

DRAFT
Initial Study/Mitigated Negative Declaration
for the proposed
Macdoel Fire Station
Siskiyou County, California



Prepared by:
The California Department of Forestry and Fire Protection
The Lead Agency Pursuant to Section 21082.1 of the
California Environmental Quality Act

California Department of Forestry and Fire Protection
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July 22, 2024

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DRAFT MITIGATED NEGATIVE DECLARATION

Macdoel Fire Station Project (Project)

Lead Agency: State of California Department of Forestry and Fire Protection (CAL FIRE)

Project Location: The Project is located on an approximately 36.7-acre about 1.75 miles north of the unincorporated town of Macdoel, California, along the western side of US Route 97, in Siskiyou County, California, in an area known as Butte Valley (Assessor's Parcel Number 003-380-010).

Project Description: The Project includes construction of a 2-engine fire station single building with 16-bed barracks and 3-bay apparatus (9,296 sf), office/administration building (2,047 sf), storage building (247 sf), and pump building (648 sf). Site development will include earthwork, storm drainage and treatment, driveways, curbs and gutters, walkways, fuel vault (1,500g diesel/500g gas), site lighting, enclosed generator, electric vehicle chargers, hose drying rack, trash enclosure, hazardous materials storage locker, fencing and gates, flagpoles, station monument and sign, and landscaping. Utilities will include water tanks (fire protection and domestic), water well, water distribution, sanitary sewer and treatment/disposal system, electrical power distribution, ground-mounted solar farm, liquified petroleum gas tank and distribution, and communication cabling. Demolition work includes the destruction of existing water wells.

Finding: Based on the information contained in the attached Initial Study, CAL FIRE finds that there will not be a significant effect to the environment because the mitigation measures will be incorporated as part of the proposed Project.

Public Review Period: August 9, 2024 to September 7, 2024.

MITIGATION MONITORING AND REPORTING PLAN

Introduction

In accordance with CEQA, an MND that identifies adverse impacts related to the construction activity for the Macdoel Fire Station Project (Project) was prepared. Mitigation measures have been identified that would reduce or eliminate these impacts.

Section 21081.6 of the Public Resources Code and Sections 15091(d) and 15097 of the State CEQA Guidelines require public agencies to adopt a reporting and monitoring program for changes to the Project which it has adopted or made a condition of Project approval in order to mitigate or avoid significant effects on the environment. A MMRP is required for the proposed Project because the IS/MND identified potentially significant adverse impacts related to construction activity, and mitigation measures have been identified to mitigate these impacts. Adoption of the MMRP will occur along with the approval of the Project.

Purpose of the Mitigation Monitoring and Reporting Plan

This MMRP has been prepared to ensure that all required mitigation measures are implemented and completed according to schedule and maintained in a satisfactory manner during the construction and operation of the proposed Project. The MMRP may be modified by CAL FIRE during Project implementation as necessary, in response to changing conditions or other Project refinements. The following table has been prepared to assist the responsible parties in implementing the MMRP. This table identifies the category of significant environmental impact(s), individual mitigation measures, monitoring and mitigation timing, responsible person/agency for implementing the measure, monitoring and reporting procedures, and notation space to confirm implementation of the mitigation measures. The numbering of the mitigation measures follows the numbering sequence in the IS/MND.

Roles and Responsibilities

CAL FIRE, as lead agency, is responsible for oversight of compliance of the mitigation measures in the MMRP.

Macdoel Fire Station Project Mitigation and Monitoring Reporting Plan

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation/ Responsibility/ Verification	Responsibility for Oversight of/ Compliance/ Verification	Outside Agency Coordination
AES-1: LANDSCAPING A Landscaping Plan shall be developed that incorporates landscaping around hardscapes to soften the visual impacts of buildings and other site improvements. A variety of plant species, with an emphasis on native and drought tolerant (water efficient) plants shall be incorporated.	AES-1 Activity: A Landscaping Plan shall be prepared as part of the Working Drawings for approval.	Project Director Initials _____ Date _____ Senior Environmental Planner Initials _____ Date _____	CAL FIRE Project Engineer Initials _____ Date _____	None
AES-2: BUILDING COLORS Proposed building colors will be submitted to CAL FIRE for approval to ensure that the structures will match the surrounding landscape.	AES-1 Activity: A proposed color palette will be submitted as part of the Working Drawings for approval. Timing: Prior to Working Drawings (Plan Set) approval. Frequency: Once prior to final plan set approval.	Project Director Initials _____ Date _____ Senior Environmental Planner Initials _____ Date _____	CAL FIRE Project Engineer Initials _____ Date _____	None
MM CR-1: In the event of an inadvertent discovery of cultural resources, work shall immediately cease within 25 feet of the discovery and the CAL FIRE archaeologist be contacted. The CAL FIRE archeologist in consultation with a Native American representative, if appropriate, will evaluate the discovery and determine its significance. Construction work may continue in other	CR-1 Activity: Unanticipated cultural resources, consultation and determination. Timing: During construction.	Project Contractor Initials _____ Date _____	CAL FIRE Initials _____ Date _____	Possible coordination with, NAHC, and tribal representatives.

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation/ Responsibility/ Verification	Responsibility for Oversight of/ Compliance/ Verification	Outside Agency Coordination
areas of the Project if approved by the CAL FIRE archaeologist while the discovery is examined and evaluated. If it is determined that the discovery is not significant no further investigations are necessary and Project construction may resume. If the discovery is determined to be significant additional investigations (e.g., data recovery excavations) may be necessary before resuming Project construction activities. Regardless of the significance of an inadvertent discovery, all inadvertent discoveries of cultural resources shall be appropriately documented and reburied on the Project site in a location where the cultural resources will not be disturbed in the future. The CAL FIRE archeologist shall notify appropriate Project construction staff when work may resume in the area of the inadvertent discovery and/or other areas on the Project site.	Frequency: As required.	Project Archaeologist Initials Date		
MM CR-2: In the event of an inadvertent discovery of human remains the provisions of the California Health and Safety Code Section 7050.5, PRC Section 5097.98, and Assembly Bill 2641 shall be implemented. In addition, all work within 25 feet of the discovery shall immediately cease until the discovery can be evaluated by the County Coroner and the CAL FIRE archaeologist be contacted. Construction work may continue in other areas of the Project if approved by the CAL FIRE archaeologist while the discovery is examined and evaluated. If the remains are determined to be Native American, the County Coroner must contact the NAHC who will identify a Most Likely Descendant (MLD) for the remains. The MLD will make recommendations for the	CR-1 Activity: Unanticipated cultural resources, consultation and determination. Timing: During construction. Frequency: As required.	Project Contractor Initials Date Project Archaeologist Initials Date	CAL FIRE Initials Date	Possible coordination with, NAHC, and tribal representatives.

Mitigation Measure	Monitoring Activity/Timing/ Frequency/ Schedule	Implementation/ Responsibility/ Verification	Responsibility for Oversight of/ Compliance/ Verification	Outside Agency Coordination
recovery, treatment, and disposition of any Native American remains. Final disposition of any inadvertently discovered human remains will be decided in consultation with the MLD and CAL FIRE.				
GEO-1: LIQUEFACTION Prior to construction of any structures, the contractor shall coordinate with CAL FIRE to obtain a Geotechnical Engineer to assist with implementation of mitigation measures which may include, but not limited to, imported engineered soil, compaction, and soil-cement columns or piers.	GEO-1 Activity: Prior to finalization of Working Drawings all required Geotechnical requirements shall be identified and indicated.	Project Engineer Initials Date	CAL FIRE Senior Environmental Planner Initials Date	
GEO-2: CALIFORNIA BUILDING CODE REQUIREMENTS Project design shall incorporate recommendations outlined in the Geotechnical Reports prepared by GEOCON Consultants and in accordance with the 2022 California Building Code.	GEO-2 Activity: Prior to finalization of Working Drawings all required California Building Codes shall be implemented into the Plans.	Project Engineer Initials Date	CAL FIRE Senior Environmental Planner Initials Date	

ATTACHMENTS

Attachment A



DEPARTMENT OF FORESTRY AND FIRE PROTECTION

P.O. Box 944246

SACRAMENTO, CA 94244-2460

(916) 653-7772

Website: www.fire.ca.gov



Notice Date: August 9, 2024

NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

Project Name: Macdoel Fire Station Project

The State of California Department of Forestry and Fire Protection (CAL FIRE) is the Lead Agency for the proposed Macdoel Fire Station Project (Project). In compliance with the California Environmental Quality Act (Public Resources Code § 21000 *et seq.*) and Department procedures, notification is hereby given to responsible and trustee agencies, interest groups and the general public, that the California Department of Forestry and Fire Protection proposes to adopt a Mitigated Negative Declaration for the Project described below.

Project Location: The Project is located approximately 1.75 miles north of the unincorporated town of Macdoel, California, along the western side of State Highway 97, in Siskiyou County, California. The site is located in the southwestern quarter of Section 4, Township 46 North, Range 1 West, Mount Diablo Base and Meridian. The Siskiyou County assessor's parcel number for the site is (APN) 003-380-010.

Project Description: The Project includes construction of a 2-engine fire station single building with 16-bed barracks and 3-bay apparatus (9,296 sf), office/administration building (2,047 sf), storage building (247 sf), and pump building (648 sf). Site development will include earthwork, storm drainage and treatment, driveways, curbs and gutters, walkways, fuel vault (1,500g diesel/500g gas), site lighting, enclosed generator, electric vehicle chargers, hose drying rack, trash enclosure, hazardous materials storage locker, fencing and gates, flagpoles, station monument and sign, and landscaping. Utilities will include water tanks (fire protection and domestic), water well, water distribution, sanitary sewer and treatment/disposal system, electrical power distribution, ground-mounted solar farm, liquified petroleum gas tank and distribution, and communication cabling. Demolition work includes the destruction of existing water wells.

Public Review Period: The Draft Mitigated Negative Declaration will undergo a 30-day public review period during which comments may be submitted. The review period begins on August 9, 2024 to September 7, 2024. Written comments regarding the contents of the Initial Study/Mitigated Negative Declaration should be sent to:

Christina Snow, Senior Environmental Planner
California Department of Forestry and Fire Protection
Technical Services Section
P.O. Box 944246
Sacramento, CA 94244-2460

Phone Number: (916) 216-0553

Written comments may also be sent via e-mail using the e-mail address provided below:

Email: christina.snow@fire.ca.gov

A copy of the Draft Initial Study/Mitigated Negative Declaration are available for review at the following locations:

1. CAL FIRE Macdoel Fire Station, 201 Meiss Lake Rd, Macdoel, California 96058.
2. Butte Valley Library, 800 W Third Street, Dorris, California 96023.
3. CAL FIRE Internet at:
<https://calfire.app.box.com/s/6uzjbq146cfn018h1jw98871hp740x7t/folder/238725157425>
4. CAL FIRE Technical Services, 1131 S Street, Sacramento, CA 95811.

The Notice of Intent is posted at the following locations:

1. CAL FIRE Macdoel Fire Station, 201 Meiss Lake Rd, Macdoel, California 96058.
2. Goosenest Ranger District and Butte Valley National Grassland, 37805 Highway 97, Macdoel, California 96058.
3. Macdoel Post Office, 41439 State Highway 97, Macdoel, California 96058.

INTRODUCTION AND REGULATORY CONTEXT

Stage of CEQA Document Development

- ☐ **Administrative Draft.** This California Environmental Quality Act (CEQA) document is in preparation by California Department of Forestry and Fire Protection (CAL FIRE) staff.
- ☒ **Public Document.** This completed CEQA document has been filed by CAL FIRE at the State Clearinghouse and is being circulated for a 30-day agency and public review period. The public review period begins August 9, 2024, and ends on September 7, 2024.
- ☐ **Final CEQA Document.** This Final CEQA document contains the changes made by the Department following consideration of comments received during the public and agency review period. The changes are displayed in strike-out text for deletions and underlined text for insertions. The CEQA administrative record supporting this document is on file, and available for review, at CAL FIRE's Sacramento Headquarters, Environmental Protection Program, which is located in the Natural Resources Building, 1416 Ninth Street, 15th Floor, Sacramento, California.

Introduction

This Initial Study/Mitigated Negative Declaration (IS/MND) describes the environmental impact analysis conducted for the proposed Project. This document was prepared by CAL FIRE staff utilizing information gathered from a number of sources including research and field review of the proposed Project area and consultation with environmental planners. Pursuant to Section 21082.1 of the CEQA, the lead agency, CAL FIRE, has prepared, reviewed, and analyzed the IS/MND and declares that the statements made in this document reflect CAL FIRE's independent judgment as lead agency pursuant to CEQA. CAL FIRE further finds that the proposed Project, which includes revised activities and mitigation measures designed to minimize environmental impacts, will not result in significant adverse effects on the environment.

Regulatory Guidance

This IS/MND has been prepared by CAL FIRE to evaluate potential environmental effects which could result following approval and implementation of the proposed Project. This document has been prepared in accordance with current CEQA Statutes (Public Resources Code §21000 *et seq.*) and current CEQA Guidelines (California Code of Regulations [CCR] §15000 *et seq.*).

An initial study is prepared by a lead agency to determine if a Project may have a significant effect on the environment (14 CCR § 15063[a]), and thus, to determine the appropriate environmental document. In accordance with CEQA Guidelines §15070, a “public agency shall prepare...a proposed negative declaration or mitigated negative declaration...when: (a) The initial study shows that there is no substantial evidence...that the Project may have a significant impact upon the environment, or (b) The initial study identifies potentially significant effects but revisions to the Project plans or proposal are agreed to by the applicant and such revisions will reduce potentially significant effects to a less-than-significant level.” In this circumstance, the lead agency prepares a written statement describing its reasons for concluding that the proposed Project will not have a significant effect on the environment and, therefore, does not require the

preparation of an environmental impact report. This IS/MND conforms to these requirements and to the content requirements of CEQA Guidelines Section 15071.

Purpose of the Initial Study

CAL FIRE has primary authority for carrying out the proposed Project and is the lead agency under CEQA. The purpose of this IS/MND is to present to the public and reviewing agencies the environmental consequences of implementing the proposed Project and describe the adjustments made to the Project to avoid significant environmental effects or reduce them to a less-than-significant level. This disclosure document is being made available to the public, and reviewing agencies, for review and comment. The IS/MND is being circulated for public and agency review and comment for a review period of 30 days as indicated on the notice of intent to adopt a mitigated negative declaration (NOI).

The requirements for providing an NOI are found in CEQA Guidelines §15072. These guidelines require CAL FIRE to notify the public by utilizing at least one of the following three procedures:

- Publication in a newspaper of general circulation in the area affected by the proposed Project,
- Posting the NOI on and off site in the area where the Project is to be located, or
- Direct mailing to the owners and occupants of property contiguous to the Project.

CAL FIRE has elected to utilize the second notification option. The NOI was posted at three prominent locations in the area where the Project is located for the entire 30-day public review period.

1. Notices were posted at the current Macdoel Fire Station, the Goosenest Ranger District and Butte Valley National Grassland Office, and the United States Post Office in Macdoel.

A complete copy of this CEQA document is available for review by any member of the public requesting to see it at the locations identified in the NOI. An electronic version of the NOI and the CEQA document are available for review for the entire 30-day review period on the State of California's CEQAnet site at:

<https://ceqanet.opr.ca.gov/Search>

If submitted prior to the close of public comment, views and comments are welcomed from reviewing agencies or any member of the public on how the proposed Project may affect the environment. Written comments must be postmarked or submitted on or prior to the date the public review period will close (as indicated on the NOI) for CAL FIRE's consideration. Written comments may also be submitted via email (using the email address which appears below) but comments sent via email must also be received on or prior to the close of the 30-day public comment period. Comments should be addressed to:

Christina Snow, Senior Environmental Planner
California Department of Forestry and Fire Protection
Technical Services
P.O. Box 944246
Sacramento, CA 94244-2460
Phone: (916) 216-0553
Email: christina.snow@fire.ca.gov

After comments are received from the public and reviewing agencies, CAL FIRE will consider those comments and may (1) adopt the mitigated negative declaration and approve the proposed Project; (2) undertake additional environmental studies; or (3) abandon the Project. If the Project is approved and funded, CAL FIRE could design and construct all or part of the Project.

PROJECT BACKGROUND AND ENVIRONMENTAL SETTING

Background and Need for the Project

The current Macdoel Fire Station (FS) is a single-engine station located on 3.8 leased acres, the Butte Valley Irrigation District (BVID) owns the site, and the state has leased the land for 50+ years. The lease is no longer viable, and BVID will not renew the lease. The FS is located at 201 Meiss Lake Road in Macdoel, CA 96058, and was constructed in phases beginning in the 1940s.

The station is assigned to protect 160,000 acres of timber and brush-covered State Responsibility Area (SRA) and responds to more than 80,000 acres of federal and local Mutual Threat Zone (MTZ) lands. In addition, the station responds to incidents in Macdoel, the city of Dorris, city of Tule Lake, Pleasant Valley Fire Protection District, Butte Valley Fire District, and the surrounding United States Forest Service (USFS) lands. On average, Macdoel responds to 122 various incidents during its six-month operational period.

The current FS is no longer adequate for new larger fire engines and equipment, increased staffing, and longer fire season. Additionally, well-water at the existing FS has been an ongoing issue. Of the three wells drilled on the site, one goes dry during drought years, another is mineral rich, and the other is currently not in use due to agricultural contamination. There is concern about groundwater contamination from the agricultural activities around the station, so station personnel are supplied with bottled drinking water as a precaution.

The sewer system is inadequate for the number of personnel assigned to the station. If the facility is used as a staging area or additional people are assigned for high fire danger preparedness, portable toilets need to be rented. The two septic tanks and two leach fields require frequent maintenance as the systems are older and continue to be stressed by current staffing levels.

The barracks and mess hall have been re-sided with metal, but fine dust and sand are blown in from the surrounding agricultural fields, which infiltrates the living space. Annually, in the spring, a heavy equipment loader and a 17-person hand crew are required to dig out the driveway to gain access to the station due to the winter's accumulation of dust and sand. The barracks bathroom does not have separate facilities for men and women, there is no recreation/day room, and the buildings are poorly insulated and expensive to heat. Termite infestation and dry rot are present that would require extensive repair work in the bathroom and walls. This work would be extensive as there is a high likelihood that the building materials contain asbestos.

The 70+ year-old barracks and mess hall foundations are cracked and settling due to the buildings being originally placed on pier blocks and later reinforced with poured concrete. In addition, the apparatus building is uninsulated and unheated, making heating the building impractical.

Aged and broken water lines are an ongoing problem. Despite draining the water lines during the winter when the station is closed, the lines often break due to aging and inoperable lines.

As a result of the numerous operational issues, CAL FIRE has determined that a new FS will need to be constructed to facilitate optimal operations and improve emergency response and natural resources protection.

CAL FIRE has purchased property that is located approximately 1.75 miles north of the unincorporated town of Macdoel, California along the western side of US Route 97, in Siskiyou County, California, in an area known as Butte Valley (Figure 1 and 2). The site is in the southwestern quarter of Section 4, Township 46 North, Range 1 West, Mount Diablo Base and Meridian. The Siskiyou County assessor's parcel number for the Site is (APN) 003-380-010.

The approximate 36.7-acre Site is undeveloped inactive agricultural land. The Site is bounded on the north, south, and west by undeveloped sagebrush/grassland, and to the east by US Route 97 and the Union Pacific Railroad Company's (UPRR) mainline.

Project Objectives

The new Macdoel FS will support CAL FIRE's mission to serve and safeguard the people and protect the property and resources within the Siskiyou Unit.

The following are the objectives of the proposed Project:

- Replace the deteriorating Macdoel FS with a new, modern facility that meets operational requirements.
- To improve CAL FIRE's ability to meet peak demand emergency incident workload through providing necessary operational facilities for fire crews that enhance the statewide fire protection system.

Project Description

The Project includes construction of a 2-engine fire station single building with 16-bed barracks and 3-bay apparatus (9,296 sf), office/administration building (2,047 sf), storage building (247 sf), and pump building (648 sf). Site development will include earthwork, storm drainage and treatment, driveways, curbs and gutters, walkways, fuel vault (1,500g diesel/500g gas), site lighting, enclosed generator, electric vehicle chargers, hose drying rack, trash enclosure, hazardous materials storage locker, fencing and gates, flagpoles, station monument and sign, and landscaping. Utilities will include water tanks (fire protection and domestic), water well, water distribution, sanitary sewer and treatment/disposal system, electrical power distribution, ground-mounted solar farm, liquified petroleum gas tank and distribution, and communication cabling. Demolition work includes the destruction of existing water wells.

Project Region and Description of Local Environment

Siskiyou County is located on the north-central boundary of California bordering the State of Oregon. The county is bounded by Del Norte, Humboldt and Trinity Counties on the west and southwest, Shasta County to the south, and Modoc County to the east. The county contains 6,300 square miles and is the fifth largest county in the State of California and the largest county in northern California. Nearly 63 percent of the county's land is publicly owned. Siskiyou County includes nine incorporated cities: Doris, Dunsmuir, Etna, Fort Jones, Montague, Mount Shasta, Tulelake, Weed, and Yreka. Yreka is the County Seat, and has the largest population of all the cities, with approximately 7,746 residents, according to the Department of Finance (DOF) 2021 estimates. There are also 11 unincorporated places and 19 unincorporated communities in the county, including Lake Shasta, McCloud, Happy Camp, Hornbrook, Tennant, and Callahan. The

Native American Tribal Governments of the Karuk Tribe, the Shasta Indian Nation, and the Quartz Valley Indian Community are also located within the county. Most of Siskiyou County is very rural in land use and population density. In 2021 the California Department of Finance reported a population of 24,212 in the unincorporated areas of the county. The combined population of the nine incorporated cities is approximately 20,118.

Siskiyou County has a diverse geography which includes dense forests, mountainous peaks, valleys, desert, chaparral, and numerous lakes, rivers, and streams. It is home to a diverse topography with elevations ranging from 4,000 feet to 14,180 feet at the summit of Mt. Shasta, the fourth highest point in the State of California. Siskiyou's climate is characterized by warm, dry summers, and cold winters with frequent severe snowstorms. Siskiyou County contains five rivers: Klamath, McCloud, Sacramento, Scott, and Shasta. Mt. Shasta, a stratovolcano with a peak elevation of 14,180 feet, is found in the southeastern portion of the county. The county can be characterized as rural and mountainous, with opportunities for recreation for both residents and tourists. Hiking, hunting, fishing, cycling, skiing, camping, are among the many recreational attractions in the county.

The Project site is located approximately 1.75 miles north of the unincorporated town of Macdoel, California, along the western side of US Route 97, in Siskiyou County, California, in an area known as Butte Valley. The approximate 36.7-acre Site is undeveloped inactive agricultural land. The Site is bounded on the north, south, and west by undeveloped sagebrush/grassland, and to the east by US Route 97 and the Union Pacific Railroad Company's (UPRR) mainline.

The site is in a relatively flat, low-lying sink surrounding Meiss Lake and surrounded regionally by peaks, cinder cones, and other uplands associated with volcanic flows of the Cascade Range (USGS, 2018). Elevation at and surrounding the Site is approximately 4,200 feet above mean sea level (MSL). Surrounding uplands and peaks have elevations up to and greater than 8,000 feet above MSL.

All properties immediately adjacent to the site are undeveloped sagebrush/grassland. The site is bound to the east by US Route 97 and to the west by an unpaved access road beyond which is undeveloped land. Several irrigated agricultural fields are located within two miles of the site. The Butte Valley Airport is located approximately 3 miles north of the site.

