

APPENDICES

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Notice of Preparation and Initial Study, July 2022



**NOTICE OF PREPARATION
OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
YREKA TRAVEL CENTER AND HOTEL PROJECT**

July 6, 2022

LEAD AGENCY: **City of Yreka**
701 Fourth Street
Yreka, CA 96097

PROJECT TITLE: Yreka Travel Center and Hotel Project

PROJECT LOCATION: The Project is located at 717, 727, 737 and 747 Montague Road in the City of Yreka. APNs: 053-642-350, 360, 370 and 380.

The City of Yreka will be the Lead Agency and will prepare an environmental impact report for the Yreka Travel Center and Hotel Project.

The City is inviting public comments regarding the scope and content of the environmental information to be included in the EIR. Any comment from a public agency shall address the scope and content of environmental information that is relevant to the agency's statutory responsibilities, as required by Section 15082(b) of the CEQA Guidelines.

Section 15063(b) of the State Guidelines for the California Environmental Quality Act (CEQA) requires that, if during the Initial Study analysis, the lead agency determines that there is substantial evidence that any aspect of the project may cause a significant effect on the environment, the lead agency shall prepare an EIR. The City determined that an EIR level of analysis was required for specific impact areas based on the Initial Study. Those areas include air quality, biological resources, cultural resources, energy, greenhouse gas emissions, noise, paleontological resources, transportation, and tribal cultural resources. A copy of the Initial Study is available at the City at the address above or on the City's website at: <http://ci.yreka.ca.us/276/Public-Review-Documents>

PROJECT DESCRIPTION:

Development of the Project would require the approval by the City Council of an amendment to PUD 5-98 and associated Use Permit No. 2883. The Project is proposed to be completed in two phases and includes the following: Phase I - a 12,300 square-foot building consisting of a convenience store, a food hall, and retail shop open 7 days a week, 24 hours a day; a fuel center, with eight dispensers for automobiles and RVs, a separate fuel center with four diesel dispensers for semi-trucks, and a 99-space parking lot; Phase II - a 70-room, three-story hotel, and parking.

PUBLIC REVIEW PERIOD:

The 30-day public review period for the Initial Study will begin on July 6th, 2022 and end on August 4th, 2022 for any interested and concerned individuals and public agencies to submit written comments on the document.

PUBLIC MEETING:

The City will consider the certification of the EIR at a future City Council meeting to be determined. A hybrid public scoping meeting has been scheduled for **Monday, August 1, 2022 from 4:00 pm through 6:00 pm** at City Council Chambers 701 4th Street, Yreka, CA 96097 or Zoom. To participate via Zoom utilize the following information:

<https://us02web.zoom.us/j/84219698556>

Meeting ID: 842 1969 8556

Dial by your location

+1 669 444 9171

+1 669 900 6833

+1 253 215 8782

A brief presentation will begin at 4:00 pm, afterwards comments will be accepted until the meeting concludes at 6:00 pm. Please send your response to Juliana Lucchesi, Planning Director at the address shown above or via email at jlucchesi@ci.yreka.ca.us.

Initial Study
YREKA TRAVEL CENTER AND HOTEL PROJECT
PUD AMENDMENT AND CUP AMENDMENT
City of Yreka, California

Lead Agency:



City of Yreka
701 Fourth Street
Yreka, CA 96097

Prepared by:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

55 Hanover Lane, Suite A
Chico, California 95973

July 2022

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SUMMARY - YREKA TRAVEL CENTER AND HOTEL PROJECT INITIAL STUDY

Lead Agency:	City of Yreka
Project Proponent:	5 North Yreka, Inc.
Project Location:	The Project is located at 717, 727, 737 and 747 Montague Road/State Highway 3 in the City of Yreka. APNs: 053-642-350, 360, 370 and 380. (Figures 1 and 2). The site is within Sections 15, Township 30 North, Range 4 East (Mount Diablo Base and Meridian). The approximate center of the site is located at latitude 41.625509 ° and longitude -122.625509 °.

Project Description:

Development of the Project would require the approval by the Planning Commission and City Council of an amendment to PUD 5-98 and associated Use Permit No. 2883. The Proposed Project is located on approximately 4.97 acres of land, currently identified as four separate parcels by the Siskiyou County Assessor's Map records (Assessor's Parcel Numbers (APN): 053-642-350, -360, -370, and -380). The Project Site is within the City's GC (General Commercial) General Plan land use designation and is zoned Planned Unit Development (PUD 5/98). The site is bounded by existing commercial uses (hotel) to the west, a recreational vehicle (RV) park to the south, the Yreka Truck Stop and vacant land to the west, and Montague Road/State Route 3 (SR-3) and vacant lands to the north.

The Project is proposed to be completed in two phases and includes the following:

Phase I

- a 12,300 square-foot (sf) building consisting of a convenience store, a food hall, and retail shop open 7 days a week, 24 hours a day; a fuel center, with eight dispensers for automobiles and RVs, a separate fuel center with four diesel dispensers for semi-trucks, and a 99-space parking lot.

Phase II

- a 70-room, three-story hotel, and parking.

Access to the site is provided by two driveways for the convenience store/fueling site and two driveways for the hotel site, all via an existing private road from Montague Road/SR-3.

The Project Site is vacant of structures and relatively flat, gently sloping from east to west, with elevations between 2,630 and 2,660 above mean sea level (AMSL) for the site.

Public Review Period: To be determined

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ACRONYMS AND ABBREVIATIONS

Acronym	Definition
°F	degrees Fahrenheit
AB	Assembly Bill
ADT	Average Daily Trips
ADWF	Average dry weather flow
af/yr	acre-feet per year
AMSL	Above mean sea level
SCAPCD	Siskiyou County Air Pollution Control District
APN	Accessor Parcel Number
BMPs	Best Management Practices
BRA	Biological Resources Assessment
CAL FIRE	California Department of Forestry and Fire Protection
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	Methane
CNEL	Community noise equivalent level
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
CUP	Conditional Use Permit
CVC	California Vehicle Code
dBA	A-weighted Decibels
Division	Division Siskiyou County Environmental Health
DMR	California Division of Mine Reclamation
DOC	California Department of Conservation
DOF	California Department of Finance
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EIR	Environmental Impact Report
EV	Electric Vehicle
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
General Permit	General Construction Activity Stormwater Permit
GHG	Greenhouse Gas
gpd	Gallons per day
GSA	Groundwater Sustainability Agency
GSP	Groundwater Sustainability Plan

Acronym	Definition
I-5	Interstate 5
IS/MND	Initial Study Mitigated Negative Declaration
kWh	Kilowatt hours
L _{dn}	Day-night average sound level
L _{eq}	L _{eq}
LL	Liquid Limit
LOS	Level of service
LUST	Leaking Underground Storage Tank
mgd	Million gallons per day
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zones
MS4	Municipal Separate Storm Sewer Systems
N ₂ O	Nitrous oxide
NAHC	Native American Heritage Commission
NEIC	North Central Information Center
NO ₂	Nitrogen dioxide
NOI	Notice of Intent
NO _x	Nitrogen oxide
NPAB	Northeast Plateau Air Basin
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
O ₃	Ozone
OPR	California Governor's Office of Planning and Research
PI	Plasticity index
PL	Plastic Limit
PM ₁₀ and PM _{2.5}	Particulate Matter
PPL	Pacific Power and Light
PRC	Public Resource Code
Project/ Proposed Project	Yreka Travel Center and Hotel Project
PUD	Planned Unit Development
RV	Recreational vehicle
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAPCD	Siskiyou County Air Pollution Control District
SGMA	Sustainable Groundwater Management Act
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SR	State Route
STAGE	Siskiyou Transit and General Express
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TIAM	Traffic Impact Analysis Memorandum
UCMP	California Museum of Paleontology
USACE	United States Army Corps of Engineers
USEPA	Environmental Protection Agency

Acronym	Definition
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	Vehicle miles traveled

1.0 BACKGROUND

1.1 Summary

Project Title:	Yreka Travel Center and Hotel Project
Lead Agency Name and Address:	City of Yreka 701 Fourth Street Yreka, CA 96097
Contact Person and Phone Number:	Juliana Lucchesi, Planning Director, (530) 841-2324
Project Location:	717, 727, 737 and 747 Montague Road/SR-3 in the City of Yreka. APNs: 053-642-350, 360, 370 and 380. (Figures 1 and 2). The site is within Sections 15, Township 30 North, Range 4 East (Mount Diablo Base and Meridian). The approximate center of the site is located at latitude 41.625509 ° and longitude -122.625509 °.
General Plan Designation:	GC (General Commercial)
Zoning:	CH (Commercial Highway), PUD (Planned Use Development) PUD 5-98

1.2 Introduction

This Initial Study has been prepared to identify and assess the anticipated environmental impacts of the Yreka Travel Center Project (Project or Proposed Project). The City of Yreka is the Lead Agency for this Initial Study.

This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resources Code [PRC], § 21000 et seq.) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of Projects over which they have discretionary authority before acting on those Projects. A CEQA Initial Study is generally used to determine which CEQA document is appropriate for a Project (Negative Declaration, Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]). Based on existing conditions and knowledge of the site, it has already determined that an EIR will be required for the Project. The purpose of the Yreka Travel Center and Hotel Project Initial Study is to eliminate from further analysis those areas listed in CEQA Guidelines Appendix G shown as having no impact or a less than significant impact, from further consideration in the EIR.

1.3 Lead Agency

The lead agency is the public agency with primary responsibility over a proposed project. Where two or more public agencies will be involved with a project, CEQA Guidelines Section 15051 provides criteria for identifying the lead agency. In accordance with CEQA Guidelines Section 15051(b)(1), "the lead agency will normally be the agency with general governmental powers, such as a city or county, rather than an agency with a single or limited purpose." Based on the criteria above, the City of Yreka (City) is the lead agency for the Proposed Project.

1.4 Purpose and Document Organization

The purpose of this Initial Study is to evaluate the potential environmental impacts of the Proposed Project. This document is divided into the following sections:

1.0 Introduction – This section provides an introduction and describes the purpose and organization of the document. It provides general information regarding the Project, including the Project title, lead agency and address, contact person, brief description of the Project location, General Plan land use designation, zoning district, identification of surrounding land uses.

2.0 Project Description – This section provides a detailed description of the Proposed Project as well as the identification of other public agencies whose review, approval, and/or permits may be required. Also listed in this section is a checklist of the environmental factors that are potentially affected by the Project.

3.0 Environmental Factors Potentially Affected and Determinations – This section is a summary of the environmental topic areas that were found to potentially impact the environment.

4.0 Environmental Checklist and Discussion – This section describes the environmental setting and overview for each of the environmental subject areas, evaluates a range of impacts classified as *no impact*, *less than significant impact*, *less than significant impact with mitigation incorporated*, and *potentially significant impact* in response to the environmental checklist.

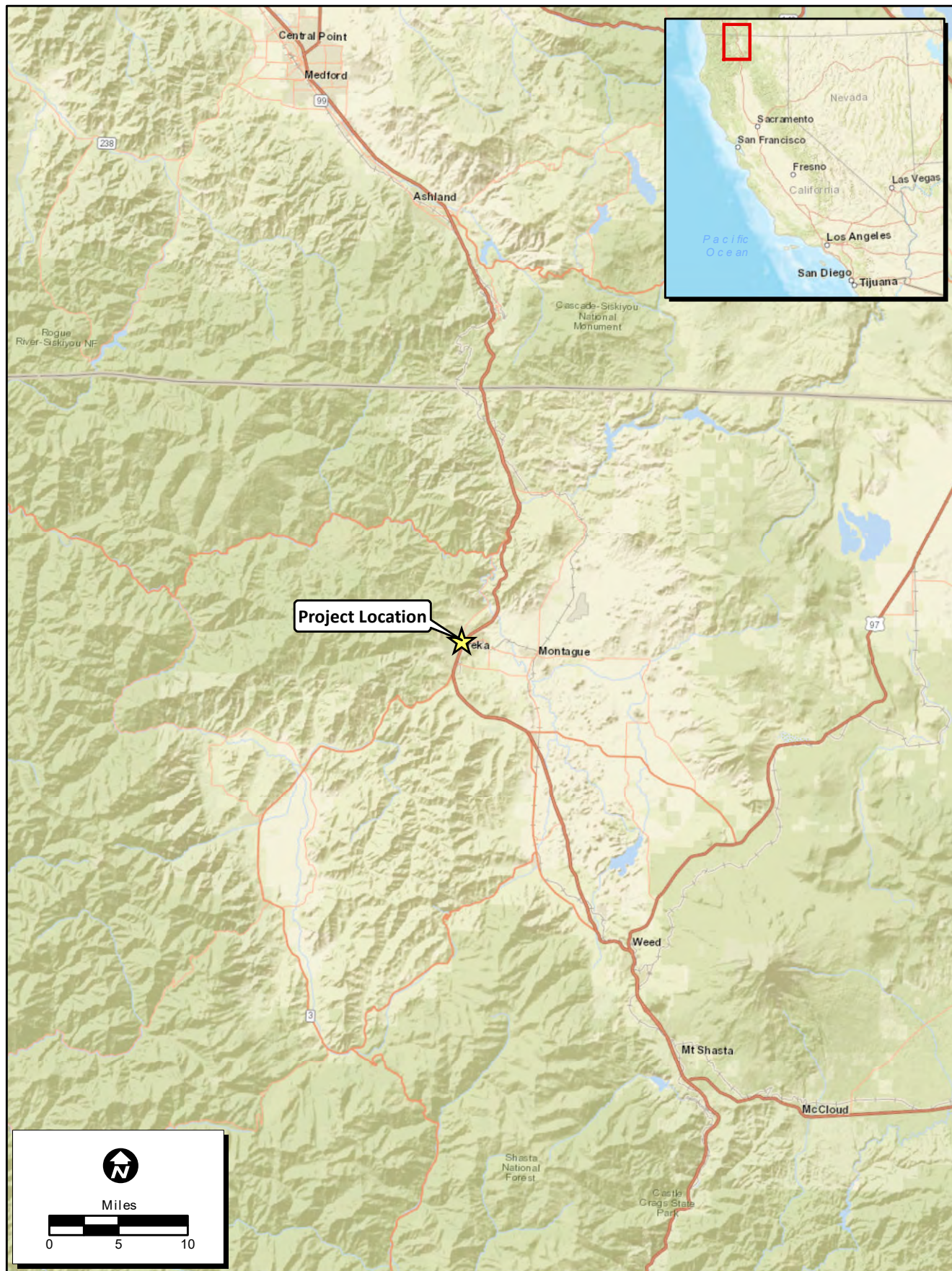
5.0 List of Preparers – This section lists the names of documents preparers.

