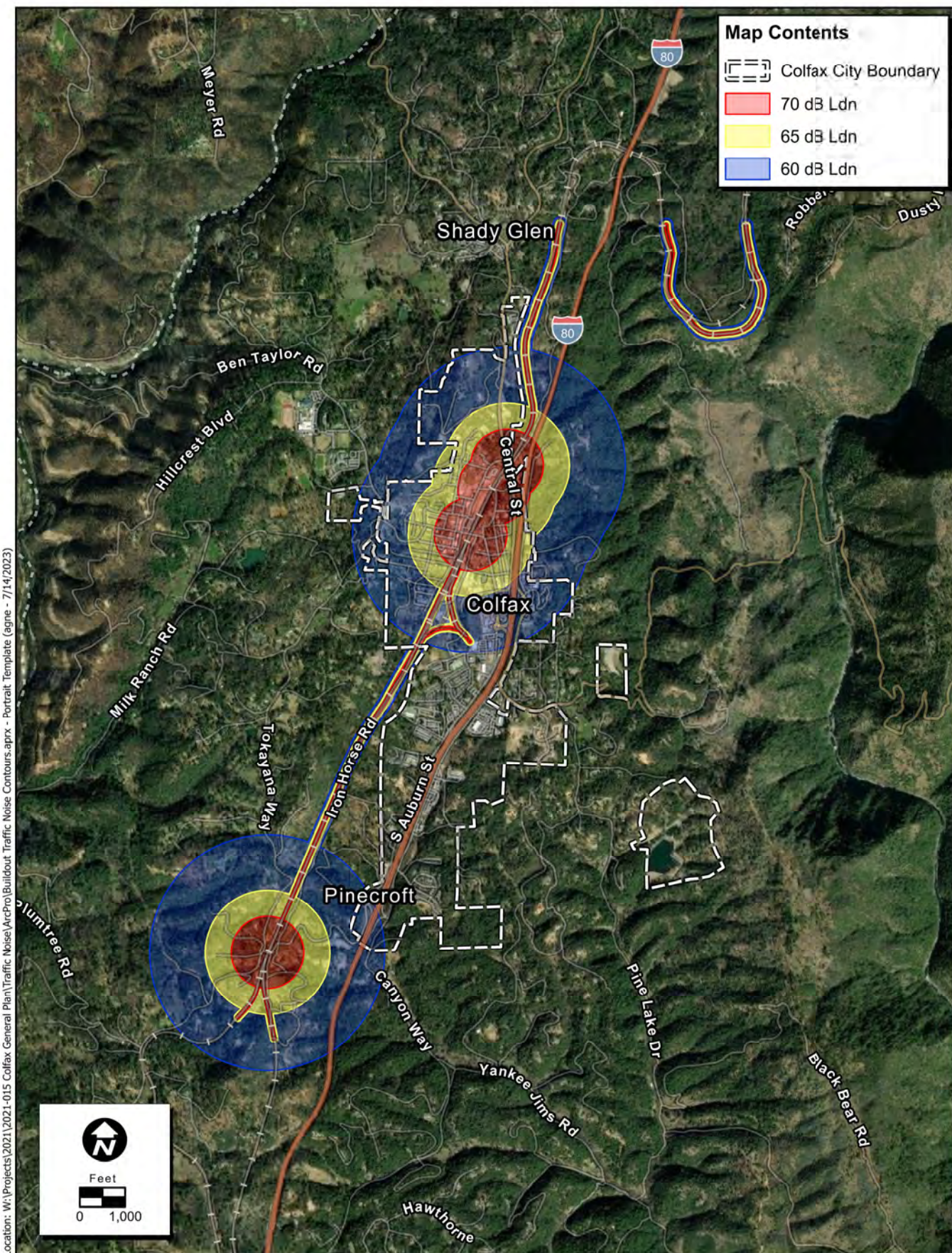


Figure 4-3 Railroad and Rail Crossing Noise Contours

5.0 Impact Assessment

5.1 Standards of Significance

The proposed General Plan Update would result in a significant noise impact if it would:

- 1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- 2) Generation of excessive groundborne vibration or groundborne noise levels.
- 3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.
- 4) In combination with past, present, and reasonably foreseeable projects, result in cumulative noise impacts in the area.

A project might have a significant effect on the environment if it would substantially increase the ambient noise levels in the area or expose people to severe noise levels. As previously described, a change in level of at least 5 dBA is required before any noticeable change in community response is expected. Based on this fact and the proposed Noise Element policies, a significant increase in traffic noise is considered to be an increase in the existing ambient noise environment of at least 5 dBA CNEL.

5.2 Methodology

This is a program-level analysis that considers the potential impacts from adoption of the proposed General Plan Update by assessing proposed policies contained within and development and activities that may occur under it. Impacts relative to noise and vibration are evaluated using the criteria listed above and based on information included in the proposed General Plan Update and existing and future traffic volumes provided by Fehr & Peers Transportation Consultants (2023). The proposed General Plan Update does not propose specific development projects but, for the purposes of environmental review, establishes the potential buildout of the proposed General Plan Update. This represents the maximum feasible development that the City has projected can reasonably be expected to occur through the proposed General Plan horizon. To capture the potential impact of future development under the proposed General Plan Update, this analysis utilizes the baseline existing conditions described above and analyzes the impacts of urban development through the projection period. Roadside noise levels were calculated for the same roadways analyzed under existing conditions. The street segments selected for analysis are those forecast to experience the greatest percentage increase in traffic generated by future development under the proposed General Plan Update and are therefore expected to be most directly impacted. Transportation-source noise levels have been calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with traffic counts provided by Fehr & Peers Transportation Consultants (2023). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to

reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels.

5.3 Impact Analysis

5.3.1 The proposed General Plan Update would result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Noise/Land Use Compatibility

The Noise Element of the proposed General Plan Update provides policy direction for minimizing noise impacts on the community and establishes noise control measures for construction and operation of land use projects. By identifying noise-sensitive land uses and establishing compatibility guidelines for those land use (Table 4-1 of the proposed General Plan Noise Element), noise considerations would influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and project design can alleviate the majority of noise problems.

The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating certain land uses at locations in the city that would negatively affect noise-sensitive land uses. Uses such as schools, hotels, hospitals, nursing homes, recreational uses, churches, libraries, cemeteries, and all types of residential uses must be located outside of any area anticipated to exceed the exterior and interior noise levels as defined by the Noise Compatibility Standards or must be protected from noise through sound attenuation measures such as site and architectural design and sound walls (proposed Policy 4.1.2 and Policy 4.1.3). The proposed guidelines are used as a basis for planning decisions and these guidelines are shown in Table 4-1 of the proposed General Plan 2040 Noise Element, which is reproduced as Table 5-1, *Noise Compatibility Standards*.

Table 5-1. Noise Compatibility Standards

Type of Development	Exterior Noise Standards (CNEL)	Interior Noise Standards (CNEL)
Low Density Residential (single-family, duplex, mobile-home)	60	45
Medium or High Density Residential (Multi-Family, Apartments)	65	45
Lodging (Motels/Hotels)	65	45
Mixed Use/Infill Development	70	45
Schools, Libraries, Community Centers, Religious Institutions, Hospitals, Nursing Homes	70	45
Auditoriums, Concert Halls, Amphitheaters	70	N/A
Playgrounds, Neighborhood Parks	70	N/A
Outdoor Recreation (Commercial and Public)	75	N/A
Commercial (Office/Retail)	70	60
Industrial, Manufacturing, and Utilities	75	70

Source: City of Colfax General Plan 2023

Table 4-1 of the proposed 2040 General Plan would be used to determine whether the existing exterior and interior noise levels that would surround a proposed new use are consistent within those presented in the proposed General Plan and to identify where a proposed General Plan Update may need to incorporate noise mitigation features. In a case where the noise levels identified at a future project site are within levels identified in Table 4-1 of the General Plan, the project would be considered compatible with the existing noise environment. All future projects under the proposed General Plan Update subject to discretionary review would be evaluated for noise/land use compatibility.

The Noise Element of the proposed General Plan Update provides guidance to protect the community from excessive noise exposure. The following proposed General Plan 2040 goals and policies would integrate noise considerations into land use planning decisions and require design strategies for minimize noise effects:

- **Implementation Measure 2.1.C:** Locate industrial and commercial land uses away from noise sensitive land uses.
- **Implementation Measure 2.1.D:** To protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise generating uses.

- **Goal 4.1:** A City with appropriate noise and vibration levels that support a range of places from quiet neighborhoods to active outdoor events.
- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1.
- **Policy 4.1.2:** Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
- **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
- **Goal 4.2:** Minimize exposure to excessive noise by ensuring compatible land uses relative to noise sources.
- **Policy 4.2.1:** Require that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses.
- **Policy 4.2.2:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.

Proposed General Plan Policy 4.1.1 would require the integration of noise considerations into land use planning decisions to minimize new noise impacts to or from new development. Proposed Policy 4.1.4 would require the submittal of an acoustical analysis for projects adding people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources). This noise analysis would determine if the noise level at the future project site is consistent with the noise levels presented in Table 4-1 of the proposed General Plan Update.

The acoustical analyses potentially triggered by Policy 4.1.4 would include refined evaluation of noise/land use compatibility in order to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through conducting baseline noise measurements with a sound level meter, though this can also be achieved in many areas of the City by referring to the General Plan noise contours (Figures 4-2 through 4-4 of this report) and/or Table 4-1 of this report. The location-specific baseline noise measurements presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use. Examples of this are included in Policy 4.1.2 and

Policy 4.1.3 and include measures such as noise barriers, buffers, walls, or setbacks. The need for noise attenuation measures in building construction and project design from any noise source and for all land uses will be determined on a project-by-project basis at the time development is proposed. Further, proposed General Plan Policy 4.2.1 would require that effective noise mitigation measures be incorporated into the design of new noise-generating and new noise-sensitive land uses. Lastly, Policy 4.2.2 aims to protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.

For these reasons, noise/land use compatibility under the General Plan would represent a less than significant impact.

Temporary Construction Noise

Under the proposed General Plan Update, the primary source of temporary noise within the city would be demolition and construction activities associated with development projects and activities. Construction activities would involve both off-road construction equipment (e.g., excavators, dozers, cranes, etc.) and transport of workers and equipment to and from construction sites. Table 5-2, *Reference Construction Equipment Noise Levels (50 Feet from Source)*, shows typical noise levels produced by the types of off-road equipment that would likely be used during future construction within Colfax. It is noted that future development under the General Plan Update could potentially require installation of pile foundations that may utilize impact pile drivers or similar equipment that may be expected to generate high noise levels.

Construction noise is currently a major source of temporary noise within Colfax and will continue to be so regardless of whether the General Plan Update is adopted. Noise levels near individual construction sites associated with development and activities under the proposed General Plan Update would not be substantially different from what they would be under the existing City of Colfax existing General Plan 2020. Since specific future projects within the city are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be located within 50 feet of sensitive land uses. As depicted in Table 5-2, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 101.3 dBA L_{max} at 50 feet and 67.7 dBA to 94.3 dBA L_{eq} at 50 feet. Average hourly noise levels associated with construction projects can vary, depending on the activities performed. Short-term increases in vehicle traffic, including worker commute trips and haul truck trips, may also result in temporary increases in ambient noise levels at nearby receptors. During each stage of construction, a different mix of equipment would operate, and noise levels would vary based on the amount of equipment on-site and the location of the activity. Construction noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and the receptor. Intervening structures or terrain would result in lower noise levels at distant receivers.