Figure 1: Project Vicinity Map



Figure 2: Project Location Map

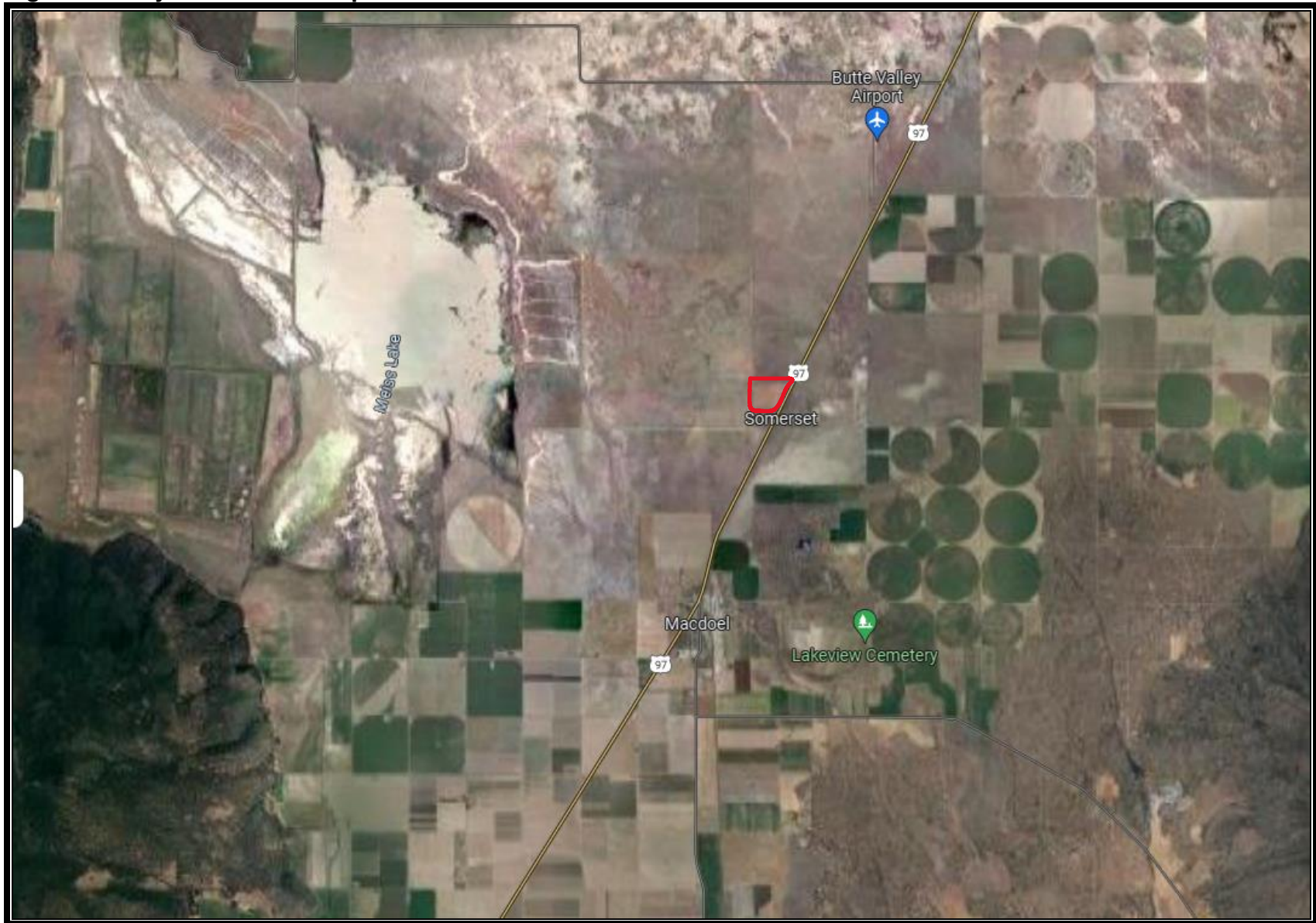


Figure 3: Proposed Site Plan Layout on Property

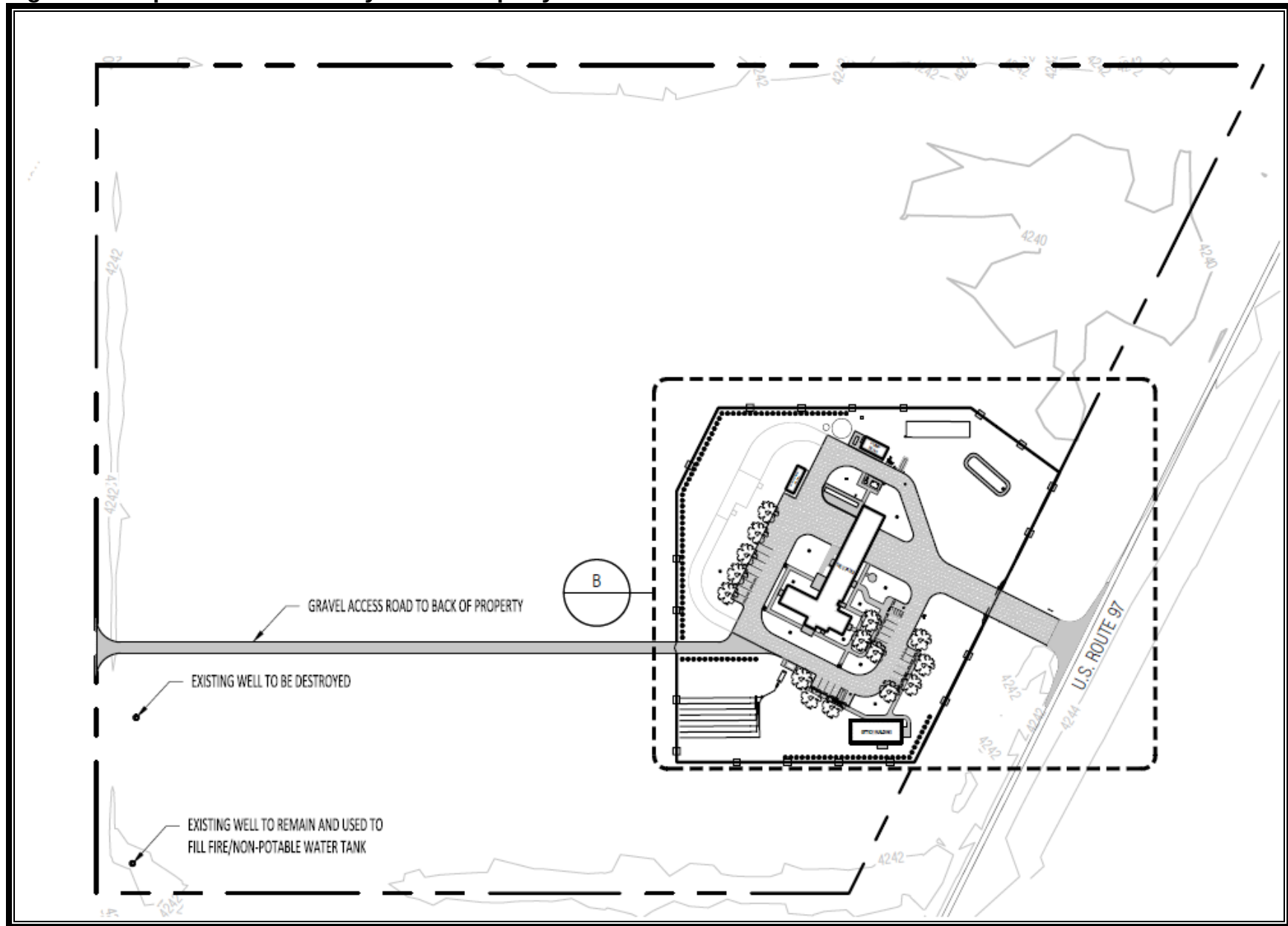


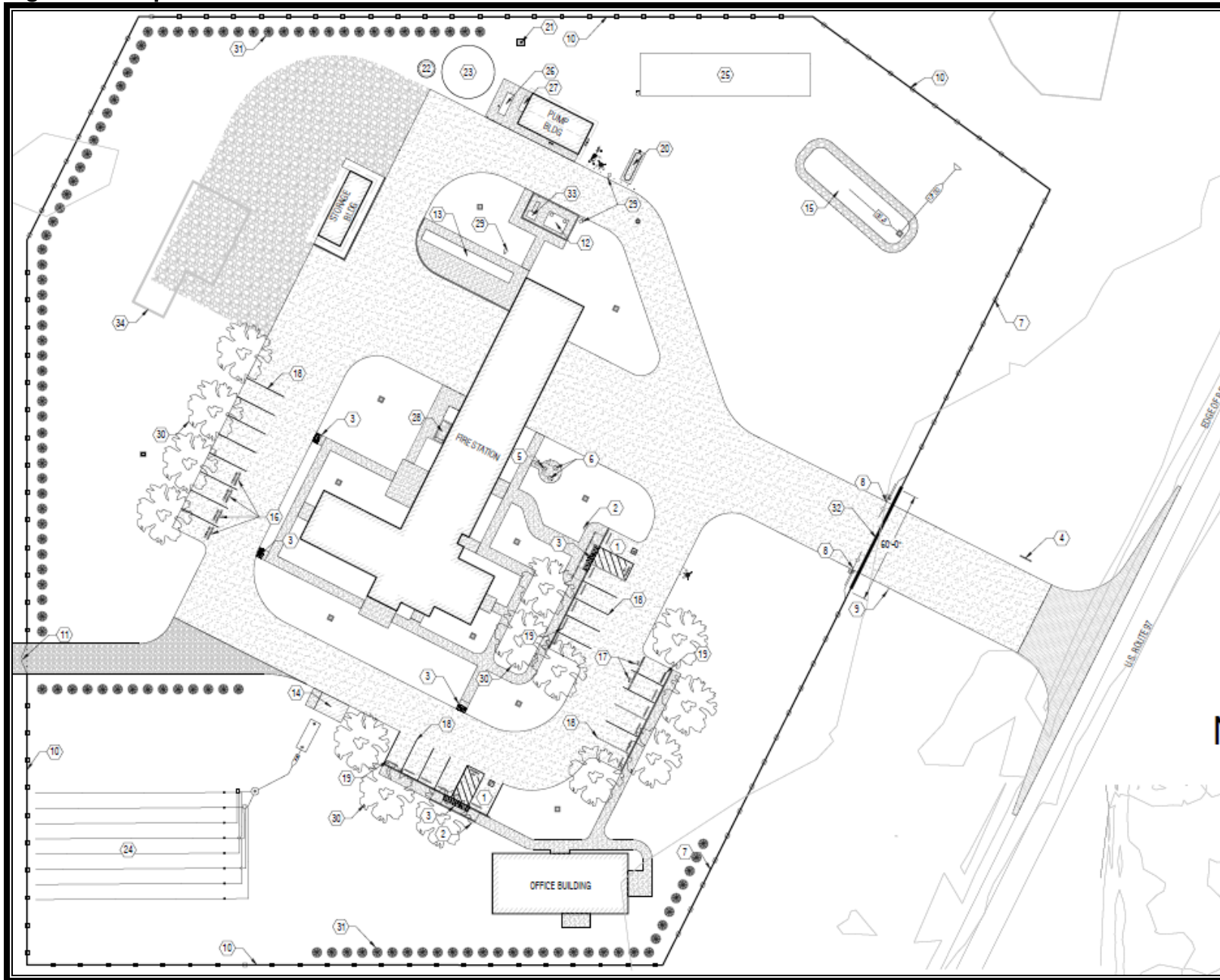
Figure 4: Project Site – Looking West



Figure 5: Project Site – Looking South



Figure 6: Proposed Site Plan



LEGEND

	EXISTING CONTOUR LINES
	CONCRETE PAVEMENT
	ASPHALT CONCRETE PAVEMENT
	CONCRETE SIDEWALK/FLATWORK
	GRAVEL PAVING
	STORMWATER CATCH BASIN
	FIRE HYDRANT
	FIRE DEPARTMENT CONNECTION
	POST INDICATOR VALVE
	WATER YARD HYDRANT, 3/4" UNO

SHEET KEYNOTES

- | | |
|---|--|
| 1. VAN ACCESSIBLE PARKING STALL | 25. SOLAR PANEL FARM |
| 2. TOW AWAY/ACCESSIBLE PARKING SIGN | 26. GENERATOR AND ENCLOSURE |
| 3. DETECTABLE WARNING | 27. SWITCHGEAR MOUNTED TO PUMP BUILDING. |
| 4. STATION SIGN | 28. GROSS DECONTAMINATION CLEAN OFF WASH AREA, GRAVEL LINED AREA. NEXT TO OUTDOOR SINK |
| 5. 30-FOOT EXPOSED HEIGHT FLAG POLE | 29. 1-1/2" YARD HYDRANT WITH RESTRICTING VALVE |
| 6. 20-FOOT EXPOSED HEIGHT FLAG POLE | 30. SHADE TREE FOR PARKING, TYP. ADDITIONAL VEGETATION DURING DESIGN PHASE |
| 7. 6-FOOT TALL DECORATIVE STEEL FENCE | 31. COLUMNAR TREE FOR DUST ABATEMENT AND WIND CONTROL |
| 8. 6-FOOT TALL DOUBLE SLIDING DECORATIVE STEEL GATE (20-FOOT WIDE EACH) | 32. 60' ACCESS PER EXHIBIT A AND B OF THE TRANSFER OF JURISDICTION |
| 9. GATE ENTRY SYSTEM | 33. HAZMAT STORAGE LOCKER FOR TWO 55-GAL DRUM. 7'H x 5'W x 3'6"D WITH 16 GAUGE EXTERIOR WALLS. CHEMICAL/CORROSIVE/ULTRAVIOLET RESISTANT PAINT. REMOVABLE GALVANIZED STEEL SAFETY FLOOR PLANKING. LIQUID TIGHT SPILL SUMP. SHELVING, 14"W WITH 2" RAISED EDGES. WITH 24"W X 72"L ACCESS RAMP. KEYED WITH STATE KEYS |
| 10. 6-FOOT TALL CHAIN LINK FENCE WITH WIND BREAK NETTING | 34. LIGHTING STANDARD, TYP |
| 11. MANUAL OPEN CHAIN LINK GATE | 35. UTILITY TRANSFORMER PAD PER LOCAL UTILITY STANDARD |
| 12. 2,000 GAL ABOVE-GROUND FUEL VAULT (500 GAS/1500 DIESEL). STATE TO PROVIDE LOCK FOR FUEL DISPENSERS. | 36. UTILITY POLE (ESTIMATED LOCATION) |
| 13. HOSE DRYING RACK | 37. VEHICLE CHARGING STATION |
| 14. TRASH ENCLOSURE | 38. 3 FT WIDE MAINTENANCE WALKWAY, TYP |
| 15. STORMWATER BASIN | 39. POTENTIAL FUTURE DOZER BAY LOCATION, NOT PART OF THIS PROJECT |
| 16. "CLEAN AIR/VAN POOL/EV" 12 IN WHITE LETTERS | |
| 17. "RESERVED FOR CHP" 12 IN WHITE LETTERS | |
| 18. 3 IN WIDE WHITE (UNO) PAVEMENT MARKINGS, TYP | |
| 19. CONCRETE PARKING BUMPER, TYP | |
| 20. (2) 1,000 GALLON LPG TANKS AND CONCRETE PAD | |
| 21. NEW DOMESTIC WATER WELL TO BE DRILLED DURING DESIGN PHASE | |
| 22. DOMESTIC WATER TANK | |
| 23. FIRE/NON-POTABLE WATER TANK | |
| 24. LEACH FIELD | |

CONCLUSION OF THE MITIGATED NEGATIVE DECLARATION

Regulatory Requirements, Permits and Approvals

The proposed Project may require the following environmental permits and CAL FIRE may be required to comply with the following state regulations:

1. National Pollutant Discharge Elimination System Permit (NPDES) – issued by the State Water Resources Control Board (SWRCB).
2. Storm Water Construction General Permit (including the development and implementation of a Storm Water Pollution Prevention Plan – issued by the SWRCB.
3. Authority to Construct permit and Permit to Operate (for the generator and fuel tanks) – issued by the Siskiyou County Air Pollution Control District.
4. State Fire Marshal Review Approval.
5. State Architect Approval for Americans with Disabilities Act (ADA) and structural review by the Department of the State Architect (DSA).

Mitigation Measures

The following six (6) mitigation measures will be implemented by CAL FIRE to avoid or minimize environmental impacts. Implementation of these mitigation measures will reduce the environmental impacts of the proposed Project to a less than significant level.

AES-1: LANDSCAPING

A Landscaping Plan shall be developed that incorporates landscaping around hardscapes to soften the visual impacts of buildings and other site improvements. A variety of plant species, with an emphasis on native and drought tolerant (water efficient) plants shall be incorporated.

AES-2: BUILDING COLORS

Proposed building colors will be submitted to CAL FIRE for approval to ensure that the structures will match the surrounding landscape.

Implementation of these mitigation measures would ensure that impacts are less than significant.

MM CR-1: In the event of an inadvertent discovery of cultural resources, work shall immediately cease within 25 feet of the discovery and the CAL FIRE archaeologist be contacted. The CAL FIRE archeologist in consultation with a Native American representative, if appropriate, will evaluate the discovery and determine its significance. Construction work may continue in other areas of the Project if approved by the CAL FIRE archaeologist while the discovery is examined and evaluated. If it is determined that the discovery is not significant no further investigations are necessary and Project construction may resume. If the discovery is determined to be significant additional investigations (e.g., data recovery excavations) may be necessary before resuming Project construction.

activities. Regardless of the significance of an inadvertent discovery, all inadvertent discoveries of cultural resources shall be appropriately documented and reburied on the Project site in a location where the cultural resources will not be disturbed in the future. The CAL FIRE archeologist shall notify appropriate Project construction staff when work may resume in the area of the inadvertent discovery and/or other areas on the Project site.

MM CR-2: In the event of an inadvertent discovery of human remains the provisions of the California Health and Safety Code Section 7050.5, PRC Section 5097.98, and Assembly Bill 2641 shall be implemented. In addition, all work within 25 feet of the discovery shall immediately cease until the discovery can be evaluated by the County Coroner and the CAL FIRE archaeologist be contacted. Construction work may continue in other areas of the Project if approved by the CAL FIRE archaeologist while the discovery is examined and evaluated. If the remains are determined to be Native American, the County Coroner must contact the NAHC who will identify a Most Likely Descendant (MLD) for the remains. The MLD will make recommendations for the recovery, treatment, and disposition of any Native American remains. Final disposition of any inadvertently discovered human remains will be decided in consultation with the MLD and CAL FIRE.

GEO-1: LIQUEFACTION

Prior to construction of any structures, the contractor shall coordinate with CAL FIRE to obtain a Geotechnical Engineer to assist with implementation of mitigation measures which may include, but not limited to, imported engineered soil, compaction, and soil-cement columns or piers.

GEO-2: CALIFORNIA BUILDING CODE REQUIREMENTS

Project design shall incorporate recommendations outlined in the Geotechnical Reports prepared by GEOCON Consultants and in accordance with the 2022 California Building Code.

Summary of Findings

This IS/MND has been prepared to assess the Project's potential effects on the environment and an appraisal of the significance of those effects. Based on this IS/MND, it has been determined that the proposed Project will not have any significant effects on the environment after implementation of mitigation measures. This conclusion is supported by the following findings:

1. The proposed Project will have no effect related to Agriculture and Forest Resources, Mineral Resources, Population and Housing, Public Services, and Recreation.
2. The proposed Project will have a less than significant impact on Air Quality, Biology, Energy, Greenhouse Gas Emissions, Geology and Soil, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Noise, Transportation, Utilities and Service Systems, and Wildfire.
3. Mitigation is required to reduce potentially significant impacts related to Aesthetics, Cultural Resources, and Geology and Soils, and Mandatory Findings of Significance.

The initial study-environmental checklist included in this document discusses the results of resource-specific environmental impact analyses, which were conducted by the Department of Forestry and Fire Protection (CAL FIRE). This initial study revealed that potentially significant environmental effects could result from the proposed Project. However, CAL FIRE has developed mitigation measures that will eliminate impacts or reduce environmental impacts to a less than significant level. CAL FIRE has found, in consideration of the entire record, that there is no substantial evidence that the proposed Project, as currently revised and mitigated, would result in a significant effect upon the environment. The IS/MND is therefore the appropriate document for CEQA compliance.

INITIAL STUDY/ENVIRONMENTAL CHECKLIST

PROJECT INFORMATION					
1. Project Title:			Macdoel Fire Station		
2. Lead Agency Name and Address:			California Department of Forestry and Fire Protection P.O. 944246 Sacramento, CA 94244-2460		
3. Contact Person and Phone Number:			Christina Snow 916-216-0553		
4. Project Location:			APN # 003-380-010-000 located approximately 1.75 miles north of the unincorporated town of Macdoel, California, along the western side of US Route 97, in Siskiyou County.		
5. Project Sponsor's Name and Address:			CAL FIRE is Project sponsor and lead agency		
6. General Plan Designation:			Agricultural		
7. Zoning:			AG-1		
8. Description of Project: See Page 3 of this document					
9. Surrounding Land Uses and Setting:			National Grasslands and Agricultural		
10: Other public agencies whose approval may be required:			Caltrans, Native American Heritage Commission, North Coast Regional Water Quality Control Board		
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:					
The environmental factors checked below are the ones which would potentially be affected by this proposed Project and were more rigorously analyzed than the factors which were not checked. The results of this analysis are presented in the detailed Environmental Checklist which follows.					
☒	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☐	Biological Resources	☒	Cultural Resources	☐	Energy
☒	Geology / Soils	☐	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology / Water Quality	☐	Land Use / Planning	☐	Mineral Resources
☐	Noise	☐	Population / Housing	☐	Public Services
☐	Recreation	☐	Transportation / Traffic	☐	Tribal Resources
☐	Utilities / Service Systems	☐	Wildfire	☒	Mandatory Findings of Significance

Determination

On the basis of this initial evaluation:

- ☐ I find that the proposed Project **COULD NOT** have a significant effect on the environment, and a **NEGATIVE DECLARATION** would be prepared.
- ☒ I find that although the proposed Project **COULD** have a significant effect on the environment, there **WOULD NOT** be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A **MITIGATED NEGATIVE DECLARATION** would be prepared.
- ☐ I find that the proposed Project MAY have a significant effect on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required.
- ☐ I find that the proposed Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed Project **COULD** have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier **ENVIRONMENTAL IMPACT REPORT** or **NEGATIVE DECLARATION** pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier **ENVIRONMENTAL IMPACT REPORT** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

DocuSigned by:

R569EFCR53ADM22

John Melvin, Assistant Deputy Director
Resource Protection and Improvement
California Department of Forestry and Fire Protection

7/25/2024

Date

ANALYSIS OF POTENTIAL ENVIRONMENTAL IMPACTS

AESTHETICS

Environmental Setting

Macdoel is a census-designated place (CDP) in Siskiyou County, California, United States. Macdoel is located on U.S. Route 97 approximately halfway between Klamath Falls, Oregon, and Weed, California. The site is undeveloped inactive agricultural land that is flat, with slopes ranging from 0 to 2 percent. The elevation is approximately 4,240 feet above mean sea level.

Highway 97 is eligible for becoming a designated state scenic highway but has not been officially designated by the California Department of Transportation.

The Project area is within an agricultural area and includes open rangeland, cultivated agricultural lands, and grazing land. Distant views to the west include Butte Mountain and various rolling hills. Foreground, middle ground, and background views of agriculture fields/pastures and the surrounding mountain ranges and hills comprise the viewshed.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. Scenic vistas include views of natural features such as mountains, hills, valleys, water courses, outcrops, and natural vegetation, as well as man-made scenic structures.

The Project site is currently undeveloped and has been used for grazing purposes in the past. The distant views from the property and adjacent State Route 97 include flat expansive views in the foreground with surrounding mountains and hills in the background.

Although the new fire station will add a structure and will slightly change the visual character of the site, the fire station will be constructed on approximately five (5) acres of the total acreage of 36.7 acres (see figure 3). Most of the parcel will be undeveloped and left in its natural state retaining the views along the highway.

The fire station would be slightly bigger than a residential structure and would incorporate colors that are muted and native to the area. Additionally, native and drought tolerant

landscaping will be planted along the buildings to soften the transition of the buildings from the surrounding vegetation.

The new fire station would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐

Caltrans has designated certain highways throughout California as state scenic highways. In addition, Caltrans also identifies those highways that are eligible for state scenic designation throughout the state.

The Project site is within a highway that has been identified as eligible by Caltrans. The designation is not official, although Siskiyou County does consider Highway 97 as a scenic resource. As indicated in b) above, the majority of the site (approximately 30 acres), will remain in its natural state and building colors and design elements and landscaping will be used to lessen the structure's impact. Impacts will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	☐	☒	☐	☐

The Project consists of the construction of a new fire station in a rural area. The new facility will change the visual character from open scrub/grass lands with no development to a five (5) acre portion that will be developed as a fire station.

To soften the hardscape of the new fire station, the following mitigation measure shall be implemented. With the implementation of this mitigation measure, impacts will be less than significant.

AES-1: LANDSCAPING

A Landscaping Plan shall be developed that incorporates landscaping around hardscapes to soften the visual impacts of buildings and other site improvements. A variety of plant species, with an emphasis on native and drought tolerant (water efficient) plants shall be incorporated.

AES-2: BUILDING COLORS

Proposed building colors will be submitted to CAL FIRE for approval to ensure that the structures will match the surrounding landscape.

Implementation of these mitigation measures would ensure that impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

As indicated in the environmental setting above, the site is open scrub/grass land. Although new lighting is being proposed, all lighting will have nighttime lighting installed that will ensure that the lighting will not create significant impacts.