6.0 Bibliography – This section identifies documents, websites, people, and other sources consulted during the preparation of this Initial Study.

7.0 List of Attachments – This section provides a list of document appendices.

1.5 Project Location and Surrounding Land Uses

The Project Site is located in the northeast area of the City of Yreka south of Montague Road/SR 3. The assigned addresses for the four undeveloped parcels of the Project Site are 717, 727, 737 and 747 Montague Road/SR-3 (Figures 1 and 2).



Map Date: 5/10/2022

Service Layer Credits: Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community

Figure 1. Regional Location

Refresh Travel Center



Figure 2. Site Location
Refresh Travel Center

The Project is located on the following four parcels:

Accessor's Parcel Numbers			
053-642-350	053-642-360	053-642-370	053-642-380

The 4.97-acre Project Site is undeveloped vacant land with the Yreka RV Park, vacant land with a drainage basin, and large lot single family uses to the south, and a Holiday Inn Hotel, and Interstate 5 (I-5) to the west. North of the site is Montague Road/SR 3 with vacant land beyond. The Yreka Truck Stop is east of the site, with vacant land and a lumber yard and mini-storage beyond (Figure 3).

1.6 Project History

The Project applicant submitted a development application to the City in 2019 for the construction of a convenience store, restaurant, Arco AM/PM gas station, diesel station, a food court with several restaurants, a bar, an exterior patio, laundry, showers, restrooms, and a truck shop.

The Proposed Project is located within Planned Unit Development 5-98 (PUD 5-98). The City Council approved PUD 5-98 in May 1998 via Use Permit No. 2883 (CUP 2883). The Project Site has been identified in PUD 5-98 for the development of a *Quick Service/Full Service Restaurant*. Because the previously proposed Yreka Travel Center and Hotel Project proposed uses that were not consistent with the approved zoning for the Project Site in PUD 5-98, an amendment to PUD 5-98 and CUP 2883 (resulting in a new Conditional Use Permit [CUP 2021-04]) specific to the Project was required. Since the PUD amendment and CUP require approval by the Planning Commission and City Council, this is considered a discretionary action and therefore CEQA review was required. As such, a Draft Initial Study and resultant Mitigated Negative Declaration (MND) (SCH #2021040260) was completed for the Yreka Travel Center and Hotel Project and provided to the public for review. The 30-day public review period was from April 12 to May 11, 2021.

As a result of comments received on the 2021 Draft IS/MND, the Project applicant decided to revise the Project. These revisions resulted in proposed uses not included in the previous project. Additionally, the 2021 CEQA analysis was never completed and adopted by the City. Therefore, a new CEQA environmental review is required.

1.7 Environmental Setting

The Proposed Project is located in a mostly rural area of the City of Yreka with sparse development surrounding the site. The 4.97-acre Project Site is vacant of structures and relatively flat, gently sloping from east to west, with elevations between 2,630 and 2,660 AMSL for the site. The site had been previously graded and there are a few small mounds on the site as a result of grading activities. The site is primarily composed of disturbed grassland habitat with patches of shrubs. The dominant herbaceous plants onsite include medusahead grass and cheat grass, with scattered rabbitbrush and yellow star-thistle. The site is surrounded on three sides by roadways. No ponds, creeks or other water features are located on the site.



2.0 PROJECT DESCRIPTION

2.1 Project Description

Development of the Project would require the approval by the Planning Commission and City Council of an amendment to PUD 5-98, associated Use Permit No. 2883, and variance to increase the height of the hotel building. The Proposed Project is located on approximately 4.97 acres of land, currently identified as four separate parcels by the Siskiyou County Assessor's Map records (APNs 053-642-350, -360, -370, and -380). The Project Site is within the City's GC (General Commercial) General Plan land use designation and is zoned Planned Unit Development (PUD 5-98). The site is bounded by existing commercial uses (hotel) to the west, an RV park to the south, the Yreka Truck Stop and vacant land to the west, and Montague Road/SR-3 and vacant lands to the north.

The Project is proposed to be completed in two phases consisting of the following:

Phase I

- a 12,300-sf building including a convenience store, a food hall, bar, retail shop, and outdoor patio, open 7 days a week, 24 hours a day,
- a fuel center with a 6,298-sf canopy, with eight dispensers for automobiles and RVs ,
- a separate fuel center with 1,872-sf canopy, with four diesel dispensers for semi-trucks,
- two underground gasoline/diesel fuel tanks (size to be determined), three 12,000-gallon above-ground diesel tanks, and a 10-foot propane tank.
- parking accommodating 99 spaces, including 12 spaces for Electric Vehicle (EV)s charging,
- a pet park area,
- two monument signs and a goalpost sign, and
- perimeter landscaping (44,676 sf total for Phases I and II).

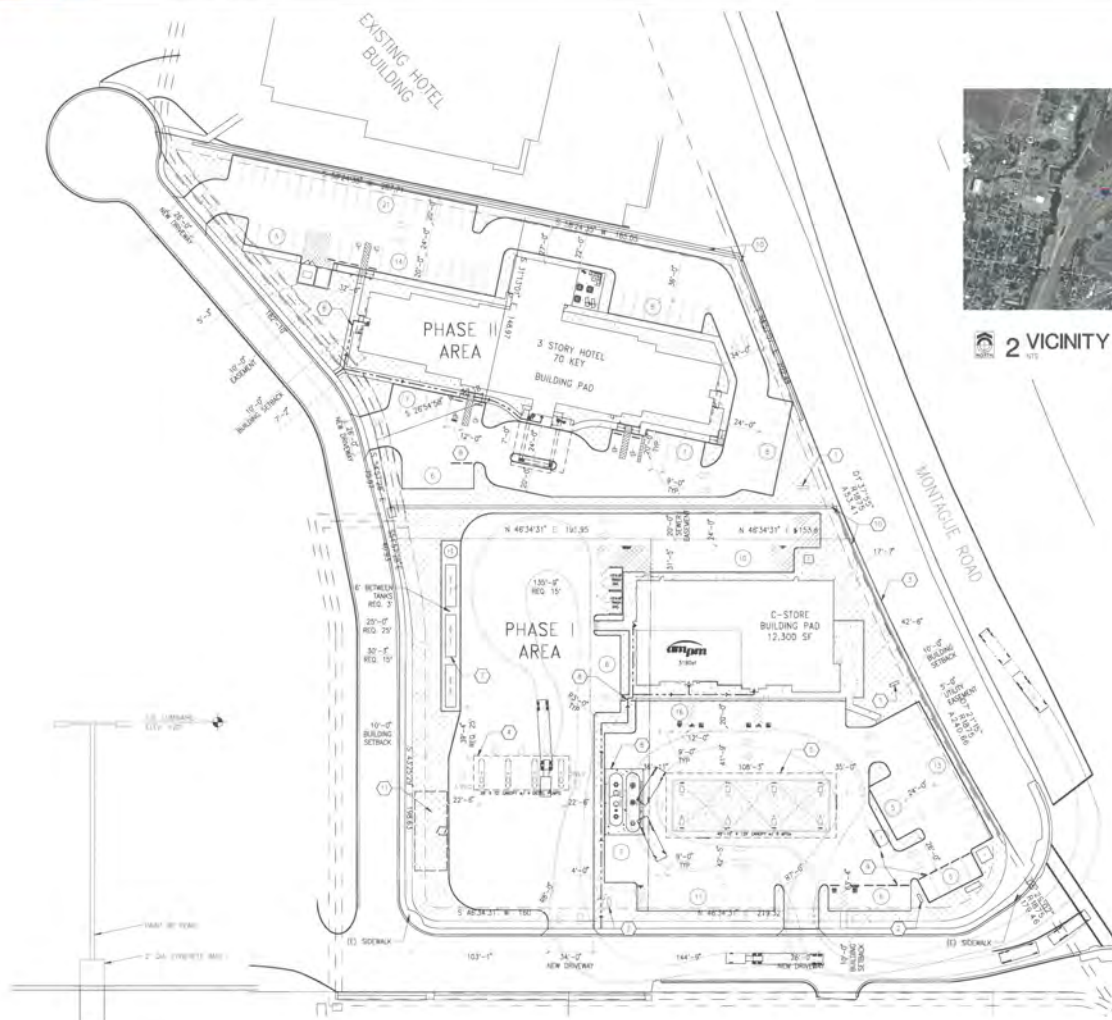
Phase II

- a 70-room, three-story hotel (44 feet tall, 17,032 sf).
- parking accommodating 76 spaces, including two spaces for EV charging,
- a goalpost sign, and
- perimeter landscaping (44,676 sf total for Phases I and II).

Once completed, the Project is estimated to employ 40 to 50 persons overall with approximately 12 to 15 employees per shift.

Access to the site is provided by two driveways for the convenience store/fueling site and two driveways for the hotel site, all via an existing private road from Montague Road/SR 3 (Figures 4 through 7).

I-5 at Montague Road
Yreka, California
APN: 053-642-350 THRU 380



2 VICINITY MAP

KEYED NOTES

- 1 GROUND SIGN
- 2 MINIMUM SIGN
- 3 PROPERTY LINE
- 4 FUEL STATION CANOPY W/ A DIESEL PUMP
- 5 FUEL STATION CANOPY W/ B MULTIPLE PRODUCT DISPENSER
- 6 UNDERGROUND FUEL TANK
- 7 ABOVEGROUND FUEL TANK
- 8 ACCESSIBLE PATH OF TRAVEL
- 9 EXCHANGING
- 10 RETAINING WALL
- 11 FET PARK

SITE LEGEND

- NEW CONCRETE SIDEWALK/PARKING
- NEW LANDSCAPE AREA

Center Loaded-Guest Room Count Breakdown

	GROUND FL.	2ND FLOOR	3RD FLOOR	TOTAL
KING	3	6	6	15
DOUBLE QUEEN	4	12	12	28
KING STUDIO	7	8	8	23
ACCESSIBLE KING	9	1	1	11
ACCESSIBLE DOUBLE QUEEN	3	1	1	5
ACCESSIBLE KING STUDIO	1	2	2	5
TOTAL	31	30	30	91

Room Sizes

KING	14'0" x 22'0"
DOUBLE QUEEN	12'0" x 28'0"
DOUBLE QUEEN EXTENDED	12'0" x 27'0"
DOUBLE QUEEN EXTENDED & WIDE	14'0" x 27'0"
KING STUDIO	18'0" x 20'0"
WIDE KING STUDIO	18'0" x 22'0"
KPT (DOUBLE QUEEN STUDIO)	20'0" x 20'0"
ACCESSIBLE KING	14'0" x 28'0"
ACCESSIBLE DOUBLE QUEEN	14'0" x 28'0"
ACCESSIBLE KING STUDIO	22'0" x 22'0"
KPT (ACCESSIBLE DOUBLE QUEEN STUDIO)	22'0" x 28'0"

ARCO 75'

FIRST PART WIDTH	18.50	LOCK TO LOCK TIME	16.0
TRAILER WIDTH	18.50	STEERING ANGLE	136.0
FIRST PART TRACK	18.50	ARTICULATING ANGLE	170.0