Table 5-2. Reference Construction Equipment Noise Levels (50 feet from source)

Equipment	Typical Noise Level (dBA) at 50 Feet from Source	
	L _{max}	L _{eq}
Aerial Lift	74.7	67.7
Air Compressor	77.7	73.7
Backhoe	77.6	73.6
Blasting	94.0	73.0
Boring Jack (Power Unit)	83.0	80.0
Boring Jack (Horizontal)	82.0	76.0
Chain Saw	83.7	76.7
Compactor (Ground)	83.2	76.2
Concrete Mixer Truck	78.8	74.8
Concrete Mixer (Vibratory)	80.0	73.0
Concrete Pump Truck	81.4	79.4
Concrete Saw	89.9	82.6
Crane	80.6	72.6
Dozer	81.7	77.7
Drill Rig	84.4	77.4
Drill Rig Truck	79.1	72.2
Drum Mixer	80.0	77.0
Dump Truck	76.5	72.5
Excavator	80.7	76.7
Front End Loader	79.1	75.1
Generator	80.6	77.6
Gradall	83.4	79.4
Grader	85.0	81.0

Equipment	Leq (dBA)	LAeq (dBA)
Hydraulic Break Ram	90.0	80.0
Impact Hammer/Hoe Ram (Mounted)	90.3	83.3
Jackhammer	88.9	81.9
Other Equipment	85.0	82.0
Pavement Scarifier	89.5	82.5
Paver	77.2	74.2
Pile Driver (Impact)	101.3	94.3
Pile Driver (Vibratory)	100.8	93.8
Pneumatic Tools	85.2	82.2
Pumps	80.9	77.9
Rock Drill	81.0	74.0
Roller	80.0	73.0
Scraper	83.6	79.6
Tractor	84.0	80.0
Truck (Flat Bed)	74.3	70.3
Truck (Pick Up)	75.0	71.0
Vacuum Street Sweeper	81.6	71.6
Welder	74.0	70.0

Source: FHWA 2006

The City of Colfax Municipal Code Section 8.28.010 permits construction Monday through Friday 6:00 a.m. to 6:00 p.m. as well as Saturdays, Sundays and observed holidays 8:00 a.m. to 5:00 p.m. Noise from construction activities must not produce noise levels in excess of 80 dBA when measured at the property line or at a distance of twenty-five feet, whichever is greater, on Saturdays and 70 dBA when measured at the property line or at distance of twenty-five feet, whichever is greater, on Sundays and observed holidays. It is common for cities to regulate construction noise in this manner because construction noise is temporary, short term, and intermittent in nature, and ceases upon completion of construction.

The City’s Municipal Code Section 8.28.010 would ensure that noise attenuation is provided to minimize temporary noise impact associated with construction. Construction noise under the proposed General Plan Update would therefore be less than significant.

Stationary Source Noise

The development of residential, automotive, industrial, or other uses and activities under the proposed General Plan Update could generate substantial stationary noise. Such sources could generate noise from heating, ventilation, and air conditioning (HVAC) mechanical equipment, back-up diesel generators in some cases, parking lot activity, backup beepers from internal truck and equipment maneuvering, and other sources. Table 5-3, *Reference Stationary Source Noise Levels (At the Source)*, identifies noise levels generally associated with common stationary noise sources.

Stationary Noise Source	L_{eq}
Commercial Car Wash ^a	79.1 dBA
Drive Thru Activity (speaker) ^b	89.1 dBA
Gasoline Dispensing Station ^c	64.7 dBA
Generators ^d	75.0 dBA
HVAC Mechanical Equipment ^e	56.8 dBA
Parking Garage ^f	52.6 dBA
Regional Shopping Center Parking Lot ^g	61.1 dBA
Small Parking Lot ^h	53.2 dBA
Tire and Lube Service Station ⁱ	62.3 dBA
Truck Backup Beeper ^j	79.0 dBA
Truck Yard/Warehouse ^k	62.4 dBA

- Notes: a. The average of two noise measurements conducted at commercial carwashes in 2019 and 2022.
- b. The average of six noise measurements conducted within fast food restaurant drive thru while drive thru speaker in use.
- c. The average of five noise measurements conducted within the fuel canopy of gasoline dispensing stations in 2019 and 2021.
- d. Generac Mobile Diesel Generator Set Specification Sheet 2020.
- e. One noise measurement conducted at an operating HVAC unit in 2017.
- f. One noise measurement conducted within a parking garage in 2019.
- g. One noise measurement conducted within a Safeway parking lot in 2019.

Stationary source noise is currently a major source of temporary noise within Colfax and will continue to be so regardless of whether the proposed General Plan Update is adopted. Noise levels near individual sources

under the proposed General Plan Update would not be substantially different from what they would be under the existing City of Colfax existing General Plan 2020. The Noise Element of the proposed General Plan addresses stationary noise as follows:

- **Implementation Measure 2.1.C:** Locate industrial and commercial land uses away from noise sensitive land uses.
- **Implementation Measure 2.1.D:** To protect existing industry and commercial businesses, new sensitive land uses shall not be placed near existing noise generating uses.
- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
- **Policy 4.2.2:** Protect noise-sensitive land uses from high levels of noise by restricting noise-producing land uses from these areas.
- **Policy 4.2.3:** Revise the Municipal Code to include appropriate interior and exterior noise level standards for existing and future residential areas.

Implementation Measure 2.1.C explicitly mandates the location of industrial and commercial land uses away from noise sensitive land uses while Implementation Measure 2.1.D prohibits new sensitive land uses near existing noise generating uses. Proposed General Plan Policy 4.1.1 would require the integration of noise considerations into land use planning decisions to minimize new noise impacts to or from new development. Additionally, proposed Policy 4.1.4 would require the submittal of an acoustical analysis for projects adding people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources). This noise analysis would show if the noise level at the future development site is consistent with the noise levels presented in Table 4-1 of the proposed General Plan Update. Furthermore, proposed Policy 4.1.4 would require the submittal of a project level noise analysis in areas where noise-sensitive receptors may be exposed to major stationary noise sources. The noise analyses at the project level would include refined evaluation of noise/land use compatibility in order to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through the conducting of baseline noise measurements with a sound level meter and/or calculating traffic noise from surrounding roadway facilities with regulatory traffic noise models. The location-specific baseline noise measurements and/or traffic noise calculations presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use. Additionally, proposed General Plan Policy 4.2.2 and Policy 4.2.3 aim to protect noise-sensitive land uses by restricting the proximity to noise-producing sources and establishing City standards.

With implementation of the proposed General Plan policies identified above, future development and activities under the proposed General Plan Update would result in a less than significant impact related to stationary noise sources.

Rail Noise

As previously described, railway noise is a major mobile noise source in Colfax (see Figure 4-3). The Union Pacific Railroad rail line runs through the western portion of the city adjacent to Main Street. Currently, there are approximately 25 freight trains and 2 Amtrak trains per day traversing the city.

Noise levels along the existing railroad under the proposed General Plan update would remain the same as existing conditions; any changes to the frequency of trains or to train equipment would be initiated and implemented by the respective rail authority, rather than the City of Colfax, and are not part of the proposed General Plan Update. However, implementation of the General Plan Update has the potential to locate new development along the rail line.

The Noise Element of the proposed General Plan addresses rail noise as follows:

- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1.
- **Policy 4.1.2:** Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
- **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.
- **Policy 4.1.5:** Maintain the Rail Crossing Quiet Zone and allow the establishment of a full or partial at-grade rail crossing quiet zone.

The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating certain land uses at locations in the city that would negatively affect noise-sensitive land uses. Uses such as schools, hotels, hospitals, nursing homes, recreational uses, churches, libraries, cemeteries, and all types of residential uses must be located outside of any area anticipated to exceed noise levels as defined by the Noise Compatibility Standards (see Table 5-1 above) or must be protected from noise through sound attenuation measures such as site and architectural design and sound walls. Proposed General Plan Policy 4.1.1 would require the integration of noise considerations into land use planning decisions to minimize new noise impacts to or from new development. Additionally, Proposed Policies 4.1.2, 4.1.3 and 4.1.5

provide a strong policy framework for minimizing noise impacts, including railway-related noise impacts, in new development. Furthermore, proposed Policy 4.1.4 would require the submittal of a project level noise analysis in areas where noise-sensitive receptors may be exposed to major noise sources, such as rail activity. The noise analyses at the project level would include refined evaluation of noise/land use compatibility in order to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through the conducting of baseline noise measurements with a sound level meter and/or calculating traffic noise from surrounding roadway facilities with regulatory traffic noise models, though this can also be achieved in many areas of the City by referring to the General Plan railroad noise contours (Figure 4-3 of this report). The location-specific baseline noise measurements and/or traffic noise calculations presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use.

No aspect of the proposed General Plan Update would increase railway noise levels along the existing railroad corridor. Adherence to the proposed General Plan policies identified above would ensure that the noise environment in Colfax does not increase in a manner that worsens existing noise compatibility or exposes noise-sensitive land uses to “unacceptable” noise levels. Therefore, this impact is less than significant.

Traffic Noise

Future development and activities under the proposed General Plan Update are expected to affect the community noise environment mainly by generating additional traffic. Transportation-source noise levels were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with traffic counts provided by Fehr & Peers Transportation Consultants (2023). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. Future traffic noise contours are mapped in Figure 4-4, Future Traffic Noise Contours. Table 5-4, Future (General Plan Buildout) Roadway Noise Levels, shows the calculated off-site roadway noise levels under existing traffic levels compared to future buildout under the proposed General Plan Update.

As previously described, a 5-dBA change is required before any noticeable change in community response is expected. Based on this fact, a significant increase in traffic noise is considered to be an increase in the existing ambient noise environment of at least 5 dBA CNEL. As reflected in Table 5-4, this analysis included a large sample of local roadways segments but did not include all roadways within Colfax. The analyzed segments were selected to illustrate potential changes in roadway noise throughout Colfax. Therefore, additional roadways segments in Colfax may experience increased traffic noise.

Table 5-4. Future (General Plan Buildout) Roadway Noise Levels								
Roadway Segment	CNEL at 50 Feet		Difference	Significant Increase	Distance to CNEL Contour (feet)			
	Existing	Existing plus Project			70 dBA	65 dBA	60 dBA	55 dBA
Interstate 80								
All of Colfax	75.1	76.7	1.6	No	139	300	646	1,392
Auburn Avenue								
South of I-80 WB Ramps	57.2	57.8	0.6	No	-	-	36	77
Between I-80 WB Ramps and SR 174 Overcrossing	58.9	59.2	0.3	No	-	-	44	95
Between SR 174 Overcrossing and Central Street	60.3	60.4	0.1	No	-	-	53	115
Between Central Street and Grass Valley Street	58.0	58.9	0.9	No	-	-	43	92
Canyon Way								
North of I-80 EB Ramp	49.6	51.6	2.0	No	-	-	-	-
Between I-80 EB Ramps and SR 174 Overcrossing	57.5	57.6	0.1	No	-	-	34	74
Between SR 174 Overcrossing and Iowa Hill Road	52.9	53.5	0.6	No	-	-	-	40
Between Illinoistown Road and I-80 EB Ramp	57.4	59.3	1.9	No	-	-	45	96
South of I-80 EB Ramp	50.9	52.5	1.6	No	-	-	-	34
Grass Valley Street								
West of Rising Sun Road	43.6	46.2	2.6	No	-	-	-	-
Between Rising Sun Road and Main Street	56.4	57.0	0.6	No	-	-	-	68

Table 5-4. Future (General Plan Buildout) Roadway Noise Levels								
Between Main Street and Auburn Avenue	57.9	58.2	0.3	No	-	-	38	82
East of Auburn Avenue	37.1	39.6	2.5	No	-	-	-	-
Rising Sun Road								
East of Ben Taylor Road/Tokayana Way	34.9	36.6	1.7	No	-	-	-	-
Between Ben Taylor Road and Grass Valley Street	56.3	57.4	1.1	No	-	-	34	72
Main Street								
South of Grass Valley Street	53.3	54.2	0.9	No	-	-	-	44
Between Grass Valley Street and Dinky Avenue	53.1	53.9	0.8	No	-	-	-	42
Between Dinky Avenue and Central Street	52.1	52.9	0.8	No	-	-	-	36
Forest Hill Street								
Between Grass Valley Street and Dinky Avenue	37.9	39.0	1.1	No	-	-	-	-
Central Street (SR 174)								
North of Main Street	64.7	66.3	1.6	No	-	61	131	282
Between Main Street and Auburn Avenue	62.1	64.2	2.1	No	-	44	95	204
West of Auburn Avenue	38.1	41.0	2.9	No	-	-	-	-
Dinky Avenue								
East of Foresthill Street	30.1	33.1	3.0	No	-	-	-	-
Between Main Street and Foresthill Street	34.9	37.3	2.4	No	-	-	-	-

Table 5-4. Future (General Plan Buildout) Roadway Noise Levels								
Tokayana Way/Ben Taylor Road								
North of Rising Sun Road	58.3	58.8	0.5	No	-	-	42	90
South of Rising Sun Road	53.9	55.1	1.2	No	-	-	-	51
West of Ben Taylor Road	37.5	39.6	2.1	No	-	-	-	-
Placer Hills Road								
Between Tokayana Way and I-80 WB Ramp	50.7	54.7	4.0	No	-	-	-	-
Between Illinoistown Road and I-80 WB Ramp	52.5	55.6	3.1	No	-	-	-	-

Source: Traffic noise levels on all City of Colfax roadways were calculated using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by Fehr & Peers Transportation Consultants 2023.