All Project lighting will adhere to Title 24, Building Energy Efficiency Standards for Residential and Nonresidential Buildings (Part 6) exterior lighting requirements which include:

- 1) All outdoor luminaries will meet or exceed the Backlight, Uplight and Glare rating requirements. In addition, all fire station site lighting (parking lot) luminaires will be provided with a house side shield to reduce backlight pollution on the fire station.
- 2) All outdoor lighting will be controlled by a control panel with an astronomical time-switch, capable of automatically shutting off the lights when daylight is available. Furthermore, all outdoor fixtures mounted 24 feet above finished grade or less will be controlled by an integrated motion sensor. When the area under the fixture is unoccupied there will be a reduction in the lighting power of at least 50% but no more than 90%. This includes fixtures rated < 40 watts even though Title 24 does not require this type of control for these lower powered fixtures. Doing so, however, enables us to exceed our energy efficiency goals.

With Implementation of mitigation measures AES-1 and AES-2, the Project impacts regarding lighting or glare will be less than significant.

Agriculture and Forest Resources

Environmental Setting

The Project site is located near the Butte Valley National Grassland (BVNG). The BVNG consists of 18,425 acres and is along U.S. Route 97, between the communities of Macdoel and Dorris. Vegetation within the BVNG consists of shrub-steppe, dominated by sagebrush,

bitterbrush, rabbitbrush, basin wildrye, intermediate wheatgrass, and other arid grasses and flowers. The only tree scattered throughout is the Western juniper.

Agricultural lands surround the Project site to the east, north, and south. The zoning for the site is indicated as AG-1. This district classification is intended to be applied to land areas which are used or are suitable for use as agricultural purposes and are designated as “Agriculture” in the county general plan.

The site does not contain trees and is currently not been used for agricultural purposes.

Regulatory Framework

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land uses over time. It continues the farmland mapping efforts initiated in 1975 by the Soil Conservation Service (since renamed Natural Resources Conservation Service [NRCS]) of the U.S. Department of Agriculture. The Important Farmland Maps produced under the FMMP identify five farmland categories: Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, and Grazing Land. Each of these categories is summarized below, as excerpted from A Guide to the Farmland Mapping and Monitoring Program (1994), prepared by the California Department of Conservation.

- Prime Farmland—Land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. These lands have the soil quality, growing season, and moisture supply needed to produce sustained high yields.
- Unique Farmland—Land of less quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards, as found in some climactic zones in California.
- Farmland of Statewide Importance—Land similar to Prime Farmland, but with minor shortcomings, such as greater slopes or less ability to hold and store moisture.
- Farmland of Local Importance—Land of importance in the local agricultural economy, as determined by each county’s Board of Supervisors and a local advisory committee. Monterey County does not have any land designated as Farmland of Local Importance.
- Grazing Land—Areas covered by vegetation, both natural and cultivated, that are suited to the grazing of livestock.

Williamson Act

The California Land Conservation Act, also known as the Williamson Act, was adopted in 1965. This voluntary tax incentive program allows the owners of land within established agricultural preserves who agree to maintain their land in agricultural use to have their property assessed based on its agricultural production, rather than the current market value. The property owner is thus relieved of having to pay higher property taxes as long as the land remains in agricultural production. The purpose of the Williamson Act is to encourage

participating property owners to continue to farm their land, and to prevent the premature conversion of farmland to urban uses.

The Williamson Act applies to both prime and non-prime agricultural lands. As a result, agricultural uses on contracted lands range from intensive agriculture to grazing. Lands under contract may also support uses that are “compatible with the agricultural, recreational, or open-space use of the land” subject to the contract (Government Code Section 51201[e]).

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐

The Project site is mapped as grazing land in the California Farmland Mapping and Monitoring Program (FMMP).

Although the Project would develop a portion of the site and prohibit future agricultural operations, the site is identified as grazing lands and would not convert Prime or Unique Farmland, or Farmland of Statewide Importance.

Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	☒

The Project site is located on grazing land and is not being utilized for any agriculture or grazing purposes. The Siskiyou Zoning Code Land uses allowed with a “Conditional Use Permit” under the AG-1 District includes the following, as well as with other uses that may also be permitted subject to a use permit:

- a) Private airports and landing fells;
- b) Dairies, commercial poultry operations, feed lots, and hog farms;
- c) Public utility buildings; and,
- d) Home occupations, and other uses as permitted.

The Project site is not under a Williamson Act contract and the project would not conflict with existing zoning. No impacts would occur.

c) Would the Project conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code §12220(g)), timberland (as defined by Public Resources Code §4526), or timberland zoned Timberland Production (as defined by Government Code §51104(g))?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

As described, the Project is zoned as AG-1 and is not zoned as timberland. The site does not contain timberland resources and is not capable of timberland production. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

As indicated in the environmental setting, the site is located on scrub/grasslands that are zoned as agricultural uses and is listed under the FMMP as grazing land. The Project will not result in the conversion of forest land. No impact would occur.

e) Would the Project involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The Project site will be developed as a fire station that serves the surrounding area and other lands in Siskiyou County. The fire station would not result in changes to existing land uses surrounding the Project site that would be converted to non-agricultural uses.

The surrounding lands are within a National Grassland that is protected. Additionally, fire station personnel will be able to travel to Macdoel (approximately two miles to the south on Highway 97) for any services and supplies as needed.

No impacts would occur.

AIR QUALITY

Environmental Setting

The Project area is located within the Northeast Plateau Air Basin (NPAB) in unincorporated Siskiyou County, which is under the jurisdiction of the Siskiyou County Air Pollution Control District (SCAPCD). The existing air quality conditions in the area are determined by natural factors such as topography, meteorology, and climate, in addition to the number of emissions released by existing air pollutant sources.

Climate, Meteorology, and Topography

Ambient concentrations of air pollutants are determined by the levels of emissions released by pollutant sources and the ability of the atmosphere to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and the presence of sunlight. In Siskiyou County, the terrain is dominated by volcanic peaks (e.g., Mount Shasta) and forested mountains, with agricultural activities (including rangeland) primarily in areas that are not wooded. The climate in Siskiyou County is characterized by moderately wet winters and dry summers. Between June and September, normal rainfall is typically less than 1 inch per month. Temperatures in Siskiyou County average approximately 52 degrees Fahrenheit (°F) annually, with summer highs in the low 70 °F and winter lows in the high 30 °F. Precipitation averages approximately 12 inches per year, although annual precipitation varies markedly from year to year (NCEI 2023). Annual average wind speeds in Siskiyou County are approximately 6 miles per hour (mph) and predominately blow from the north (WRCC 2023a). The average wind speed ranges from a low of 5 mph in the fall to a high of approximately 8 mph in the summer (WRCC 2023b).

Criteria Air Pollutants

As required by the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) has identified national ambient air quality standards (NAAQS) for six criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable and fine particulate matter [PM₁₀ and PM_{2.5}, which are particulate matter (PM) that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively], and lead. The state of California has also established California ambient air quality standards (CAAQS) for these six pollutants as well as sulfates, hydrogen sulfide (H₂S), vinyl chloride, and visibility-reducing particles. The NAAQS and CAAQS were established to protect the public from adverse health impacts caused by exposure to these air pollutants. A brief description of the criteria air pollutants and their effects on public health is provided in Table 1.

Table 1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute¹ Health Effects	Chronic² Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO _x in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO _x results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO ₂)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO ₂)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO ₂ exposure to chronic health impacts
Respirable particulate matter (PM ₁₀), Fine particulate matter (PM _{2.5})	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO ₂ and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

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

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

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

Source: CARB 2022a.

Attainment Area Designations

The CAA and the California Clean Air Act (CCAA) require all areas of California to be classified as attainment, non-attainment, or unclassified as to their status with regard to the NAAQS and CAAQS. Under the CAA and the CCAA, the California Air Resources Board (CARB) is to designate portions of the State based on air quality monitoring data. Attainment statuses for Siskiyou County are contained in Table 2. Siskiyou County is designated as attainment/unclassified for the NAAQS and CAAQS.

Table 3.1-2 Attainment Status Designations for Siskiyou County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (8-hour) ¹	Attainment
	Attainment (8-hour) ²	Attainment (8-hour)
Respirable particulate matter (PM ₁₀)	Attainment	Attainment
Fine particulate matter (PM _{2.5})	Unclassified/Attainment	Attainment
Carbon monoxide (CO)	Unclassified/Attainment	Unclassified
Nitrogen dioxide (NO ₂)	Unclassified/Attainment	Attainment
Sulfur dioxide (SO ₂)	Unclassified/Attainment	Attainment
Lead (Particulate)	Unclassified/Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Sulfates		Attainment
Visibility Reducing Particles		Unclassified
Vinyl Chloride		

Sources: CARB 2022b.

Ozone

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

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include restriction of lung function and the possibility of permanent lung impairment (CARB 2022a). Emissions of the ozone precursors ROG and NO_x have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. Emissions of ROG and NO_x decreased from 2000 to 2010 and are Projected to continue decreasing from 2010 to 2035 (CARB 2013).

Nitrogen Dioxide

NO₂ is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO₂ are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide, which reacts through oxidation in the atmosphere to form NO₂. The term NO_x is used to represent the combined emissions of seven compounds. The combined emissions are reported as equivalent NO₂, which are regulated by EPA and CARB through the CAA and CCAA. Because NO₂ is formed and depleted by reactions associated with photochemical smog (ozone), the NO₂ concentration in a particular geographical area may not be representative of the local sources of NO_x emissions (EPA 2012).

Acute health effects of exposure to NO_x include coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, or pulmonary edema, breathing abnormalities, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (CARB 2022a).

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM₁₀. PM₁₀ consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (CARB 2013). Fine particulate matter (PM_{2.5}) includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. Additionally, emissions of ambient PM_{2.5} are heavily influenced from secondary source emissions such as nitrates, sulfates, and organic compounds from combustion processes including biomass burning, soil and road dust, livestock operations, and use of aerosols (Behera and Sharma 2010). While primary PM_{2.5} is from direct emissions, secondary PM_{2.5} is formed in the atmosphere through photochemical reactions, condensation, and other atmospheric processes.

A number of adverse health impacts have been associated with exposure to both PM_{2.5} and PM₁₀ (CARB 2022a). Short-term exposures to PM₁₀ have been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits. For PM_{2.5}, short-term exposures (up to 24 hours in duration) have been associated with premature mortality, increased hospital admissions for heart or lung cases, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. In addition, of all the common air pollutants, PM_{2.5} is associated with the greatest proportion of adverse health effects related to air pollution, both in the US and worldwide. Long-term (months to years) exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless gas formed by the incomplete combustion of fuels. CO is a product of motor vehicle exhaust, which comprises the majority of ambient CO

concentrations. High concentrations of CO generally occur in areas with heavy traffic congestion. Other sources of CO emissions include industrial processes such as carbon black manufacturing, non-transportation related fuel combustion, and natural sources such as wildfires. CO can cause harmful health effects by reducing oxygen delivery to the body's organs (including the heart and brain) and tissues. For people with heart disease, short-term exposure to CO can further affect their body's capacity to respond to the increased oxygen demands of exercise or exertion. CO can also be deadly in indoor environments and closed spaces.

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs) are used to indicate the quality of ambient air. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in relatively minute quantities in the ambient air; however, their high toxicity and associated health effects may pose a threat to public health even at low concentrations.

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

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (CARB 2013).

Odors

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon

known as odor fatigue, in which a person can become desensitized to almost any odor and recognition, only occurs with an alteration in the intensity. Odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants. None of these odorous land uses are within proximity to the Project site.

Sensitive Receptors

Sensitive receptors include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of people particularly sensitive to pollutants and/or the potential for increased and prolonged exposure to pollutants. The closest sensitive receptors to the Project boundary are single-family residences on Colma Street, located approximately 0.75 miles southwest of the Project area.

Regulatory Framework

CAL FIRE is an authorized entity of the State of California. State agencies are not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, CAL FIRE does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the Project's consistency with local plans, policies, and regulations.

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

Federal

US Environmental Protection Agency

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

Criteria Air Pollutants

Criteria air pollutants are compounds that, at certain concentrations, can cause harm to human and animal health and the environment. Extensive scientific and economic research has been conducted to evaluate the specific concentrations where these pollutants may cause harm to health and the environment and are reflected in EPA's NAAQS. The primary standards protect public health, and the secondary standards protect public welfare. The CAA also required each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The federal CAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's SIP is modified periodically to reflect the latest

emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Hazardous Air Pollutants and Toxic Air Contaminants

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

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

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 3). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and, in California, CARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum achievable control technology or best available control technology (BACT) for air toxics to limit emissions.

State

California Air Resources Board

CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the CCAA. The CCAA, which was adopted in 1988, required CARB to establish CAAQS (Table 3).

Criteria Air Pollutants

CARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases, the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources. The CCAA also provides air districts with the authority to regulate indirect emission sources.

Table 3 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS) ^{a,b}	National (NAAQS) ^c	
			Primary ^{b,d}	Secondary ^{b,e}
Ozone	1-hour	0.09 ppm (180 µg/m ³)	— ^e	Same as primary standard
	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (147 µg/m ³)	
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	Same as primary standard
	8-hour	9 ppmf (10 mg/m ³)	9 ppm (10 mg/m ³)	
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.03 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)	Same as primary standard
	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
Sulfur dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	—	—
	3-hour	—	—	0.5 ppm (1300 µg/m ³)
	1-hour	0.25 ppm (655 µg/m ³)	75 ppb (µg/m ³)	—
Respirable particulate matter (PM ₁₀)	Annual arithmetic mean	20 µg/m ³	—	Same as primary standard
	24-hour	50 µg/m ³	150 µg/m ³	—
Fine particulate matter (PM _{2.5})	Annual arithmetic mean	12 µg/m ³	12 µg/m ³	15.0 µg/m ³
	24-hour	—	35 µg/m ³	Same as primary standard
Lead ^f	Calendar quarter	—	1.5 µg/m ³	Same as primary standard
	30-Day average	1.5 µg/m ³		
	Rolling 3-month Average	—	0.15 µg/m ³	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m ³)	No national standards	
Sulfates	24-hour	25 µg/m ³		
Vinyl chloride ^f	24-hour	0.01 ppm (26 µg/m ³)		
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km		

Notes: µg/m³ = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million (by volume).

^a California standards for ozone, carbon monoxide, SO₂ (1- and 24-hour), NO₂, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

- ^b Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°C) and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- ^c National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. The PM₁₀ 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. The PM_{2.5} 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- ^d National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- ^e National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- ^f The California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold of exposure for adverse health effects determined. This allows for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Source: CARB 2016.

Toxic Air Contaminants

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

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

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

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

formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

Regional Haze Plan

In 1999 the EPA adopted the Regional Haze Rule to protect visibility in Class I federal lands (e.g., national parks and scenic areas). The Regional Haze Rule lays out specific visibility requirements to ensure improvements in the anthropogenic components of visibility at 156 of the largest national parks and wilderness areas across the United States, which are referred to as Federal Class I Areas (CARB 2023a). To ensure progress toward the national goal, the EPA established SIP requirements for states to address and improve visibility to natural conditions by 2064 (CARB 2023a). To comply with the Regional Haze Rule, CARB developed a Regional Haze Plan. The first Regional Haze Plan was adopted by CARB in December 2009 and approved by the EPA in June 2011. The second Regional Haze Plan was adopted by CARB in June 2022 and submitted to the EPA in August 2022. The second Regional Haze Plan covers the second implementation period of 2018-2028 and includes calculation of baseline, current, and natural visibility conditions, a long-term strategy to reduce regional haze pollution, and 2028 reasonable progress goals.

State Implementation Plan

As detailed above, federal clean air laws require states with nonattainment areas to develop comprehensive plans that describe how an area will attain air quality standards. The SIP includes strategies to attain and maintain federal air quality standards and air quality standards in the County pursuant to the CCAA. SIPs include previously submitted plans, programs, district rules, and state and federal regulations (CARB 2023a).

Trucks and Bus Regulation

The Truck and Bus Regulation is a key element of both CARB's Diesel Risk Reduction Plan for reducing diesel risk and the SIP for attaining and maintaining the NAAQS. The regulation requires all diesel vehicles with a Gross Vehicle Weight Rating greater than 14,000 pounds (lbs) operating in California to meet model year 2010 emission standards before January 1, 2023 (CARB 2020). This regulation will result in trucks generating less emissions of criteria air pollutants and precursors, as well as diesel PM.

Local

Siskiyou County Air Pollution Control District

The Siskiyou County Air Pollution Control District (SCAPCD) adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs, monitors air quality, and prepares air quality plans. SCAPCD develops rules and regulations that are approved by EPA and included in the SCAPCD portion of the California SIP. Although the Project is not a stationary source Project, in lieu of other operational thresholds, this analysis applies the BACT thresholds for CEQA purposes.

Rule 6.1 Standards for Permits to Construct

The SCAPCD Rule 6.1 Standards for Permits to Construct contains thresholds for operational emissions from new stationary sources. Although the stationary source emissions thresholds do not directly apply to construction activities, they provide a reference point for levels of emissions that would trigger SCAPCD requirements for BACT and/or mitigation off-set and are commonly used as a significance threshold for construction emissions. Rule 6.1 also

includes mitigation measures for new stationary sources that exceed the thresholds of significance and qualifications for exemption.

Methodology

The short-term construction-related and long-term operational emissions associated with the proposed Project were estimated using the California Emissions Estimator Model (CalEEMod) 2022.1.1.18 using a combination of Project-specific information and model defaults.

Thresholds of Significance

Per Appendix G of the CEQA Guidelines, the following thresholds are used to determine whether implementing the Project would result in a significant air quality impact.

- ▶ Conflict with or obstruct implementation of an applicable air quality plan.
- ▶ 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.
- ▶ Expose sensitive receptors to substantial pollutant concentrations.
- ▶ Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

In determining whether a Project has significant air quality effects on the environment, CEQA practitioners typically apply the local air district's thresholds of significance to Projects in the environmental review process. SCAPCD has not adopted air quality significance thresholds for construction emissions. However, for the purpose of assessing air quality impacts in CEQA documents, SCAPCD Rule 6.1 (Construction Permit Standards for Criteria Pollutants) is commonly used as a significance threshold for construction emissions. Although the stationary source emissions thresholds do not directly apply to construction activities, they provide a reference point for levels of emissions that would trigger SCAPCD requirements for BACT and/or mitigation offsets. Per Rule 6.1, criteria air pollutants from the operation of stationary sources are considered significant if they exceed the following thresholds.

- ▶ 250 pounds per day (lb/day) for ROG, NO_x, PM₁₀, PM_{2.5}, NO_x, SO₂; and
- ▶ 2,500 lb/day of CO

Section B2 of the SCAPCD Construction Permit Standards for Criteria Pollutants provides an exemption from mitigation measures for new stationary sources providing that "the source will be used exclusively for providing essential public services, such as schools, hospitals, or police and fire fighting facilities, but specifically excluding sources of electrical power generation other than for emergency standby use at essential public service facilities" (EPA 2022: 1).

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐

As noted in Table 2 (Attainment Status Designations for Siskiyou County), Siskiyou County is designated as attainment or unclassified for all the NAAQS and CAAQS. As such, SCAPCD has not developed any air quality plans relevant to the proposed Project or area. However, the SIP includes strategies to be used to attain and maintain federal air quality standards. Under the SIP, SCAPCD has prepared rules and regulations related to air quality for the County. The proposed Project involves the construction and operation of a new 8,263 square foot fire station and associated facilities on an approximately 36-acre site. The Project would not introduce new growth outside of the assumptions of the SIP and the Siskiyou General Plan. Additionally, as discussed below under Criterion (b), the Project's emissions of criteria air pollutants would not be substantial and would not interfere with the Regional Haze Plan. Therefore, the Project would not conflict with or obstruct implementation of the SIP or any relevant plan to reduce air pollution. This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project 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?	☐	☐	☒	☐

Siskiyou County is designated as attainment or unclassified for all NAAQS and CAAQS. Additionally, as shown in Table 4 and Table 5, the construction and operation of the Project would not exceed SCAPCD thresholds of significance for new stationary source emissions in Rule 6.1. The construction and operation of the Project are discussed in further detail below.

Construction

Construction activities would be temporary and intermittent in nature and would include site preparation, earthwork, and excavation for building foundations and utilities. Construction vehicles and equipment would access the Project site via US Route (US) 97 and all construction equipment and vehicle staging would occur within the limits of the Project site. The Project would be operational by the end of 2024.

As discussed above, based on Rule 6.1, Standards for Permits to Construct in the SCAPCD Rules and Regulations, if construction of the proposed Project would exceed the SCAPCD's

quantitative thresholds, the Project would result in a significant impact (SCAPCD 2022). Maximum daily emissions were estimated and compared to the SCAPCD quantitative thresholds. The estimate of daily emissions of criteria pollutants over the construction period for the Project is presented in Table 4. Additional modeling assumptions and details are provided in Appendix A, Air Quality, Energy, and Greenhouse Gas Modeling Outputs.

Table 4 Estimated Maximum Daily Construction Emissions

	ROG	NO _x	CO	SO _x	PM ₁₀ ¹	PM _{2.5} ¹
Maximum Daily Emissions (lb/day)						
2024	1	11	11	<1	6	3
2025	13	5	8	<1	<1	<1
2026	13	<1	1	<1	<1	<1
SCAPCD Significance Threshold (lb/day)	250	250	2,500	250	250	250
Exceeds Screening Criteria?	No	No	No	No	No	No

¹ PM₁₀ and PM_{2.5} emissions shown include the sum of fugitive dust and exhaust particulate matter.

Notes: lb/day = pounds per day, ROG = reactive organic gases, NO_x = oxides of nitrogen, CO = carbon monoxide, SO_x = sulfur oxides, PM₁₀ = respirable particulate matter, PM_{2.5} = fine particulate matter, SCAPCD = Siskiyou County Air Pollution Control District, lb/day = pounds per day.

Source: Modeling performed by Ascent in 2023.

As shown in Table 4, maximum daily construction-generated emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} would not exceed the SCAPCD thresholds of significance in Rule 6.1. Additionally, the off-road diesel vehicles (25 horsepower or greater) and most two-engine vehicles (except on-road two-engine sweepers) used for construction activities related to the proposed Project would be required to comply with CARB's In-Use Off-Road Diesel Fueled Fleet Regulations (CARB 2023b). Adhering to this CARB regulation for off-road diesel vehicles would reduce potential Project-related visibility impacts resulting from construction activities and would ensure consistency with the Regional Haze Plan. Therefore, construction emissions would not conflict with or violate an applicable air quality plan and this impact would be less than significant.

Operation

After construction, day-to-day activities associated with operation of the proposed Project would generate emissions from mobile and area sources. Operational emissions may be both direct and indirect emissions and would be generated by area and mobile sources associated with the Project. The Project would not include any natural gas infrastructure and would therefore not generate emissions from the energy sector. Project-generated area-source emissions would be associated with maintenance activities (e.g., landscape equipment and painting) while mobile-source emissions would include vehicle trips by CAL FIRE personnel. The emissions associated with operation of the new fire station were estimated and compared to the SCAPCD thresholds of significance in Rule 6.1. Emissions were quantified using CalEEMod, Version 2022.1.1.18, using a combination of Project-specific information and model defaults. Additional details are available in Appendix A. Emission estimates associated with operation of the proposed Project are presented in Table 3.1-5.

Table 5 Estimated Maximum Daily Operation Emissions

	ROG	NO _x	CO	SO _x	PM ₁₀ ¹	PM _{2.5} ¹
Daily Emissions						
Maximum (lb/day)	1	1	5	<1	1	<1
SCAPCD Significance Threshold (lb/day)	250	250	2,500	250	250	250
Exceeds Screening Criteria?	No	No	No	No	No	No

¹ PM₁₀ and PM_{2.5} emissions shown include the sum of fugitive dust and exhaust particulate matter.

Notes: lb/day = pounds per day, ROG = reactive organic gases, NO_x = oxides of nitrogen, CO = carbon monoxide, SO_x = sulfur oxides, PM₁₀ = respirable particulate matter, PM_{2.5} = fine particulate matter, SCAPCD = Siskiyou County Air Pollution Control District, lb/day = pounds per day.

Source: Modeling performed by Ascent in 2023.

As shown in Table 3.1-5, the maximum daily operational emissions would not exceed the SCAPCD thresholds of significance in Rule 6.1. and this impact would be less than significant.

Summary

Neither construction or operational emissions would exceed the SCAPCD thresholds of significance in Rule 6.1. Additionally, the construction of the Project would align with the Regional Haze Plan. Therefore, the proposed Project would not conflict with or obstruct implementation of any applicable air quality plan and the impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

The Project area is sparsely populated with few sensitive land uses. Surrounding land uses include US 97 and undeveloped land to the east, as well as additional undeveloped land to the north, south, and west. The nearest off-site sensitive receptors are single-family residences located approximately 0.75 miles southwest of the proposed Project area. The residences represent the nearest sensitive receptors with the potential to be affected by construction and operation of the proposed Project.

Construction

The greatest potential for TAC emissions resulting from construction of the proposed Project would derive from diesel PM emissions associated with heavy equipment operations. A variety of gasoline or diesel-powered equipment would be required for Project site preparation and building construction. Most diesel PM emissions associated with material delivery trucks

and construction worker vehicles would occur off-site and would not substantially contribute to TAC emissions in the Project area.