3 SITE LIGHTING



1 SITE PLAN



SITE PLAN

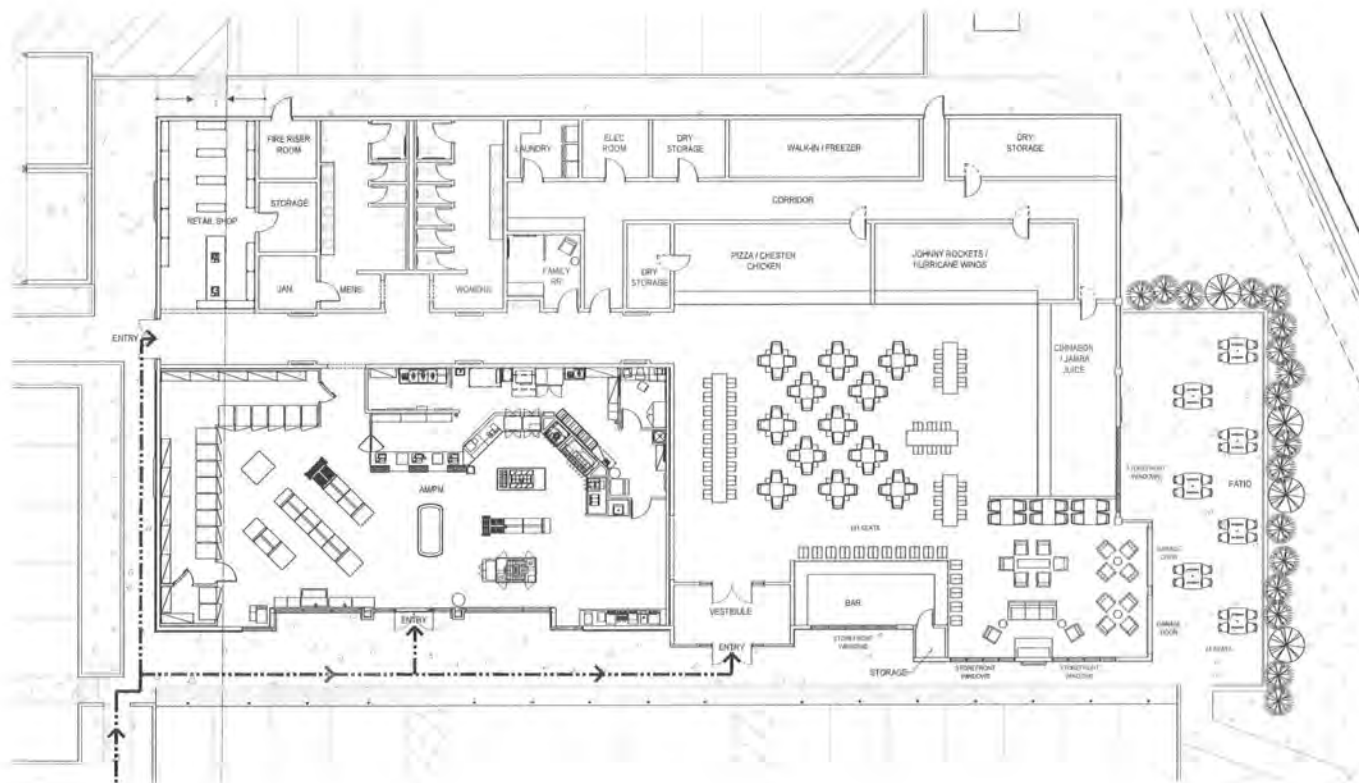
Conditional Use Permit Package | A2



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4. Site Plan
Refresh Travel Center

I-5 at Montague Road
Yreka, California
APN: 053-642-350 THRU 380



TRAVEL CENTER FLOOR PLAN

PRELIMINARY FLOOR PLAN

Conditional Use Permit Package | A2.1

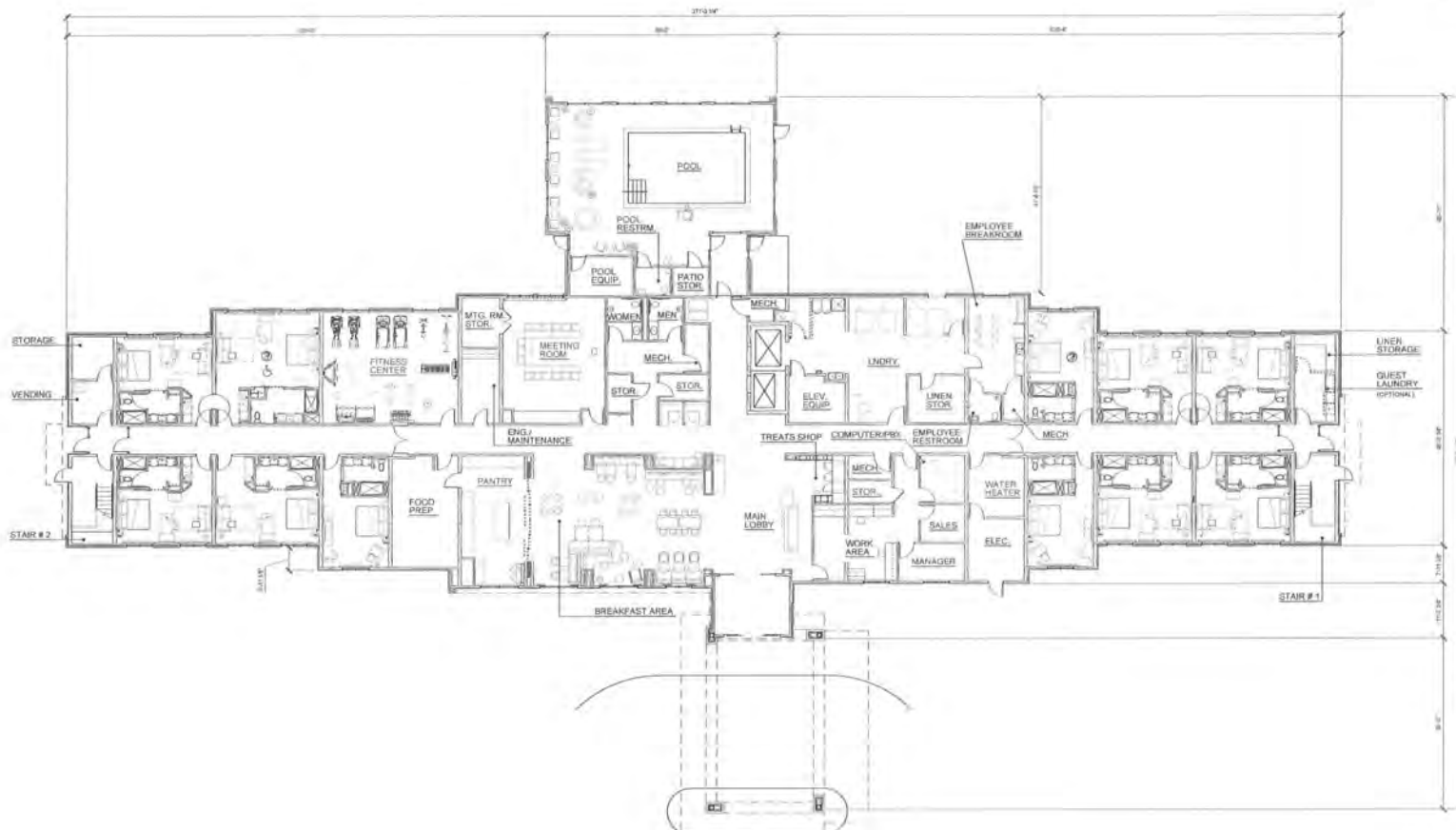
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ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 5. Travel Center Floor Plan
Refresh Travel Center

I-5 at Montague Road
Yreka, California
APN: 053-642-350 THRU 380



INN & SUITES FLOOR PLAN
SBA 2017-11-8

PRELIMINARY FLOOR PLAN

Conditional Use Permit Package | A2.2

20171.0



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS




Figure 6. Hotel Floor Plan
Refresh Travel Center



GENERAL NOTES

A. HORIZONTAL BEVEL AND VERTICAL CONTROL JOINT LOCATIONS IN STEEL SYSTEM SHOWN ARE TO BE AS CLOSELY AS POSSIBLE TO ELEVATIONS

COLOR LEGEND

	P-1 BENGALIN MOORE (M) "GREAT PLUMB GOLD" SATP- 78-001
	P-2 BENGALIN MOORE (SM) "BRAND 1 CREAM" SATP-10-001
	P-3 BENGALIN MOORE (S) L-14 "WHITE" HIGH GLOSS 78-001

MATERIAL LEGEND

	ACE-1	ALUMINUM COMPOSITE MATERIAL PAINT ON STEEL SHEET, 10' X 8' X 1/2"
	ACE-2	ALUMINUM COMPOSITE MATERIAL PAINT ON STEEL SHEET, 10' X 8' X 1/2"
	HB-C	HARD BOARD COMPOSITION 10' X 8' X 1/2"
	MS-1	MILITARY METAL

EXTERIOR ELEVATIONS

Conditional Use Permit Package H A5.1

Figure 7. Convenience Store Exterior Elevations
Refresh Travel Center

The existing unnamed private roadway serves various properties within PUD 5-98. According to the Siskiyou County Assessor's Office, this road is a private road currently owned by A1 Investments LLC, 9950 Koa Lane, Elk Grove California 95624-5009. The Project applicant has submitted a copy of the Yreka Travel Plaza Association Declaration of Covenants, Conditions and Restrictions (CC&Rs) to the City. The Yreka Travel Plaza Association was the consortium of owners in the original PUD 5-98. According to the CC&Rs, the Project has full access and use of the private road, known as the *Common Area* in the CC&Rs. In addition, the CC&Rs provide the maintenance responsibilities of the Common Area, required and shared between landowners in PUD 5-98. All current and future maintenance of this roadway and roadway landscaping is the responsibility of the landowners within PUD 5-98.

The Project Site is vacant of structures and relatively flat, gently sloping from east to west, with elevations between 2,630 and 2,660 AMSL for the site.

Development of the Project would require the approval by the Planning Commission and City Council of an amendment to PUD 5-98 and associated Use Permit No. 2883. The Proposed Project is located within the Planned Unit Development 5-98 (PUD 5-98). The Project Site has been identified in PUD 5-98 for the development of a *Quick Service/Full Service Restaurant*. Since the proposed Yreka Travel Center and Hotel Project proposes uses that are not consistent with this approved use, an amendment to PUD 5-98 and Use Permit No. 2883 is required. Additionally, the Project applicant is requesting a Variance to increase the height of the hotel from the zoning code maximum of 35 to 44 feet(16.58.010(a) Yreka Municipal Code).

2.2 Regulatory Requirements, Permits, and Approvals

The following approvals and regulatory permits would be required for implementation of the Proposed Project.

2.2.1 Lead Agency Approval

As the lead agency, the City of Yreka has the ultimate authority for Project approval or denial. The Proposed Project may require the following discretionary approvals and permits by the City for actions proposed as part of the Project:

- Certification of the EIR

- Adoption of PUD 5-98 amendment

- Adoption of CUP

- Approval of Variance for Increased Height Maximum

In addition to the above City actions, the Project may require approvals, permits, and entitlements from other public agencies for which this IS and the EIR may be used, including, without limitation, as provided below.

2.2.2 North Coast Regional Water Quality Control Board

The North Coast Regional Water Quality Control Board (RWQCB) typically requires a Construction General Permit be obtained for projects that disturb more than 1 acre of soil. Typical conditions issued with such a permit include the submittal of and adherence to a Stormwater Pollution And Prevention Plan (SWPPP), as well as prohibitions on the release of oils, grease, or other hazardous materials.

2.2.3 Siskiyou County Air Quality Management District

The Proposed Project is located in an area falling under the jurisdiction of the Siskiyou County Air Pollution Control District (SCAPCD). The Project applicant will be required to obtain approval of a dust control plan from the SCAPCD prior to any soil disturbing activities on the site.

2.2.4 Siskiyou County Environmental Health Department

The Proposed Project will be required to obtain approval by the Environmental Health Department for the use of fuel storage tanks, storage and management of hazardous materials, as well as food facility permits.

2.2.5 California Department of Transportation

A portion of the Proposed Project would be located within a California Department of Transportation (Caltrans) right-of-way for SR 3 (Montague Road). The Project applicant will be required to obtain an encroachment permit from Caltrans prior to any work within the Caltrans right-of-way.

2.3 Relationship of Project to Other Plans and Projects

2.3.1 City of Yreka General Plan

The Proposed Project would be located in Yreka. The City of Yreka General Plan 2002-2022 was adopted by the City Council on December 18, 2003. The General Plan is the fundamental document governing land use development in the incorporated areas of the City. It includes numerous goals and policies pertaining to land use, circulation, housing, conservation, open space, parks and recreation, noise, public health and safety, and public facilities. The Proposed Project will be required to abide by all applicable goals and policies included in the adopted General Plan.

2.3.2 City of Yreka Flood Damage Prevention Ordinance

The Project will not be subject to the City's Flood Damage Prevention Ordinance (Municipal Code Chapter 11.34), which regulates improvements in flood zones. Chapter 11.34 applies to special flood hazard areas, which are defined as areas having special flood or flood-related erosion hazards and shown on a Flood Hazard Boundary Map or Flood Insurance Rate Map (FIRM) as Zone A, AO, A1-30, AE, A99, or AH. The Project Site is shown on the Federal Emergency Management Agency (FEMA) FIRM 06093C1557D. The Proposed Project Site is located in Flood Zone X, meaning that no portion of the site is located within the 100-year floodplain (FEMA 2011). Therefore, the Project is not subject to the requirements of Chapter 11.34.