As shown in Table 5-4, no city roadway segment would experience an increase of more than 5.0 dBA CNEL over existing conditions with buildout anticipated under the proposed General Plan Update.

The Noise Element of the proposed General Plan addresses traffic noise as follows:

- **Policy 4.1.1:** Require new development to meet the noise compatibility standards identified in Table 4-1.
- **Policy 4.1.2:** Require the use of integrated design-related noise reduction measures for both interior and exterior areas prior to the use of noise barriers, buffers, or walls to reduce noise levels generated by or affected by new development.
- **Policy 4.1.3:** Non-architectural noise attenuation measures such as sound walls, setbacks, barriers, and berms shall be integrated into the design of the project and must be complementary in appearance to the surrounding neighborhood.
- **Policy 4.1.4:** Require development proposing to add people in areas where they may be exposed to major noise sources (e.g., roadways, rail lines, aircraft, industrial or other non-transportation noise sources) to conduct a project level noise analysis and implement recommended noise reduction measures.

All future projects subject to discretionary review under the proposed General Plan Update would be required to be evaluated for noise compatibility, including traffic noise compatibility. The proposed General Plan Policy 4.1.1 would require the integration of noise considerations into land use planning decisions to

minimize new traffic noise impacts to or from new development. Proposed Policies 4.1.2 and 4.1.3 provide a strong policy framework for minimizing noise impacts on noise-sensitive land uses due to traffic noise. Furthermore, proposed Policy 4.1.4 would require the submittal of a project level noise analysis in areas where they may be exposed to major noise sources such as roadways. The noise analyses at the project level would include refined evaluation of noise/land use compatibility in order to more precisely identify the existing ambient noise environment affecting the subject site, typically achieved through the conducting of baseline noise measurements with a sound level meter and/or calculating traffic noise from surrounding roadway facilities with regulatory traffic noise models, though this can also be achieved in many areas of the City by referring to the General Plan noise contours (Figures 4-2 and 4-4 of this report). The location-specific baseline noise measurements and/or traffic noise calculations presented in the acoustical analyses either demonstrate the noise/land use compatibility between a proposed land use and location or assist with the characterization of the ambient noise environment in a manner that allows for implementation of the appropriate noise attenuation measures necessary to protect the new noise-sensitive land use.

As shown in Table 5-4, no city roadway segment would experience an increase of more than 5.0 dBA CNEL over existing conditions with buildout anticipated under the proposed General Plan Update. With implementation of the proposed General Plan policies identified above, future development and activities under the proposed General Plan Update would result in a less than significant impact related to traffic noise sources.

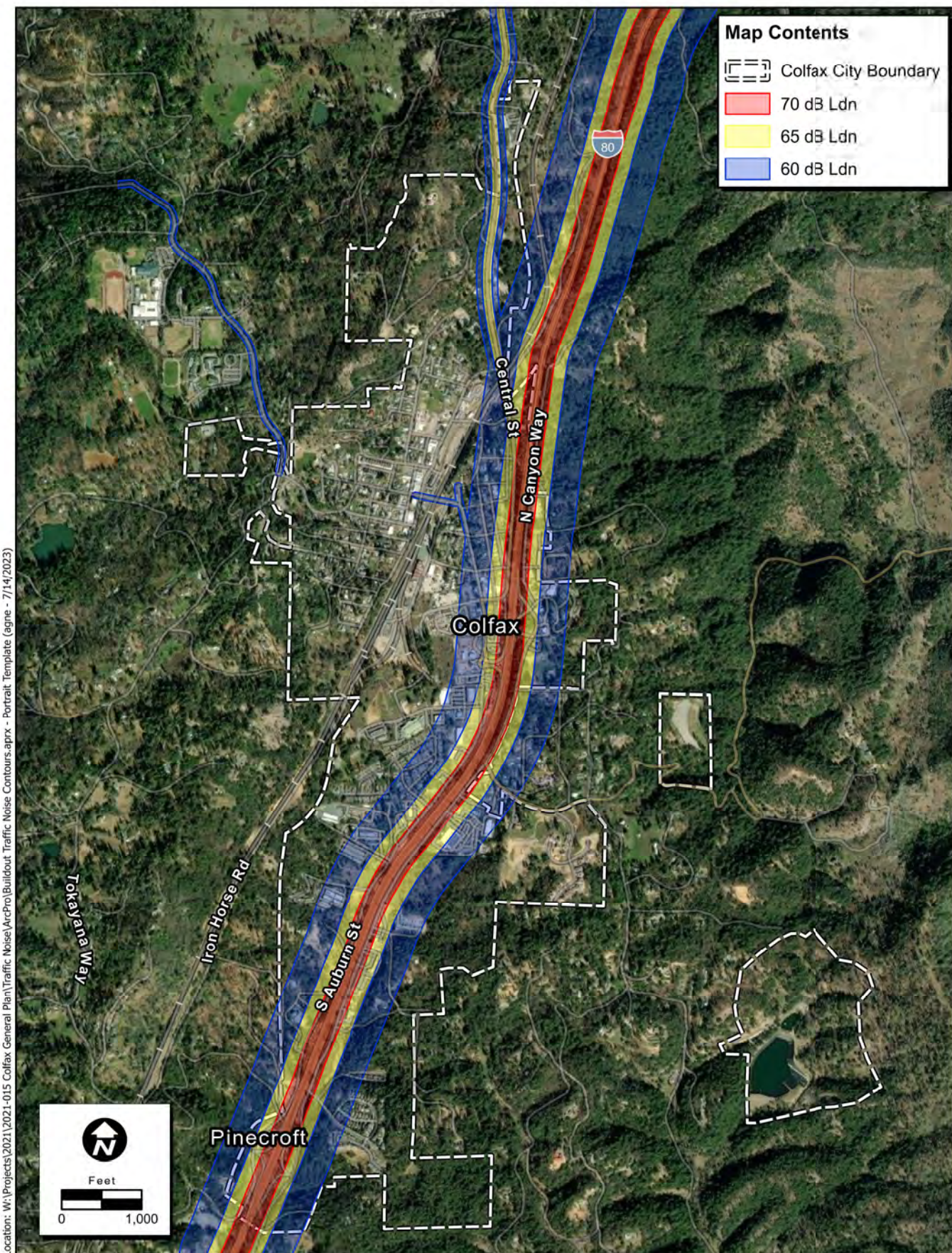


Figure 4-4 Buildout Traffic Noise Contours

5.3.2 The proposed General Plan Update would not result in the generation of excessive groundborne vibration or groundborne noise levels.

Construction Vibration

Future construction activities under the proposed General Plan Update have the potential to expose sensitive land uses within Colfax to groundborne vibration. Construction activities would occur in a variety of locations throughout Colfax and may require the use of off-road equipment known to generate some degree of vibration. Construction activities that generate excessive vibration, such as blasting, would not be expected to occur from future development due to the geography of Colfax and small number of properties with potential development, which reduces the likelihood of blasting during construction. Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and the sick), and equipment (e.g., magnetic resonance imaging equipment, high resolution lithographic, optical and electron microscopes). Regarding the potential effects of groundborne vibration to people, except for long-term occupational exposure, vibration levels rarely affect human health.

The majority of construction equipment is not situated at any one location during construction activities, but rather spread throughout a construction site and at various distances from sensitive receptors. Since specific future projects under the proposed General Plan Update are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be located within 50 feet of sensitive land uses. The primary vibration-generating activities would occur during grading, placement of underground utilities, and construction of foundations. Table 5-5, *Representative Vibration Source Levels for Construction Equipment*, shows the typical vibration levels produced by construction equipment at 50 feet.

Table 5-5. Representative Vibration Source Levels for Construction Equipment		
Equipment	Peak Particle Velocity at 50 Feet (inches per second)	Vibration Level Velocity at 50 Feet (VdB)
Pile Driver (Impact)	0.225	95
Pile Driver (Sonic)	0.059	84
Vibratory Roller	0.073	85
Hoe Ram	0.031	78
Large Bulldozer	0.031	78
Caisson Drilling	0.031	78
Loaded Trucks	0.026	77
Jackhammer	0.012	70
Small Bulldozer	0.001	49

Source: Caltrans 2020b

The Noise Element of the proposed General Plan addresses construction vibration as follows:

- **Policy 4.1.7:** Require new development to reduce vibration to 85 VdB or below at the property line.

Proposed General Plan Policy 4.1.7 limits construction vibration to 85 VdB as a way to protect historic/ older buildings as well as to avoid damage to residential structures and modern industrial/commercial buildings. Adherence to the vibration-reducing measures in the proposed Noise Element would ensure that vibration reduction is being provided to minimize the temporary impact that is construction. Construction vibration under the proposed General Plan Update would be less than significant.

Train Vibration

As discussed in Impact 5.3.1, the proposed General Plan Update would not generate any new train trips through Colfax. Vibration levels as a result of trains traveling along the existing railroad under the proposed General Plan Update would remain the same as existing conditions, unless otherwise changed by the respective rail authority. However, development under the proposed General Plan Update has the potential to locate new development along Union Pacific Railroad rail line, where it would potentially be exposed to substantial levels of vibration.

Passing trains create vibration events that last approximately 2 minutes, though it is extremely rare for vibration from train operations to cause substantial or even minor cosmetic building damage (Federal Transit Administration 2018). Older, historic buildings often considered fragile are the predominate source of concern from rail-related vibration (Federal Transit Administration 2018). According to the Federal Transit Administration, groundborne vibration from “locomotive-powered passenger and freight rail” is readily perceptible at distances of less than 50 feet between the track and building foundations (85 VdB), while vibration from “rapid transit/light rail” is barely perceptible at that distance (75 VdB) (Federal Transit Administration 2018). While each building has different characteristics relative to structure-borne vibration, in general, the heavier the building, the lower the levels of vibration. Additionally, community (human) response to vibration correlates with the frequency of events and, intuitively, more frequent events of low vibration levels may evoke the same response as fewer high vibration level events.

Table 5-6, *Representative Train Vibration Levels*, identifies train vibration levels at several distances within 200 feet, as determined by the Federal Transit Administration.

Table 5-6. Representative Train Vibration Levels

Distance to Source (Feet)	Locomotive-Powered Trains (VdB)	Rapid Transit/Light Rail (VdB)
10	95	82
25	90	78
50	85	74
75	82	70
100	79	68
125	78	66
150	78	64
175	73	62
200	71	60

Source: Federal Transit Administration 2018

The Noise Element of the proposed General Plan addresses train vibration as follows:

- **Policy 4.1.7:** Require new development to reduce vibration to 85 VdB or below at the property line.

As shown in Table 5-6, a locomotive-powered train traversing at a distance of 10 feet from a receptor could be expected to result in 95 VdB at the receptor, which is the threshold at which there is a risk of architectural damage to older residential structures. The construction of new buildings under the proposed General Plan Update would be done in conformance with the most recent building standards, reducing the potential for damage to buildings from typical rail vibration. Adherence to proposed General Plan Policy 4.1.7 would ensure that train-induced vibration under the proposed would be less than significant.