Regarding exposure to diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. It is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period.

During construction, diesel PM is an issue of concern; however, Project construction activities would be temporary, and long-term exposure of nearby sensitive receptors to diesel PM would not occur. Additionally, based on the construction emissions modeling conducted (see Table 3.1-5 above), maximum daily emissions of PM_{10E} would be less than 1 pound during peak construction, which is below the SCAPCD significance threshold of 250 lb/day.

Because construction activity on the Project site would generate a relatively low mass of diesel PM emissions; diesel PM-emitting construction activity at the Project site would be temporary (approximately 27 months); and the nearest sensitive receptors are 0.75-miles southwest, Project construction would not expose sensitive receptors to substantial pollution concentrations. This impact would be less than significant.

Operation

Regarding TAC mobile-sources, high-volume roadways (i.e., major freeways) and truck routes traveled primarily by heavy-duty diesel trucks have the greatest potential for resulting in high TAC exposure. The primary mobile-source pollutant of localized concern is CO. Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. The proposed Project would not result in an increase in traffic volume. Additionally, as shown in Table 3.1-5, maximum daily emissions of CO would be approximately 6 lb/day which is below the SCAPCD significance threshold of 2,500 lb/day. This impact would be less than significant.

Summary

Considering the distance to the nearest sensitive receptors, and that the estimated maximum of construction and operation emissions would not exceed the SCAPCD thresholds of significance, the proposed Project would not expose sensitive receptors to substantial pollutant concentrations. This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

Less than significant. Potential sources that may emit odors during the construction of the proposed Project would include exhaust from diesel construction equipment. Implementation of the Project would include standard construction techniques and any odors from off-road equipment and on-road vehicles would be typical of most construction sites and temporary in nature. Additionally, the Project site is in a rural area with few surrounding sensitive receptors. Operation of the proposed Project does not include any major sources of odor. As a result, Project construction and operational activities would not create objectionable odors adversely affecting a substantial number of people. The impact would be less than significant.

BIOLOGICAL RESOURCES

Environmental Setting

The site is located approximately 1.75 miles north of the town Macdoel, along the State Route 97 in Siskiyou County, California (Map 2 Vicinity 24K). The site is in the southwest quarter of section 4, Township 46 North, Range 1 West, Mount Diablo Base and Meridian. The Siskiyou County assessor's parcel number is 003-380-010. Land use is undeveloped inactive agricultural land. The site occurs within the United States Geological Survey (USGS) 7.5-minute quadrangle Sheep Mountain. The site is flat, with slopes ranging from 0 to 2. The elevation is approximately 4,240 feet above mean sea level.

Soil

The United States Department of Agriculture Web Soil Survey service was utilized to obtain a soil report on June 28, 2023. The site consists of Poman loamy sand soil type, 0 to 2 percent slopes. The typical profile of this soil type is loamy sand (0 to 29 in), indurated (29 to 39 in), and sand (39 to 60 in). The parent material of this soil type is alluvium derived from igneous rock. The drainage class is somewhat excessively drained, with a very low run-off class. Depth to water is usually more than 80 inches. It is non-saline to slightly saline (0.0 to 4.0 mmhos/cm). Mean annual precipitation is approximately 11 inches with a mean annual air temperature of 46 degrees Fahrenheit (F). The pH of the soil is approximately 7.5, which is slightly more basic than neutral. The maximum calcium carbonate equivalent is approximately 3%. There is very low organic material available, and this land is not considered prime farmland.

Habitat and Vegetative Communities

The California Wildlife Habitat Relationship (CWHR) model designates the Project area as an Herbaceous cover type consisting of Annual grassland (AGS). This habitat type is composed primarily of annual plant species. Structure in AGS depends largely on weather patterns and

livestock grazing. Introduced annual grasses are the typical dominant plant type and include wild oats, soft chess, brome, barley, and foxtail fescue. Perennial grasses may also be found.

The 18,425-acre Butte Valley National Grassland surrounds the Project site and consists of shrub-steppe, dominated by sagebrush, rabbitbrush, bitterbrush, basin wildrye, intermediate wheatgrass, and many other arid grasses and flowers. Western juniper is the only tree, scattered over the Grassland although no trees are within the Project area.

Potential Waters of the U.S.

The Project is located within the Klamath River Watershed. This watershed originates in southern Oregon and flows through the Cascade Mountain Range to the Pacific Ocean south of Crescent City, California measuring 263 miles in length and encompassing 12,000 square miles.

There are no wetlands within the Project area. Standing or flowing surface water is also not present on the Project site. Meiss Lake is located approximately 1.5-miles to the west, and there is one small depressional seasonal non-vegetated pond approximately one-half mile to the east. There is an inactive well in the southwestern area of the site and an irrigation ditch located just outside the Project boundary to the West. The ditch was dry at the time of the survey.

Site Visits and Surveys

Site visits were conducted by multiple staff from the California Department of Forestry and Fire Protection (CAL FIRE) on May 3 and June 27, 2023. The purpose was to evaluate vegetative type, botanical resources, and potential for use by wildlife within the Project area. The entire site was walked and evaluated. There are no trees, vegetative canopy above 3 feet, standing or pooling water, rock outcrops, medium to large woody debris, or soil variation other than sand. There were no sensitive species (listed species, or species of special concern) utilizing the area. Only common plant, shrub, insect, and bird species were identified.

Species Scoping

Process

A query of the California Natural Diversity Database (CNDDDB) was conducted on April 30, 2023, and again on June 21, 2023, using RareFind, an online user interface provided by the California Department of Fish and Wildlife (CDFW). There were no changes, and the information expires on December 2, 2023. The query employed a nine 7.5-minute quadrangle (9-Quad) area and included the following: Sheep Mountain (center), Sam's Neck, Dorris, Sheepy Lake, Macdoel, Red Rock Lakes, Penoyar, Bray, and Sharp Mtn.

The intent of the query is to identify sensitive species that may utilize the area. Sensitive species are those that are protected under provisions of the California Endangered Species Act (CESA), and/or the federal Endangered Species Act (ESA), as well as those on a Watch List (WL), Fully Protected (FP), or designated as Species of Special Concern (SSC) by CDFW. Adverse impacts to these species should be avoided or mitigated. "Take" must not occur to CESA or ESA protected species. Additionally, some species *may* fit the definition of rare, threatened, or endangered and have been evaluated by the California Native Plant

Society (CNPS). These species are given ranks by CNPS and are included in the query as CNPS ranked 1B.2, 2B.2, and 2B.3.

Results

The query resulted in 23 wildlife species observed and reported to CNDDDB within the nine-quad area (Map 3: CNDDDB 9-Quad). Three aquatic species, two common mollusk species, and one common insect species were removed leaving 17 sensitive wildlife species (Table 6). The query also resulted in 10 botanical species (Table 7).

Wildlife Species

All wildlife species provided by the CNDDDB 9-quad query are discussed below. The discussion provides a brief description of the animal, habitat requirements, status, and potential for the species to be found within the Project area.

American white pelican (*Pelecanus errthrothynchos*)

The American white pelican is a large aquatic soaring migratory bird with a wingspan of over 8 feet. They winter on the Pacific and Gulf of Mexico coasts from central California and Florida south to Costa Rica. They are rarely found on open shore and prefer estuaries, bays, and lakes. American white pelicans breed in large colonies up to 5,000 pairs per site. They arrive in March or April and nest between early April and early June. Nests are constructed in shallow depressions on the ground and bolstered by sticks, twigs, reeds, and/or other woody debris. Habitat is not available on the Project site and there is a low likelihood of occurring in the Project area other than occasional fly over heading into or from Meiss Lake. No action is required, and adverse impacts are not anticipated.

Bald eagle (*Haliaeetus leucocephalus*)

A large raptor of mostly brown plumage with a white tail and white head. Typical wingspan is between 5 feet and 7 feet, weighing up to 14 pounds. Females are usually about 25% larger than males. They are common within their range which includes most of North America, Canada, and Northern Mexico. They typically require large trees in mature coniferous stands for perching, roosting, and nesting. Nest trees are generally located near a large body of water. They prey upon fish, birds, and small mammals, but will also consume carrion. Their critical breeding period is mid-February to late-July. Sexually mature at four or five years of age, Bald eagles breed early; usually around mid-February. Egg laying occurs in late February and incubation lasts until mid-March to May. Eggs hatch from mid-April to early May and the young fledge in late June or early July. Habitat is not available on the Project site and there is a low likelihood of occurring in the Project area aside from perching on telephone poles near the Project. No action required and adverse impacts are not anticipated.

Bank swallow (*Riparia riparia*)

A neotropical migrant found primarily in riparian and other lowland habitats in California west of the deserts during the spring-fall period. A spring and fall migrant in the interior, less common on coast, an uncommon and very local summer resident. In summer, the species is restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In migration they will flock with other swallows over many open habitats. Was formerly more common as breeding in California and now only approximately 110-120 colonies remain within the state. It is believed that 75% of the current breeding population in California occurs along the banks of the

Sacramento and Feather rivers in the northern Central Valley. About 50-60 colonies remain along the middle Sacramento River and 15-25 colonies occur along lower Feather River where the rivers meanders in a mostly natural state. Other colonies persist along the central coast from Monterey to San Mateo counties, and northeastern California in Shasta, Siskiyou, Lassen, Plumas, and Modoc counties. The species forages by hawking insects during long, gliding flights.

Bank swallows feed predominantly over open riparian areas, but also over brushland, grassland, wetlands, water, and cropland. They feed on a wide variety of aerial and terrestrial soft-bodied insects including flies, bees, and beetles. The species uses holes dug in cliffs and riverbanks for cover. Nesting and foraging habitat is not available on the Project site and there is no likelihood of occurring in the Project area. No action is required, and adverse impacts are not anticipated.

Black-backed woodpecker (*Picoides arcticus*)

This species is an uncommon, yearlong resident from about 6000-9500 feet in predominantly fir and lodgepole pine forests located in the Siskiyou Mountains, Mount Shasta, and Warner Mountains south through the Cascade Range and Sierra Nevada to Tulare County. They flake away bark, or drill into trunks of conifers to obtain larval and adult insects consisting of mostly wood-boring beetles. The species typically forages in snags, dying or insect-infested trees. They will eat small amounts of fruits, mast, cambium as well. They prefer relatively large trees for foraging and nesting. The canopy cover may range from sparse to dense. Habitat is not available within or near Project area. No action required and adverse impacts are not anticipated.

California gull (*Larus californicus*)

A common nester at alkali and freshwater lacustrine habitats east of the Sierra Nevada and Cascades, and an abundant visitor to coastal and interior lowlands in nonbreeding season. In April, the species begins to depart for their breeding grounds. California's nesting population is scattered across the northeastern plateau region. In late summer, they migrate westward across the Sierra Nevada from interior nesting grounds to California and the Pacific Northwest in winter. Their preferred habitat along the coast are sandy beaches, mudflats, rocky intertidal, and pelagic areas of marine and estuarine habitats, as well as fresh and saline emergent wetlands. Inland, they frequent lacustrine, riverine, and cropland habitats, landfill dumps, and open lawns in cities.

In winter, this omnivore feeds on garbage, carrion, earthworms, adult insects, and larvae. They may frequent landfill dumps, fields, and pastures. The young are fed larval insects, brine shrimp, young birds, garbage, earthworms, and insects. Adults roost in large concentrations along shorelines, landfills, and pastures. The young require protective cover from wind and heat and will nest on islands in alkali or freshwater lakes and salt ponds in California. The nest is lined with grasses, feathers, or rubble, on sparsely vegetated portions of isolated islands. They nest from mid-April through mid-August, with peak nesting occurring in late May through June. The species usually nests in colonies, often in association with other water birds. Habitat is not present on the Project site and no action is required. Adverse impacts are not anticipated.

Greater sandhill crane (*Antigone canadensis tabida*)

The Greater sandhill crane is listed in California as a Threatened species and is fully protected. Greater sandhill cranes are large birds that stand over five feet tall. They have a large wingspan that can reach over seven feet, and they can weigh up to 10 pounds. Cranes are migratory birds, flying south for winter. They range from Alaska to Cuba. Some southern populations are nonmigratory. They prefer open freshwater wetlands but will also utilize a range of habitats including bogs, sedge meadows, fens, open grasslands, pine savannas, and irrigated agricultural lands. Their diet is diverse and consists of berries, grains, insects, snails, and small mammals, reptiles, and amphibians. When foraging, they prefer open shortgrass plains, grain fields, and open wetlands.

Their critical breeding period is around late March to early August. In migratory populations, cranes arrive to northern California in late February and breeding begins in late March. Nests are commonly large mounds constructed over water in wet meadows, marshes, or swales. On dry surfaces, nests are scooped depressions lined with grasses. Eggs hatch around 30 days later, and young Colts are born precocious, leaving the nest within days. Adults will feed young for up to three weeks then less gradually until they reach independence at around nine to ten months old. Suitable breeding and/or foraging habitat is not available within Project area. There is no likelihood of occurring within the Project area for either foraging or nesting. Habitat is available at Meiss lake and occasional flights over the Project site are possible. No action is required, and adverse impacts are not anticipated.

North American porcupine (*Erethizon dorsatum*)

The porcupine is found throughout the Sierra Nevada and Cascades from Kern County north to the Oregon border, south in the Coast Ranges to Sonoma County, and from San Mateo County south to Los Angeles County. Scattered populations occur in wooded habitats in the eastern Central Valley, as well as Los Angeles and San Bernardino counties. Populations tend to be localized. They are most common in montane conifer, Douglas-fir, alpine dwarf-shrub, and wet meadow habitats and less common in hardwood, hardwood-conifer, montane and valley-foothill riparian, aspen, pinyon-juniper, low sage, sagebrush, and bitterbrush. In spring and summer, they feed on aquatic and terrestrial herbs, shrubs, fruits, leaves, and buds. Their winter diet consists of twigs, bark, and cambium of trees, particularly conifers, and evergreen leaves.

Trees that are utilized by this species include yellow pines, Douglas-fir, pinyon pine, lodgepole pine, western white pine, limber pine, bristle-cone pine, firs, oaks, maple, cottonwood, willow, and elderberry. They utilize fecal fermentation and have enlarged livers, adaptations which may be related to a winter diet low in vitamins. They use caves, large rock crevices, hollow logs, and trees for cover. They may den in caves, crevices in rocks, cliffs, hollow logs, snags, and burrows of other animals. However, they will use dense foliage in trees if other sites are unavailable. Suitable habitat is not present on the Project site and no action is required. Adverse impacts are not anticipated.

Northern goshawk (*Accipiter gentilis*)

Northern goshawks have relatively short, broad wings and a long tail. For an Accipiter, they have a large bill. Across most of the species' range, they are blue grey above and brownish grey with dark banding below. They have a widespread distribution and inhabit many of the temperate parts of the northern hemisphere. Northern goshawks are mostly resident species,

but populations in colder areas migrate south for winter. They are forest raptors that inhabit and require large stands of dense mature, closed canopy forest. They use snags and dead topped trees for observation and prey-plucking perches. The species usually nests near permanent water sources.

Northern goshawks prey on birds of various sizes and small mammals such as squirrels and rabbits. Their critical breeding period is mid-March to mid-July. Adult goshawks return to their breeding grounds usually between March and April. Incubation lasts around 30 days and nestlings fledge approximately seven weeks after hatching. Pesticide pollution and loss of habitat are their main threats. The nearest documented northern goshawk nest is approximately four miles to the north in a similar forested habitat type. Suitable habitat is not present on the Project site. No action required, and adverse impacts are not anticipated.

Pacific marten (*Martes caurina*)

The Pacific marten is a permanent resident of North Coast regions and Sierra Nevada, Klamath, and Cascades Mountains. The optimal habitats are various mixed evergreen forests with more than 40% crown closure, with large trees and snags. Important habitats include red fir, lodgepole pine, subalpine conifer, mixed conifer, Jeffrey pine, and eastside pine. Martens are mostly carnivorous, taking primarily small mammals that may include tree squirrels, chipmunks, mice, shrews, rabbits, hares, and pikas. In spring through autumn, they often eat birds, insects, and fruits. The marten eats fish and will forage along the edge of water, on the ground, and in trees, snags, logs, and rock areas. They may tunnel under the snow if necessary and use forepaws to remove birds from tree cavities.

Individuals may travel up to 24 km (15 mi) to hunt in one night. The marten utilizes cavities in large trees, snags, stumps, logs, or burrows, caves, and crevices in rocky areas for denning cover. Less commonly they will den in woodpiles, cabins, and other human artifacts. Also, may den under the snow near logs, stumps, or other objects. Nests are in cavities, as described above, lined with leaves, grass, mosses, or other vegetation. They are active yearlong, and are mostly nocturnal and crepuscular, with some diurnal activity. They are non-migratory, although may move to lower elevations in winter. Martens are sensitive to human disturbance and are trapped easily. Large clearcuts, extensive forest management, and destruction of mature stands are detrimental to these mustelids. Habitat is not present on the site and there is no likelihood of occurring in Project area. No adverse impacts are anticipated.

Pallid bat (*Antrozous pallidus*)

The species is a common species of low elevations in California. They occur throughout California except for the high Sierra Nevada from Shasta to Kern Counties, and the northwestern corner of the state from Del Norte and western Siskiyou Counties to northern Mendocino County. The Pallid Bat generally inhabits shrublands, woodlands, grasslands, and occasionally cottonwood-riparian zones within those habitats. It is most common in areas having rocky outcroppings, particularly near water. During summer this species usually roosts in rock crevices, rock piles, tree cavities, shallow caves, and abandoned mines and day roosts occurs in caves, crevices, mines, and occasionally in hollow trees and buildings. The roosts protect the bats from high temperatures, and they will move deeper into cover if temperatures rise. Night roosts may occur in more open sites, such as porches and open buildings. Few hibernation sites are known, but they likely use rock crevices.

A yearlong resident in most of the range, they feed on a wide variety of insects and arachnids, including beetles, orthopterans, homopterans, moths, spiders, scorpions, and crickets. They prefer rocky outcrops, cliffs, and crevices with access to open habitats for foraging. The species forage one to three miles from their day roost. Mates from late October to February and forms maternity colonies in early April and may birth a dozen to 100 individuals. The young are born from April to July, with most being born from May to June. The pallid bat is sensitive to human disturbance and recreational activities may impact roosting bats sometimes resulting in the abandonment of young and roosts. Habitat is not present on the Project site and there is no likelihood of occurring in Project area. Adverse impacts are not anticipated.

Prairie falcon (*Falco mexicanus*)

The prairie falcon is an aggressive medium sized falcon with a meter long wingspan. Their average weight is just under two pounds and females are much larger than males. They are a widespread and abundant resident along the inner coast range and Sierra Nevada. They are somewhat rare in Siskiyou County occurring to the east and throughout Modoc county. The species are distributed from annual grasslands to alpine meadows but mostly associated with perennial grassland, savannahs, rangeland, and some agriculture fields. They nest in open terrain with canyon cliffs and escarpments. They use open terrain for foraging small to medium sized birds, reptiles, and small mammals. The critical breeding period is from February to July, peaking in April and May. Nesting habitat is not available within the Project area. There is a low likelihood of occurring aside from random fly-by. No action is required, and adverse impacts are not anticipated.

Swainson's hawk (*Buteo swainsoni*)

The Swainson's hawk is a medium-sized buteo with relatively long, pointed wings which curve up somewhat in a slight dihedral while the bird is in flight. The most distinctive identifying feature of adults is a dark head and breast band distinctive from the lighter colored belly, and the underside of the wing with the linings lighter than the dark gray flight feathers. Adult females are larger than males weighing on average two and a half pounds with males around two pounds. The Swainson's Hawk breeds in the western United States and Canada and winters in South America as far south as Argentina. A raptor adapted to the open grasslands, foraging habitat includes dry land and irrigated pasture, grasslands, alfalfa, fallow fields, low-growing row or field crops, new orchards, and grain crops. They rely on scattered stands of trees near agricultural fields and grasslands for nesting sites.

Critical breeding period is generally March 1- July 31. Swainson's hawks usually arrive from wintering grounds sometime from late February to early March. They will start staging in March with egg laying and incubation occurring in late April and throughout May. Fledging of young usually occurs sometime in early June. They often nest peripheral to riparian systems but will also use lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat.

Swainson's Hawks in the Great Basin occupy the Juniper/Sagebrush community typical to the area. Suitable nesting habitat includes trees within mature riparian forest or corridors. However, they are known to occupy isolated trees and trees near roads in many tree species (pine, fir, spruce, oak). A portion of the population residing in the Great basin of Northeastern California are known to nest in juniper trees. There are multiple observations adjacent to the Project boundary, but nesting habitat is not available. There is a low likelihood of occurring

aside from a random fly-by or perching on adjacent power lines or poles. No action is required, and adverse impacts are not anticipated.

Tricolored blackbird (*Agelaius tricolor*)

The blackbird breeds near fresh water, preferably in emergent wetland with tall, dense cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. They feed in grassland and cropland habitats seeking mostly insects, spiders, and cultivated grains such as rice and oats. The species seeks cover in emergent wetland vegetation, especially cattails and tules, but also in trees and shrubs and roost in large flocks in emergent wetland or in trees. They are non-migratory over most of their range although some populations do migrate south, especially from northeastern California, in fall or winter. The critical breeding period is mid-April to late-July, and they usually nest in dense cattails or tules, but may also nest in thickets of willow, blackberry, wild rose, and tall herbs (over or near fresh water and emergent wetland). There is no likelihood of occurring in the Project area. Adverse impacts are not anticipated.

Western bumble bee (*Bombus occidentalis*)

The Western Bumble bee is documented in various sheltered and exposed habitat types. The species appears to be a generalist forager with habitat requirements consisting of floral resources for nectar and protected areas for breeding and shelter. These requirements may be represented by many types of botanical species often plentiful and widely distributed. Nesting is likely underground in abandoned rodent burrows or similar cavities that offer shelter, food, and space for the colony to grow. Bumble bee species require soft organic soil for nesting.

Nesting habitat is not available within or adjacent to the Project area and there is a very low likelihood of occurring in the Project area although the site could provide foraging habitat. Foraging opportunities could improve because of the Project due to landscaping flowering plants. The nearest available breeding habitat is unknown. Currently, no action required as there is a low likelihood of occurrence on the Project site. Adverse impacts are not anticipated.

Western snowy plover (*Charadrius nivosus nivosus*)

The Western Snowy Plover is a threatened small shorebird, approximately the size of a sparrow. Plover nests usually contains three tiny eggs, which are camouflaged to look like sand and barely visible to even the most well-trained eye. Plovers will use almost anything they can find on the beach to make their nests, including kelp, driftwood, shells, rocks, and even human footprints. In North America, they breed on the Pacific and Gulf coasts of the United States and Mexico and inland in southern Saskatchewan and southwestern Montana (irregular), the Central Valley of California, Great Basin, Southwest, southern Great Plains, and central Mexico. They occurs year round in California, though seasonal status varies regionally and inland breeders vacate high elevations in winter (Oct–Mar), but some remain year-round, mainly in the San Joaquin Valley and at the Salton Sea.

Plovers breed from March to September and initiate nests as early as the second week of March in southern deserts but occur in late April at high elevations in the Great Basin. In the interior of California, Snowy Plovers breed on barren to sparsely vegetated flats and along shores of alkaline and saline lakes, reservoirs, ponds, braided river channels, agricultural wastewater ponds, and salt evaporation ponds. Plovers feed in the intertidal zone and along

edges of salt marshes, salt ponds, and lagoons. Primarily visual feeders, they pursue a variety of foraging methods that may include run-stop peck motion to find and eat crustaceans, worms, and other small marine invertebrates that they find in wet sand and in stranded kelp. Habitat is not available on the Project site and there is no likelihood of occurring in Project area. No action required, and adverse impacts are not anticipated.

White-faced ibis (*Plegadis chihi*)

The white-faced ibis is very similar to the glossy ibis in its non-breeding plumages, but it tends to be slightly smaller, and the plumage color is somewhat warmer. Breeding adults have a pink bare face bordered with white feathers, a grey bill, and brighter colored redder legs. Adults have red eyes year-round, whereas glossy ibises have dark eyes. Juveniles of the two species are nearly identical.

The white-faced ibis breeds colonially in marshes, usually nesting in bushes or low trees. Its breeding range extends from the western United States south through Mexico, as well as from southeastern Brazil and southeastern Bolivia south to central Argentina, and along the coast of central Chile. Its winter range extends from southern California and Louisiana south to include the rest of its breeding range. The white-faced ibis chooses to nest in the parts of a marsh with dense vegetation such as bulrush, cattails, shrubs and short trees. It will then build a nest from reeds. The white-faced ibis usually lays three or four blue-green eggs at a time.