2.3.3 City of Yreka Stormwater Quality Management & Discharge Control Ordinance

The Project will be subject to the City's Stormwater Quality Management & Discharge Control Ordinance (Municipal Code Chapter 12.40). The City of Yreka is a Phase II, Small MS4 permittee under the *Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges*. The purpose and intent of this ordinance is to comply with the requirements imposed upon the City in the Phase II Small MS4 permit and to protect and promote the health, safety, and general welfare of citizens, and protect and enhance the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Clean Water Act (33 U.S.C. §1251 et seq.), and the Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.), so that, to the maximum extent practicable, stormwater will not cause or contribute to any exceedances of water quality standards contained in the statewide Water Quality Control Plan, the California Toxics Rule, or in the North Coast RWQCB Basin Plan amended and supplanted, and by prohibiting non-stormwater discharges to the storm drain system, excepting non-significant non-stormwater contributors.

2.3.4 Consultation with California Native American Tribe(s)

Assembly Bill (AB) 52 (2014) requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe traditionally and culturally affiliated with the geographic area of the Proposed Project if:

1. the California Native American tribe requested to the lead agency, in writing, to be informed by the Lead Agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and
2. the California Native American tribe responds in writing, within 30 days of receipt of the formal notification, and requests the consultation.

The City of Yreka notified the Shasta Indian Nation and the Karuk Tribe of the Proposed Project on June 28, 2022. At the time of this writing, the City has not received any responses by the Shasta Indian Nation or the Karuk Tribe. Further information on potential Tribal Cultural Resources in the Project Area is provided in Section 4.18 of this IS/MND.

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Hazards/Hazardous Materials	<input type="checkbox"/> Recreation
<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Hydrology/Water Quality	<input checked="" type="checkbox"/> Transportation
<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Land Use and Planning	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities and Service Systems
<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Noise	<input type="checkbox"/> Wildfire
<input checked="" type="checkbox"/> Energy	<input type="checkbox"/> Population and Housing	<input checked="" type="checkbox"/> Mandatory Findings of Significance
<input checked="" type="checkbox"/> Geology and Soils	<input type="checkbox"/> Public Services	
<input checked="" type="checkbox"/> Greenhouse Gas Emissions		

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that although the Project could have a significant effect on the environment, there will 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 will be prepared.	<input type="checkbox"/>
I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	<input checked="" type="checkbox"/>
I find that the 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.	<input type="checkbox"/>
I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.	<input type="checkbox"/>

 7/15/2022

 Date

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

Yreka is in an area considered to have high scenic value, located in a valley surrounded by mountains in the Klamath National Forest on the north and west, Shasta Valley to the east, and the Kilgore Hills to the southeast. Nearby mountains rise 300 to 4,000 feet above Yreka and provide an attractive backdrop. Some areas of the City have distant views of the Siskiyou and Cascade ranges to the north and east, with Mount Shasta as the prominent feature to the southeast. Mount Shasta is an active volcano, 14,182 feet in elevation. The nearby mountain ranges are covered with pine forests and oak trees. Winter brings snows to the higher elevations, while spring brings green hills and the fresh foliage of deciduous trees. Fall color in the oaks brings a bright gold, which contrasts with the green of pines. These views are readily seen from most residential areas and are visible from major highways traversing the City (i.e., I-5, SR 3, and SR 263).

While there are several segments of roadways in Siskiyou County that are listed as eligible scenic highways (as shown below), there are no local or state designated scenic highways adjacent to or within the vicinity of the Project Site (Caltrans 2022).

SR 97 from I-5 in Weed to Oregon/California state line;

SR 161 from SR 97 near Dorris to SR 139 near Hatfield;

I-5 from SR 89 near Mount Shasta to SR 97 near Weed; and

I-5 from SR 3 in Yreka to the Oregon/California state line near Hilt.

The Project Site is devoid of any topographical features and does not contain any feature or element that could be considered scenic or that is designated as scenic by the City or the State. As such, development of the Proposed Project would not obstruct or otherwise interfere with any views from offsite roadway vantage points.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

A scenic vista is a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. As previously described, Yreka is distinguished with its views of the Siskiyou and Cascade ranges to the north and east and Mount Shasta to the southeast.

The Project Site is located just east of I-5 in the northern portion of Yreka within a cluster of small-scale commercial operations. The Project's surrounding vicinity is a combination of rural and urban uses with a hotel and large lot single-family home to the west, RV park to the south, a truck stop and semi-truck parking area to the east and SR 3 and vacant land to the north. The Project Site neither contains unique visual features that would distinguish it from surrounding areas nor located within a designated scenic vista. In addition, there are no distinct or distinguishing rock features on the Project Site. Phase I of the Project proposes a single-story travel center building with an approximate building height of 28 feet. While the 12,300-sf. building would be visually prominent, it would not block distant views of the Siskiyou and Cascade ranges. Figure 7 provides exterior elevations of the travel center building. Phase II includes the construction of a 44-foot-tall, three-story hotel. Building elevations for the hotel are not available at this time. Construction of this hotel would at least partially block views of the distant Cascade Range from the adjacent hotel. However, the existing hotel is not considered a formal public viewing area specifically set aside to observe the scenic views of the Cascade Range. As such, the Proposed Project would have a less than significant impact in this area.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Proposed Project is not located within the vicinity of an officially designated scenic highway. No impact would occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

CEQA Guidelines Section 15387 defines an urban area as:

"Urbanized area" means a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population

density of at least 1,000 persons per square mile. A Lead Agency shall determine whether a particular area meets the criteria in this section either by examining the area or by referring to a map prepared by the U.S. Bureau of the Census which designates the area as urbanized. Maps of the designated urbanized areas can be found in the California EIR Monitor of February 7, 1979. The maps are also for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. The maps are sold in sets only as Stock Number 0301-3466. Use of the term "urbanized area" in Section 15182 is limited to areas mapped and designated as urbanized by the U.S. Bureau of the Census."

Based on this definition, the Proposed Project is in a non-urbanized area. Implementation of the Project would result in a change in character of the site from vacant land in a sparsely developed area of the City to a developed site. However, this change in use is consistent with the City's General Plan land use and zoning designations and therefore, may be developed in the future. There are no public viewpoints on or near the site that identify that the site is of special scenic quality. Because the site will be developed for a high quality commercial use, consistent with the General Plan land use and zoning for the site, the Project would not degrade the visual quality of site or its surroundings. Therefore, the Project would have a less than significant impact on scenic quality on the site and surrounding area.

Except as provided in Public Resources Code Section 21099, would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Phase I of the Proposed Project would result in a new building, fueling areas, and parking areas, all of which may result in an increase of artificial light and glare into the existing environment. Phase II would include the construction of a three-story hotel and accompanying parking. Potential sources of light and glare include external building lighting, parking lot lighting, illuminated signage, security lighting, building windows, and reflective building materials. The introduction of new sources of light and glare may contribute to nighttime light pollution and result in impacts to nighttime views in the area.

Adherence to Yreka Municipal Code Chapter 13.10, *General Standards*, requires that all electric signs and outline lighting in Yreka comply with Article 600 of the current edition of the California Building Code (CBC). Therefore, all new lighting from the Project will be required to be shielded and directed so as to not allow light to penetrate offsite.

All new structures would be painted in a manner that precludes bare metal surfaces, a potential source of glare. The roofs would be constructed of non-reflective material. The proposed windows are scattered, and no single large bank of windows is included. This design would reduce the potential for window glare.

The Proposed Project would be required to comply with development review guidelines mandated under City Municipal Code Section 16.46.060 - *Outdoor Lighting* which requires that all outdoor lighting be

designed to prevent unreasonable glare to adjoining properties and controlled by such reasonable means as are practical to prevent sky-reflected glare.

Chapter 13.10 and Section 16.46.060 would ensure that the Proposed Project would be constructed consistent to City of Yreka standards in preventing substantial light and glare. Specifically, the Project will be required to obtain a building permit and approval from the Yreka Building Official prior to the installation of any electrical sign or outdoor lighting.

Project compliance with the Municipal Code would reduce the impacts of daytime glare and nighttime lighting by requiring Project design to limit lighting leakage and glare. Therefore, this impact would be less than significant.

4.1.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program, which identifies and maps significant farmland. Farmland is classified using a system of five categories consisting of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land. The classification of farmland as Prime Farmland, Unique Farmland, and Farmland of Statewide Importance is based on the suitability of soils for agricultural production, as determined by a soil survey conducted by the Natural Resources Conservation Service (NRCS). The California DOC manages the California Important Farmland Finder, an interactive website program that identifies the Project Site as being within an area of Urban or Built-Up Land for the western half of the site and Grazing land for the eastern half. This site is not under a Williamson Act contract. All land surrounding the Project Site is identified as Urban and Built Up Land or Grazing Land (DOC 2022).

The Project Site is located in a semi-developed area that does not contain possible forest or timber resources.

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The DOC identifies the Project Site as Urban or Built-Up Land for the western half of the site and Grazing land for the eastern half. As the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

This site is identified by the City's zoning map to be in an area designated for commercial uses and is not subject to a Williamson Act contract. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project Site is not located in a forestland protection or timber production area. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

No identified forest lands exist on the Project Site or within the vicinity of the Project. The Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
e) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

As previously addressed, the Project Site is not located within lands designated as forest land, timberland, or Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The closest area identified as Prime Farmland or Farmland of Statewide Importance by the DOC is located approximately 1.8 miles southeast of the Project Site (DOC 2022). There are no Unique Farmlands in the vicinity of the site (DOC 2022). As such, the Proposed Project would not involve other changes in the existing environment that would result in the conversion of farmland to a non-agricultural use or the conversion of forestland to a non-forest use. No impact would occur.

4.2.3 Mitigation Measures

No significant impacts were identified and no mitigation measures are required.

4.3 Air Quality**4.3.1 Environmental Setting**

The Project Site is located within Siskiyou County in the City of Yreka. The California Air Resource Board (CARB) has divided California into regional air basins according to topographic features. Yreka and the Project Area are located in a region identified as the Northeast Plateau Air Basin (NPAB), which principally includes Siskiyou, Modoc, and Lassen counties. The NPAB is divided into local air districts, which are charged with the responsibility of implementing air quality programs. The local air quality agency affecting Yreka is the SCAPCD. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient

conditions. Within the SCAPCD, the primary sources of air pollution are wood-burning stoves, wildfires, farming operations, unpaved road dust, managed burning and disposal, and motor vehicles.

From an air quality perspective, the topography and meteorology of the NPAB combine such that local conditions predominate in determining the effect of emissions in the basin. Regional airflows are affected by the mountains and hills, which direct surface airflows to cause vertical air mixing and dispersing pollutant concentrations. Air quality in Yreka is better than virtually any other air basin in California.

Both the U.S. Environmental Protection Agency (USEPA) and the CARB have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants representing safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called *criteria* pollutants because the health and other effects of each pollutant are described in criteria documents. The six criteria pollutants are ozone (O₃), carbon monoxide (CO), particulate matter (PM), nitrogen oxides (NO_x), sulfur dioxide (SO₂), and lead. Areas that meet ambient air quality standards are classified as attainment areas, while areas that do not meet these standards are classified as nonattainment areas. The Siskiyou County portion of the NPAB region is designated as being in attainment or unclassified for all state and federal standards (CARB 2020).

4.3.2 Air Quality (III) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. The SIP is a legal agreement between each state and the federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analysis. CARB is the lead agency for developing the SIP in California. Local air districts prepare air quality attainment plans or air quality management plans and submit them to CARB for review, approval, and incorporation into the applicable SIP. The air districts develop the strategies stated in the SIPs for achieving air quality standards on a regional basis. As previously stated, the Project region of the NPAB is classified as attainment or unclassified for all federal standards (CARB 2020). Therefore, there is no SIP required for Siskiyou County. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

The Proposed Project could result in the emission of criteria air pollutants during construction and operation. It is not possible to determine the impact the Project would have on any criteria pollutant because an air quality analysis has not yet been completed for the Proposed Project. As such, this is considered a potentially significant impact and will be further discussed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

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

The Proposed Project could result in the emission of criteria air pollutants during construction and operation. It is not possible to determine the impact the Project would have on sensitive receptors because an air quality analysis has not yet been completed for the Proposed Project. As such, this is considered a potentially significant impact and will be further discussed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

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

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

Based on uses proposed for the Project, the Project could result in emissions causing unpleasant odors during construction. As such, this is considered a potentially significant impact and will be further discussed in the EIR.

4.3.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.4 Biological Resources

A Biological Resources Assessment (BRA) for the Proposed Project was conducted by ECORP in 2021 (ECORP 2021a). The purpose of the BRA was to document the endangered, threatened, sensitive, and rare species that occur or may occur in the biological survey area of the Project. The BRA determined that the Project would potentially impact special-status plants and migratory birds.

4.4.1 Environmental Setting

For the purposes of the BRA, the Study Area is the area in which biological surveys are conducted. The Study Area includes all areas to be affected directly or indirectly by the Project. In this case, the Study Area is congruent with the 4.97-acre Project Site.