5.3.3 The proposed General Plan Update would not expose people residing or working in the project area to excessive noise levels within the vicinity of a private airstrip or an airport land use plan.

Aircraft overflight occurs regularly as the city is near the Tahoe Regional Airport, however the city is not within an airport overflight area and is outside of any airport noise contours. Therefore, people within Colfax would not be exposed to excessive noise levels and there would be no impact.

5.3.4 The proposed General Plan Update, in combination with past, present, and reasonably foreseeable projects, would result in cumulative traffic noise impacts in the area.

Cumulative Construction Noise and Vibration

Construction noise impacts primarily affect the areas immediately adjacent to the construction site. Development that could occur with implementation of the proposed General Plan Update and cumulative development within nearby areas of Placer County could be constructed contemporaneously and could result in construction noise levels higher than those of development of under the proposed General Plan Update alone at some receptor locations. As discussed above, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 101.3 dBA L_{max} at 50 feet and 67.7 dBA to 94.3 dBA L_{eq} at 50 feet. The City of Colfax has established and enforces noise standards for construction activity including allowable hours for construction activity as well as noise levels. Therefore, while the potential exists for construction projects under the proposed General Plan Update and other foreseeable development to occur simultaneously and in proximity to one another, construction equipment operations would operate within the constraints of the City of Colfax Municipal Code.

The potential for a cumulative vibration-related damage impact is minimal as vibration impacts are based on approximate VdB levels. Thus, worst-case groundborne vibration levels from construction are determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, approximate vibration levels do not combine in this manner. Vibration from multiple construction sites, even if they are located close to one another, would not combine to raise the maximum VdB. Therefore, vibration impacts resulting from construction of future development under the proposed General Plan Update would not combine with vibration effects from cumulative projects in the vicinity and the impact would be less than significant.

Cumulative Stationary Source Noise

Long-term stationary noise sources associated with the development and activities under the proposed General Plan Update, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed General Plan Update and cumulative development combined could result in higher noise levels than considered separately. However, as described above, proposed General Plan Policies 4.4.1, 4.1.2, 4.1.3, 4.1.4, 4.2.1 and 4.2.2 would protect the inhabitants of the City against all forms of nuisances, including stationary source noise. With implementation and adherence to the previously listed proposed policies, future development under the proposed General Plan Update and cumulative development combined would not create cumulatively considerable stationary noise sources and the impact would be less than significant.

Cumulative Traffic Noise

The discussion of cumulative operational traffic noise impacts assesses whether future development under the proposed project, in conjunction with overall citywide growth and other cumulative projects, would significantly affect the roadway noise and, if so, whether the proposed project's contribution to the cumulative impact would be considerable. The analysis contained in Impact 5.3.1 above is largely a cumulative analysis in that the transportation modeling also includes the citywide and regional changes in housing units and employment that would occur through the General Plan horizon. Thus, Impact 5.3.1 considers the changes in travel demand projected to occur through the General Plan horizon due to land

use growth, and the cumulative transportation and infrastructure projects anticipated to be completed both inside and outside Colfax. As identified in Impact 5.3.1, no city roadway segment would experience an increase of more than 5.0 dBA CNEL over existing conditions with buildout anticipated under the proposed General Plan Update and this impact would be less than significant.

6.0 REFERENCES

- Caltrans. 2020a. Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects.
- _____. 2020b. Transportation and Construction Vibration Guidance Manual
- _____. 2002. California Airport Land Use Planning Handbook
- Colfax, City of. 2023. City of Colfax General Plan 2040.
- _____. 2023. City of Colfax Municipal Code.
- Federal Highway Administration. 2017a. Construction Noise Handbook.
https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook02.cfm.
- _____. 2017b. Effective Noise Control During Nighttime Construction.
http://ops.fhwa.dot.gov/wz/workshops/accessible/schexnayder_paper.htm.
- _____. 2006. Roadway Construction Noise Model.
- Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment.
- Federal Aviation Administration Advisory Circular. 1983. Number 150 5020 2, Noise Control and Compatibility Planning for Airports.
- Fehr & Peers Transportation Consultants. 2023. City of Colfax Transportation Analysis.
- Harris Miller, Miller & Hanson Inc. 2006. Transit Noise and Vibration Impact Assessment, Final Report.
- Western Electro-Acoustic Laboratory, Inc. 2000. Sound Transmission Sound Test Laboratory Report No. TL 96-186.

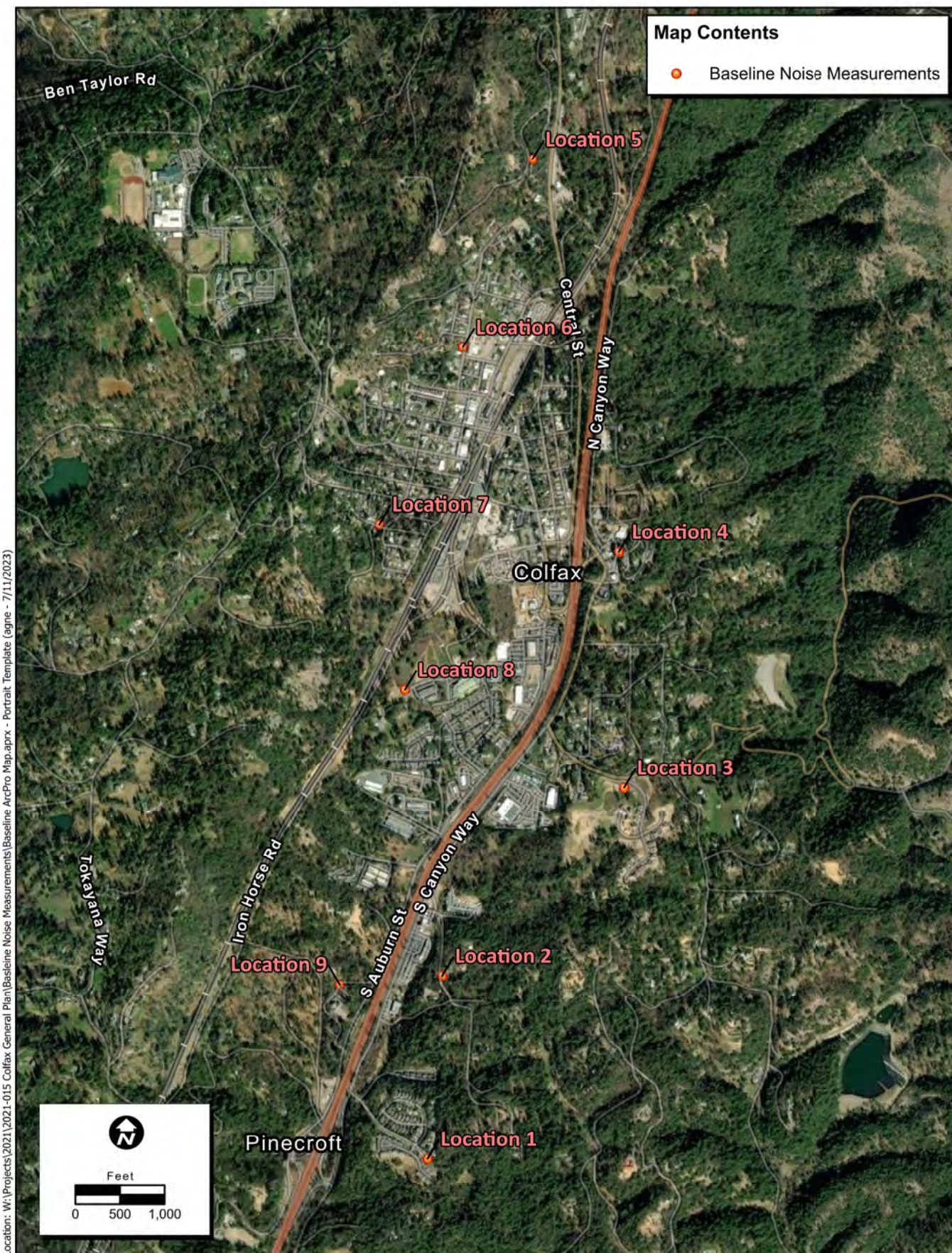
LIST OF ATTACHMENTS

Attachment A - Baseline (Existing) Noise Measurements

Attachment B - FHWA Highway Traffic Noise Prediction Model

ATTACHMENT A

Baseline (Existing) Noise Measurements



Location: W:\Projects\2021-015 Colfax General Plan\Baseline Noise Measurements\Baseline ArcPro Map.aprx - Portrait Template (agme - 7/11/2023)

Map Date: 7/11/2023
Sources: Esri 2023

Noise Measurement Locations Map

Site Number: 1			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 9:30 a.m. – 9:45 a.m.			
Location: End of Canyon Creek Drive adjacent to undeveloped property and House 301.			
Source of Peak Noise: Dogs barking, people taking and vehicles on area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
46.5	38.5	63.5	104.0

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = -0.01			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Wind Ave Speed (mph)	
	4		71		4	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.002.s	Computer's File Name	LxT_0006133-20230710 093016-LxT_Data.002.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 09:30:16	Duration	0:15:00.0		
End Time	2023-07-10 09:45:16	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 09:29:17	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	46.5 dB		
LAE	76.0 dB	SEA	--- dB
EA	4.5 μPa²h		
EA8	142.9 μPa²h		
EA40	714.7 μPa²h		
LZS _{peak}	104.0 dB		2023-07-10 09:32:09
LAS _{max}	63.5 dB		2023-07-10 09:32:09
LAS _{min}	38.5 dB		2023-07-10 09:33:10
LA _{eq}	46.5 dB		
LC _{eq}	60.8 dB	LC _{eq} - LA _{eq}	14.3 dB
LA _{eq}	51.4 dB	LAI _{eq} - LA _{eq}	4.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
46.5 dB	46.5 dB	0.0 dB	
LDEN	LDay	LEve	LNight
46.5 dB	46.5 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	46.5 dB		--- dB		--- dB	
L _{S(max)}	63.5 dB	2023-07-10 09:32:09	--- dB	None	--- dB	None
L _{S(min)}	38.5 dB	2023-07-10 09:33:10	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	104.0 dB	2023-07-10 09:32:09

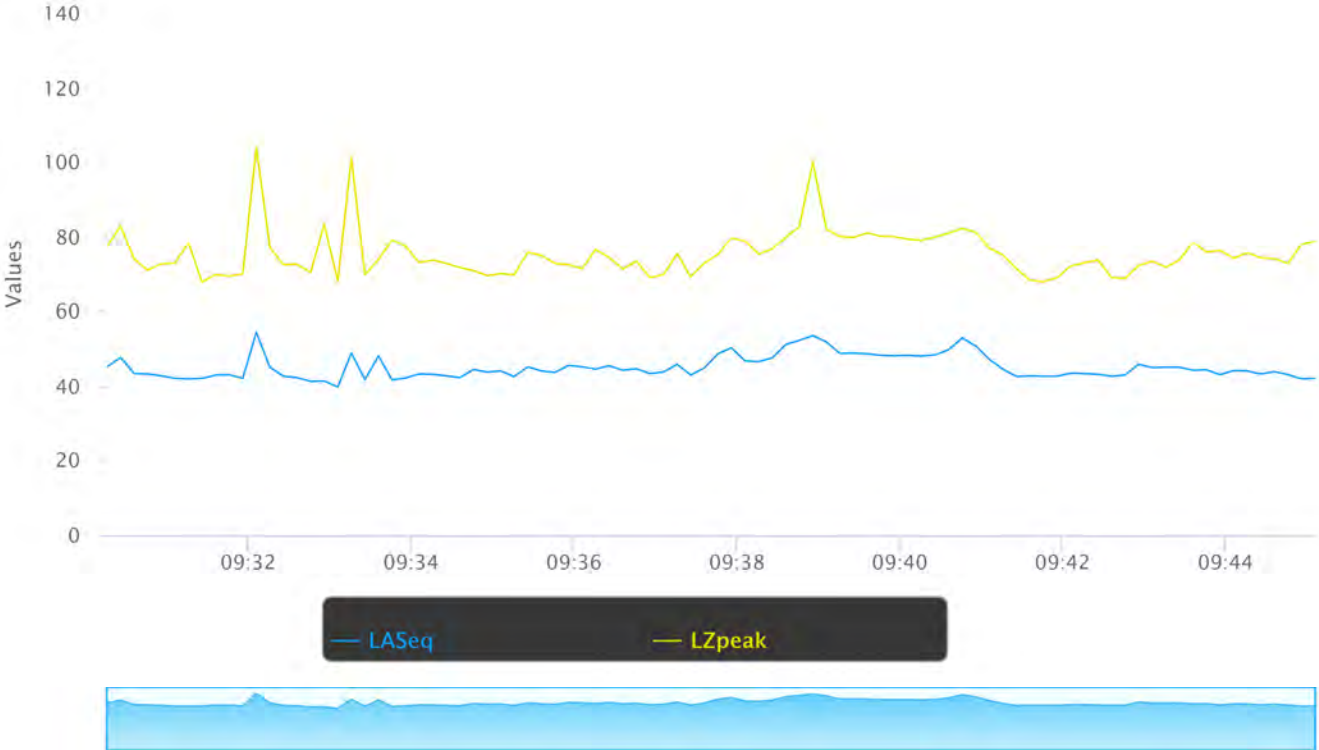
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	51.4 dB
LAS 10.0	49.3 dB
LAS 33.3	45.2 dB
LAS 50.0	43.9 dB
LAS 66.6	43.0 dB
LAS 90.0	41.9 dB