The white-faced ibis eats a variety of organisms, including many invertebrates such as insects, leeches, snails, crayfish, and earthworms. It may also eat vertebrates such as fish, newts, and frogs. Its feeding style is to use its bill to probe for prey. Nesting habitat is not available within the Project area and there is a low likelihood of occurring aside from random fly-by. No action required, and adverse impacts are not anticipated.

Botanical Species

All botanical species provided by the CNDDDB 9-quad query are discussed below. The discussion provides habitat requirements and potential for the species to be found within the Project area. CalFlora was referenced to determine if the location of the Project is suitable for each plant species.

Bebb's willow (*Salix bebbiana*)

Also known as gray willow. Bebb's willow is a native tree isolated to portions of Siskiyou and Modoc county. This species requires riparian scrub, marshes, and swamps and is usually located in wetlands, streambanks, or lakeshores. It occurs at 3,795 to 6,270 feet in elevation and blooms in May. There is no likelihood of it occurring in the Project area based on the lack of habitat (water).

Columbia yellow cress (*Rorippa columbiae*)

A native perennial herb (rhizomatous), that blooms in May through September and is found at 3,840 to 4,230 feet above mean sea level. The species requires consistent water and is usually located on streambanks, lake or pond margins, and wet meadows. Plant tolerances are not consistent with the Project location as the precipitation is low, wet season brief, temperatures are high, and the pH of the soil is high. The species may be found near the

irrigation ditch to the west of the Project area, but no likelihood of it occurring within the Project boundary.

Ephemeral monkey flower (*Erythranthe inflatula*)

A small annual native herb that blooms in May through August and occurs at 3,000 to 5,160 feet in elevation above mean sea level. The species requires moist gravel and soil and is found among rocks and boulders. The plant requirements are not consistent with the Project location habitat as the precipitation is low, wet season is brief, and pH of the soil is high. There is no likelihood of it occurring in the Project area.

Marsh skullcap (*Scutellaria galericulata*)

This species is a small native perennial herb (rhizomatous) that blooms in June through September and is located at 4,170 to 5,970 feet above mean sea level. The plant requirements are not present on the Project site as the precipitation is low, wet season is brief, and the pH of soil is high. The species is usually found in wet meadows, along streambanks, or in coniferous forests. There is no likelihood of it occurring in the Project area.

Modoc green gentian (*Frasera albiculus* var. *modecensis*)

A perennial native herb that blooms in May through July and occurs at sea level up to 6,330 feet above sea level. Habitat may be available on the Project site as dry brush, but the plant requirements are not consistent with the Project location as the precipitation is low, temperature is high, and pH of soil is high. There is a very low likelihood of it occurring in Project area.

Newberry's cinquefoil (*Potentilla newberryi*)

A small perennial native herb that is found exclusively along shorelines at 3,300 to 5,940 feet above sea level, blooms May-August, and requires permanent water. There is no likelihood of the plant occurring in the Project area.

squarestem phlox (*Phlox muscoides*)

This species is also known as Moss phlox and is a native perennial herb that occurs at 3,120 to 7,110 feet above mean sea level blooming in June-August. This perennial habitat consists of open rocky areas and habitat may be available in Project area. However, plant requirements are not consistent with the location as precipitation is low, the wet season is brief, temperatures are high, and the pH of the soil is high. There is a very low likelihood of this species occurring in the Project area.

watershield (*Brasenia schreberi*)

An aquatic perennial herb blooming in June through September and occurring at elevations lower than 6,300 feet above mean sea level. The plant requires permanent water, and the Project site does not contain suitable habitat. There is no likelihood of it occurring in the Project area.

Western seablite (*Suaeda occidentalis*)

Also known as Western horned sea blite. This species is an annual herb blooming in July through September. It usually occurs at lower elevations (3,000 feet) in dry, saline or alkaline wetlands. The plant requirements are not consistent with the Project location as precipitation

is low, temperatures are high, elevation is high, and the wet season is brief. There is no likelihood of the species occurring in the Project area.

woolly balsamroot (*Balsamorhiza lanata*)

This species is a native perennial herb occurring at 2,400 to 3,100 feet in elevation and blooms from April to July. The plant requires open woodland or grassland. The plant requirements are not consistent with the Project location as precipitation is low, temperatures are high, and soil pH is high. There is no likelihood of the species occurring in the Project area.

Table 6: Sensitive Botanical Species provided by CNDDB within the 9-Quad Assessment Area

Species Common Name	Species Scientific Name	Fed Status	State Status	CDFW
American white pelican	<i>Pelecanus errthrothynchos</i>	None	None	SSC
Bald eagle	<i>Haliaeetus leucocephalus</i>	Delisted	Endangered	FP
Bank swallow	<i>Riparia riparia</i>	None	Threatened	
Black-backed woodpecker	<i>Picoides arcticus</i>	None	None	SSC
California gull	<i>Larus californicus</i>	None	None	WL
Ferruginous hawk	<i>Buteo regalis</i>	None	None	WL
Greater sandhill crane	<i>Antigone canadensis tabida</i>	None	Threatened	FP
North American porcupine	<i>Erethizon dorsatum</i>	None	None	
Northern goshawk	<i>Accipiter gentilis</i>	None	None	SSC
Pacific marten	<i>Martes caurina</i>	None	None	
Pallid bat	<i>Antrozous pallidus</i>	None	None	SSC
Prairie falcon	<i>Falco mexicanus</i>	None	None	WL
Swainson's hawk	<i>Buteo swainsoni</i>	None	Threatened	
Tricolored blackbird	<i>Agelaius tricolor</i>	None	Threatened	SSC
Western bumble bee	<i>Bombus occidentalis</i>	None	Candidate	
Western snowy plover	<i>Charadrius nivosus nivosus</i>	Threatened	None	SSC
White-faced ibis	<i>Plegadis chihi</i>	None	None	WL

Table 7: Sensitive Botanical Species provided by CNDDDB within the 9-Quad Assessment Area

Species Common Name	Species Scientific Name	Fed Status	State Status	CNPS
Bebb's willow	<i>Salix bebbiana</i>	None	None	2B.3
columbia yellow cress	<i>Rorippa columbiae</i>	None	None	1B.2
ephemeral monkey flower	<i>Erythranthe inflatula</i>	None	None	1B.2
Marsh skullcap	<i>Scutellaria galericulata</i>	None	None	2B.2
Modoc green gentian	<i>Frasera albiculus var. modocensis</i>	None	None	2B.3
Newberry's cinquefoil	<i>Potentilla newberryi</i>	None	None	2B.3
squarestem phlox	<i>Phlox muscoides</i>	None	None	2B.3
watershield	<i>Brasenia schreberi</i>	None	None	2B.3
Western seablite	<i>Suaeda occidentalis</i>	None	None	2B.3
woolly balsamroot	<i>Balsamorhiza lanata</i>	None	None	1B.2

Table 8: Common species identified within the Project area through site visits and surveys

Species Common Name	Species Scientific Name	Type	Status
Beckers white	<i>Pontia beckerii</i>	Insect	Native
Blue lettuce	<i>Lactuca tatarica</i>	Plant	Native perennial herb
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	Bird	Common
Cheatgrass	<i>Bromus tectorum</i>	Plant	Invasive, annual grasslike herb
Common storks bill	<i>Erodium cicutarium</i>	Plant	Non-native, annual herb
Crested wheatgrass	<i>Agropyron cristatum</i>	Plant	Non-native, pereninal grasslike herb
Fremont's goosefoot	<i>Chenopodium fremontii</i>	Plant	Native annual herb
Goats beard	<i>Tragopogon dubius</i>	Plant	Non-native, pereninal herb
Great basin wild rye	<i>Elymus cinereus</i>	Plant	Native perennial herb
Large bee-fly	<i>Bombylius major</i>	Insect	Native
Lark sparrow	<i>Chondestes grammacus</i>	Bird	Common
Prickly lettuce	<i>Lactuca serriola</i>	Plant	Non-native, annual herb
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	Plant	Native shrub
Sagebrush	<i>Artemisia spp.</i>	Plant	unknown
Silver sagebrush	<i>Artemisia cana</i>	Shrub	Native shrub
Small flowered blazing star	<i>Mentzelia albicaulis</i>	Plant	Native annual herb
Thyme-leaved spurge	<i>Euphorbia serpillifolia</i>	Plant	Native annual herb
Vetch or Larkspur	<i>Unknown 1</i>	Plant	unknown
Western harvester ant	<i>Pogonomyrmex spp.</i>	Insect	Native
Wild mustard	<i>Hirschfeldia incana</i>	Plant	Non-native, pereninal herb

Discussion

a) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

During the site surveys, only common species were observed within the Project area. There were 20 species identified through site visits and surveys and are summarized in Table 8. The distribution is represented by 14 plant, 1 shrub, 3 insect, and 2 bird species. Interesting observations include multiple lark sparrows foraging on Western harvester ants, and a large bee-fly utilizing an *H. incana* flower for nectar.

There were no sensitive wildlife or botanical species found during the site evaluations. The area contains sandy soil, grasses, some plants, and shrub species. There are no trees, vegetative canopy above 3 feet, standing or pooling water, down woody debris, rock outcrops, or soil variation other than sand. There is a very low potential for *Bombus* bumble bee species to utilize the Project area for foraging only. There is no nesting potential for *Bombus* bumble bee species within the Project area.

There is a slight potential for American white pelicans, California gull, greater sandhill cranes, and white ibis to fly over the area heading into, or out of, Meiss Lake. Bald eagles and Swainson's hawk may also be found perched on top of telephone poles or on power lines within or adjacent to the Project area. Aside from these rare occasions, there is no potential for nesting, breeding, or foraging sensitive species to be found within the Project area. This conclusion is supported by general lack of habitat for local sensitive species, soil conditions, current land use, as well as plant tolerances that are not consistent with location values.

Impacts would be less than significant.

b) Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The Project area consists of grasslands and shrubs. No riparian habitat or other sensitive natural communities are identified on the Project site. However, surrounding the Project site on all sides is the Butte Valley National Grassland that is managed by the USDA

Forest Service. The National Grassland is 18,425 acres in size and is the only national grassland in California.

The grassland surrounding the Project site is protected and managed by multiple agencies and allows local ranchers to graze cattle under approved permits. The wildlife that may utilize the grasslands include mule deer, Roosevelt elk, pronghorn, coyote, marmot, weasel, porcupine, bobcat, snakes, and lizards.

The Project is not located within the protected grasslands. Fencing will be constructed to ensure that local wildlife species that use the grasslands would not be adversely impacted. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project 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?	☐	☐	☐	☒

The Project site consists of annual grassland and shrubs. The habitat type is composed primarily of annual plant species. It has been used as grazing lands in the past and is currently unused.

No state or federally protected waterways or water bodies occur on the Project site or area. The nearest body of water occurs 1.5 miles to the west.

No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the Project 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?	☐	☐	☒	☐

No migratory fish are present on or near the Project site and no impacts to streams or water bodies will occur as a result of Project activities.

As indicated in b), the area surrounding the Project site is managed by the USDA Forest Service and is protected. There are species who use the adjacent grassland areas as corridors within the protected area. The Project would not substantially degrade the ability

for the wildlife species to utilize the surrounding protected grasslands for species movement.

Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒

No tree removal will occur, and the Project would not conflict with any other local policies or ordinances. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

The proposed Project site is not within the boundaries of a Habitat Conservation Plan, Natural Community Conservation Plan, or other habitat conservation plan. The Project does not conflict with implementation of any plan for Siskiyou County. No impact would occur.

CULTURAL RESOURCES

Environmental Setting

Prehistoric Background

Previous systematic archaeological investigations in the general Project area were primarily conducted in response to hydroelectric developments and highway construction Projects. From the 1940s to the early 1960s the construction of hydroelectric facilities and reservoirs at Shasta, Whiskeytown and Trinity required archaeological survey and excavation work that was primarily conducted by staff and students from San Francisco State College under the direction of Adan Treganza (1958, 1959; Treganza and Heicksen 1960). This early work was followed by investigations: at Whiskeytown (Baker 1984); near Squaw Creek (Clewett and Sundahl 1983); in the Redding area (Sundahl 1982); in the upper Sacramento River Canyon

(Raven et al. 1984; Basgall and Hildebrandt 1989; Sundahl 1992); and in the Lake Britton area (i.e., Cleland 1997a, 1997b). In addition, recent regional summaries such as King et al. (2016) provide archaeological data relevant to the general Project area. The previous and current archaeological research in the Project area indicates that it was occupied by Native Americans from at least 10,000 years ago to the present. Indeed, Native Americans are currently active participants in community organizations and activities and the development and growth of the area.

Typical prehistoric resources in the Project area include permanent and seasonal residential sites and lithic scatters. Features associated with these types of sites include house pits, hearths, midden, and artifacts (e.g., Projectile points, hammerstones, lithic debitage, beads, plant processing implements, and fishing equipment).

Historic Background

Exploration of Siskiyou County dates to the early 19th century. Jedediah Smith and Peter Skene Ogden explored current Siskiyou County in 1826 and 1827 (Hoover et al. 2002). The explorations of Smith and Ogden were followed in 1829 by a party of Hudson Bay Company trappers and explorers, led by Alexander Roderick McLeod (Hoover et al. 2002). The area, however, remained sparsely occupied by Euroamericans until the late 1800s when mining and logging attracted settlers to the area. Currently, recreational tourism is a major industry across Siskiyou County.

Typical historic resources in the Project area include sites associated with mining, logging, and ranching. Features associated with these types of sites include building foundations, privy pits, trash scatters, fence lines, and artifacts (e.g., cans, bottles, glass, and ceramics).

Ethnographic Background

The Project is in the traditional territory of the Modoc, who are part of the Klamath Tribes, but is also near the boundary between the traditional territory of Shastan Tribes and Modoc. Consequently, a brief discussion of both the Modoc and Shastan Tribes will be presented.

Modoc

Modoc are part of the Klamath Tribe that was constituted as a result of the Klamath Treaty of 1864. The Klamath Tribe includes the Klamath, Modoc, and Yahooskin Band of Snake Indians. Stern (1998) summarizes ethnographic information regarding the Klamath Tribe collected by Barrett (1910), Spier (1930), and Berreman (1937). Modoc are members of the Plateau Penutian language family (Stern, 1998). Klamath and Modoc occupy the entire upper Klamath Basin and adjacent interior drainages to the east. Indeed, Modoc ancestral territory extends from Mount Shasta in the south to an area near the current California and Oregon border in the north and from the eastern slope of the Cascade Range near Mount Shasta to the area around Goose Lake in the east (Ray 1963). However, Klamath and Modoc also participated in salmon fishing and social gatherings along the Klamath River at least as far downstream as Seiad Valley.

Shastan Tribes

Silver (1978) summarizes ethnographic information regarding Shastan Tribes collected by Dixon (1907), Voegelin (1942), and Holt (1946). Traditional Shasta territory extends from a point about 20 miles north of Ashland, Oregon, including the Rogue River, south to Mt.

Shasta, west to Seiad Valley on the Klamath River and east to Beswick (Silver 1978). Shasta groups are members of the Hokan language family.

Research Methodology

Natural Investigations, Inc. (Natural Investigations) conducted cultural resources investigations for the Project site and an area in a 0.25-mile radius of it. These investigations included a search of the California Historical Resources Information System (CHRIS) conducted by the Northeast Information Center (NIC) at California State University, Chico; a search of the Sacred Lands File (SLF) conducted by the Native American Heritage Commission (NAHC); outreach (i.e., letters and a telephone call regarding the Project) to Native American tribes and individuals identified on the CAL FIRE Native American contact list; a buried archaeological site sensitivity analysis; and a pedestrian surface survey of the Project site.

Results of Cultural Resources Investigations

The CHRIS records search completed by the NIC on June 27, 2023 (File Nos: NE 23-292) did not identify any previously recorded cultural resources on the Project site but did identify two previous cultural resources studies within it. The NAHC search of the SLF completed on July 23, 2023, was negative and to date no comments were received from the Native American outreach by Natural Investigations.

Buried site sensitivity analysis identified that the Project site primarily consists of volcanic rocks (i.e., basalt) (Wagner and Saucedo 1987) and Fordney series soils based on the Soil Survey Geographic Database maintained by the United States Department of Agriculture. The volcanic rocks date to the Pliocene (5.2 to 2.6 million years ago) and Fordney series soils are Mollisols that typically lack organic soil material, exhibit little development of subsoil, and date to the Late Pleistocene (126,000-12,000 years ago) (United States Department of Agriculture/National Resource Conservation Service 1999: 555, 642-643). The geologic formations and soils predate human occupation of the Project area and are not conducive to the preservations of buried deposits of cultural resources. Consequently, the Project site and surrounding area exhibit a very low to low sensitivity for the presence of buried archaeological sites (Meyer 2013).

Natural Investigations professionally qualified archaeological staff conducted a pedestrian surface survey of the Project site on July 05, 2023 using transects spaced no greater than 15 meters apart. During the pedestrian survey, all visible ground surface across the Project site was carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, and/or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes and foundations), or historic-era debris (e.g., metal, glass, ceramics). Surface visibility across the Project site was excellent (75-100%) and survey did not identify any prehistoric or historic sites, significant artifacts, or evidence for the presence of buried archaeological sites. Pedestrian surface survey, however, did identify a few pieces of abandoned modern farm machinery on the Project site.

Standards of Significance

The Project is subject to the requirements of CEQA (Public Resources Code [PRC] 21000 et seq.) 1970, as amended. The lead agency must consider the effects of the Project on

historical resources, traditional cultural resources, and unique archaeological resources. Pursuant to PRC Section 21084.1, a Project that may cause a substantial adverse change in the significance of an historical resource is a Project that may have a significant effect on the environment.

“Historical resources” is a term defined within PRC Section 21084.1 and CEQA Guidelines California Code of Regulations (CCR) Section 15064.5 (a). The term embraces any resource that is listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR), which is defined in PRC Section 5024.1 and CCR Section 4852. The CRHR includes resources listed in or formally determined to be eligible for listing in the National Register of Historic Places, as well as some California State Landmarks and Points of Historical Interest.

“Unique archaeological resources” (e.g., an archaeological artifact, object, or site that would clearly add to the current body of archaeological knowledge) is a term defined in PRC Section 21083.2 (g).

In addition, the Conservation Element of the Siskiyou County General Plan includes an objective that acknowledges the importance of preserving and protecting archaeological and historic resources.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☒	☐	☐

Cultural resources investigations did not identify any historical resources on the Project site and its sensitivity for buried archaeological sites is very low to low. Consequently, it is not anticipated that the Project would impact any historical resources, but there is a potential for encountering previously undiscovered historical resources during construction of the Project. If an inadvertent discovery were to occur, it could result in a potentially significant impact to an historical resource. Implementation of Mitigation Measure (MM) CR-1 would reduce any potential impacts to a potentially significant historical resource to a less-than-significant level.

MM CR-1: In the event of an inadvertent discovery of cultural resources, work shall immediately cease within 25 feet of the discovery and the CAL FIRE archaeologist be contacted. The CAL FIRE archeologist in consultation with a Native American representative, if appropriate, will evaluate the discovery and determine its significance. Construction work may continue in other areas of the Project if approved by the CAL FIRE archaeologist while the discovery is examined and evaluated. If it is determined that the discovery is not significant no further investigations are necessary and Project construction may resume. If the discovery is determined to be significant additional investigations (e.g., data recovery

excavations) may be necessary before resuming Project construction activities. Regardless of the significance of an inadvertent discovery, all inadvertent discoveries of cultural resources shall be appropriately documented and reburied on the Project site in a location where the cultural resources will not be disturbed in the future. The CAL FIRE archeologist shall notify appropriate Project construction staff when work may resume in the area of the inadvertent discovery and/or other areas on the Project site.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐

Cultural resources investigations did not identify any unique archaeological resources on the Project site and its sensitivity for buried archaeological resources is very low to low. Consequently, it is not anticipated that the Project would impact any unique archaeological resources, but there is a potential for encountering previously undiscovered unique archaeological resources during construction of the Project. If an inadvertent discovery were to occur, it could result in a potentially significant impact to a unique archaeological resource.

Implementation of MM CR-1 would reduce any potential impacts to a potentially significant historical resource to a less-than-significant level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

The SLF search was negative and cultural resources investigations did not identify any human remains or evidence to suggest the presence of human burials on the Project site. Consequently, it is not anticipated that the Project would impact any human remains, but there is a potential for encountering previously undiscovered human remains during construction of the Project. If an inadvertent discovery of human remains were to occur, it could result in a potentially significant impact to the remains. Implementation of MM CR-2 would reduce any potential impacts to inadvertently discovered human remains to a less-than-significant level.

MM CR-2: In the event of an inadvertent discovery of human remains the provisions of the California Health and Safety Code Section 7050.5, PRC Section 5097.98, and Assembly Bill 2641 shall be implemented. In addition, all work within 25 feet of the discovery shall

immediately cease until the discovery can be evaluated by the County Coroner and the CAL FIRE archaeologist be contacted. Construction work may continue in other areas of the Project if approved by the CAL FIRE archaeologist while the discovery is examined and evaluated. If the remains are determined to be Native American, the County Coroner must contact the NAHC who will identify a Most Likely Descendant (MLD) for the remains. The MLD will make recommendations for the recovery, treatment, and disposition of any Native American remains. Final disposition of any inadvertently discovered human remains will be decided in consultation with the MLD and CAL FIRE.

ENERGY

Physical Setting

Energy Facilities and Services in the Project Area

Electric services in Siskiyou County are provided primarily by PacifiCorp. Pacific Gas & Electric Company (PG&E) provides electricity to a small number of customers in Somes Bar, a city in the southeastern corner of the County.

Energy Use and Climate Change

Scientists and climatologists have produced evidence that the burning of fossil fuels by vehicles, power plants, industrial facilities, residences, and commercial facilities has led to an increase of the earth's temperature. For an analysis of greenhouse gas (GHG) production and the Project's impacts on climate change, refer to Section 3.4, "Greenhouse Gas Emissions and Climate Change."

Regulatory Setting

CAL FIRE is an authorized entity of the State of California. State agencies are not subject to local government planning and land use plans, policies, or regulations unless designated by state agencies. Nevertheless, in the exercise of its discretion, CAL FIRE does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the Project's consistency with local plans, policies, and regulations.

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

STATE

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The creation of the act occurred as a response to the state legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced state policy for siting power plants to reduce potential environmental impacts and additionally sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings that ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code), which have been updated regularly and remain in effect today. The act additionally directed CEC to cooperate with the Office of Planning and Research, the California Natural Resources Agency (CNRA), and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all environmental impact reports required on local Projects.

State of California Energy Action Plan

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

2022 Climate Change Scoping Plan for Achieving Carbon Neutrality

CARB adopted the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 16, 2022, establishing the state's pathway to achieve carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top-down, bottom-up approach under various scenarios. The 2022 Scoping Plan identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste) to achieve these goals. CARB and other state agencies also released the January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of Executive Order B-55-18 (CalEPA et al. 2019).

Integrated Energy Policy Report

Senate Bill (SB) 1389 (Chapter 568, Statutes of 2002) required CEC to: "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources,

protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (Public Resources Code Section 25301[(a)]). This work culminated in the Integrated Energy Policy Report (IEPR).

CEC adopts an IEPR every two years and an update every other year. The 2022 IEPR is the most recent IEPR, which was adopted in 2023. The 2022 IEPR provides a summary of priority energy issues currently facing the State, outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include identifying progress toward statewide renewable energy targets and issues facing future renewable development; increasing energy efficiency in existing and new buildings; achieving energy efficiency targets and potential by utilities; improving coordination among the State's energy agencies; streamlining power plant licensing processes; documenting results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; identifying future energy infrastructure needs; meeting the need for research and development efforts to statewide energy policies; and identifying issues facing California's nuclear power plants.

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

See Section 3.4 for a summary of the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code) and Part 11 (California Green Building Standards Code [CalGreen]) as it pertains to energy conservation and efficiency.

Greenhouse Gas Reduction Goals

The State has passed legislation that aims to reduce GHG emissions, which often have an added benefit of reducing energy consumption. AB 1279 requires a statewide GHG emission reduction of at least 85 percent below 1990 levels and carbon neutrality by no later than 2045. Implementation of the State's legislation associated with GHG reduction will have the co-benefit of reducing California's dependency of fossil fuel and making land use development and transportation systems more energy efficient. More details about legislation associated with GHG reduction are provided in the regulatory setting of Section 3.7, "Greenhouse Gas Emissions and Climate Change."

LOCAL

Siskiyou County General Plan

The Siskiyou County General Plan was adopted in 1993. The General Plan's Energy Element evaluates Countywide energy uses and renewable energy development and establishes energy strategies to meet future needs (Siskiyou County 1993). The following policies pertain to the Project:

- ▶ **Policy 13:** The County shall cooperate with energy utilities and other local agencies in promoting energy efficient building construction and renovation practices, particularly weatherization of inefficient dwellings.
- ▶ **Policy 21:** All future construction of new County facilities shall incorporate energy efficiency measures deemed to be cost-effective within the Projected life of the facility.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation?	☐	☐	☒	☐

The proposed energy use for construction and operation of the proposed Project are discussed below.