The Study Area is located in a heavily impacted area in the southeastern quadrant of the I-5/Montague Road intersection. This Study Area is located within hilly terrain situated at an elevational range of

approximately 2,630 to 2,660 feet AMSL at the interface between the California floristic province/Cascade Ranges Region and the Great Basin floristic province/Modoc Plateau Region of California. The average winter low temperature in the vicinity of the Study Area is 25.8 degrees Fahrenheit (°F) and the average summer high temperature is 88.4°F. Average annual precipitation is approximately 19.95 inches.

The Study Area is comprised of fallow undeveloped land that appears to have been mass graded around 2004 as the area was undergoing development. A Google Earth aerial photograph dated December 2004 shows evidence of construction grading within the Study Area and surrounding parcels. At present, the Study Area remains undeveloped and is sparsely vegetated with weedy plants.

4.4.2 Biological Resources (IV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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 U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

The BRA determined that the Project has the potential to affect candidate, sensitive, or special-status species and mitigation will be required. While CEQA allows mitigation measures to be provided in an Initial Study and then referred to in an EIR, in order to provide an uncomplicated review process, the full analysis of this item will occur as a part of the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

According to the BRA, the Study Area is comprised of a previously graded and disturbed grassland community. There are no sensitive natural communities onsite. As such, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The BRA determined that there were no Waters of the U.S. that potentially fall under the USACE jurisdiction on the Project Site. As such, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

No water bodies occur onsite that would have the potential for migratory fish. However, the disturbed grasslands and scattered shrubs within the Study Area support potential nesting habitat for a variety of common birds protected under the federal Migratory Bird Treaty Act and California Fish and Game Code § 3503, among others. In order to provide an uncomplicated review process, the full analysis of this item will occur as a part of the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

There are currently no adopted or proposed local policies or ordinances that affect the Proposed Project. Therefore, no conflict with occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

There are currently no adopted or proposed habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans that affect the Proposed Project. The Project would have no impact in this area.

4.4.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.5 Cultural Resources

A Cultural Resources Records Search and Literature Review was prepared by ECORP (2021b) for the Proposed Project to determine if cultural resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered or buried cultural resources.

4.5.1 Environmental Setting

The archaeological record of the native population is limited. It is known that at the time of European *discovery*, the area now home to Yreka was settled by the Shasta Indians and used for winter hunting. Typical of increased European settlement, the native population declined during the Gold Rush era.

At the time of initial contact with White populations (circa 1850), the Shasta Indian tribe occupied the Shasta Valley south to the area around what is now the City of Mount Shasta. Accounts of early travelers, native informants, and early ethnographies also document the existence of the Okwanuchu tribe.

However, little is known about this tribe, except that it was linguistically related to the Shasta tribe.

The Karuk Tribe is also located within the surrounding area of Yreka and the Project site. The Karuk Tribe is a federally recognized Indian tribe of Karuk people. A tribe from the far northwestern portion of California, inland along the middle section of the Klamath River. Karuk means "upstream," as opposed to the word for their neighbors, Yurok, which means "downstream." Culturally, the Karuk were very similar to the neighboring Yurok and Hupa. Their language is one of the Hokan language family. They traditionally relied on the salmon runs that occur twice each year, as well as on gathering foods. Karuk population in the 18th century is estimated to have been around 1,500. Today, the Karuk are one of the largest tribes in California, with approximately 4,800 members, although the tribe has a small land base. Today, Karuk Indians live in the Orleans district in Humboldt County, the Happy Camp district, the Yreka district, along the Forks of the Salmon region in Siskiyou County, and in southern Oregon (SDSU 2022).

The Project's surrounding vicinity is a mixture of rural and urban uses and the site has been graded in the past. As such, the natural integrity of the site has been compromised. As a result, the potential for encountering cultural resources during Project-related activities is considered relatively low (ECORP 2021b).

4.5.2 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

Based on the results of the records search and literature review, only a portion of the property has been surveyed for cultural resources and no previously recorded resources are known to exist within the Project Site. The property is situated in an area considered to have low to moderate sensitivity for pre-contact resources and a relatively low potential for historic-era cultural resources. The proximity of the Project Site to Yreka Creek, coupled with the fact that the location of Yreka was noted in the ethnographic literature as a Native American Village indicates there is potential for buried pre-contact resources in the Project Site. However, the soil type and age of the underlying geomorphology somewhat lessen that possibility. There is a relatively low potential for the presence of historic-period cultural resources on this property. Map review did not indicate any past structures, and the three previously recorded historic-period resources within the 0.5-mile records search radius have clearly delineated boundaries.

There is no available information to indicate that archaeological sites are present on the property; however, the property has not been surveyed by archaeologists who meet the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology. Therefore, ground disturbance associated with development of the site has the potential to impact previously unknown, subsurface historic resources should any be present. As such, mitigation will be required. In order to provide an uncomplicated review process, the full analysis of this item will occur as a part of the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

The cultural investigation performed by ECORP shows that there is a relatively low potential for the presence of prehistoric cultural resources on the Project Site. There is no available information to indicate

that archaeological sites are present on the property; however, the site has not been surveyed by archaeologists who meet the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology. As such, mitigation will be required. In order to provide an uncomplicated review process, the full analysis of this item will occur as a part of the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

Previous cultural resource investigations conducted for projects in the vicinity of the Project area indicate there is little likelihood for Native American archaeological sites or burial sites to be present in the area. Regardless, there is a possibility of the unanticipated and accidental discovery of human remains during ground-disturbing Project-related activities. As such, mitigation will be required. In order to provide an uncomplicated review process, the full analysis of this item will occur as a part of the EIR.

4.5.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.6 Energy

4.6.1 Environmental Setting

Energy consumption is analyzed in this Initial Study due to the potential direct and indirect environmental impacts associated with the Project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal) and emissions of pollutants during the construction and operational phases. The impact analysis focuses on the three sources of energy relevant to the proposed Project: electricity, the equipment-fuel necessary for Project construction, and the automotive fuel and natural gas necessary for Project operations.

4.6.1.1 Electricity/Natural Gas Services

Pacific Power and Light (PPL) provides electrical services to the Project Site through state-regulated public utility contracts. PPL is the primary electricity supply company for areas north of the City of Mount Shasta in Northern California. It provides 780,000 customers with electricity across a service territory spanning areas in Northern California, Southern Oregon, and parts of Washington State. There are currently no natural gas utility companies that service the Project Site area, resulting in residences and businesses acquiring propane from various local sources.

4.6.1.2 Energy Consumption

Electricity use is measured in kilowatt-hours (kWh), and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g., of gasoline, diesel fuel, or aviation fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in Siskiyou County from 2015 to 2020 is shown in Table 4.6-1. As indicated, the demand has remained constant since 2015, with an increase in 2020.

Table 4.6-1. Non-Residential Electricity Consumption in Siskiyou County 2015-2019	
Year	Electricity Consumption (kilowatt hours)
2020	285,052,808
2019	269,141,808
2018	273,575,109
2017	273,820,430
2016	272,398,917

Source: California Energy Commission 2020

Automotive fuel consumption in Siskiyou County from 2016 to 2020 is shown in Table 4.6-2. Fuel consumption has decreased between 2017 and 2020.

Table 4.6-2. Automotive Fuel Consumption in Siskiyou County 2016-2020	
Year	Total Fuel Consumption (gallons)
2020	75,868,879
2019	77,509,523
2018	79,215,860
2017	80,856,292

Source: CARB 2021

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

The impact analysis focuses on the four sources of energy relevant to the Proposed Project: electricity, natural gas, the equipment-fuel necessary for Project construction, and the automotive fuel necessary for Project operations. The amount of energy necessary to construct and operate the Project and whether or not it is a wasteful, inefficient, or unnecessary consumption of energy resources has not been determined and, as such, this area will be further discussed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

As discussed under Item a), the amount of energy necessary to construct and operate the Project and whether or not it is a wasteful, inefficient, or unnecessary consumption of energy resources has not been determined. How this will affect a state plan for renewable energy or energy efficiency has also not been determined at this time. For these reasons, this area will be further discussed in the EIR.

4.6.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.7 Geology and Soils

This section addresses the potential impact of the Proposed Project on geological and soil resources as well as paleontological resources within the Project area.

4.7.1 Environmental Setting

The Yreka area is located within Shasta Valley in Siskiyou County in central-northern California. Shasta Valley, extending northward from the north face of Mount Shasta, is a 340-square-mile basin that is a relatively flat-lying semi-arid plain punctuated by hundreds of hills, ridges, and small closed depressions (not connected by surface streams). The Shasta River drains northward through the valley to join the Klamath River near the Oregon border.

Shasta Valley lies between two geomorphic provinces: the Klamath Mountains on the west, and the Cascade Range on the east. Geomorphic provinces are naturally defined geologic regions that display a distinct landscape or landform. Eleven provinces are distinguished in California with each region displaying unique, defining features based on geology, faults, topographic relief, and climate. The Klamath Mountains on the west are characterized by complexly folded and faulted metamorphic, sedimentary, volcanic, and ultramafic rocks of Paleozoic age and by marine sandstone and conglomerate of Cretaceous age. East of Shasta Valley the Cascade Range is dominated by Cenozoic age volcanic rock. The Cascade Range is a mountainous region famous for its chain of tall volcanoes that run north to south along the west coast of North America from British Columbia through Washington and Oregon to Mount Shasta and Lassen Peak in northern California. The Cascades are part of the Pacific Ring of Fire, the ring of volcanoes around the Pacific Ocean. All known historic eruptions in the contiguous United States have been from volcanoes in the Cascade Range.

4.7.1.1 Geomorphic Setting

The Project Site is located in the north-central portion of the Klamath Mountains geomorphic province of California. The Klamath Mountains have rugged topography with prominent peaks and ridges reaching 6,000 to 8,000 feet AMSL an irregular drainage. In the western Klamath is incised into an uplifted plateau called the Klamath peneplain. The uplift has left successive benches with gold-bearing gravels on the sides of the canyons. The Klamath River follows a circuitous course from the Cascade Range through the Klamath Mountains. The province is considered to be a northern extension of the Sierra Nevada (California Geological Survey [CGS] 2002).

4.7.1.2 Site Soils

According to the USDA's National Resources Conservation Service (NRCS) via the Web Soil Survey database, the Project Site is composed of one soil unit: Facey loam, 5 to 15 percent slopes, as shown in Table 4.7-1. The Web Soil Survey also identifies drainage, flooding, erosion, runoff, and the linear extensibility potential for the Project soils. According to this survey, the Project soil is well drained, has a moderate runoff potential, and has no potential for flooding. The Project Site soil has a slight erosion potential and moderate linear extensibility (shrink-swell) (NRCS 2022).

Table 4.7-1. Project Site Soil Characteristics				
Soil (Map Unit Name, Map Unit Symbol)	Percentage of Site	Drainage	Flooding Frequency Class	Frost Action¹
Facey loam, 5 to 15 percent slopes	100%	Well drained	None	Moderate
	Runoff Potential²	Linear Extensibility³	Erosion Hazard⁴	Plasticity Index⁵
Facey loam, 5 to 15 percent slopes	C (moderate)	4.3% (moderate)	Slight	12.1

Source: NRCS 2022

Notes:

1. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.
2. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation.
 Group A: Soils having a high infiltration rate (low runoff potential) when thoroughly wet.
 Group B: Soils having a moderate infiltration rate when thoroughly wet.
 Group C: Soils having a slow infiltration rate when thoroughly wet.
 Group D: Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet.
3. Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3%, moderate if 3 to 6%, high if 6 to 9%, and very high if more than 9%. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.
4. The ratings are both verbal and numerical. The hazard is described as *slight*, *moderate*, *severe*, or *very severe*. A rating of *slight* indicates that erosion is unlikely under ordinary climatic conditions; *moderate* indicates that some erosion is likely and that erosion-control measures may be needed; *severe* indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and *very severe* indicates that significant erosion is expected, loss of soil productivity and offsite damage are likely, and erosion-control measures are costly and generally impractical.
5. Plasticity index (PI) is a measure of the plasticity of a soil. The plasticity index is the size of the range of water contents where the soil exhibits plastic properties. The PI is the difference between the liquid limit and the plastic limit ($PI = LL - PL$). Soils with a high PI tend to be clay, those with a lower PI tend to be silt, and those with a PI of 0 (non-plastic) tend to have little or no silt or clay.
 Soil descriptions based on PI:
 (0) – Non-plastic
 (<7) – Slightly plastic
 (7-17) – Medium plastic
 (>17) – Highly plastic

4.7.1.3 Regional Seismicity and Fault Zones

In California, special definitions for active faults were devised to implement the Alquist-Priolo Earthquake Fault Zoning Act of 1972, which regulates development and construction in order to avoid the hazard of surface fault rupture. The State Mining and Geology Board established policies and criteria in accordance with the act. The board defined an active fault as one which has had surface displacement within Holocene time (about the last 11,000 years). A potentially active fault was considered to be any fault that showed evidence of surface displacement during Quaternary time (last 1.6 million years). Because of the large number of potentially active faults in California, the State Geologist adopted additional definitions and criteria in an effort to limit zoning to only those faults with a relatively high potential for surface rupture. Thus, the term *sufficiently active* was defined as a fault for which there was evidence of Holocene surface displacement. This term was used in conjunction with the term *well-defined*, which relates to the ability to locate a Holocene fault as a surface or near-surface feature (CGS 2011).