Time History



Site Number: 2			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 9:51 a.m. – 10:06 a.m.			
Location: On Old Illinoistown Road east of the Winner Chevrolet adjacent to driveway 1550.			
Source of Peak Noise: Vehicles on Old Illinoistown Road and other area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
57.7	51.0	74.4	104.7

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = -0.01			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	4		72		29.93	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.003.s	Computer's File Name	LxT_0006133-20230710 095108-LxT_Data.003.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 09:51:08	Duration	0:15:00.0		
End Time	2023-07-10 10:06:08	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 09:29:16	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	57.7 dB		
LAE	87.2 dB	SEA	--- dB
EA	58.9 μPa²h		
EA8	1.9 mPa²h		
EA40	9.4 mPa²h		
LZS _{peak}	104.7 dB		2023-07-10 10:00:17
LAS _{max}	74.4 dB		2023-07-10 10:00:17
LAS _{min}	51.0 dB		2023-07-10 09:51:47
LA _{eq}	57.7 dB		
LC _{eq}	67.1 dB	LC _{eq} - LA _{eq}	9.4 dB
LA _{eq}	59.6 dB	LAI _{eq} - LA _{eq}	1.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
57.7 dB	57.7 dB	0.0 dB	
LDEN	LDay	LEve	LNight
57.7 dB	57.7 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	57.7 dB		--- dB		--- dB	
L _{S(max)}	74.4 dB	2023-07-10 10:00:17	--- dB	None	--- dB	None
L _{S(min)}	51.0 dB	2023-07-10 09:51:47	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	104.7 dB	2023-07-10 10:00:17

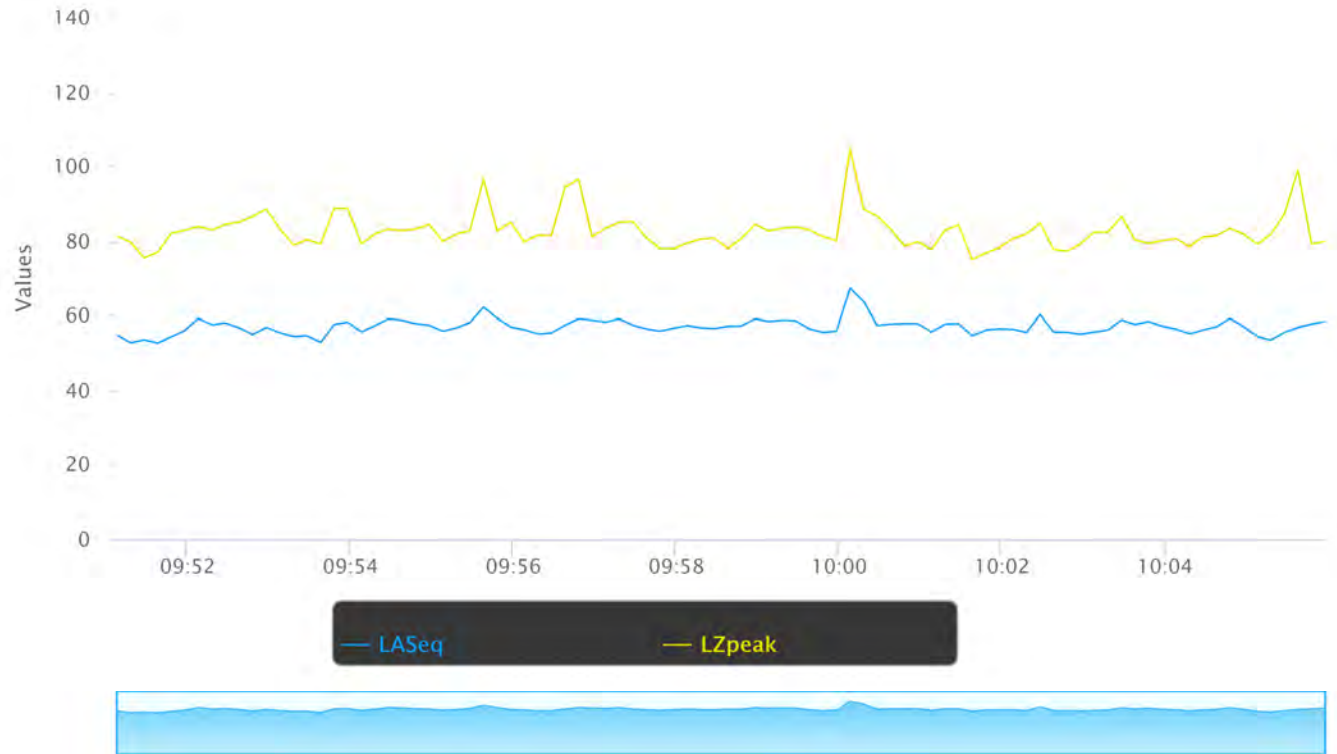
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	59.5 dB
LAS 10.0	59.0 dB
LAS 33.3	57.6 dB
LAS 50.0	56.7 dB
LAS 66.6	56.0 dB
LAS 90.0	54.3 dB

Time History



Site Number: 3			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 10:18 a.m. – 10:33 a.m.			
Location: On Sierra Oaks Drive adjacent to undeveloped land and Sierra Oaks Estates residential development.			
Source of Peak Noise: People talking, birds chirping and vehicles on Iowa Hills Road & Sierra Oaks Drive.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
42.2	35.3	64.1	104.5

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = 0.05			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	4		74		29.93	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.004.s	Computer's File Name	LxT_0006133-20230710 101822-LxT_Data.004.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 10:18:22	Duration	0:15:00.0		
End Time	2023-07-10 10:33:22	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 10:13:46	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	42.2 dB		
LAE	71.7 dB	SEA	--- dB
EA	1.7 μPa²h		
EA8	53.1 μPa²h		
EA40	265.5 μPa²h		
LZS _{peak}	104.5 dB		2023-07-10 10:18:40
LAS _{max}	64.1 dB		2023-07-10 10:18:40
LAS _{min}	35.3 dB		2023-07-10 10:18:36
LA _{eq}	42.2 dB		
LC _{eq}	57.2 dB	LC _{eq} - LA _{eq}	15.0 dB
LA _{eq}	50.5 dB	LAI _{eq} - LA _{eq}	8.3 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
42.2 dB	42.2 dB	0.0 dB	
LDEN	LDay	LEve	LNight
42.2 dB	42.2 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	42.2 dB		--- dB		--- dB	
L _{S(max)}	64.1 dB	2023-07-10 10:18:40	--- dB	None	--- dB	None
L _{S(min)}	35.3 dB	2023-07-10 10:18:36	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	104.5 dB	2023-07-10 10:18:40

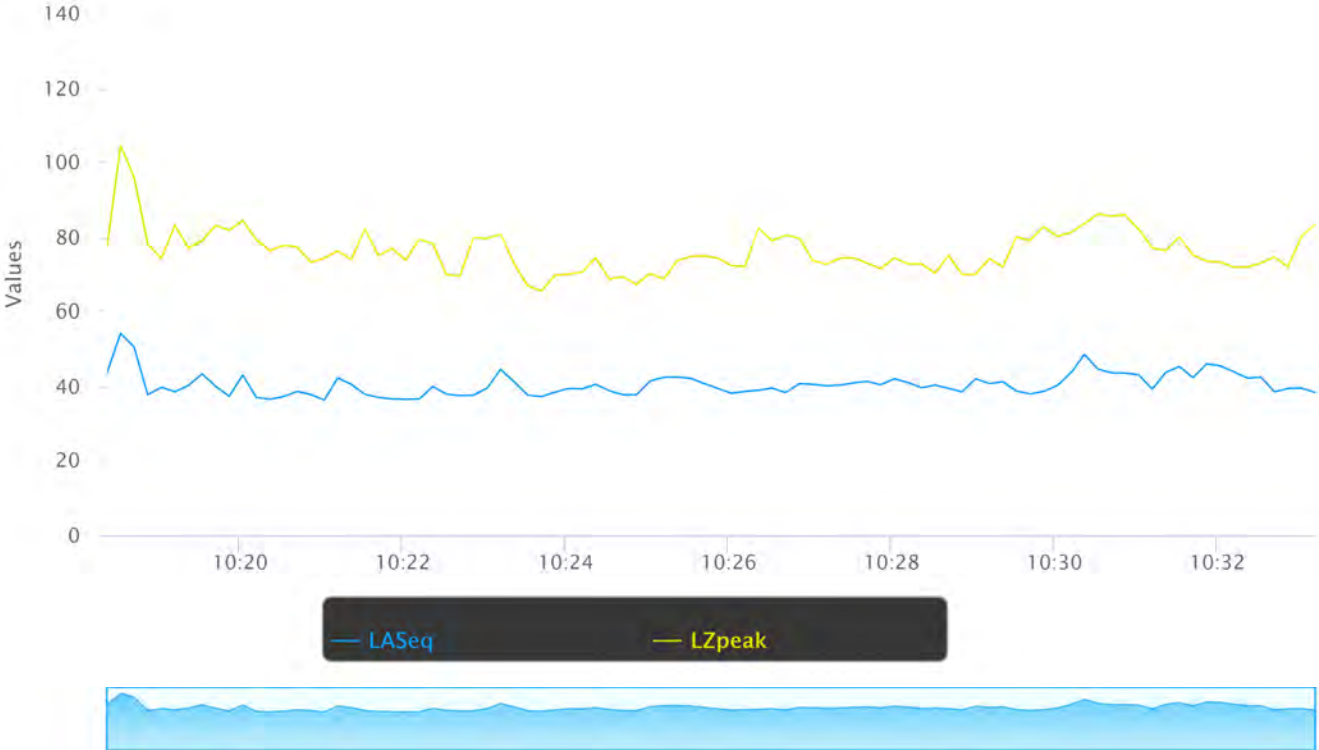
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	45.8 dB
LAS 10.0	44.0 dB
LAS 33.3	40.7 dB
LAS 50.0	39.5 dB
LAS 66.6	38.4 dB
LAS 90.0	37.1 dB

Time History



Site Number: 4			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 10:43 a.m. -10:58 a.m.			
Location: On Canyon Court between the Canyon View Apartments and Standlock Bottle Shop.			
Source of Peak Noise: Vehicles on Interstate 80 and other area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
59.8	51.0	70.1	102.8