Construction

Construction activities would primarily consume nonrenewable energy resources such as diesel and gasoline through construction equipment operation, material deliveries, and debris hauling. However, construction-related energy consumption would be temporary (i.e., over the duration of approximately 27 months). In addition, activities involving the use of nonrenewable energy resources would follow construction site best management practices, such as reducing idling time of equipment and vehicles to reduce energy use. Although the one-time energy expenditure required to construct the Project would be nonrecoverable, energy resources would not be consumed in a wasteful, inefficient, or unnecessary manner.

Operation

Project operation would require energy for the operation and maintenance of the fire station and associated facilities, such as the electric vehicle (EV) charging stations. The Project would not include natural gas infrastructure. The Project would additionally result in 54 new trips per day, which is below OPR's 110 daily trips screening criteria for VMT impacts. The proposed Project components would be designed, constructed, operated, and maintained in compliance with CALGreen and the California Energy Code, which are designed to ensure new construction achieves energy efficiency. Therefore, energy demand during Project operations would be minimized. As a result, the operation of the Project is not anticipated to result in wasteful, inefficient, or unnecessary consumption of energy resources.

Summary

The Project would result in energy consumption due to temporary construction activities. However, construction activities would consume the necessary amount of fuel/energy to complete work in an efficient and timely manner. The Project would implement energy efficient features as required by the California Energy Code which are designed to reduce energy consumption, which results in the generation of fewer GHG emissions. Therefore, the proposed Project is not expected to result in wasteful, inefficient, or unnecessary consumption of energy resources. The Project would also introduce a new fire station to a rural area prone to wildfire and would result in the decreased consumption of gasoline and diesel fuel attributed to the movement of firetrucks from stations of greater distance to potential future fires. This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency	☐	☐	☒	☐

In the absence of a local plan to promote renewable energy or energy efficiency, the most applicable plan to the Project is the 2022 Scoping Plan. The Project involves the construction of a two-engine fire station, an office/administration building, a flammable storage building, and a generator/pump building. Appendix D, "Local Actions," of the 2022 Scoping Plan identifies building decarbonization, VMT reduction, and the electrification of the mobile source sector as key actions to reduce energy consumption at the local level. The Project would be fully electric, thus consistent with the direction provided in the 2022 Scoping Plan. The Project would result in approximately 54 vehicle trips per day (See "Transportation" Section) for additional details regarding Project compliance with VMT goals). Therefore, the Project would not result in a substantial increase in VMT which aligns with 2022 Scoping Plan (CARB 2022). Additionally, the proposed Project includes EV charging stations and a solar power and battery system which align with the standards of Appendix D of the 2022 Scoping Plan which encourages the deployment of sufficient infrastructure to support the electrification of the mobile source sector. All buildings would comply with the most recent State energy building standards which could ensure that Project construction and operation is consistent with State energy plans and policies (DGS 2023). For these reasons, the proposed Project would not conflict with or obstruct the 2022 Scoping Plan, which is the relevant plan for renewable energy and energy efficiency. This impact would be less than significant.

GEOLOGY AND SOILS

Environmental Setting

An initial Geotechnical Report (investigation) was prepared for the proposed Project (Geocon Consultants, January 8, 2020) and a second Geotechnical Report was prepared after further ground investigation was conducted (May 7, 2020).

The Project area resides in the Modoc Plateau physiographic province and is underlain by Holocene-age alluvium (Qal). The Modoc Plateau occupies approximately 10,000 square miles in the northeastern portion of California and generally consists of arid and relatively flat land (Harden, 2004). Elevations within the Modoc Plateau generally range from approximately 4,000 to 5,000 feet above mean sea level (amsl). Bedrock within the Modoc Plateau is composed of Miocene to recent basaltic lava flows and tuff/ash beds which are locally tilted and offset by the presence of closely spaced, northerly-trending normal faults (Norris and Webb, 1976; Harden, 2004, and CGS, 2015). Based on these characteristics and geographic location, the Modoc Plateau is generally characterized as a broad transitional zone between the Cascade Range and the Basin and Range geologic provinces (CGS, 2015).

According to the USDA Web Soil Survey (2019), the site is primarily underlain by the Poman loamy sand, which is described as somewhat excessively drained. These topsoils are underlain by alluvium that, based on data obtained from local well completion logs (DWR, 2020a), likely extends to depths in excess of 50 feet below ground surface.

Field work was performed on April 8th, 2020, and was completed by CGS Engineering Geologist Jacob Lee with assistance from CALFIRE Civil Engineer Doug Barber. The field investigation included the excavating and logging three soil test pits to evaluate representative soil conditions. The soil conditions encountered in the field were logged in accordance with the Unified Soil Classification System (USCS).

The site is not located within a currently designated State of California Earthquake Fault Zone (Bryant and Hart, 2007). Based on regional geologic mapping, it appears that the site is surrounded by mapped fault traces within the Cedar Mountain Fault Zone (Gay and Aune, 1958 and Jennings and Bryant, 2010).

The proposed site is situated in a seismically active region. As is the case for most areas of California, ground shaking resulting from earthquakes associated with nearby and more distant faults may occur at the Project site. During the life of the Project, seismic activity associated with active faults can be expected to generate moderate to strong ground shaking at the site, (California Seismic Safety Commission, 2003).

Table 9 – Summary of Regional Faults presents a list of active and potentially active faults within approximately 50 miles of the proposed FFS site and that are considered by CGS (Cao et al., 2003) to be the most capable of producing high ground motion within the site vicinity. Additional information on each fault is presented in the CGS fault database (Cao et al., 2003).

Table 9 – Summary of Regional Faults

Fault Name	Approximate Distance and Direction from Site	Mmax*
Cedar Mountain Fault Zone	0.6 miles east	7.1
Meiss Lake Fault	3.6 miles west	-
Mahogany Mountain Fault Zone	7.2 miles northwest	-
Ikes Mountain Fault	7.2 miles west	-
Mount Hebron Fault Zone	8.4 miles southwest	-
Gillem Fault	21.6 miles east	6.6
Yellow Butte Fault	26.4 miles northeast	-
Big Crack Fault	30 miles east	-
Mayfield Fault Zone	32.4 miles southeast	7.2
Faults Beneath Mount Shasta	32.4 miles southwest	-
Black Fox Mountain Fault Zone	33.6 miles southwest	-
Greenhorn Fault	34.8 miles west	-
Saddle Blanket Fault Zone	36 miles east	-
Ash Creek Fault Zone	37.2 miles south	-
Soap Creek Ridge Fault	40.8 miles west	-
Mallethead Fault	42 miles southwest	-
Unnamed faults west of Goose Lake	49.2 miles east	7.0

*Maximum Moment Magnitude from Jennings and Bryant (2010) or Cao et. Al. (2003). (-) Mmax not available

Geocon also performed a Phase I and II Environmental Site Assessment (ESA) on the property site in December 2019. The following discussion and determinations are based upon the recommendations included in the reports for the Project site.

Discussion

a) Would the Project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to California Geological Survey Special Publication 42.)	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☒	No Impact ☐
ii) Strong seismic ground shaking?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☒	No Impact ☐
iii) Seismic-related ground failure, including liquefaction?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☒	Less Than Significant Impact ☐	No Impact ☐
iv) Landslides?	Potentially Significant Impact ☐	Less Than Significant with Mitigation Incorporated ☐	Less Than Significant Impact ☐	No Impact ☒

Ground Rupture

The building site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. However, the site is located about 2,000 feet west

of a Special Studies Zone (CGS, 1991). Therefore, the potential for ground rupture is low to moderate.

Impacts would be less than significant.

Strong seismic ground shaking

An earthquake on one of the surrounding faults (see Table) could cause high to moderate ground shaking at the site. According to the CGS's 2008 Ground Motion Interpolator (2008), the anticipated peak ground acceleration at the site with a 10 percent probability of being exceeded in 50 years (475-year return period) is about 0.225 times the acceleration of gravity. This is based on an estimated shear wave velocity in the upper 100 feet (V_{s30}) of the soil column of 270 meters per second (Site Class D – Stiff soil) (CGS, 2008). Thus, the Project site could be subject to moderate to high-strong ground shaking in the event of an earthquake.

This is common in California and the effects of ground shaking can be addressed by proper engineering design and construction in conformance with current building code requirements and sound engineering practices. The Project will be designed by registered engineers that are required to adhere to the current California Building Code standards. Additionally, the plans will need to be approved by the California Division of State Architect and the Office of State Fire Marshall. This process would ensure that the potential impacts from ground shaking would be less than significant.

Seismic-related ground failure, including liquefaction

Liquefaction is described as the sudden loss of soil shear strength due to a rapid increase in soil pore water pressures caused by cyclic loading from a seismic event. In simple terms, it means that a liquefied soil acts more like a fluid than a solid when shaken during an earthquake. For liquefaction to occur during a seismic event, the following are needed:

- Granular soils (sand, silty sand, sandy silt, and some gravels);
- A high groundwater table; and
- A low density in the granular soils underlying the site.

If those criteria are present and strong ground motion occurs, then those soils could liquefy, depending upon the intensity and duration of the strong ground motion.

Liquefaction that produces surface effects generally occurs in the upper 50 feet of the soil column, thus, the potential for liquefaction to have an adverse effect would generally require the criteria above to persist within 50 feet below the surface.

The site is generally underlain by potentially liquefiable sand. In addition, the anticipated depth to the perennial high groundwater table is less than 50 feet below the surface. In consideration of these site conditions, the potential for liquefaction and its associated adverse effects (settlement, lateral spreading, lurch cracking etc.) is moderate to high.

Additional work is recommended to verify the potential for liquefaction at the site and to prevent any significant impacts.

GEO-1: LIQUEFACTION

Prior to construction of any structures, the contractor shall coordinate with CAL FIRE to obtain a Geotechnical Engineer to assist with implementation of mitigation measures which may include, but not limited to, imported engineered soil, compaction, and soil-cement columns or piers.

GEO-2: CALIFORNIA BUILDING CODE REQUIREMENTS

Project design shall incorporate recommendations outlined in the Geotechnical Reports prepared by GEOCON Consultants and in accordance with the 2022 California Building Code.

With the implementation of the mitigation measures **GEO-1** and **GEO-2**, impacts will be less than significant.

Landslides

Landslide potential is partially driven by slope gradient and topographic relief. The topography of the Project site is mostly flat, and no significant slopes are located adjacent to the site. There are no known landslides near the site, nor is the site in the path of any known or potential landslides. Therefore, the potential for landslides within the Project site is low.

No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐

The soil reports prepared by GEOCON did not identify any issues related to substantial soil erosion or loss of topsoil. Additionally, best management practices (BMPs) will be incorporated as part of the Storm Water Pollution Prevention Plan that will be prepared for the proposed Project and will be implemented to manage erosion and the loss of topsoil during construction-related activities (see **Hydrology and Water Quality Section**).

Soil impacts would be reduced to a less than significant impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project 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?	☐	☒	☐	☐

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. The site is not located within an area of known ground subsidence and no large-scale extraction of groundwater, gas, oil, or geothermal energy has occurred or planned at the site or in the general site vicinity. There appears to be little or no potential for ground subsidence due to withdrawal of fluids or gases at the site.

The Project will be designed to retain, filter and discharge stormwater in accordance with the requirements of the Siskiyou County and the North Coast Regional Water Quality Control Board.

Incorporation of the design recommendations as indicated in mitigation measures **GEO-1** and **GEO-2**, will ensure that impacts remain less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐

Expansive soil can cause damage to foundations and other lightly loaded improvement. According to the USDA Web Soil Survey (2019) the site is underlain by Poman loamy sand. Based on our review of the soil properties reported by the USDA it appears unlikely that potentially expansive native soils with plasticity index values generally greater than 25 are present onsite. The field observations confirmed these soil conditions. Therefore, the likelihood of damage due to expansive soils at the site is considered low.

Impacts will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Would the Project 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?	☐	☒	☐	☐

The Project will include a new septic system. The geotechnical report did not identify soils on the site that would be incapable of supporting the use of a septic tanks and the implementation of mitigation measures **GEO-1** and **GEO-2** will ensure that impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?	☐	☐	☐	☒

The California Department of Conservation was accessed to determine the potential for paleontological resources to be present. The Project site is located on Holocene-age alluvium which is geologically too young (less than 11,000 years old) to contain fossils and is therefore assigned a low paleontological sensitivity area. No impact would occur.

GREENHOUSE GAS EMISSIONS

Environmental Setting

Greenhouse Gas Emissions and Climate Change

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the atmosphere from space, a portion of which is absorbed by the earth's surface, and a smaller portion is reflected toward space. The absorbed radiation is then emitted from the earth as low-frequency infrared radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in the warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's

climate, known as global climate change or global warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (IPCC 2013).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is considered to be enormous. No single Project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

Greenhouse gas Emission Sources

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2020 was 370 million MTCO₂e (CARB 2022a). This is less than the 2020 target of 431 million MTCO₂e (CARB 2022a).

Table 10 summarizes the statewide GHG inventory for California. As shown in Table 10, transportation, industry, and electricity generation are the largest GHG emission sectors.

Table 10 Statewide GHG Emissions by Economic Sector (2020)

Sector	Emissions (MMTCO ₂ e)	Percent
Transportation	141	38%
Industrial	85	23%
Electricity generation (in state)	41	11%
Agriculture and Forestry	33	9%
Residential	30	8%
Commercial	22	6%
Electricity generation (imports)	19	5%
Total	370	100%

Notes: MMTCO₂e = metric tons of carbon dioxide equivalent

Sources: CARB 2022a.

Emissions of CO₂ are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily results from off-gassing (i.e., the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (i.e., CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

Effects of climate Change on the Environment

According to the Intergovernmental Panel on Climate Change (IPCC), which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014: 10). According to *California's Fourth Climate Change Assessment*, with global GHGs reduced at a moderate rate California will experience average daily high temperatures that are warmer than the historic average by 2.5 °F from 2006 to 2039, by 4.4 °F from 2040 to 2069, and by 5.6 °F from 2070 to 2100; and if GHG emissions continue at current rates then California will experience average daily high temperatures that are warmer than the historic average by 2.7 °F from 2006 to 2039, by 5.8 °F from 2040 to 2069, and by 8.8 °F from 2070 to 2100 (OPR et al. 2018).

California has experienced several of the most extreme natural events in its recorded history since 2012: a severe drought from 2012–2016, an almost non-existent Sierra Nevada winter snowpack in 2014-2015, increasingly large and severe wildfires, and back-to-back years of the warmest average temperatures (OPR et al. 2018). According to California Natural Resource Agency's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018:55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016–2017 water year (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation.

As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet and the glaciers atop Greenland, the sea level along California's coastline is expected to rise 54 inches by 2100 if GHG emissions continue at current rates (OPR et al. 2018: 190-192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline is expected to rise 54 inches feet by 2100 if GHG emissions continue at current rates (OPR et al. 2018: 6). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure, crop production, forests and rangelands, and public health (CNRA 2018: 64, 116–117, 127; OPR et al. 2018: 7–14).

Regulatory Setting

CAL FIRE is an authorized entity of the State of California. State agencies are not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, CAL FIRE does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the Project's consistency with local plans, policies, and regulations.

Federal

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that CO₂ is an air pollutant as defined under the CAA and that EPA has the authority to regulate GHG emissions. In 2010, the EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for "major sources" issued under Title V of the CAA.

State

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades. Executive Order B-55-18 called for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. AB 1279 codifies Executive Order B-55-18 and requires a statewide GHG emission reduction of at least 85 percent below 1990 levels and achieving carbon neutrality by no later than 2045. These targets are in line with the scientifically established levels needed in the US to limit the rise in global temperature to no more than 2°C, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are Projected; these targets also reflect efforts to limit the temperature increase even further to 1.5°C (United Nations 2015:3).

CARB adopted the *Final 2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 16, 2022, establishing the state's pathway to achieve carbon neutrality and an 85 percent reduction in 1990 emissions goal by 2045 using a combined top-down, bottom-up approach under various scenarios. The 2022 Scoping Plan identifies the reductions needed by each GHG emission sector (e.g., transportation [including off-road mobile source emissions], industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste) to achieve these goals. CARB and other state agencies also released the *January 2019 Draft California 2030 Natural and Working Lands Climate Change Implementation Plan* consistent with the carbon neutrality goal of Executive Order B-55-18 (CalEPA et al. 2019).

The state has also passed more detailed legislation addressing GHG emissions associated with transportation, electricity generation, and energy consumption, as summarized below.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program (ACC), CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles. In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles (EVs) to account for up to 15 percent of California's new vehicle sales by 2025 (CARB 2018). In August 2022, CARB adopted the ACC II program,

which sets sales requirements to reach the goal of 100 percent ZEV sales in the state by 2035.

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 EV-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity (CI) of California's transportation fuels. Low-CI fuels emit less CO₂ than other fossil fuel-based fuels such as gasoline and fossil diesel. The LCFS applies to fuels used by on-road motor vehicles and by off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

Senate Bill 743 of 2013

SB 743 changes the way that public agencies evaluate the transportation impacts of Projects under CEQA. The proposed revisions to the State CEQA Guidelines would establish new criteria for determining the significance of a Project's transportation impacts that will more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHGs. As detailed in SB 743, the Governor's Office of Planning and Research (OPR) was tasked with developing potential metrics to measure transportation impacts and replace the use of delay and level of service (LOS).

In 2018, OPR adopted changes to the CEQA Guidelines, including the addition of Section 15064.3 that would implement SB 743. In support of these changes, OPR also published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the transportation impact of a Project be based on whether it would generate a level of VMT per capita (or VMT per employee) that is 15 percent lower than existing development in the region (OPR 2017: 12-13). OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions" (OPR 2017: 18). It is also consistent with the statewide per capita VMT reduction target developed by Caltrans in its Strategic Management Plan, which calls for a 15 percent reduction in per capita VMT, compared to 2010 levels, by 2020 (Caltrans 2015:11). Reducing VMT is also identified by CARB in the 2022 Scoping Plan as a measurable method that local jurisdictions can use to assist the state in meeting its long-term GHG reduction goals established by AB 1279.

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the State's Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years, typically including more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2022 California Energy Code went into effect on January 1, 2023. The 2022 California Energy Code advances the onsite energy generation progress started in the 2019 California

Energy Code by encouraging electric heat pump technology and use, establishing electric-ready requirements when natural gas is installed, expanding solar photovoltaic (PV) system and battery storage standards, and strengthening ventilation standards to improve indoor air quality. CEC estimates that the 2022 California Energy Code will save consumers \$1.5 billion and reduce GHGs by 10 million metric tons of carbon dioxide-equivalent over the next 30 years (CEC 2021).

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandatory codes) developed by CEC that provides green building standards for statewide residential and nonresidential construction. The current version is the 2022 CALGreen Code, which took effect on January 1, 2023. As compared to the 2019 CalGreen Code, the 2022 CalGreen Code strengthened sections pertaining to EV and bicycle parking, water efficiency and conservation, and material conservation and resource efficiency, among other sections of the CalGreen Code. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and used as guidelines by state agencies for meeting the requirements of Executive Order B-18-12.

Local

Siskiyou County Air Pollution Control District

SCAPCD is the primary agency responsible for addressing air quality concerns in Siskiyou County. Its role is discussed further in Section 3.1, “Air Quality.” SCAPCD has not adopted a planning document containing policies, plans, or actions relating to GHG reductions or GHG emissions.

Regional Transportation Plan

The Siskiyou County Local Transportation Commission (SCLTC) is the designated regional transportation planning agency for the County. The SCLTC and Caltrans District 2 are jointly responsible for transportation planning in Siskiyou County. Additionally, SCLTC is responsible for the preparation of, and updates to, the County’s regional transportation plan. Adopted in 2021, the Siskiyou Regional Transportation Plan serves as a planning blueprint to guide transportation investments in the County and provide a vision for ten-year (2031) and twenty-year (2041) planning horizons (Siskiyou County 2021). The following policies pertain to the proposed Project:

- ▶ **Policy 17.2:** Comply with state and federal climate change regulations and standards.
- ▶ **Policy 17.6:** Encourage private and public investment in an electric vehicle charging station network that can be utilized by transit vehicles and personal vehicles for the Siskiyou region and seek funding to fill gaps in the network.
- ▶ **Policy 17.7:** Conduct environmental review consistent with the CEQA and NEPA for individual Projects as they advance to the implementation stage of development.

Methodology

CalEEMod was used to estimate Project emissions of GHGs. CalEEMod modeling was based on Project-specific information where available, reasonable assumptions based on anticipated construction activities, and default values in CalEEMod that are based on the Project's location and land use type. See Appendix A for a detailed description of modeling assumptions, CalEEMod outputs, and calculations.

Thresholds of Significance

The significance criteria used to evaluate Project impacts on climate change under CEQA are based on Section 15064 of the CEQA statute and relevant portions of Appendix G of the State CEQA Guidelines, which recommend that a lead agency consider a Project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Implementation of a Project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- ▶ conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

With respect to GHG emissions, State 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 State CEQA Guidelines note that an agency has the discretion to either quantify a Project's GHG emissions or rely on a "qualitative analysis or performance-based standards" (14 CCR Section 15064.4[a]). 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 Section 15064.4[c]). The State CEQA Guidelines provide that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment (14 CCR Section 15064.4[b]):

- ▶ The extent a Project may increase or reduce GHG emissions as compared to the existing environmental setting.
- ▶ Whether the Project emissions exceed a threshold of significance that the lead agency determines applies to the Project.
- ▶ 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.

State CEQA Guidelines Appendix G is a sample Initial Study checklist that includes a number of factual inquiries related to the subject of climate change, as it does on a whole series of additional environmental topics. Notably, lead agencies are not obligated to use these inquiries in fashioning thresholds of significance on these subjects, or on any subject addressed in the checklist. Rather, with a few exceptions, CEQA grants agencies discretion to

develop their own thresholds of significance. However, lead agencies commonly take the language from the inquiries set forth in Appendix G and use that language in establishing thresholds.

SCAPCD has not adopted numerical GHG thresholds for the purpose of assessing potential Project-related GHG impacts and determining the significance of GHG emissions. However, other air districts in California, the Sacramento Metropolitan Air Quality Management District (SMAQMD), for example, have adopted numerical thresholds for determining a Project’s significance. SMAQMD recommends a significance threshold of 1,100 metric tons of carbon dioxide equivalent per year (MTCO₂e/year) for construction-generated GHG emissions. SMAQMD also recommends a threshold of significance for operational emissions threshold of 1,100 MTCO₂e after a Project has implemented SMAQMD’s recommended Tier 1 best management practices (BMPs). These include the prohibition of on-site natural gas usage and the incorporation of EV-capable charging stations. For Projects that meet these conditions and exceed the 1,100 MTCO₂e/year operation threshold, Projects are recommended to meet the standards of the Governor’s Office of Research and Planning’s (OPR’s) VMT reduction standards established in SB 743 for commercial, residential, and retail land uses (i.e., a 15 percent reduction from a regional VMT average for commercial and residential land uses and a net zero increase for retail land uses). The Project would not include any natural gas infrastructure and would include EV charging meeting SMAQMD’s recommendations, which can be applied in this analysis. Therefore, CAL FIRE has elected to compare the Project’s construction and operational GHG emissions against SMAQMD’s 1,100 MTCO₂e/year threshold in lieu of an available numerical threshold developed by SCAPCD and are thus considered the applicable thresholds for use in this analysis.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐

Total emissions for the construction and operation of the proposed Project are summarized in **Table 11** and discussed below. Additional details on the modeling assumptions, inputs, and outputs are provided in Appendix A. Impacts would be less than significant.

Table 11 Project-Generated Construction and Operational Annual GHG Emissions

Emissions Category	GHG Emissions (MTCO ₂ e/year)
Construction	
2024	174
2025	155
2026	<1
Operation	
Area Sources	<1
Energy Usage	112
Mobile Source	157
Wastewater Generation	8.28
Solid Waste Disposal	4.09
Refrigerants	<1
Operational Total	282
Applicable Threshold of Significance	1,100
Exceeds Threshold?	No

Note: MTCO₂e/year = metric tons of carbon dioxide equivalent per year, SMAQMD = Sacramento Metropolitan Air Quality Management District.

Source: Ascent Environmental 2023.

Construction

Construction-related activities that would generate GHGs include worker commute trips and off-road construction equipment. As shown in Table 3.4-2, construction activities would result in maximum annual emissions of 174 MTCO₂e per year in 2024 and 155 MTCO₂e per year in 2025. This level of one-time GHG emissions is below the applicable significance threshold of 1,100 MT of CO₂e emissions per year as recommended by SMAQMD. As such, the construction of the Project would not result in emissions of GHGs that would exceed the applied thresholds and this impact would be less than significant.