According to the Yreka General Plan, several faults are located in the Yreka area, as indicated by the *Fault Activity Map of California*. Some notable faults include the Greenhorn Fault north of the City and the Soap Creek Ridge Fault to the southwest. One small fault has been identified in the northwest section of the Planning Area near the junction of I-5 and SR 3. None of these faults have shown evidence of any activity within the last 1.6 million years. The nearest recently active fault to the City is the Cedar Mountain Fault Zone, located approximately 35 miles east in the Mt. Hebron - Macdoel area. The Cedar Mountain Fault

has shown evidence of activity within the last 10,000 years (City of Yreka 2003). Therefore, the City of Yreka is at low risk of experiencing an earthquake. However, the City has adopted the CBC and will require all buildings to meet the standards of this Code.

4.7.1.4 **Paleontological Resources**

A paleontological records search was completed using the University of California Museum of Paleontology (UCMP) Locality Search website on April 28, 2021. The search consisted of a review of the institution's paleontology specimen collection records for Siskiyou County, including the Project Area and vicinity, as well as a query of the UCMP catalog records, a review of regional geologic maps from the CGS, a review of local soils data, and a review of existing literature on paleontological resources of Siskiyou County by ECORP. The purpose of the assessment was to determine the sensitivity of the Project Area, whether known occurrences of paleontological resources are present within or immediately adjacent to the Project Area, and whether implementation of the Project could result in significant impacts to paleontological resources. Paleontological resources include mineralized (fossilized) or unmineralized bones, teeth, soft tissues, shells, wood, leaf impressions, footprints, burrows, and microscopic remains.

The results of the search of the UCMP indicated that 125 paleontological specimens were recorded from 53 identified localities and 72 unidentified localities in Siskiyou County. Paleontological resources include fossilized remains of plants, mammals, fish, mollusks, and microfossils. No paleontological resources have been previously recorded within or near the Proposed Project Site (UCMP 2022).

4.7.2 **Geology and Soils (VII) Environmental Checklist and Discussion**

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a) Less than significant impact.

i) Less than significant impact.

The Proposed Project Site is not located within an Alquist-Priolo Earthquake Zone (CGS 2011, 2020a). The site is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active or potentially active faults are known to be near the site. By CGS definition, an active fault is one with surface displacement within the last 11,000 years. A potentially active fault has demonstrated evidence of surface displacement within the past 1.6 million years. Faults that have not moved in the last 1.6 million years are typically considered inactive. The nearest recently active fault to the City is the Cedar Mountain Fault Zone, located approximately 35 miles east in the Mt. Hebron - Macdoel area.

The Project Site is not located within an Alquist-Priolo Earthquake Zone. In addition, compliance with CBC would assure that any new construction would incorporate the construction standards necessary for the protection of people and structures from seismic events. There would be a less than significant impact related to fault rupture.

ii) Less than significant impact.

According to CGS' Earthquake Shaking Potential for California mapping, the Proposed Project Site is located in an area with a low likelihood of experience ground shaking (CGS 2016). During most earthquakes, only weaker masonry buildings would be damaged. However, very infrequent earthquakes could still cause strong shaking in the area (CGS 2016). The Proposed Project includes the construction structures which could be affected by ground shaking. However, all structures would be required to comply with the 2019 CBC, including the required seismic mitigation standards. Because of the required compliance with the CBC seismic mitigation standards and the distance from active faults, the Proposed Project would have a less than significant impact related to strong ground shaking.

iii) Less than significant impact.

Liquefaction occurs when loose sand and silt saturated with water behaves like a liquid when shaken by an earthquake. Liquefaction can result in the following types of seismic-related ground failure:

- Loss of bearing strength – soils liquefy and lose the ability to support structures
- Lateral spreading – soils slide down gentle slopes or toward stream banks
- Flow failures – soils move down steep slopes with large displacement
- Ground oscillation – surface soils, riding on a buried liquefied layer, are thrown back and forth by shaking
- Flotation – floating of light buried structures to the surface
- Settlement – settling of ground surface as soils reconsolidate
- Subsidence – compaction of soil and sediment

Liquefaction potential has been found to be greatest where the groundwater level and loose sands occur within a depth of about 50 feet or less. DOC provides mapping for area susceptible to liquefaction in

California. According to this mapping, the Project Site is not located in an area identified for the risk of liquefaction (CGS 2020b). Additionally, all structures would be required to comply with the CBC, including any required liquefaction analysis. As such, the Proposed Project would result in less than significant impacts with regard to seismic-related ground failure, including liquefaction.

iv) Less than significant impact.

Steep slopes, in conjunction with certain soil types, can be prone to soil erosion and landslides. Landslides occur as a result of topographical and soil conditions, where loose soils move down steep slopes. Some of the natural causes of this instability are earthquakes, weak soils, erosion, and heavy rainfall. Human activities such as poor grading that undercuts steep slopes or overloads them with fill, excessive irrigation, and removal of vegetation can also contribute to ground failure.

Earthquakes can also induce landslides by initiating strong ground motion.

The Project Site is of minimal elevation gain and the site does not have steep hillsides or other formations susceptible to landslides during a seismic event. As such, the potential for landslides would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

As shown in Table 4.7-1, the Project Site's soils have a slight erosion potential. The Proposed Project includes the construction of new commercial structures, with construction involving grading, excavation, and soil hauling, which would disturb soils and potentially expose them to wind and water erosion. However, with the application of standard construction practices and regulatory requirements, soil erosion and loss of topsoil is not a concern. Erosion from stormwater runoff is controlled through adherence to the City's Stormwater Quality Management & Discharge Control Ordinance (Municipal Code Chapter 12.40), which requires any person performing construction in the City to prevent pollutants, including sediments, from leaving the construction site. Municipal Code Chapter 12.40 requires the preparation of a SWPPP in order to comply with the RWQCBs General Construction Storm Water Permit.

Any development involving clearing, grading, or excavation that causes soil disturbance of one or more acres, or any project involving less than one acre that is part of a larger development plan and includes clearing, grading, or excavation, is subject to National Pollutant Discharge Elimination System (NPDES) State General Permit (Order No. 2009-0009-DWQ) provisions. Any development of this size in the City of Yreka, including the Project Site, would be required to prepare and comply with an approved SWPPP that provides a schedule for the implementation and maintenance of erosion control measures and a description of the erosion control practices, including appropriate design details and a time schedule. The SWPPP would consider the full range of erosion control BMPs including any additional site-specific and

seasonal conditions. Erosion control BMPs include, but are not limited to, the application of straw mulch, hydroseeding, the use of geotextiles, plastic covers, silt fences, and erosion control blankets, as well as construction site entrance/outlet tire washing. The State General Permit also requires that those implementing SWPPPs meet prerequisite qualifications that would demonstrate the skills, knowledge, and experience necessary to implement SWPPPs. NPDES requirements would significantly reduce the potential for substantial erosion or topsoil loss to occur in association with new development. In addition, the Proposed Project would be required to use BMPs to control runoff from all new development and thus limit erosion.

The Project will be subject to Municipal Code Chapter 12.40 during operations as well. The City of Yreka is a Phase II, Small MS4 (municipal separate storm sewer systems) permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges". The purpose and intent of this ordinance is to protect and enhance the water quality of watercourses, water bodies, and wetlands so that, to the maximum extent practicable, stormwater will not cause or contribute to any exceedances of water quality standards contained in the statewide Water Quality Control Plan, the California Toxics Rule, or in the North Coast RWQCB Basin Plan. These standards apply to sediments. Therefore, impacts would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

As discussed previously, the Project Site has no potential for landslides.

Lateral spreading is a form of horizontal displacement of soil toward an open channel or other *free* face, such as an excavation boundary. Lateral spreading can result from either the slump of low cohesion and unconsolidated material or, more commonly, by liquefaction of either the soil layer or a subsurface layer underlying soil material on a slope, resulting in gravitationally driven movement. One indicator of potential lateral expansion is frost action. Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing (NRCS 2022). As indicated in Table 4.7-1, the Web Soil Survey identifies the Project Site as having soils with moderate frost action potential. However, as discussed in Item a) iii) above, the Project Site is not identified as susceptible to liquefaction. As such, the potential for impacts due to lateral spreading would be less than significant.

With the withdrawal of fluids, the pore spaces within the soils decrease, leading to a volumetric reduction. Regional ground subsidence can occur if that reduction is significant enough over an appropriately thick sequence of sediments. This typically only occurs within poorly lithified sediments and not within

competent rock.¹ This can occur as a result of high-volume water, oil or gas extraction operations. No oil, gas, or high-volume water extraction wells are known to be present in the Project vicinity. According to the U.S. Geological Survey (USGS) Areas of Land Subsidence in California webpage, the City of Yreka, including the Project Site, is not located in an area of land subsidence (USGS 2022). As such, the potential for impacts due to subsidence would be less than significant.

Collapse occurs when water is introduced to poorly cemented soils, resulting in the dissolution of the soil cementation and the volumetric collapse of the soil. In most cases, the soils are cemented with weak clay (argillic) sediments or soluble precipitates. This phenomenon generally occurs in granular sediments situated within arid environments. Collapsible soils will settle without any additional applied pressure when sufficient water becomes available to the soil. Water weakens or destroys bonding material between particles that can severely reduce the bearing capacity of the original soil. The collapse potential of the Project Site soil must be determined for consideration in the foundation design.

Because of the distance from active faults and the nature of the Project, the potential for that settlement/collapse at the site is considered unlikely. As such, there is a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Expansive soils are types of soil that shrink or swell as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand. Expansive soils can be determined by a soil's linear extensibility. There is a direct relationship between linear extensibility of a soil and the potential for expansive behavior, with expansive soil generally having a high linear extensibility. Thus, granular soils typically have a low potential to be expansive, whereas clay-rich soils can have a low to high potential to be expansive. The shrink-swell potential is low if the soil has a linear extensibility of less than three percent, moderate if three to six percent, high if six to nine percent, and very high if more than nine percent. If the linear extensibility is more than three, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. As shown in Table 4.7-1, the Project Site soils exhibit a linear extensibility value of 6.7 percent. Soils with linear extensibility at this range correlate to having a high expansion potential, respectively.

¹ The processes by which loose sediment is hardened to rock are collectively called lithification.

Plasticity is also an indicator of expansive soils. The plasticity index (PI) is a measure of the plasticity of a soil. The plasticity index is the size of the range of water contents where the soil exhibits plastic properties. The Project Site has a PI of 12.1 percent and is therefore considered of medium plasticity.

Despite the shrink-swell potential identified for Project Site soils, standard procedures used in the construction of concrete footings as required by the CBC will reduce this potential impact. Furthermore, Section 15.04.100 of the Yreka Municipal Code requires all development projects to prepare a preliminary soils report, prepared by a civil engineer registered in this state and based upon adequate test borings, to be submitted to the City engineer or director of public works for every subdivision. Based on the determination of this soils report, the City requires proper remediation to rectify potential soil-related issue or situation. As such, the potential for the Proposed Project to be affected by expansive soils is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project would connect to the City's wastewater collection and treatment plant. The Proposed Project would not use a septic system or other wastewater disposal system.

Would the Project:	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 or unique geologic feature?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

ECORP conducted a search of the UCMP Specimen Search program in April 2022, which failed to indicate the presence of paleontological resources in the Project Area. Although paleontological resources sites were not identified in the Project Area, there is the possibility that unanticipated paleontological resources will be encountered during ground-disturbing project-related activities. As such, this would be considered a potentially significant impact and shall be discussed further in the EIR.

4.7.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

Greenhouse Gas (GHG) emissions are released as byproducts of fossil fuel combustion, waste disposal, energy use, land use changes, and other human activities. This release of gases, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and chlorofluorocarbons, creates a blanket around the earth that allows light to pass through but traps heat at the surface, preventing its escape into space. While this is a naturally occurring process known as the greenhouse effect, human activities have accelerated the generation of GHGs beyond natural levels. The overabundance of GHGs in the atmosphere has led to an unexpected warming of the earth and has the potential to severely impact the earth's climate system.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e). Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

4.8.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects contributes substantially to the phenomenon of global climate change and its associated environmental impacts and as such is addressed only as a cumulative impact.

The Proposed Project would result in GHG emissions during construction and operation. Since a GHG analysis has not yet been completed for the Proposed Project, it is not possible to determine the impact the Project would have on the environment because of greenhouse gas emissions. As such, this is considered a potentially significant impact and will be further discussed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The City of Yreka does not currently have an adopted plan for the purpose of reducing GHG emissions. However, the State of California promulgates several mandates and goals to reduce statewide GHG emissions, including the goal to reduce statewide GHG emissions to 40 percent below 1990 levels by the year 2030 and 80 percent below 1990 levels by the year 2050 ((SB 32). The Proposed Project is subject to compliance with SB 32. However, as identified under Issue a), Project-generated GHG emissions has not yet been determined, therefore, it is not possible to determine if the Project would conflict with California GHG reduction goals or the City's Community Climate Action Plan. As such, this is considered a potentially significant impact and will be further discussed in the EIR.