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = 0.05			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	5		76		29.93	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.005.s	Computer's File Name	LxT_0006133-20230710 104336-LxT_Data.005.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 10:43:36	Duration	0:15:00.0		
End Time	2023-07-10 10:58:36	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 10:13:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	59.8 dB		
LAE	89.3 dB	SEA	--- dB
EA	95.5 $\mu\text{Pa}^2\text{h}$		
EA8	3.1 mPa^2h		
EA40	15.3 mPa^2h		
LZS _{peak}	102.8 dB		2023-07-10 10:43:51
LAS _{max}	70.1 dB		2023-07-10 10:43:52
LAS _{min}	51.0 dB		2023-07-10 10:44:44
LA _{eq}	59.8 dB		
LC _{eq}	68.7 dB	LC _{eq} - LA _{eq}	8.9 dB
LAI _{eq}	60.6 dB	LAI _{eq} - LA _{eq}	0.8 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
59.8 dB	59.8 dB	0.0 dB	
LDEN	LDay	LEve	LNight
59.8 dB	59.8 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	59.8 dB		--- dB		--- dB	
L _{S(max)}	70.1 dB	2023-07-10 10:43:52	--- dB	None	--- dB	None
L _{S(min)}	51.0 dB	2023-07-10 10:44:44	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	102.8 dB	2023-07-10 10:43:51

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	62.6 dB
LAS 10.0	61.8 dB
LAS 33.3	60.2 dB
LAS 50.0	59.2 dB
LAS 66.6	58.3 dB
LAS 90.0	56.2 dB

Time History



Site Number: 5			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 11:06 a.m. – 11:21 a.m.			
Location: On Knorr Swiss approximately 0.25 miles from State Route 174.			
Source of Peak Noise: Vehicles on State Route 174.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
50.1	44.6	61.9	99.0

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = 0.05			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	5		77		29.93	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.006.s	Computer's File Name	LxT_0006133-20230710 110628-LxT_Data.006.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 11:06:28	Duration	0:15:00.0		
End Time	2023-07-10 11:21:28	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 10:13:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	50.1 dB		
LAE	79.6 dB	SEA	--- dB
EA	10.2 μPa²h		
EA8	327.5 μPa²h		
EA40	1.6 mPa²h		
LZS _{peak}	99.0 dB		2023-07-10 11:16:24
LAS _{max}	61.9 dB		2023-07-10 11:12:10
LAS _{min}	44.6 dB		2023-07-10 11:13:13
LA _{eq}	50.1 dB		
LC _{eq}	60.3 dB	LC _{eq} - LA _{eq}	10.2 dB
LA _{eq}	52.4 dB	LAI _{eq} - LA _{eq}	2.3 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
50.1 dB	50.1 dB	0.0 dB	
LDEN	LDay	LEve	LNight
50.1 dB	50.1 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	50.1 dB		--- dB		--- dB	
L _{S(max)}	61.9 dB	2023-07-10 11:12:10	--- dB	None	--- dB	None
L _{S(min)}	44.6 dB	2023-07-10 11:13:13	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	99.0 dB	2023-07-10 11:16:24

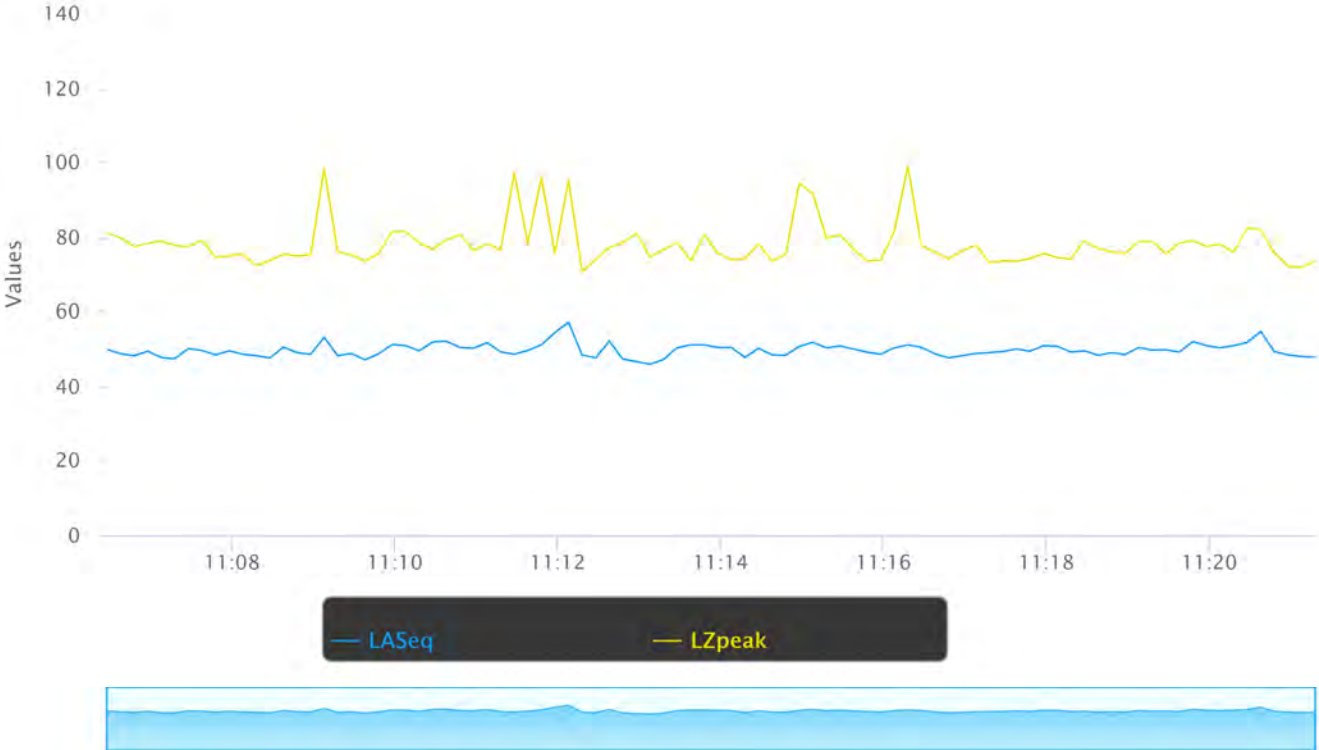
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	52.9 dB
LAS 10.0	51.8 dB
LAS 33.3	50.0 dB
LAS 50.0	49.3 dB
LAS 66.6	48.5 dB
LAS 90.0	47.4 dB

Time History



Site Number: 6			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 11:33 a.m. – 11:48 a.m.			
Location: On Pleasant Street adjacent to House 200.			
Source of Peak Noise: Vehicles on area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
50.3	38.2	68.2	97.5

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = 0.05			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	6		79		29.92	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.007.s	Computer's File Name	LxT_0006133-20230710 113312-LxT_Data.007.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 11:33:12	Duration	0:15:00.0		
End Time	2023-07-10 11:48:12	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 10:13:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	50.3 dB		
LAE	79.8 dB	SEA	--- dB
EA	10.7 μPa²h		
EA8	342.9 μPa²h		
EA40	1.7 mPa²h		
LZS _{peak}	97.5 dB		2023-07-10 11:33:30
LAS _{max}	68.2 dB		2023-07-10 11:39:54
LAS _{min}	38.2 dB		2023-07-10 11:44:31
LA _{eq}	50.3 dB		
LC _{eq}	62.9 dB	LC _{eq} - LA _{eq}	12.6 dB
LA _{eq}	53.5 dB	LAI _{eq} - LA _{eq}	3.2 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
50.3 dB	50.3 dB	0.0 dB	
LDEN	LDay	LEve	LNight
50.3 dB	50.3 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	50.3 dB		--- dB		--- dB	
L _{S(max)}	68.2 dB	2023-07-10 11:39:54	--- dB	None	--- dB	None
L _{S(min)}	38.2 dB	2023-07-10 11:44:31	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	97.5 dB	2023-07-10 11:33:30

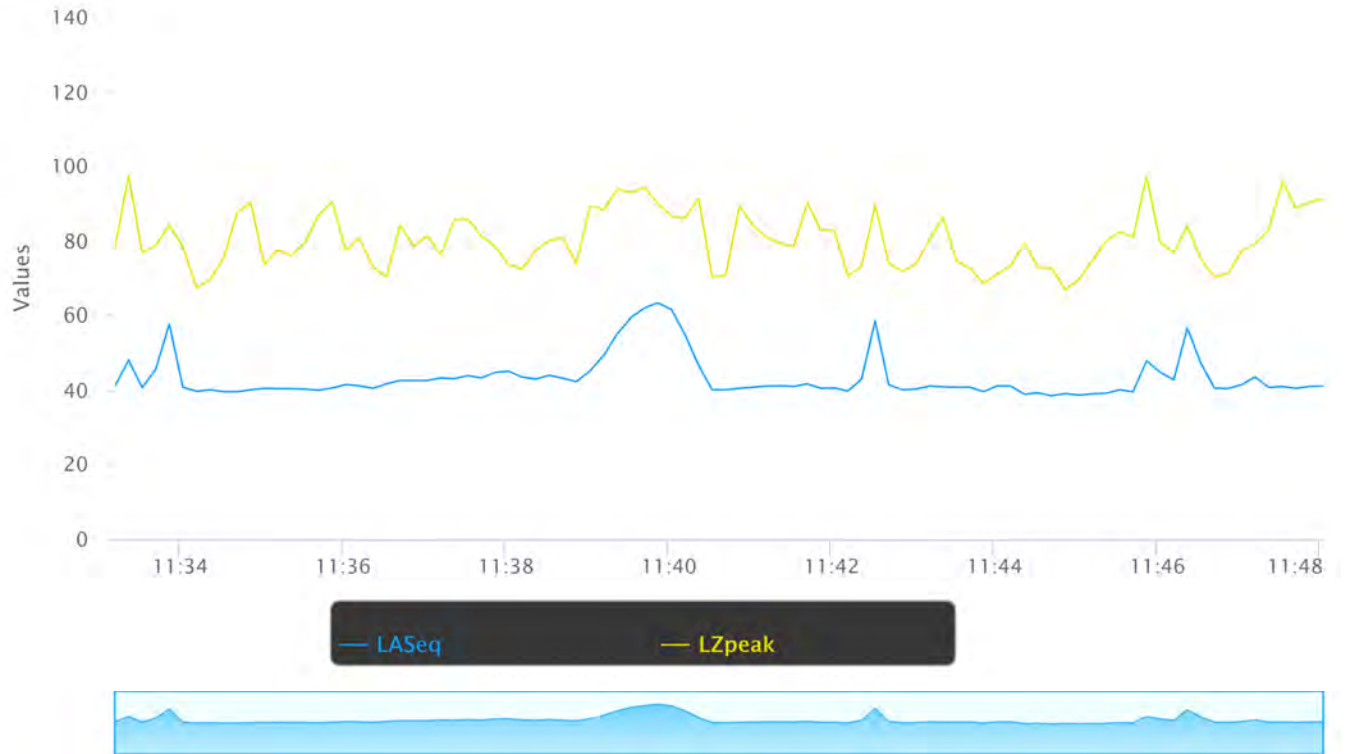
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	58.1 dB
LAS 10.0	50.0 dB
LAS 33.3	42.1 dB
LAS 50.0	41.0 dB
LAS 66.6	40.3 dB
LAS 90.0	39.3 dB

Time History



Site Number: 7			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 12:01 p.m. – 12:16 p.m.			
Location: Pine Street and Lincoln Street Intersection.			
Source of Peak Noise: People taking and vehicles on area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
40.8	33.0	60.6	96.6