Operations

Operational activities of the proposed Project would result in maximum annual emissions of 282 MTCO₂e emissions per year, as shown in Table 3.4-2. The level of emissions from the Project operation would also be below the 1,100 MTCO₂e/year threshold recommended by SMAQMD following the application of its recommended Tier 1 BMPs; thus, this impact would be less than significant.

Summary

Because implementation of the Project would result in construction and operational emissions below SMAQMD's 1,100 MTCO₂e/year threshold of significance, the impact of the Project's construction and operational GHG emissions would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☒

In the absence of a local GHG reduction plan, the 2022 Scoping Plan is the most relevant plan applicable to the Project. As discussed above, the Project emissions would be minimal and below the adopted thresholds. The proposed Project would include on-site EV spaces and charging consistent with on-site GHG-reducing design features promoted in Appendix D, “Local Actions,” of the 2022 Scoping Plan. The Project would also not introduce substantial VMT to the Project area (see Section 1.4, “Transportation”) and would be fully decarbonized consistent with the direction provided in Appendix D of the 2022 Scoping Plan. Additionally, the Project would assist with forest management in the area by ensuring that fire suppression activities are implemented quickly and efficiently due to upgraded facilities, thus improving carbon sequestration and furthering the 2022 Scoping Plan’s direction to nurture the natural and working lands sector. For these reasons, the Project would not conflict with the 2022 Scoping Plan, the applicable GHG reduction plan to the Project, and the impact would be less than significant.

HAZARDS AND HAZARDOUS MATERIALS

Environmental Setting

The Project site is located on scrub/grasslands that is not being used for grazing or agriculture purposes. Land uses surrounding the Project site include active agricultural lands, Butte Valley National Grassland, and Butte Valley Wildlife Area. The area is within a CALFIRE designated high fire hazard severity zone.

A Phase I Environmental Site Assessment (ESA) was prepared by Geocon Consultants, Inc. (GEOCON) for the proposed Project in December 2019. The purpose of the ESA is to assess the property for the presence of regulated or hazardous materials, as defined in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, and Department of Toxic Substances Control (DTSC) Title 22 of CCR. GEOCON performed the ESA in conformance with the scope and limitations of American Society of Testing and Materials ASTM Practice E 1527-13 (ASTM 2013) and the U.S. Environmental Protection Agency proposed rules for all appropriate Inquiry standards, set forth in Title 40, Section 312.10 of the Code of Federal Regulations.

Common potentially hazardous waste associated with agricultural uses include residual concentrations of agricultural chemicals. Other items that could occur onsite include such items as petroleum products and underground storage tanks.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐

The proposed Project would include the transport, short-term storage and use, and disposal of hazardous materials related to construction, operation and maintenance of the new station. BMPs stipulating proper storage of hazardous materials would be implemented during construction as part of the Stormwater Pollution Prevention Plan (SWPPP) and general construction permit. CAL FIRE and all hired contractors are required to follow all applicable federal, state, and local regulations, including California Division of Occupational Safety and Health, California Fire Code, and National Fire Protection Association (NFPA) requirements, and manufacturer instructions for the management, storage, and handling of hazardous materials and hazardous waste for the construction, operation, and maintenance of the proposed Project. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project 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?	☐	☐	☒	☐

Although diesel fuel and oil, will be used during construction and occasionally during operations and maintenance, proper handling and storage will be implemented in accordance with the BMPs listed in the SWPPP.

As indicated in item a), routine use, storage, and handling of hazardous substances would be conducted in accordance with all applicable federal, state, and local regulations.

Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒

The Project site is not located within one-quarter mile of an existing or proposed school. The nearest school is Butte Valley Middle School located approximately three miles south of the site. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒

A site reconnaissance of the subject property was conducted on May 5, 2023. The subject property was inspected for visible evidence of aboveground storage tanks, USTs, drums, or other containment structures. The inspection also included evidence of generation, use, storage, or disposal of hazardous materials/wastes; and sumps, drains, floor drains, septic/leach fields, or other wastewater features.

The properties surrounding the subject property were also observed from adjacent public rights-of-way. No hazardous substances were observed in use or to be stored at the subject property.

The Project site has been in a natural native state and has been used in the past as grazing land. Additionally, the surrounding properties are within the Butte Valley National Grassland area that is protected and managed by the U.S. Forest Service.

To ensure the property, or adjacent properties, weren't included on a list of hazardous waste and substances sites (Cortese List), regulatory databases were searched. Although the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

1. List of Hazardous Waste and Substances sites from Department of Toxic Substances Control Envirostor database (Health and Safety Codes 25220, 25242, 25356, and 116395);

2. List of open and active LUST Sites by County and Fiscal Year from the State Water Resources Control Board (SWRCB) GeoTracker database (Health and Safety Code 25295);
3. List of solid waste disposal sites identified by the State Water Resources Control Board with waste constituents above hazardous waste levels outside the waste management unit (Water Code Section 13273[e] and 14 CCR Section 18051);
4. List of “active” Cease and Desist Orders and Cleanup and Abatement Orders from the State Water Resources Control Board (Water Code Sections 13301 and 13304); and
5. List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by the Department of Toxic Substances Control.

The subject property and surrounding sites were not identified in any of the databases. The property was not identified in any listing and no Impacts would occur.

e) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The Project is located approximately 2.4 miles from the Butte Valley Airport. This airport is a county-owned public-use airport. The Project is not located within this airport land use plan and is outside the two-mile radius. No impact would occur.

f) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Siskiyou County does not have an adopted emergency plan. They do provide emergency alerts through a rapid emergency notification service called CodeRED. Additionally, they have an Emergency Preparedness Guide.

The Project will not impair implementation of or physically interfere with emergency evacuation procedures, and as an emergency responder, CAL FIRE would be involved in implementing evacuation orders. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

Several of the fire districts throughout California contract with CAL FIRE for fire suppression and emergency services. CAL FIRE provides services to most of the county where the Project site is located.

The construction of a replacement fire station that meets the current operational and building standards will assist CAL FIRE in providing improved incident response. The new station is replacing an existing operational station in the area to ensure that adequate fire and emergency services are met within this portion of the county.

Although the Project is located close to high fire hazard severity zones the new upgraded fire station will ensure adequate response time and improved fire suppression activities. Impacts are less than significant.

HYDROLOGY AND WATER QUALITY

Environmental Setting

The Project is located within the Klamath River Watershed. This watershed originates in southern Oregon and flows through the Cascade Mountain Range to the Pacific Ocean south of Crescent City, California measuring 263 miles in length and encompassing 12,000 square miles.

The Klamath River Basin

The Klamath River Basin covers approximately 10,860 square miles within northern California, and includes the watersheds of Klamath, Smith, Trinity, Applegate, Illinois, and Winchuck Rivers, as well as the closed Lost River and Butte Valley hydrologic drainage areas. The Basin is bounded by the Oregon state border on the north, the Pacific Ocean on the west, Redwood Creek and Mad River hydrologic units on the south, and by the Sacramento Valley to the east. The Basin covers all Del Norte County, and major portions of Humboldt, Trinity, Siskiyou, and Modoc counties. The western portion of the Basin is within the Klamath Mountains and Coast Range provinces, and is characterized by steep, rugged peaks ranging to elevations of 6,000 to 8,000 feet with relatively little valley area. The mountain soils are shallow and often unstable. Precipitation ranges from 60 to 125 inches per

year. The 45-mile coastline is dominated by a narrow coastal plain where heavy fog is common. The eastern portion of the Basin receives low to moderate rainfall and includes predominantly high, broad valleys such as the Butte, Shasta, and Scott valleys. The Klamath River Basin includes five hydrologic units: Winchuck River, Rogue River, Smith River, Klamath River, and Trinity River.

Butte Valley and Lost River Hydrologic Areas

The Butte Valley and Lost River hydrologic areas cover approximately 2,298 square miles in the Modoc/Oregon Lava Plateau. The area is characterized by broad valleys ranging from 4,000 to 6,000 feet in elevation. Typical annual precipitation is 15 to 25 inches. Groundwater is the primary source of domestic water supply in the Lost River Hydrologic Area. Groundwater basins identified by DWR in the Lost River Hydrologic area are Klamath River Valley and Fairchild Swamp Valley. Water use in the Butte Valley Hydrologic Area comes mostly from groundwater pumping. Groundwater basins identified by DWR in the Butte Valley Hydrologic Area are Butte Valley, Bray Town Area, and Red Rock Valley. Approximately 23,000 acres are irrigated in Butte Valley. Water not used for irrigation is pumped from Meiss Lake to the Klamath River via drainage facilities operated by Meiss Lake Ranch to regulate the groundwater table. The Bureau of Reclamation's Klamath Project, located in the Lost River Hydrologic Area, is the largest irrigation development in the Klamath River Basin. It serves irrigation water to approximately 210,000 acres of land in Oregon (62 percent) and the Lost River area of California (38 percent).

The Project's water supply is derived from the Klamath River in Oregon and the Lost River. The principal feature within the basin is the 527,000-acre-foot Clear Lake Reservoir on the Upper Lost River. Runoff and drainage reaching Tule Lake is pumped to Lower Klamath Lake for irrigation and wildlife refuge use. Water not used for irrigation in Lower Klamath Lake is pumped to the Oregon portion of the Klamath River via the Klamath Straits Drain to regulate the water table within the Tule Lake Irrigation District area. The Klamath Project serves most of the irrigable land in the Lost River watershed. The Tule Lake Irrigation District, the basin's largest, serves more than 60,600 acres in California with the Klamath Project water.

GROUNDWATER HYDROLOGY

The Project lies within the Butte Valley Groundwater Basin (Basin) is a 79,700-acre (125 square mile (sq mi) subbasin within the upper Klamath Groundwater Basin that extends between California and Oregon. The Butte Valley Watershed is roughly three times larger than the Basin. The Siskiyou County Flood Control & Water Conservation District prepared the Butte Valley Groundwater Sustainability Plan (December 2021) to sustainably manage the groundwater.

The Basin is a medium priority basin and is surrounded by several mountain ranges: the Cascade Mountains in the north, south and west, the Mahogany Mountain ridge in the east and Sheep Mountain and Red Rock Valley in the southeast. The major water features in the basin are Meiss Lake and several streams including Butte Creek. The primary communities in Butte Valley are the City of Dorris and the smaller communities of Macdoel and Mount Hebron.

According to the plan groundwater storage and specific yield are difficult to estimate due to the interconnectivity of all the unconfined and confined units, and critical data gaps in the

main water bearing and recharge unit of the High Cascade Volcanics. However, for the unconfined units, lake deposits, pyroclastic rocks, and Butte Valley Basalt, the weighted average specific yield is calculated to be 9.5% and total groundwater storage capacity is 2,560,000 acre-feet. The High Cascade Volcanics has unknown depth and extent, and a total estimate of storage is based on the Butte Valley Integrated Hydrologic Model.

The plan identifies goals and further data collection tasks to determine potential long range sustainability goals and appropriate measures for implementation.

Regulatory setting

CLEAN WATER ACT

The Clean Water Act was amended in 1972 to prohibit discharge of pollutants to Waters of the U.S. from any point source unless it is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. In 1987, further amendments to the CWA added Section 402(p), established a framework for regulating municipal and industrial storm water discharges under the NPDES Program. In November 1990, the EPA finalized regulations establishing storm water permit requirements for specific industries. These regulations provide that storm water discharges to waters of the U.S. from construction Projects with five or more acres of soil disturbance are prohibited unless the discharge is in compliance with the NPDES Permit. Further regulations (titled the Phase II Rule) which became final on December 8, 1999, lowered the permitting threshold from five acres to one acre.

While EPA regulations allow two permitting options for storm water discharges (Individual Permits and General Permits), the California State Water Resources Control Board (SWRCB) has elected to adopt only one statewide General Permit that applies to most storm water discharges associated with construction activities. On August 19, 1999, the State Water Board reissued the General Construction Storm Water Board amended Order 99-08-DWQ to apply to sites as small as one acre (SWRCB 2010).

The latest General Construction Permit (Order No. 2009-0009-DWQ), which the proposed Project will comply with, was adopted on September 2, 2009. Order No. 2009-0009 DWQ created several new significant changes including, formal training requirements, online permitting and SWPPP documentation upload, minimum BMPs, Numeric Action Levels for pH and turbidity, as well as monitoring based on Project risk to sediment loss and threat to receiving waters (SWRCB 2010).

REGIONAL WATER QUALITY CONTROL BOARD

The Project site is located within the North Coast Regional Water Quality Control Board, which develops and enforces water quality objectives and implements water quality plans. The North Coast Region is divided into two natural drainage basins, the Klamath River Basin and the North Coastal Basin. The North Coast Region covers all of Del Norte, Humboldt, Trinity, and Mendocino Counties, major portions of Siskiyou, and Sonoma Counties, and small portions of Glenn, Lake, Modoc, and Marin Counties.

The Klamath River Basin covers approximately 10,860 square miles within northern California, and includes the watersheds of Klamath, Smith, Trinity, Applegate, Illinois, and Winchuck Rivers, as well as the closed Lost River and Butte Valley hydrologic drainage

areas. The Basin is bounded by the Oregon state border on the north, the Pacific Ocean on the west, Redwood Creek and Mad River hydrologic units on the south, and by the Sacramento Valley to the east.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐

During Project construction, water quality impacts and discharge could occur during storm events if proper controls are not implemented. Loose soils, chemical and fuel spills from vehicles, and equipment or miscellaneous construction materials and debris could be transported off-site in overland flow, degrading surface and groundwater quality. During a heavy rainfall, runoff from construction areas could flow off-site and reach nearby surface water drainage facilities.

The proposed Project is subject to the State Water Resources Control Board and the statewide NPDES stormwater permit for construction which is administered through the North Coast Regional Water Quality Control Board (NCRWQCB). CAL FIRE would obtain a general permit from the NCRWQCB for storm water discharges associated with the construction and land disturbance activities (estimated at a little over an acre).

Specifically, CAL FIRE will submit a Storm Water Pollution Prevention Plan (SWPPP) to the NCRWQCB that will identify BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements.

In addition to construction related BMPs, CAL FIRE will design and construct a post-construction storm water conveyance system pursuant to federal, state, and county standards. A Storm Water Management Plan (SWMP) will be submitted for approval that identify onsite BMPs per all applicable regulations.

Although CAL FIRE does not need to obtain any discretionary permits from Siskiyou County, the county codes related to water quality standards, waste discharge, and flood control requirements will be adhered to through the NCRWQCB process.

The proposed Project will adhere to all state, federal and local regulations regarding water quality and will prevent discharge of any materials or substances that may degrade water quality. Adherence to the NPDES requirements as part of the permit obtained from the NCRWQCB will control any polluted sources of water that would have the potential to impact water quality. A less than significant impact would occur.

b) Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The proposed Project will construct a new fire station and is proposing a new well onsite. The water demand associated with the proposed Project would not substantially decrease groundwater supply or interfere with groundwater recharge.

c) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on-or off-site?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The proposed Project will require grading, trenching, and the installation of paved areas with an increase in additional impervious surfaces. The increase in impervious surfaces compared to the existing undeveloped ground conditions would alter the current runoff or

drainage patterns. The proposed Project includes the installation of a new drainage system and incorporates an onsite bioretention basin.

Development of the proposed Project would not exceed the capacity of the planned stormwater drainage facilities, as the facilities will be designed to accommodate stormwater and ensure a proper filtration system.

No alterations will occur to any waterway that would result in erosion or siltation. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) In a flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	☐	☐	☐	☒

Based on the Flood Insurance Rate Maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA), the site is located in Zone X, which is not designated as a high-risk flood area (Area of Minimal Flood Hazard). Additionally, according to the Siskiyou County GIS website, the Project site is not located within any lake or dam inundation area.

No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

CAL FIRE will be subject to waste discharge restrictions through the Water Quality Certification process (NPDES), SWMP, and the SWPPP. The Project would not conflict or obstruct with the Siskiyou County Groundwater Management Plan (December 2021) or the Water Quality Control Plan for the North Coast Region (June 2018). No impacts would occur, and no mitigation is required.

LAND USE AND PLANNING

Environmental Setting

The State of California and state-owned land are not subject to local city or county land use development permits. However, the state is subject to the requirement under CEQA to assess Project-related impacts that may occur due to conflicts between existing and proposed land uses. Additional county ordinances, programs, and policies may be applicable to the Project. The Project was reviewed to determine consistency with Siskiyou County plans and policies.

Over 60% of land within Siskiyou County is managed by agencies of the federal and state governments. These include: The U.S. Forest Service; Bureau of Land Management; U.S. Fish and Wildlife Service; and California Department of Fish and Game. These lands are maintained in various National Forests; Parks; Wildlife Areas; National Grasslands; National Wildlife Refuges; and State Wildlife Areas.

The Project site is surrounded by grazing land that is identified as the Butte Valley National Grassland (National) and Butte Valley Wildlife Area (State). No other development surrounds the Project site. East of the Project site contains active agricultural lands. The Project site's general plan designation is Agriculture (AG), although the site is not utilized for any agricultural uses.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project physically divide an established community?	☐	☐	☐	☒

The Project site is located within an area that is surrounded by undeveloped grazing land, protected grasslands, and wildlife areas. The new fire station will not create a division within a community. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

As indicated, the Project site is designated as AG. Within this designation public uses are allowed. Although site development would change the nature of a portion of the site, the surrounding area will remain intact, and the fire station would enable continued emergency response to this part of the county. Site development would not conflict with the designated use, zoning, or any other policy or regulation. Impacts would be less than significant.

MINERAL RESOURCES

Environmental Setting

The Surface Mining and Reclamation Act (SMARA) of 1975 requires the identification and classification of mineral resources in areas within the state that are subject to urban development or other land uses that could otherwise prevent the extraction of important mineral resources. These Mineral Resource Zones (MRZs) are classified by the State Geologist by analyzing associated geologic and economic factors. There are four general classifications based upon the State Geologist's determination of identified mineral resource significance. The four classifications are as follows:

- MRZ-1:** Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists of their presence.
- MRZ-3:** Areas containing mineral deposits the significance of which cannot be evaluated from available data.
- MRZ-4:** Areas where available information is inadequate for assignment to any other MRZ.

The site has not been designated as mineral resource lands and has never been utilized for mining.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒

The California Geological Survey (CGS) does not identify any active mines within a two-mile radius of the Project site. According to the CGS, a SMARA mineral land classification study has not been conducted for Siskiyou County.

The Project site is not located within an area that has been identified as significant mineral resources by the CGS, has never been mined, and there are no known mineral resources onsite. No impacts would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project 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?	☐	☐	☐	☒

As indicated above, the site is not located within an area that is delineated as a mineral resource recovery site. The Project site is not designated in the Siskiyou County General Plan, or other land use plan, as having locally important mineral resources. No impact would occur.

NOISE

Environmental Setting

The proposed fire station will be in an area that is surrounded on three sides by protected grasslands with a frontage on Highway 97. The nearest residential area is the town of Macdoel approximately two miles south of the site. The only noise source in the project area is from the traffic on Highway 97.

The Project includes construction of a 2-engine fire station single building with 16-bed barracks and 3-bay apparatus (9,296 sf), office/administration building (2,047 sf), storage building (247 sf), and pump building (648 sf). Site development will include earthwork, storm drainage and treatment, driveways, curbs and gutters, walkways, fuel vault (1,500g diesel/500g gas), site lighting, enclosed generator, electric vehicle chargers, hose drying rack, trash enclosure, hazardous materials storage locker, fencing and gates, flagpoles, station monument and sign, and landscaping. Utilities will include water tanks (fire protection and

domestic), water well, water distribution, sanitary sewer and treatment/disposal system, electrical power distribution, ground-mounted solar farm, liquified petroleum gas tank and distribution, and communication cabling. Demolition work includes the destruction of existing water wells.

Characteristics of Noise

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in Leq) and the average daily noise levels/community noise equivalent level (in Ldn/CNEL).

Noise can be generated by several sources, including mobile sources, such as automobiles, trucks, and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver.

Sensitive Noise Receptors

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as parks, historic sites, cemeteries, and recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The Project site is located in an undeveloped area, there are no noise-sensitive land use receptors in the area. The site is surrounded by protected grasslands and bordered by Highway 97 and Union Pacific Rail lines.

Discussion

a) Would the Project generate 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

During the construction of the proposed Project, noise from construction activities would generate noise in the vicinity around the Project site. Noise would also be generated by increased truck traffic on area roadways. Additional noise would be generated by the transport of heavy materials and equipment to and from the construction site.

The noise increase during construction will be of short duration, will occur during daytime hours, will not create significant impacts to any nearby receptors, and will not exceed noise standards established in the local general plan or noise ordinance, or in other applicable local, state, or federal standards.

The new fire station operational noise will include occasional PA system communication and initiation of emergency and fire response. The Project site is adjacent to Highway 97 and the Union Pacific Rail lines which generate intermittent traffic noise. The addition of the emergency response noise events will also occur intermittently and would not substantially increase the ambient noise levels in the area.

Impacts are less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project generate excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

Some types of construction equipment can produce vibration levels that can cause architectural damage to structures and be annoying to nearby sensitive receptors. Vibration levels generated during construction of the proposed Project would vary during the construction period, depending upon the construction activity and the types of construction equipment used.

The Project site is surrounded by protected grasslands that does not include any developed land uses. Any ground vibration would be temporary in nature and will return to pre-Project conditions after construction is completed.

Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) For a Project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?	☐	☐	☐	☒

The Project is not located within an airport land use plan or within two miles of a public airport or public use airport. The closest public airport is the Butte Valley Airport approximately 3 miles north of the Project site. No impact would occur.

POPULATION AND HOUSING

Environmental Setting

According to the California Department of Finance, the estimated population for Siskiyou County was 44,076 and the number of housing units are 22,929 (2020 Department of Finance Census). The Project site is located approximately two miles north of the town of Macdoel that is designated as a census-designated place (CDP) in the unincorporated area of the county with an estimated population of 86 and estimated housing of 44 units.

The median age in the county is 47.2 and the predominant race is White (74%), followed by Hispanic (14.1%), Native (3%) and Black, Asian, mix making up the remainder (10%). The broad industry sectors in Siskiyou County employing the most workers are Government (4,459; 27%); Health Care and Social Assistance (2,246; 14%); Retail Trade (1,763; 11%); and Accommodation and Food Services (1,570; 10%).

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project 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)?	☐	☐	☒	☐

The Project is proposing to relocate an existing fire station that is currently located in Macdoel approximately two miles south at 201 Meiss Lake Road.

The new fire station would not induce unplanned population growth in the area, as it is moving an existing use that has been at the current site since the 1940's.

No new homes, road extensions or other infrastructure are included as a part of the Project that would induce population growth and although there may be additional capacity to hire fire fighters in the future, this increase would not exceed the FS capacity and would not have a substantial impact. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

The proposed Project will construct a new fire station to replace an outdated fire station that is currently in use in Macdoel two miles south of the Project site. Project construction

activities will occur onsite and will not extend beyond the property boundaries. No residential development exists adjacent or near the project site as it is surrounded by grasslands and agricultural uses.

The proposed Project will not displace existing homes and no impact would occur as a result of Project implementation.

PUBLIC SERVICES

Environmental Setting

FIRE PROTECTION

Fire protection services in the county are currently provided by several different organizations, including the Butte Valley Fire Protection District, volunteer fire departments, CAL FIRE, the U.S. Forest Service, and the National Parks Service. The Project area is within a Federal Responsibility Area (FRA) and CAL FIRE coordinates with other fire crews during fire season.

CAL FIRE's Macdoel fire station is located at 201 Meiss Lake Road in Macdoel, and the Butte Fire Protection District is located at 12320 Old State Highway in Macdoel.

POLICE PROTECTION

The Siskiyou County Sheriff's Office provides police services to the unincorporated portions of the county. These services include patrol, crime prevention, and crime investigation provided out of stations in Mount Shasta and Dorris. The Sheriff's Patrol Division provides a full range of law enforcement and related emergency response services to

PUBLIC SCHOOLS

The Project area is served by the Butte Valley Unified School District. Butte Valley Elementary, and Butte Valley High School serve residents within this portion of the county. Additional schools include Cascade High (Continuation) and Butte Valley Adult (Education Center).

PARKS

Parks and publicly held open space within the county provide a range of uses addressing a variety of park-related needs, from intensive recreational activities scaled to meet regional demands, to passive recreational activities catering to the individual experience and natural resource preservation.

OTHER PUBLIC FACILITIES

Other public facilities near the Project site include the Butte Valley Library, located in Dorris and U.S. Postal Service offices in Dorris and Macdoel.

Discussion

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Fire protection?	☐	☐	☐	☒
Police protection?				
Schools?				
Parks?				
Other Public Facilities?				

FIRE PROTECTION

CAL FIRE provides this region with fire protection in cooperation with other agencies. The new fire station will enhance these services and will not create a need for additional fire protection resulting in new facilities that would create adverse environmental impacts. No impacts would occur as a result of the proposed Project.