4.8.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined by the California Health and Safety Code, § 25501 as follows:

"Hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

A hazardous material is defined in Title 22, Section 662601.10, of the CCR as follows:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

The release of hazardous materials into the environment could potentially contaminate soils, surface water, and groundwater supplies.

Most hazardous materials regulation and enforcement in Siskiyou County is managed by the Siskiyou County Environmental Health Division (Division). The Division is charged with the responsibility of enforcement of pertinent California health laws, rules, regulations, and Siskiyou County Ordinances and is responsible for responding to incidents involving any release or threatened release of hazardous materials. Threats to people, property and the environment are assessed, and remedial action procedures are conducted under the supervision of a Registered Environmental Health Specialist. The Division is also responsible for requiring all business that use hazardous materials to comply with the State-required hazardous materials business plan submittal and registration with the California Environmental Reporting System.

Under Government Code § 65962.5, both the California Department of Toxic Substance Control (DTSC) and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC (2022) and the SWRCB (2022) identified no open cases of hazardous waste violations on the Project Site. A search of the DTSC list identified one open case of hazardous waste violations within 0.5 mile of the Project Site identified as Old Coal Gas Plant SV-SH-YRK-2 on East Lennox Street. A search of the SWRCB list identified no open cases for a leaking underground storage tank (LUST) cleanup site within 0.5 mile from the Project Site. The Proposed Project would not impact ongoing remediation efforts at any cleanup sites nor cause upset of hazardous materials.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Businesses that sell and store hazardous materials are subject to the Hazardous Material Business Plan program, which is regulated by the Siskiyou County Environmental Health Division of the Public Health Department as part of the Certified Unified Program. The program requires the preparation of a document that provides an inventory of hazardous materials onsite, emergency plans and procedures in the event of an accidental release, and training for employees on safety procedures for handling hazardous materials and what to do in the event of a release or threatened release. These plans are routine documents that are intended to disclose the presence of hazardous materials and provide information on what to do if materials are inadvertently released.

Potential construction-related hazards could be created during the course of construction at the site due to use of hazardous materials, given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The

construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, state, and federal law.

The Project includes the construction of a gasoline and diesel fueling stations. These services would require the installation of new fueling pumps and underground and above-ground storage tanks to store gasoline and diesel fuel at the site. Typical incidents that could result in accidental release of hazardous materials involve LUSTs, spills during transport, inappropriate storage, inappropriate use, and/or natural disasters. If not remediated immediately and completely, these and other types of incidents could cause toxic fumes and contamination of soil, surface water, and groundwater. Depending on the nature and extent of the contamination, groundwater supplies could become unsuitable for use as a domestic water source. Human exposure to contaminated soil or water could have potential health effects depending on a variety of factors, including the nature of the contaminant and the degree of exposure.

The Project is subject to routine inspection by federal, state, and local regulatory agencies with jurisdiction over fuel-dispensing facilities. For instance, California Health and Safety Code Section 25290.1(a) mandates that all fuel storage tanks installed after 2004 meet durability, structural integrity, and size requirements to greatly reduce the likelihood of hazardous waste leakage or combustion. The applicant is also required to comply with applicable provisions of Title 49 CFR Parts 100–185 and all amendments through December 9, 2005 (Hazardous Materials Regulations). Hazardous materials must be stored in designated areas designed to prevent accidental release to the environment. CBC requirements prescribe safe accommodations for materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. For instance, the underground storage tanks would consist of double-walled, fiberglass fuel storage tanks with leak detection sensors.

The gasoline would need to be transported in via truck. This is a routine procedure that is not expected to impose excessive risk. The Project would be required to comply with the California Vehicle Code Section 31303, which requires that hazardous materials be transported using routes with the lowest travel time. CVC Section 31303 further prohibits the transportation of hazardous materials through residential neighborhoods.

Regulatory requirements for the transport of hazardous wastes in California are specified in Title 22 of the CCR, Division 4.5, Chapters 13 and 29. In accordance with these regulations, transport of hazardous materials must comply with the California Vehicle Code, California Highway Patrol regulations (contained in Title 13 of the CCR); the California State Fire Marshal regulations (contained in Title 19 of the CCR); U.S. Department of Transportation regulations (Title 49 of the Code of Federal Regulations [CFR]); and USEPA regulations (contained in CFR Title 40). The use of hazardous materials is regulated by the DTSC (Title 22, Division 4.5 of the CCR).

Other permitted uses would not be expected to generate significant amounts of hazardous material, and only a minimal amount of routine day-to-day hazardous materials would be expected to be stored onsite. These materials would be used, stored, and disposed in accordance with existing regulations and product labeling and would not create a significant hazard to the public or to the environment. Therefore, long-

term impacts associated with handling, storing, and dispensing of hazardous materials would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

As discussed in Issue a), the Project would not result in the routine transport, use, disposal, handling, or emission of any hazardous materials that would create a significant hazard to the public or the environment. Any use of hazardous materials would require the hazardous materials to be utilized, stored, and transported pursuant to state and federal safety regulations. Therefore, the Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Although several schools are located in the City of Yreka, no schools are located within 0.25 mile of the Project Site. As explained under items a) and b) above, hazardous materials used for construction will be stored, used, and transported in compliance with applicable label directions and laws. The Proposed Project is not expected to emit hazardous emissions due to use of hazardous materials during construction and any use of hazardous materials during operation would be done in compliance with state and federal safety regulations. Therefore, the Project will have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

Under Government Code § 65962.5, both the DTSC and the SWRCB are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC and SWRCB lists identified that the Proposed Project Site is not located on a hazardous materials site. As such, the Project will have no impact in this area.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

Montague-Yreka Airport, the nearest airport to the Project Site, is a public-use airport located 4.25 miles east of the Project Site. Therefore, the Project Site is more than 2 miles from a public or private airport. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

Yreka is located in the Operational Area of the Siskiyou County Office of Emergency Services. A Standardized Emergency Management System program is in place between the City and the Office of Emergency Services. A local emergency plan guides local response to emergencies and local emergency management and is conducted under the direction of the City of Yreka Police Department. The Proposed

Project would not obstruct evacuation routes or access to critical emergency facilities. No impact would occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The risk of wildfire is related to a variety of parameters, including fuel loading (i.e., vegetation), fire weather (i.e., winds, temperatures, humidity levels and fuel moisture contents), and topography (i.e., degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area-to-mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area-to-mass ratio and require more heat to reach the ignition point.

The California Department of Forestry and Fire Prevention (CAL FIRE) Very High Fire Hazard Severity Zones in a State Responsibility Area map identifies the Project Site as not being located in a Fire Hazard Severity Zone (FHSZ,) (CAL FIRE 2022). The Project is located in an area not considered susceptible to wildland fire. The Project would not result in the potential for wildfire impacts. The Project would have no impact in this area.

4.9.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

Surface Water

The Project Site is located in the Middle Yreka Creek watershed (CAL FIRE 2022). Yreka is within the Yreka Creek subwatershed that drains to the Shasta River. Yreka Creek and Shasta River are a part the Klamath River watershed. The Yreka Creek subwatershed has a drainage area of 33,453 acres and about 105 miles of active stream channel. The Yreka Creek subwatershed was subdivided into seven drainages and 66 sub-drainages (City of Yreka 2016). The main channels of Yreka Creek and tributaries were also named for planning purposes. Seven watersheds drain to the creek: Upper Yreka, Middle Yreka, Lower Yreka, Greenhorn, Upper Humbug, Lower Humbug, and Juniper creeks.

Yreka Creek and its tributaries are part of the Klamath River Basin Hydrologic Unit. The Klamath River Basin covers 10.5 million acres in southern Oregon and northern California. The Klamath River, which starts in Oregon, travels for approximately 250 miles through California before flowing into the Pacific Ocean near Crescent City (City of Yreka 2016).

The Shasta River watershed is an important cold-water tributary to the Klamath River Basin. The watershed encompasses more than 790 square miles and includes more than 120 miles of streams. The Shasta River originates from snowmelt in the Scott Mountains on the western side of the basin, while receiving substantial spring flows from Mount Shasta on the eastern side. The Shasta River flows north, then northwest, approximately 50 miles before entering the Klamath River. The Shasta River is impounded by Dwinnell Dam at River Mile 40.6. Primary tributaries are Parks Creek, Big Springs Creek, Willow Creek, Little Shasta River, and Yreka Creek. Accretion from tributaries and springs, combined with agricultural diversion and return flows, contribute to a complex annual flow regime seasonally and longitudinally (City of Yreka 2016).

Groundwater

The Project Site is located adjacent to, although not within, the mapped boundaries of, the Shasta Valley Groundwater Basin, which is part of the North Coast Hydrologic Region (Department of Water Resources [DWR] 2021). The groundwater basin has a surface area of 56,640 acres (DWR 2004). The Shasta Valley Groundwater Basin is located along the west side of Shasta Valley and consists of Quaternary terrace deposits and alluvium. In the vicinity of Montague, the basin trends to the northeast and largely consists of older alluvium. The basin is bounded on the west by Paleozoic metamorphic and sedimentary rocks and Mesozoic intrusive rocks of the Klamath Mountains. On the east, from the southern extents of the basin north to Montague, the basin is bounded by a debris avalanche from ancestral Mount Shasta (DWR 2004). Little Shasta Valley is bounded by the debris avalanche and Holocene Pluto's Cave basalt to the south, and Eocene to Miocene volcanic rocks of the western Cascades to the east and north, which also separates Little Shasta Valley from the Shasta Valley Basin located north of Montague. Annual precipitation in the basin is estimated to be 13 to 25 inches, increasing to the south (DWR 2004).

4.10.1.2 Project Site Hydrology and Onsite Drainage

The Project Site is located on relatively level terrain situated at an elevational range between 2,630 and 2,660 feet AMSL. The Project Site contains no wetlands or features classified as other waters (ECORP 2021a).

The average winter low temperature in the vicinity of the area is 25.8°F and the average summer high temperature is 88.4°F. Average annual precipitation is approximately 19.95 inches (NOAA 2021). The average August temperature in summer is 90°F and 54°F, which is the hottest time of year. December is the average coldest time of year in Yreka. Temperatures average between 43°F and 28°F. In the Project Area, the rainy period of the year lasts for 9.3 months, from September 13 to June 21, with a sliding 31-day rainfall of at least 0.5 inch. The most rain falls during the 31 days surrounding December 10, with an average total accumulation of 5.0 inches. The rainless period of the year lasts for 2.7 months, from June 21

to September 13. The least rain falls around July 31, with an average total accumulation of 0.2 inch (Weather Spark 2022).

As mapped by the FEMA (2011) FIRM, the Project Site is in Flood Zone X, indicating that the site is an area of minimal flood hazard. Flood Zone X includes areas outside the Special Flood Hazard Area and higher than the elevation of the 0.2-percent-annual-chance flood (FIRM Maps 06093C1557D and 06093C1600D).

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

In accordance with NPDES regulations, the State of California requires that any construction activity affecting 1 acre or more, or discharges from smaller sites that are part of a larger common plan of development or sale, obtain a General Construction Activity Stormwater Permit (General Permit) to minimize the potential effects of construction runoff on receiving water quality. As described previously, the Project would result in development of a gasoline and diesel fueling stations, convenience store, restaurants, bar, truck shop, a hotel, and other areas of construction over a 4.97-acre site. As such, the Proposed Project would require attainment of a General Permit and the implementation of a SWPPP with minimum BMPs. Performance standards for obtaining and complying with the General Permit are described in NPDES General Permit No. CAS000002, Waste Discharge Requirements, Order No. 2009-0009-DWQ.

General Permit applicants are required to submit to the appropriate regional board Permit Registration Documents for the Project, which include a Notice of Intent (NOI), risk assessment, site map, signed certification statement, an annual fee, and a SWPPP. The SWPPP includes pollution prevention measures (i.e., erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, and a detailed construction timeline. The SWPPP must also include implementation of BMPs to reduce construction effects on receiving water quality by implementing erosion control measures and reducing or eliminating non-stormwater discharges.

Examples of typical construction BMPs included in SWPPPs include, but are not limited to, using temporary mulching, seeding, or other suitable stabilization measures to protect uncovered soils; storing materials and equipment to ensure that spills or leaks cannot enter the storm drain system or surface water; developing and implementing a spill prevention and cleanup plan; and installing sediment control devices such as gravel bags, inlet filters, fiber rolls, or silt fences to reduce or eliminate sediment and other pollutants from discharging to the drainage system or receiving waters. The SWPPP BMPs are recognized

as effective methods to prevent or minimize the potential releases of pollutants into drainages, surface water, or groundwater. Strict SWPPP compliance, coupled with the use of appropriate BMPs, would reduce potential water quality impacts during construction activities.