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = 0.05			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	6		79		29.92	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.008.s	Computer's File Name	LxT_0006133-20230710 120116-LxT_Data.008.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 12:01:16	Duration	0:15:00.0		
End Time	2023-07-10 12:16:16	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 10:13:45	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	40.8 dB		
LAE	70.3 dB	SEA	--- dB
EA	1.2 μPa²h		
EA8	38.5 μPa²h		
EA40	192.4 μPa²h		
LZS _{peak}	96.6 dB		2023-07-10 12:01:38
LAS _{max}	60.0 dB		2023-07-10 12:10:14
LAS _{min}	33.0 dB		2023-07-10 12:01:16
LA _{eq}	40.8 dB		
LC _{eq}	53.8 dB	LC _{eq} - LA _{eq}	13.0 dB
LA _{eq}	43.7 dB	LAI _{eq} - LA _{eq}	2.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
40.8 dB	40.8 dB	0.0 dB	
LDEN	LDay	LEve	LNight
40.8 dB	40.8 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	40.8 dB		--- dB		--- dB	
L _{S(max)}	60.0 dB	2023-07-10 12:10:14	--- dB	None	--- dB	None
L _{S(min)}	33.0 dB	2023-07-10 12:01:16	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	96.6 dB	2023-07-10 12:01:38

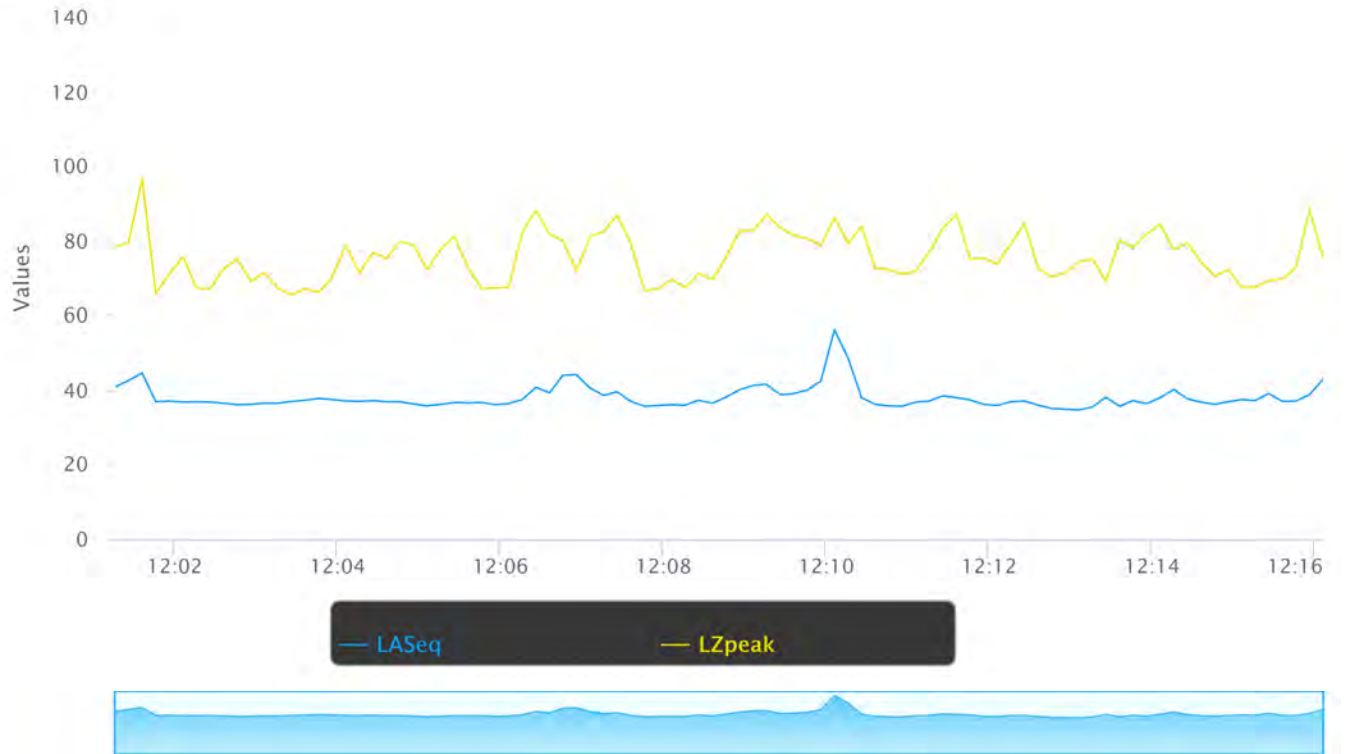
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	43.1 dB
LAS 10.0	40.8 dB
LAS 33.3	37.6 dB
LAS 50.0	37.0 dB
LAS 66.6	36.6 dB
LAS 90.0	35.7 dB

Time History



Site Number: 8			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 12:25 p.m. – 12:40 p.m.			
Location: End of cul-de-sac on Witcomb Avenue.			
Source of Peak Noise: Vehicles on area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
42.9	39.1	58.6	98.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = -0.24			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	7		81		29.92	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.009.s	Computer's File Name	LxT_0006133-20230710 122549-LxT_Data.009.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 12:25:49	Duration	0:15:00.0		
End Time	2023-07-10 12:40:49	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 12:25:32	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	42.9 dB		
LAE	72.4 dB	SEA	--- dB
EA	1.9 µPa²h		
EA8	62.4 µPa²h		
EA40	312.0 µPa²h		
LZS _{peak}	98.4 dB		2023-07-10 12:26:19
LAS _{max}	58.6 dB		2023-07-10 12:26:19
LAS _{min}	39.1 dB		2023-07-10 12:40:34
LA _{eq}	42.9 dB		
LC _{eq}	56.4 dB	LC _{eq} - LA _{eq}	13.5 dB
LA _{eq}	48.7 dB	LAI _{eq} - LA _{eq}	5.8 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
42.9 dB	42.9 dB	0.0 dB	
LDEN	LDay	LEve	LNight
42.9 dB	42.9 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	42.9 dB		--- dB		--- dB	
L _{S(max)}	58.6 dB	2023-07-10 12:26:19	--- dB	None	--- dB	None
L _{S(min)}	39.1 dB	2023-07-10 12:40:34	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	98.4 dB	2023-07-10 12:26:19

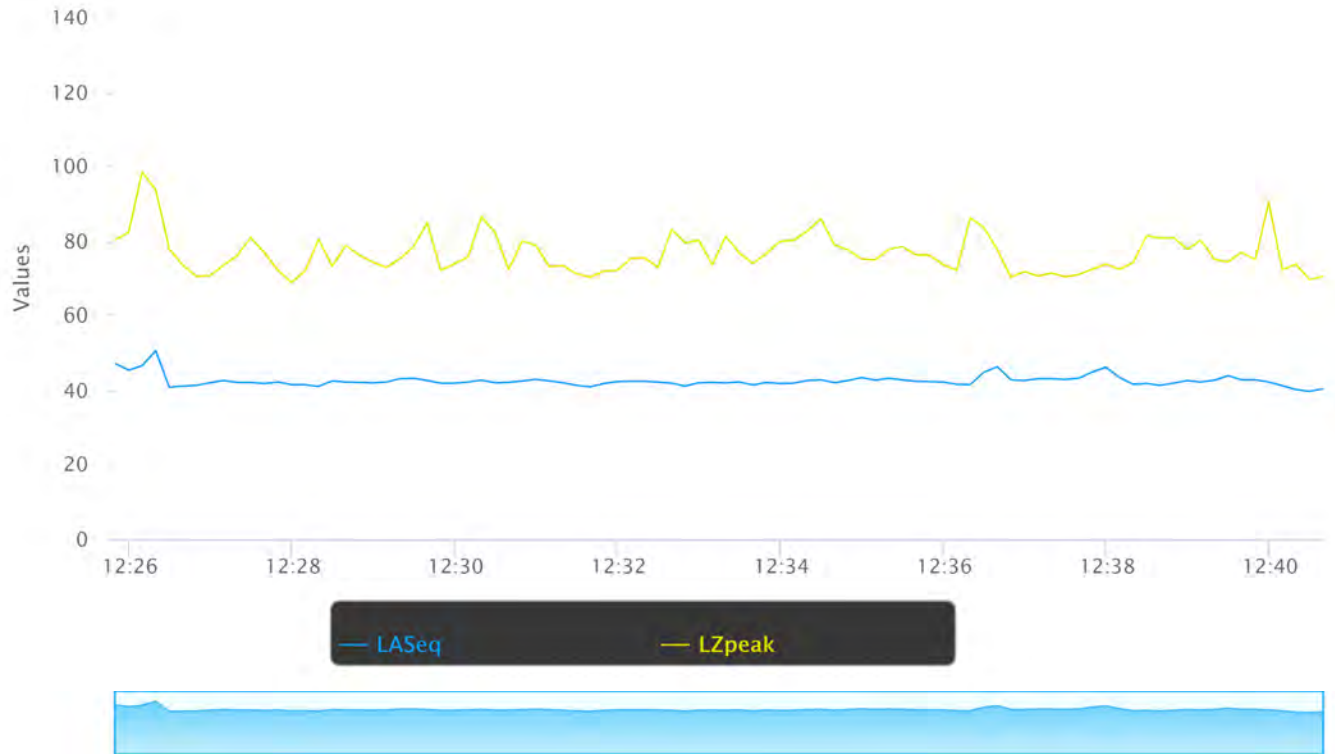
Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	44.7 dB
LAS 10.0	43.4 dB
LAS 33.3	42.5 dB
LAS 50.0	42.2 dB
LAS 66.6	41.9 dB
LAS 90.0	41.1 dB

Time History



Site Number: 9			
Recorded By: Rosey Worden			
Job Number: 2021-015			
Date: 7/10/2023			
Time: 12:55 p.m. – 1:10 p.m.			
Location: On South Auburn Street adjacent to the entrance to the Church of Jesus Christ of Latter-day Saints.			
Source of Peak Noise: Vehicles on area roadways.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
57.3	52.6	64.0	100.0

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	05/25/2023	
	Microphone	Larson Davis	377B02	346688	05/23/2023	
	Preamp	Larson Davis	PRMLxT1L	069947	05/25/2023	
	Calibrator	Larson Davis	CAL200	17325	05/12/2023	
Weather Data						
Est.	Duration: 15 min.			Sky: Clear		
	Note: dBA Offset = -0.24			Sensor Height (ft): 3.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	7		81		29.92	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.010.s	Computer's File Name	LxT_0006133-20230710 125509-LxT_Data.010.ldbin		
Meter	LxT1 0006133	Firmware	2.404		
User		Location			
Job Description					
Note					
Start Time	2023-07-10 12:55:09	Duration	0:15:00.0		
End Time	2023-07-10 13:10:09	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2023-07-10 12:25:28	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	57.3 dB		
LAE	86.8 dB	SEA	--- dB
EA	53.7 μPa²h		
EA8	1.7 mPa²h		
EA40	8.6 mPa²h		
LZS _{peak}	100.0 dB		2023-07-10 12:55:33
LAS _{max}	64.0 dB		2023-07-10 13:09:05
LAS _{min}	52.6 dB		2023-07-10 13:04:23
LA _{eq}	57.3 dB		
LC _{eq}	68.2 dB	LC _{eq} - LA _{eq}	10.9 dB
LA _{eq}	58.0 dB	LAI _{eq} - LA _{eq}	0.7 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
57.3 dB	57.3 dB	0.0 dB	
LDEN	LDay	LEve	LNight
57.3 dB	57.3 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	57.3 dB		--- dB		--- dB	
L _{S(max)}	64.0 dB	2023-07-10 13:09:05	--- dB	None	--- dB	None
L _{S(min)}	52.6 dB	2023-07-10 13:04:23	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	100.0 dB	2023-07-10 12:55:33

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	59.9 dB
LAS 10.0	59.5 dB
LAS 33.3	58.2 dB
LAS 50.0	56.6 dB
LAS 66.6	55.6 dB
LAS 90.0	54.3 dB

Time History



FHWA Highway Traffic Noise Prediction Model

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 2021-015

Project Name: Colfax General Plan

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Source of Traffic Volumes: Fehr & Peers Transportation Consultants (2023)