POLICE PROTECTION

The Siskiyou County Sheriff's Department provides police protection and CAL FIRE provides emergency response. CAL FIRE personnel are onsite and provide their own security protection measures working closely with law enforcement.

The proposed Project will not require the need for additional police protection that would result in new facilities that would cause environmental impacts. No impacts would occur.

SCHOOLS

The Butte Valley Unified School District serves the Project area. The relocation of the current Macdoel Fire Station to the proposed new Project site will not increase school enrollment or require new or altered schools or related facilities. No impact would occur.

PARKS

The proposed Project will not create additional demand on any nearby parks or recreational areas. The new replacement fire station will not require new or altered park facilities. No impact would occur.

OTHER PUBLIC FACILITIES

The new relocated Macdoel fire station will not create additional demand for public facilities within the area. The Project will replace an existing use within the area and will not add additional population to the area. No impact would occur.

RECREATION

Environmental Setting

Parks and publicly held open space within the county provide a range of uses addressing a variety of park-related needs, from intensive recreational activities scaled to meet regional demands to passive recreational activities catering to the individual experience and natural resource preservation. These lands are owned and managed by several different agencies, each with slightly different mandates and management objectives.

These lands are owned and managed by several different agencies, each with slightly different mandates and management objectives. Multiple agencies manage parks and open space in Siskiyou County, including the National Park Service (NPS), United States Forest Service (USFS), Bureau of Land Management (BLM), U.S. Fish and Wildlife Service (USFWS), California State Parks (CSP), California Department of Fish and Wildlife (CDFW), and Monterey Peninsula Parks District, Monterey County Parks Department and local municipalities.

The nearest recreational areas surrounding the Project site include the Butte Valley National Grasslands and the Butte Valley Wildlife Area.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project 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?	☐	☐	☐	☒

The proposed Project consists of a new fire station approximately two miles north from the existing operational fire station. The relocation of the existing fire station will not add residential uses or other activities that would increase the use of existing neighborhood or regional parks or other recreational facilities. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☒

The proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities. The proposed Project is relocating an existing

operational fire station that does not add additional staff or residential uses that would increase population. No impact would occur.

TRANSPORTATION

Environmental Setting

ROADWAY NETWORK

Regionally, the unincorporated portions of Siskiyou County are served by a roadway network consisting of federal and state highways, major and minor arterials, and local roadways. General descriptions of the roadways located in the vicinity of the Project site and their intended function are provided below.

Highway System

Access to the Project site is served by US 97, also known as Volcanic Legacy Scenic Byway, which is operated and maintained by the California Department of Transportation (Caltrans) District 2. US 97 is a bidirectional two-lane highway extending through the unincorporated community of Macdoel from the State of Oregon to the US 97/ Interstate 5 interchange in the City of Weed, located in central Siskiyou County.

County Roadways

As of 2021, the County operates and maintains approximately 1,441 miles of rural and urban roadways in unincorporated areas (Caltrans 2021). Major County roads are also part of the regional roadway system and typically provide connections to the highway and freeway systems. The following County roadways provide access to the Project site:

- **Sheep Mountain Road** is an east-west bidirectional local road located southeast of the Project site. Sheep Mountain Road intersects with US 97 approximately 0.7 miles south of the Project site. No sidewalks or bicycle facilities are present on Sheep Mountain Road.
- **Shady Dell Road** is an east-west bidirectional local road located northeast of the Project site. There are no sidewalks or bicycle facilities present on Shady Dell Road.

BICYCLE AND PEDESTRIAN FACILITIES

The bicycle and pedestrian transportation system in Siskiyou County is composed of bikeways and trails. Caltrans classifies bicycle facilities into the following four categories (Caltrans 2023b):

- Class I Bikeway (Bike Path): provides a completely separated right-of-way designated for the exclusive use of bicycles and pedestrian with crossflows by motorists minimized.
- Class II Bikeway (Bike Lane): provides a restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and crossflows by pedestrians and motorists permitted.

- Class III Bikeway (Bike Route): provides for a right-of-way designated by signs or permanent markings and shared with pedestrians and motorists.
- Class IV Bikeway (Separated Bikeway): provides a right-of-way designated exclusively for bicycle travel adjacent to a roadway and which is separated from vehicular traffic. Types of separation include, but are not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

Walking and bicycling are permitted on US 97 within the vicinity of the Project site (Caltrans 2022); however, there are no pedestrian facilities present along the highway.

TRANSIT SYSTEM

Siskiyou Transit and General Express (STAGE) operates weekday-only bus services throughout Siskiyou County. The nearest bus service is provided by the Route 2 bus-route that operates between the cities of Dunsmuir and Yreka and is located approximately 50 miles south of the Project site (Siskiyou County 2023). Railroad tracks for the Union Pacific Railroad Company's main line run east of the Project site.

Regulatory Setting

CAL FIRE is an authorized entity of the State of California. State agencies are not subject to local government planning and land use plans, policies, or regulations. Nevertheless, in the exercise of its discretion, CAL FIRE does reference, describe, and address local plans, policies, and regulations where appropriate and for informational purposes. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the Project's consistency with local plans, policies, and regulations.

State

California Department of Transportation

Caltrans is the state agency responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as the segments of the Interstate Highway System that lie within California. Caltrans District 2 is responsible for the operation and maintenance of US 97 in the vicinity of the Project site. Caltrans requires a transportation permit for any transport of heavy construction equipment or materials that necessitates the use of oversized vehicles on state highways.

Transportation Impact Study Guide

The Caltrans Transportation Impact Study Guide (TISG) was prepared to provide guidance to Caltrans Districts, lead agencies, tribal governments, developers, and consultants regarding Caltrans review of a land use Project or plan's transportation analysis using a VMT metric. This guidance is not binding on public agencies, and it is intended to be a reference and informational document. The TISG replaces the Guide for the Preparation of Traffic Impact Studies and is for use with local land use Projects, not for transportation Projects on the State Highway System (Caltrans 2020).

District 2 Active Transportation Plan

The Caltrans District 2 Active Transportation Plan identifies gaps, barriers, and needs in bicycle and pedestrian facilities across the State Highway System in District 2 (Caltrans

2022). The plan identifies specific locations to prioritize for future planning, construction, and maintenance Projects.

California Fire Code

The 2022 California Fire Code, which is codified at Part 9 of Title 24 of the CCR, incorporates by adoption the 2021 International Fire Code and contains regulations related to construction, maintenance, access, and use of buildings. Topics addressed in the California Fire Code include fire department access (especially circulation and width of on-site roadways), fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The California Fire Code contains specialized technical regulations related to fire and life safety. The California Building Standards Code, including the California Fire Code, is revised and published every 3 years by the California Building Standards Commission.

California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control

The California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control provides principles and guidance for the implementation of temporary traffic control (TTC) to ensure the provision of reasonably safe and effective movement of all roadway users (e.g., motorists, bicyclists, pedestrians) through or around TTC zones while reasonably protecting road users, workers, responders to traffic incidents, and equipment. Additionally, this document notes that TTC plans and devices shall be the responsibility of the authority of a public body or official having jurisdiction for guiding road users.

Senate Bill 743

Senate Bill 743, passed in 2013, required the Governor's Office of Planning and Research (OPR) to develop new State CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." The Office of Administrative Law approved the updated State CEQA Guidelines and, as of July 1, 2020, implementation of CCR Section 15064.3 of the updated CEQA Guidelines applies statewide.

In December of 2018, OPR published the most recent version of the Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018) which provides guidance for VMT analysis. The 2018 Technical Advisory provides guidance related to screening thresholds for small Projects to indicate when detailed analysis is needed or if a Project can be presumed to result in a less-than-significant VMT impact. The Technical Advisory notes that Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact, absent substantial evidence indicating otherwise (OPR 2018).

LOCAL

Regional Transportation Plan

The Siskiyou County Local Transportation Commission (SCLTC) is the designated regional transportation planning agency for the County. The SCLTC and Caltrans District 2 are jointly

responsible for transportation planning in Siskiyou County. Additionally, SCLTC is responsible for the preparation of, and updates to, the County’s regional transportation plan. Adopted in 2021, the Siskiyou Regional Transportation Plan serves as a planning blueprint to guide transportation investments in the County and provide a vision for ten-year (2031) and twenty-year (2041) planning horizons (Siskiyou County, 2021). The following policies pertain to the proposed Project:

- ▶ **Policy 17.1:** Replace Level of Service (LOS) analysis with Vehicle Miles Traveled (VMT) analysis as required statewide under CEQA and to support state and national goals to reduce greenhouse gas (GHG) emissions.
- ▶ **Policy 17.7:** Conduct environmental review consistent with the CEQA and NEPA for individual Projects as they advance to the implementation stage of development.
- ▶ **Policy 19.2:** Consider a multi-modal approach to land use and transportation decisions for each and every Project.

General Plan Circulation Element

The Siskiyou County General Plan Circulation Element Update was adopted in 1987. The General Plan’s Circulation Element evaluates road conditions and establishes policies and standards that address road development throughout the County (Siskiyou County 1987). The following policies are relevant to the Project:

- ▶ **Public and Private Road Sections Policy 1:** The following sections shall be the designated public road typical sections (Plate 1). These sections shall be the desirable two-lane roadway section on the designated county roads unless modified by resolution of the Board of Supervisors. These sections, by resolution, may be reduced due to mountainous terrain or environmental considerations only. Subdivisions, industrial and commercial developments shall conform to the Land Development Manual standards.
- ▶ **Public and Private Road Sections Policy 2:** The following sections shall be the designated private road typical sections “Plates 2 through 4”. These sections shall be provided on all developments not otherwise regulated by the land development manual. Subdivisions requiring final maps, industrial and commercial development shall conform to the Land Development Manual standards.

Discussion

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒

The proposed Project includes construction of a two-engine fire station building with a three-bay apparatus, an office/administration building, a flammable storage building, and a generator/pump building. Implementation of the proposed Project would not require the

construction, redesign, or alteration of any public roadways other than the construction of ingress/egress access driveways that would allow access to the proposed Project site. There are Class II bikeways present along US 97 in the vicinity of the proposed Project site; however, there are no pedestrian or transit facilities present. The proposed Project would not change the existing roadway network or alter existing facilities; thus, the proposed Project would not adversely affect or conflict with existing facilities. Additionally, there are no planned bicycle, pedestrian, or transit facilities in the vicinity of the Project site. Therefore, the proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system; and thus, there would be no impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b)?	☐	☐	☒	☐

CAL FIRE has not adopted their own VMT guidelines and thresholds to meet the State requirements set by SB 743 and that address CEQA Guidelines Section 15064.3. Therefore, in the absence of lead agency adopted VMT guidelines and thresholds of significance, the VMT analysis relies herein on the guidance provided in CEQA Guidelines Section 15064.3 and the OPR Technical Advisory.

Construction

The proposed Project involves the construction and operation of a new 8,263 square foot fire station and associated facilities on an approximate 36-acre parcel. Project construction would be temporary and intermittent in nature, occurring over a period of approximately 27 months; and thus, would not result in long-term increases in vehicular trips. The number of daily one-way construction worker trips per phase of construction are presented in Table 12. Additional assumptions and details are provided in Appendix A, Air Quality Greenhouse Gas, Energy Modeling Outputs.

Table 12 CAL FIRE Macdoel Station Construction Worker Trip Rates

Phase of Construction	One-Way Trips per Day
Site Preparation	5.00
Grading	7.50
Building Construction	8.31
Paving	17.50
Architectural Coating	1.66

Source: Ascent 2023

To provide a conservative estimate of the number of daily trips potentially generated by the construction of the Project, the number of one-way trips per day during paving, as shown in Table 12, is used. As such, the Project would generate, at most, 18 one-way commute trips

per day during construction. Therefore, the number of daily construction trips generated would be fewer than 110 trips per day; thus, satisfying the screening threshold for small Projects as detailed in the OPR Technical Advisory.

Operations

The proposed Project would include the construction of a new fire station and associated facilities on a approximate 36-acre site. The number of new trips that would be generated by the Project was estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual 11th edition (ITE 2021). The ITE Trip Generation Manual provides weekday average daily trip generation rates for the land use category “Small Office Building” (ITE Land Use Code 712). In the ITE Trip Generation Manual, small office buildings are defined as an office building with less than or equal to 10,000 square feet of gross floor area where affairs of business, commercial or industrial organization, or professional person or firm are conducted (ITE 11th Edition 2021). The ITE Trip Generation Manual also provides daily trip generation rates for the land use category “Fire and Rescue Station” (ITE Land Use Code 575). As defined in the ITE Trip Generation Manual, a fire and rescue station includes a building that houses emergency services equipment, firefighting apparatus, and the individuals that provide emergency firefighting services (ITE 2021). Table 13 shows the weekday daily trip generation rates for the proposed Project’s land use categories.

Table 13 Project Trip Generation Rates

Land Use	ITE Code	Quantity	Weekday Daily Trip Rate	Average Trips
Fire and Rescue Station	575	9,296 square feet	0.48	4
Small Office Building	712	2,047 square feet	14.39	50

Notes: ITE = Institute of Transportation Engineers

Source: Institute of Transportation Engineers Trip Generation Manual 11th edition (2021)

To provide a conservative estimate of the number of average daily trips potentially generated by the Project, the square footage of the proposed Project’s associated facilities, including the 494 square foot flammable storage building and the 648 square foot generator/pump building, were added to the square footage of the land use category with the highest trip rate, “Small Office Building.”

As presented in Table 3.5-2 above, the proposed Project is estimated to generate approximately 54 trips per day. Because the Project would generate fewer than 110 trips per day, the screening threshold for small Projects as detailed in the OPR Technical Advisory would not be exceeded. Thus, operational activities would not substantially increase VMT.

Summary

Construction and operation of the proposed Project would meet the screening criteria for small Projects as established in the OPR Technical Advisory. Therefore, the Project would not conflict with or be inconsistent with CEQA Guidelines section 15064.3(b). This impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project substantially increase hazards due to geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐

The Project's impacts related to transportation hazards during construction and operations are detailed below.

Construction

The proposed Project would develop and implement temporary traffic control (TTC) measures that comply with the California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control. TTC measures, such as signage or channelizing devices, would be required to demonstrate appropriate traffic handling during construction activities that could affect the traveling public (e.g., the transport of equipment and materials to the Project site); thus, any increased hazards related to traffic and transportation during construction would be minimized. Therefore, the impact related to transportation hazards during construction would be less than significant.

Operations

The proposed Project would involve the construction of a two-engine fire station, office/administration building, and related facilities that meet California Building Code standards and California Fire Code regulations. The proposed Project would not significantly alter roadway geometry on US 97; however, to facilitate access to the Project site, the proposed Project would include the construction of ingress/egress access driveways. All roadway improvements would be designed and constructed to meet State and local standards. Additionally, the proposed Project would be subject to review by Caltrans which would ensure the Project design would comply with all applicable industry roadway design standards. Therefore, the proposed Project would not substantially increase hazards due to a design feature or incompatible uses.

Summary

The proposed Project would not significantly alter roadway geometry on US 97 and would be required to meet all industrywide design and safety standards during construction and operation. Therefore, the proposed Project would not significantly increase hazards due to design features or incompatible uses, and the impact would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in inadequate emergency access?	☐	☐	☒	☐

The proposed Project would construct a new 9,296 fire station; thus, enhancing the ability to provide emergency services in the area. During construction, no roadway closures would occur and vehicle access along US 97 would be maintained. The proposed Project would be designed to meet Caltrans Code standards and regulations pertaining to the design of roadways and emergency access. Additionally, the proposed Project would be subject to review by Caltrans, ensuring that the proposed Project would maintain emergency access during construction and operation. Therefore, the proposed Project would not result in inadequate emergency access and the impact would be less than significant.

TRIBAL CULTURAL RESOURCES

Environmental Setting

The Project is subject to the requirements of CEQA (Public Resources Code [PRC] 21000 et seq.) 1970, as amended. The lead agency must consider the effects of the Project on historical resources, traditional cultural resources, and unique archaeological resources. Pursuant to PRC Section 21084.1, a Project that may cause a substantial adverse change in the significance of an historical resource is a Project that may have a significant effect on the environment.

“Tribal cultural resources” (e.g., sites, features, places, cultural landscapes, sacred places, and/or objects with cultural value to a California Native American tribe) is a term defined in PRC Section 21074. The stipulations of Assembly Bill (AB) 52 and its modifications to the PRC are the responsibility of CAL FIRE.

Research Methodology

Natural Investigations conducted cultural resources investigations for the Project site and an area in a 0.25-mile radius of it. These investigations included a search of the CHRIS conducted by the NIC at California State University, Chico; a search of the SLF conducted by the NAHC; outreach (i.e., letters and a telephone call regarding the Project) to Native American tribes and individuals identified on the CAL FIRE Native American contact list; a buried archaeological site sensitivity analysis; and a pedestrian surface survey of the Project site.

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒
ii) 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 Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

Cultural resources investigations for the Project did not identify any Tribal Cultural Resources. Therefore, there would be *No Impact* to any Tribal Cultural Resources by construction of the Project.

UTILITIES AND SERVICE SYSTEMS

Environmental Setting

Water

There is an inactive irrigation well in the southwestern portion of the Project site. No other wells or other surface bodies are located on the site.

Wastewater

Wastewater disposal and treatment will be provided by a septic system that will be constructed on as a part of the Project. The system will be permitted through Siskiyou County pursuant to the North Coast Regional Water Quality Control Board (NCRWQCB).

Storm Drainage

The Project site is not developed and contains native vegetation. No storm drainage systems are present onsite. The Project site is large enough to accommodate additional stormwater runoff associated with the development of impervious surfaces, such as driveways and structures.

SOLID WASTE/LANDFILLS

The Siskiyou County Division of Environmental Health was designated by the California Department of Resources Recycling and Recovery (CalRecycle) as the Local Enforcement Agency (LEA) for Siskiyou County in its entirety on April 14, 1992.

LEA responsibilities include the inspection of the many closed landfills and Siskiyou County transfer stations which are in Yreka, Mt. Shasta, Tulelake and Happy Camp. The LEA is also an educational resource for individuals and business entities for the proper methods for handling and disposing of solid waste. Solid waste is nonhazardous, non-liquid waste and includes garbage, compostable materials, and construction and demolition debris.

Discussion

a) Would the Project result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

Wastewater disposal is regulated under the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act. The North Coast Regional Water Quality Control Board (NCRWQCB) implements these acts by administering the National Pollutant Discharge Elimination System (NPDES), issuing water discharge permits, and establishing best management practices.

The proposed Project includes the installation of new storm water drainage components and a sewer treatment system as part of the new fire station. All sewage disposal, water

wells, or water systems are regulated and will be subject to standards set forth in the Siskiyou County Onsite Wastewater Treatment System (OWTS) Regulations. As required under the Clean Water Act, a Stormwater Pollution Prevention Plan (SWPPP) will be prepared to ensure that all applicable temporary and permanent BMPs are implemented and to minimize the movement of sediment (see ***Hydrology and Water Quality***).

Existing power lines adjacent to the site will be utilized for telecommunications and power.

The proposed utilities would not cause significant impacts. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐

Domestic water would be provided by a new well onsite. Drinking water at the site is subject to permitting, inspection, and monitoring pursuant to the NCRWQCB. The Siskiyou County Environmental Health Division will implement these requirements and all applicable permits and approvals pursuant to the NCRWQCB and California State Water Resources Control Board.

Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Would the Project 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?	☐	☐	☐	☒

The Project will include a septic system to treat any wastewater. The new septic system will be subject to all applicable county and state requirements. No impact would occur.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) 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?	☐	☐	☒	☐

The solid waste that will be generated at the project site will be approximately the same as the current Macdoel FS waste. There is currently sufficient capacity to serve the new fire station. Waste generation would not exceed state or local standards. Impacts will be less than significant.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

The Project will comply with federal, state, and local management and reduction statutes and regulations related to solid waste. Impacts would be less than significant.

WILDFIRE

Environmental Setting

The Project lies within an area that contains federally protected grasslands. The Project site and surrounding area is within the Federal Responsibility Area (FRA), although nearby areas are within the CAL FIRE high fire hazard State Responsibility Area (SRA). The FRA area is land where the Federal Agencies have administrative and protection responsibility.

There are five National Forests within Siskiyou County that total approximately 60% of the County's land base. In order of size within the County, these are the Klamath (largest), Shasta-Trinity, Modoc, Six Rivers, and Rogue-Siskiyou. Additionally, the Butte Valley National Grasslands (18,425 acres) is located adjacent to the Project site. CAL FIRE coordinates fire protection services with other federal agencies to respond to wildfires in the county.

Discussion

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project substantially impair an adopted emergency response plan or emergency evacuation plan?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The proposed Project is located within an area that is protected by various federal agencies and is adjacent to an SRA high fire hazard severity zone. Cal Fire is responsible for areas surrounding the federal lands and often coordinates with these agencies for fire protection. The Project would be beneficial to fire suppression services and would not impair an emergency response plan or evacuation plan. No impact would occur as a result of the new fire station.

b) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

The Project is located within in an FRA area. The site is flat and lies adjacent to a protected grassland area. The fire station would serve the surrounding FRA and SRA lands and would not have an impact with regard to increasing pollutant concentrations as the fire station supports fire suppression efforts.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☒	☐

The proposed Project would connect to existing power lines that are located along the Project site. As part of the Project, a well, septic system, and associated utility and water lines will be installed for operational purposes. The installation of these components would

not exacerbate fire risk or have a significant impact on the environment. Impacts will be less than significant.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project 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?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

As indicated in the previous questions, the fire station is within an FRA and surrounded by CAL FIRE SRA that is classified as a high fire hazard severity zone. The new fire station will improve operations.

The Macdoel Fire Station is located within this area to provide fire suppression activities and to prevent significant loss of vegetation, structures, and life. The Project would not have an impact.

MANDATORY FINDINGS OF SIGNIFICANCE

Discussion

a) Would the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

With mitigation measures described in this initial study, the proposed Project will not have a significant impact on fish and wildlife species or their habitat or eliminate important examples of major periods of California history or prehistory.

b) Would the Project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☐	☐	☒

A search of the CEQAnet Database did not identify any current or proposed Projects within the Project area.

The Project area is within an adjacent to a Nationally recognized grassland and no Projects are proposed within the area. The Project will be relocating an existing fire station located approximately two miles south of the Project site.

Implementation of mitigation measures listed in this initial study would reduce any potential adverse impacts to a less than significant level.

c) Would the Project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	☐	☒	☐	☐

Direct and indirect impacts to human beings would be less than significant with the implementation measures listed in this initial study.

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BIBLIOGRAPHY

Ascent Environmental, Inc.
2023. Macdoel Fire Station Project Air Quality, Energy, Greenhouse Gas Emissions, and Transportation Analyses. August 2023.
2023. Macdoel Cultural Resource Analysis with Tribal Cultural Resources. August 8, 2023.

California Department of Conservation
2023 Farmland Mapping and Monitoring Maps. Available at: <https://maps.conservation.ca.gov/>

CDFW] California Department of Fish and Wildlife
2023 California Natural Diversity Database

[DTSC] California Department of Toxic Substances Control
2023 Envirostar Database. Available at:
<https://www.envirostor.dtsc.ca.gov/public/>

[Caltrans] California Department of Transportation
2024 California Scenic Highway Program. Available at:
<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

[CalEPA] California Environmental Protection Agency

2023 Cortese List. Available at: <http://www.calepa.ca.gov/SiteCleanup/CorteseList/>.

California Geological Survey

2023 <https://www.conservation.ca.gov/cgs>

[CEQAnet] CEQAnet Database

2024 Query Database. Available at: <http://www.ceqanet.ca.gov/>

Geocon Consultants, Inc.

2019a Phase I and Phase II Environmental Site Assessment Report. December 2019.

2020b Additional Soil Assessment Report for Macdoel Property. January 8, 2020.

Federal Emergency Management Agency.

2023. FEMA Flood Map Service Center at <https://msc.fema.gov/portal/home>

Google Earth

2023 and 2024. Google Earth. Siskiyou County, CA. Available at: www.googleearth.com.

North Coast Regional Water Quality Control Board.

2024 Water Quality Control Plan for the North Coast Region. June 2018.

ParcelQuest

2023 <https://www.parcelquest.com/>

Siskiyou County Flood Control and Water Conservation District.

2024. Butte Valley Groundwater Sustainability Plan, December 2021.

Siskiyou County Website

2023 and 2024. Zoning Ordinance at <https://www.co.siskiyou.ca.us/planning/page/zoning>

General Plan at <https://www.co.siskiyou.ca.us/planning/page/general-plan>

Geographical Information System Maps at <https://www.co.siskiyou.ca.us/gis>

State Water Resources Control Board

2023 GEOTRACKER Database. Available at: <https://geotracker.waterboards.ca.gov/>.

United States Forest Service

2023 Butte Valley National Grassland at: <https://www.fs.usda.gov/detail/klamath/about-forest/?cid=FSEPRD494406>