Community Noise Descriptor: L_{dn} CNEL: x

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		CNEL at 50 Feet	Distance from Centerline of Roadway Distance to Contour				
						Medium Trucks	Heavy Trucks		70 CNEL	65 CNEL	60 CNEL	55 CNEL	
Auburn Avenue													
South of I-80 WB Ramps	2	0	4,608	25	0.5	1.8%	0.7%	57.2	-	-	33	70	
Between I-80 WB Ramps and SR 174 Overcrossing	2	0	6,768	25	0.5	1.8%	0.7%	58.9	-	-	42	91	
Between SR 174 Overcrossing and Central Street	2	0	9,261	25	0.5	1.8%	0.7%	60.3	-	-	52	112	
Between Central Street and Grass Valley Street	2	0	5,535	25	0.5	1.8%	0.7%	58.0	-	-	37	80	
Canyon Way													
North of I-80 EB Ramp	2	0	801	25	0.5	1.8%	0.7%	49.6	-	-	-	-	
Between I-80 EB Ramps and SR 174 Overcrossing	2	0	4,914	25	0.5	1.8%	0.7%	57.5	-	-	34	74	
Between SR 174 Overcrossing and Iowa Hill Road	2	0	1,719	25	0.5	1.8%	0.7%	52.9	-	-	-	36	
Between Illinoistown Road and I-80 EB Ramp	2	0	1,440	45	0.5	1.8%	0.7%	57.4	-	-	33	72	
South of I-80 EB Ramp	2	0	324	45	0.5	1.8%	0.7%	50.9	-	-	-	-	
Grass Valley Street													
West of Rising Sun Road	2	0	198	25	0.5	1.8%	0.7%	43.6	-	-	-	-	
Between Rising Sun Road and Main Street	2	0	3,771	25	0.5	1.8%	0.7%	56.4	-	-	-	62	
Between Main Street and Auburn Avenue	2	0	5,409	25	0.5	1.8%	0.7%	57.9	-	-	36	78	
East of Auburn Avenue	1	0	45	25	0.5	1.8%	0.7%	37.1	-	-	-	-	
Rising Sun Road													
West of Ben Taylor Road/Tokayana Way	2	0	27	25	0.5	1.8%	0.7%	34.9	-	-	-	-	
Between Ben Taylor Road and Grass Valley Street	2	0	3,744	25	0.5	1.8%	0.7%	56.3	-	-	-	61	

Main Street												
South of Grass Valley Street	2	0	1,881	25	0.5	1.8%	0.7%	53.3	-	-	-	39
Between Grass Valley Street and Dinky Avenue	2	0	1,791	25	0.5	1.8%	0.7%	53.1	-	-	-	38
Between Dinky Avenue and Central Street	2	0	1,404	25	0.5	1.8%	0.7%	52.1	-	-	-	-
Forest Hill Street												
Between Grass Valley Street and Dinky Avenue	2	0	54	25	0.5	1.8%	0.7%	37.9	-	-	-	-
Central Street (SR 174)												
North of Main Street	2	0	4,779	55	0.5	1.8%	0.7%	64.7	-	48	103	223
Between Main Street and Auburn Avenue	2	0	4,293	45	0.5	1.8%	0.7%	62.1	-	32	69	149
West of Auburn Avenue	2	0	234	10	0.5	1.8%	0.7%	38.1	-	-	-	-
Dinky Avenue												
East of Foresthill Street	2	0	9	25	0.5	1.8%	0.7%	30.1	-	-	-	-
Between Main Street and Foresthill Street	2	0	27	25	0.5	1.8%	0.7%	34.9	-	-	-	-
Tokayana Way/Ben Taylor Road												
North of Rising Sun Road	2	0	3,222	35	0.5	1.8%	0.7%	58.3	-	-	38	83
South of Rising Sun Road	2	0	1,179	35	0.5	1.8%	0.7%	53.9	-	-	-	42
West of Ben Taylor Road	2	0	27	35	0.5	1.8%	0.7%	37.5	-	-	-	-
Placer Hills Road												
Between Tokayana Way and I-80 WB Ramp	2	0	1,026	25	0.5	1.8%	0.7%	50.7	-	-	-	-
Between Illinoistown Road and I-80 WB Ramp	2	0	1,548	25	0.5	1.8%	0.7%	52.5	-	-	-	34
Interstate 80												
Between Illinoistown Road and SR 174	4	0	30,500	65	0.5	1.8%	0.7%	75.1	109	234	505	1,087

TRAFFIC NOISE LEVELS AND NOISE CONTOURS

Project Number: 2021-015
Project Name: Colfax General Plan

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
Source of Traffic Volumes: Fehr & Peers Transportation Consultants (2023)
Community Noise Descriptor: L_{dn} : _____ CNEL: _____ x _____

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Analysis Condition Roadway, Segment	Lanes	Median Width	ADT Volume	Design Speed (mph)	Alpha Factor	Vehicle Mix		CNEL at 50 Feet	Distance from Centerline of Roadway				
						Medium Trucks	Heavy Trucks		70 CNEL	65 CNEL	60 CNEL	55 CNEL	
Auburn Avenue													
South of I-80 WB Ramps	2	0	5,221	25	0.5	1.8%	0.7%	57.8	-	-	36	77	
Between I-80 WB Ramps and SR 174 Overcrossing	2	0	7,256	25	0.5	1.8%	0.7%	59.2	-	-	44	95	
Between SR 174 Overcrossing and Central Street	2	0	9,586	25	0.5	1.8%	0.7%	60.4	-	-	53	115	
Between Central Street and Grass Valley Street	2	0	6,837	25	0.5	1.8%	0.7%	58.9	-	-	43	92	
Canyon Way													
North of I-80 EB Ramp	2	0	1,269	25	0.5	1.8%	0.7%	51.6	-	-	-	-	
Between I-80 EB Ramps and SR 174 Overcrossing	2	0	4,984	25	0.5	1.8%	0.7%	57.6	-	-	34	74	
Between SR 174 Overcrossing and Iowa Hill Road	2	0	1,968	25	0.5	1.8%	0.7%	53.5	-	-	-	40	
Between Illinoistown Road and I-80 EB Ramp	2	0	2,228	45	0.5	1.8%	0.7%	59.3	-	-	45	96	
South of I-80 EB Ramp	2	0	472	45	0.5	1.8%	0.7%	52.5	-	-	-	34	
Grass Valley Street													
West of Rising Sun Road	2	0	362	25	0.5	1.8%	0.7%	46.2	-	-	-	-	
Between Rising Sun Road and Main Street	2	0	4,375	25	0.5	1.8%	0.7%	57.0	-	-	-	68	
Between Main Street and Auburn Avenue	2	0	5,811	25	0.5	1.8%	0.7%	58.2	-	-	38	82	
East of Auburn Avenue	1	0	80	25	0.5	1.8%	0.7%	39.6	-	-	-	-	
Rising Sun Road													
West of Ben Taylor Road/Tokayana Way	2	0	40	25	0.5	1.8%	0.7%	36.6	-	-	-	-	
Between Ben Taylor Road and Grass Valley Street	2	0	4,791	25	0.5	1.8%	0.7%	57.4	-	-	34	72	
Main Street													
South of Grass Valley Street	2	0	2,277	25	0.5	1.8%	0.7%	54.2	-	-	-	44	

Between Grass Valley Street and Dinky Avenue	2	0	2,136	25	0.5	1.8%	0.7%	53.9	-	-	-	42
Between Dinky Avenue and Central Street	2	0	1,714	25	0.5	1.8%	0.7%	52.9	-	-	-	36
Forest Hill Street												
Between Grass Valley Street and Dinky Avenue	2	0	69	25	0.5	1.8%	0.7%	39.0	-	-	-	-
Central Street (SR 174)												
North of Main Street	2	0	6,814	55	0.5	1.8%	0.7%	66.3	-	61	131	282
Between Main Street and Auburn Avenue	2	0	6,904	45	0.5	1.8%	0.7%	64.2	-	44	95	204
West of Auburn Avenue	2	0	455	10	0.5	1.8%	0.7%	41.0	-	-	-	-
Dinky Avenue												
East of Foresthill Street	2	0	18	25	0.5	1.8%	0.7%	33.1	-	-	-	-
Between Main Street and Foresthill Street	2	0	47	25	0.5	1.8%	0.7%	37.3	-	-	-	-
Tokayana Way/Ben Taylor Road												
North of Rising Sun Road	2	0	3,618	35	0.5	1.8%	0.7%	58.8	-	-	42	90
South of Rising Sun Road	2	0	1,558	35	0.5	1.8%	0.7%	55.1	-	-	-	51
West of Ben Taylor Road	2	0	44	35	0.5	1.8%	0.7%	39.6	-	-	-	-
Placer Hills Road												
Between Tokayana Way and I-80 WB Ramp	2	0	2,593	25	0.5	1.8%	0.7%	54.7	-	-	-	48
Between Illinoistown Road and I-80 WB Ramp	2	0	3,136	25	0.5	1.8%	0.7%	55.6	-	-	-	54
Interstate 80												
All of Colfax	4	0	44,200	65	0.5	1.8%	0.7%	76.7	139	300	646	1,392

Appendix I Traffic Counts

Appendices

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	Street	AM Peak	Assumed Average	Year 2023 ADT	Year 2043 ADT	Total VMT	Total VMT
Arterial	Main Street	<300	150	1,500	1,726		
Arterial	Ben Taylor Road	601-900	750	7,500	8,630		
Arterial	Tokayana Way	<300	150	1,500	1,726		
Collector	Auburn Avenue	601-900	750	7,500	8,630		
Collector	Dinky Avenue	<300	150	1,500	1,726		
Collector	South Auburn Street	<300	150	1,500	1,726		
Arterial	Canyon Way	<300	150	1,500	1,726		
	Iowa Hill Road	<300	150	1,500	1,726		
	Central Street (SR 174)	301-600	450	4,500	5,178		
	Interstate 80			30,500	44,200		

Extrapolated from 2009 F&P Study

Assumes AM Peak (7-8:00 AM) to be 10 Percent of ADT

Assumes a 0.64 Percent SCAG Annual Growth Through 2045 (22 years)

SPRTA Traffic Volume Plot for I-80

Year	POPULATION			HOUSING UNITS								Vacancy Rate	Persons per Household
	Total	Household	Group Quarters	Total	Single Detached	Single Attached	Two to Four	Five Plus	Mobile Homes	Occupied			
2010	1,963	1,958	5	929	607	48	186	67	21	823	11.4%	2.38	
2011	1,984	1,979	5	929	607	48	186	67	21	824	11.3%	2.40	
2012	2,013	2,008	5	929	607	48	186	67	21	829	10.8%	2.42	
2013	2,058	2,053	5	928	606	48	186	67	21	847	8.7%	2.42	
2014	2,070	2,065	5	927	605	48	186	67	21	850	8.3%	2.43	
2015	2,069	2,064	5	926	604	48	186	67	21	850	8.2%	2.43	
2016	2,097	2,092	5	926	604	48	186	67	21	861	7.0%	2.43	
2017	2,113	2,108	5	926	604	48	186	67	21	865	6.6%	2.44	
2018	2,131	2,126	5	926	604	48	186	67	21	874	5.6%	2.43	
2019	2,139	2,134	5	926	604	48	186	67	21	879	5.1%	2.43	
2020	2,016	2,010	6	963	648	49	180	66	20	901	6.4%	2.23	
2021	2,005	1,999	6	927	612	49	180	66	20	868	6.4%	2.30	
2022	2,038	2,032	6	955	640	49	180	66	20	894	6.4%	2.27	
2023	2,016	2,010	6	963	648	49	180	66	20	901	6.4%	2.23	

3 0.18% 2016
 5 -1.18% 2016
 10 -0.21% 2016
 20 -0.10% 2016

 SACOG Projection
 2016 2097
 2045 2523
 0.64%

 2523 2040 population
 2605 2045 Extrapolated using 2016-2040

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Jurisdiction	Population	Jobs	VMT per Resident	Work VMT per employee	VMT per Resident Threshold	Above Threshold
Baseline (2020)						
Colfax and SOI	17,966	6,895				
Unincorporated County						
General Plan Update (2040)						
Colfax and SOI	17,006	7,406				
Unincorporated County						

Jurisdiction	Retail Space	Total VMT	Above Threshold
Baseline (2020)			
Colfax and SOI	8,471,042		
General Plan Update (2040)			
Colfax and SOI	6,751,913		