There is potential for the Proposed Project to result in degradation of water quality during both the construction and operational phases. Polluted runoff from the Project Site during construction and operation could include sediment from soil disturbances, oil and grease from construction equipment, and pesticides and fertilizers from landscaped areas. The greatest potential source of water contaminants from the proposed development would be from erosion related to construction and from surface pollutants associated with the impervious surfaces on-site following completion of construction. This degradation could result in violation of water quality standards.

Stormwater runoff and associated pollutants are controlled through adherence to the City's Stormwater Quality Management & Discharge Control Ordinance (Municipal Code Chapter 12.40), which requires projects in Yreka to prevent pollutants from leaving the Project Site. In addition to compliance with NPDES regulations, Municipal Code Chapter 12.40 requires the preparation of a SWPPP in order to comply with the RWQCB's General Construction Storm Water Permit. The SWPPP must be prepared pursuant to RWQCB standards and is subject to RWQCB review for each phase of the Project. The SWPPP will include measures designed to reduce or eliminate erosion and runoff into waterways. The BMPs include wattles, covering of stockpiles, silt fences, and other physical means of slowing stormwater flow from the graded areas to allow sediment and pollutants to settle before entering stormwater channels. The method used would be described in the SWPPP and may vary depending on the circumstances of construction.

The City of Yreka is a Phase II, Small MS4 (municipal separate storm sewer systems) permittee under the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges". Municipal Code Chapter 12.40 seeks to protect and enhance the water quality of watercourses, water bodies, and wetlands so that, to the maximum extent practicable, stormwater will not cause or contribute to any exceedances of water quality standards contained in the statewide Water Quality Control Plan, the California Toxics Rule, or in the North Coast RWQCB Basin Plan. The Proposed Project includes an existing stormwater retention basin designed to accommodate all stormwater flows within the PUD 5-98 area. All stormwater flowing from the Project's parking lot and new building would flow into this basin.

Because of these standard procedures, the existing stormwater basin, and the requirement to prepare a SWPPP, the Project impacts to water quality would be less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

The Proposed Project would receive water from the City's municipal water supply, which is sourced from surface water, and would not involve drilling a new well to serve the site. The Project would result in an increase in impervious surfaces, specifically 12,300 sf of a new convenience store building, 17,032 sf of hotel, and large areas of paved/concrete surfaces. Currently, this area is vacant land and allows standing water to percolate into the groundwater basin. The actual absorption rate on the proposed site is unknown and whether or not this water actually penetrates the groundwater basin or flows offsite is also unknown. One item of note is that while the Project is near an identified groundwater basin (Shasta Valley), it is not within the boundaries of this basin. Upon completion, all Project stormwater runoff will be directed to an existing stormwater detention basin located southwest of the site. This detention basin was designed to meet the stormwater detention needs for PUD 5-98, including the Project Site.

Despite this increase in impervious surfaces, the addition of these surfaces would not interfere with groundwater recharge. All stormwater flow from the site would flow into the stormwater detention basin and this basin would allow water to percolate into the groundwater basin and not flow offsite. Further, the Project provides approximately 44,600 sf. of landscaping, which may assist in groundwater recharge. Therefore, the addition of the impervious surfaces would not significantly interfere with groundwater recharge, as there are sufficient groundwater recharge elements included in the development of the site. The Project would have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the Project:	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; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

i-iii) Less than significant impact.

No creeks, streams or rivers exist on or nearby the Project Site. As such, siltation of on- or offsite waterways would not occur.

Construction activities within the Project Site would result in soil disturbances. As stated previously, for those activities that disturb 1 or more acre of land, a NPDES Construction General Permit would be required prior to the start of construction. To comply with the requirements of the NPDES Construction General Permit, these projects will be required to file an NOI with the State of California and submit a SWPPP defining BMPs for construction and post-construction-related control of the Proposed Project Site runoff and sediment transport. Requirements for the SWPPP include incorporation of both erosion and sediment control BMPs. SWPPPs generally include the following applicable elements:

- Diversion of offsite runoff away from the construction area,
- Prompt revegetation of proposed landscaped areas,
- Perimeter straw wattles or silt fences and/or temporary basins to trap sediment before it leaves the site,
- Regular sprinkling of exposed soils to control dust during construction during the dry season,
- Installation of a minor retention basin(s) to alleviate discharge of increased flows,
- Specifications for construction waste handling and disposal,
- Erosion control measures maintained throughout the construction period,
- Preparation of stabilized construction entrances to avoid trucks from imprinting debris on city roadways,
- Contained wash out and vehicle maintenance areas,
- Training of subcontractors on general construction area housekeeping,
- Construction scheduling to minimize soil disturbance during the wet weather season, and
- Regular maintenance and storm event monitoring.

Note that the SWPPP is a *live* document and should be kept current by the person responsible for its implementation. Preparation of, and compliance with a required SWPPP will reduce potential runoff, erosion, and siltation associated with construction and operation. As such, the effects of the Proposed Project on- and offsite erosion and siltation would be less than significant.

Implementation of the Proposed Project would not result in the substantial increase of the rate or amount of surface runoff in a manner that would result in flooding on- or offsite. As discussed previously, all stormwater runoff would be directed into an existing stormwater detention basin designed to collect and detain stormwater runoff for the entire PUD 5-98 site. As such, the drainage pattern at the Project Site, as well as surface runoff conditions after implementation of the Proposed Project, would not result in on- or offsite flooding. Therefore, the Proposed Project would have a less than significant impact on causing flooding on- or offsite.

No existing or planned stormwater drainage systems occur on the Project Site. There are storm drain inlets within the street on the corner of the SR 3/private road intersection. However, the Project does not involve changes to this storm drainage system. While the Proposed Project would involve changes to the amount of onsite impervious surfaces potentially increasing the amount of onsite runoff, any stormwater flowing from these surfaces would be routed into the existing stormwater detention pond that serves PUD 5-98.

Polluted runoff from the Project Site during construction and operation could include sediment from soil disturbances, oil and grease from construction equipment, and gross pollutants such as trash and debris. Compliance with NPDES permit requirements would ensure that BMPs would be implemented during the construction phase to effectively minimize excessive soil erosion and sedimentation and eliminate non-stormwater discharge offsite. As required by law, BMPs would be included as part of the Proposed Project to ensure that potentially significant impacts are reduced to less than significant levels. Therefore, impacts associated with stormwater volumes and polluted runoff during the construction of the Proposed Project would be less than significant.

Activities associated with operation of the Proposed Project are not expected to generate substances that can degrade the quality of water runoff. While potential impacts could result from vehicles and other users at the Proposed Project Site during operation, all potential impacts to water quality would be reduced by stormwater pollution control measures and wastewater discharge BMPs required at the Project Site as a part of Project development and operation. Therefore, impacts during operation would be considered less than significant.

iv) No impact.

FEMA flood hazard maps (Maps 06093C1557D and 06093C1600D) shows that the Project Site is in unshaded Zone X. The Project Site is not located within a flood zone. Therefore, implementation of The Proposed Project will not have an impact related to impeding or redirecting flood flows

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

Tsunamis typically affect coastlines and areas up to 0.25 mile inland. The Project Site is more than 110 miles from the nearest coastline. The Project would not be affected by a tsunami. Seiches generally affect locations adjacent to larger water bodies such as lakes or reservoirs. The Project Site is not located near a large body of water with potential for seiche. The nearest large water body is Greenhorn Reservoir, approximately 2.25 miles southwest of the site. According to the DWR Division of Safety of Dams, the Project Site is not located within dam inundation area of Greenhorn Reservoir (DWR 2022). As such, damage due to a seiche, a seismic-induced wave generated in a restricted body of water would not occur and the Project would not release pollutants due to inundation. The Project would have no impact in this area.

Would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Sustainable Groundwater Management Act (SGMA) passed in fall 2014, establishes a new structure for managing groundwater resources in California and requires adoption of a Groundwater Sustainability Plan (GSP) by January 31, 2022.

In Siskiyou County, the Siskiyou County Groundwater Sustainability Agency (GSA) is the entity responsible for the implementation of the Sustainable SGMA. The Siskiyou County Flood Control and Water Conservation District is responsible for development of the GSP in the Shasta Valley Groundwater Basin. The draft GSP was made available for public review on April 27, 2021, and the Final GSP was adopted by the GSA on December 7, 2021. (Siskiyou County 2021a, 2021b, 2021c). Based on mapping provided by DWR, the Project Site is not located within the boundaries of a groundwater basin (DWR 2021). The Project would not conflict with or obstruct implementation of the GSP. As such, the Project would have no impact on the implementation of the groundwater management plan.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

The Project Site consists of a currently undeveloped 4.97-acre field situated south of Montague Road/SR-3, south of undeveloped land. To the west is an existing hotel, east an existing truck stop/service station and to the south an existing RV park, as illustrated in Figure 3.

The Project includes an amendment of an approved PUD and CUP to allow the change from a *quick service and full service restaurant* to a convenience store, fueling stations, food court with several restaurants, and a hotel.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

As discussed above, there are existing commercial uses west, east, and south of the Proposed Project. There is not an established community in the Project Area. As such, the Proposed Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

As explained above, the Project would require an amendment to an approved PUD and CUP. All development would be required by the City to comply with the requirements of the General Plan including any policies adopted to protect the environment. As analyzed in each section of this IS/MND, the Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impact would occur.

4.11.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.12 Mineral Resources

4.12.1 Environmental Setting

The state-mandated Surface Mining and Reclamation Act of 1975 requires the identification and classification of mineral resources in areas within the state subject to urban development or other irreversible land uses that could otherwise prevent the extraction of mineral resources. These designations categorize land as Mineral Resource Zones (MRZs, MRZ-1 through MRZ-4).

Neither the City, the USGS' Mineral Resources Data System, nor the California DOC Division of Mine Reclamation (DMR) identify the Project Site as an MRZ (City of Yreka 2003, DMR 2022, USGS 2022b).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

As discussed above, the Project Site is not identified as having mineral resources. Therefore, the Project would have no impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project Site is not identified as a mineral resource recovery site by the City or DMR. There would be no impact in this area.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise

4.13.1 Environmental Setting

4.13.1.1 Noise Fundamentals

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 L_{eq}) and the average daily noise levels (in Day-night average sound level [L_{dn}]/ Community noise equivalent level [CNEL]).

Noise can be generated by a number of 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. Mobile transportation sources, such as highways, and hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 A-weighted Decibels (dBA) per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source (USEPA 1971).

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the *line of sight* between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but are less effective than solid barriers.

4.13.1.2 Vibration

Ground vibration can be measured several ways to quantify the amplitude of vibration produced. This can be through peak particle velocity or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively. Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

It is difficult to specify noise levels that are generally acceptable to everyone; what is annoying to one person may be unnoticed by another. Standards may be based on documented complaints in response to documented noise levels or based on studies of the ability of people to sleep, talk, or work under various noise conditions. However, all such studies recognize that individual responses vary considerably. Standards usually address the needs of the majority of the general public.

The Proposed Project could result in the increases in ambient noise levels in the vicinity of the Project Site during construction and operation. Since a comprehensive noise analysis has not yet been completed for the Project, the potential for noise related impacts cannot be determined at this time. Therefore, this area will be discussed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to potential future development would be primarily associated with short-term construction-related activities. Construction at the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

The Proposed Project could result in excessive groundborne vibration in the vicinity of the Project Site during construction and operation. Since a comprehensive noise analysis has not yet been completed for the Project, the potential for noise related impacts cannot be determined at this time. Therefore, this area will be discussed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project Area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The City of Yreka is separated from the Weed and Montague airports by considerable distances. Although occasional aircraft overflights of the City occur, the City of Yreka is located well beyond the noise impact zones of these airports. As a result, the existing ambient noise environment of the City of Yreka is not significantly influenced by aircraft noise. Implementation of the Proposed Project would not affect airport operations nor result in increased exposure of noise-sensitive receptors to aircraft noise. For this reason, no impact would occur.

4.13.3 Mitigation Measures

To be determined as a part of the EIR analysis.

4.14 Population and Housing**4.14.1 Environmental Setting**

According to the California Department of Finance (DOF), which provides estimated population and housing unit demographics by year throughout the state, the City's population increased 0.01 percent between 2012 and 2022, from 7,769 to 7,772 (DOF 2022). DOF estimates that there were 3,704 total housing units in the City, and a 7.5 percent vacancy rate as of January 1, 2020 (DOF 2020). No housing exists on the Project site.

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

The Proposed Project does not include the construction of any new homes; however, it includes the construction of a retail use and hotel that could create a limited number of new jobs in the region, approximately 50 at maximum employee use. While the addition of new employment opportunities could increase the City's population, it is anticipated that the majority of new employees would likely be current residents of the City or surrounding area. As such, the Proposed Project is unlikely to result in a demand for new housing. The impact is less than significant.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

No persons or residences would be displaced or removed as a result of the Proposed Project; the Project would have no impact in this area.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

Public services include fire protection, police protection, parks and recreation, and schools. Generally, impacts in these areas are related to an increase in population from a residential development. Levels of service are generally based on a service-to-population ratio, except for fire protection, which is usually based on a response time.

4.15.1.1 Police Services

Police protection services in the City are provided by the Yreka Police Department, which operates from the main police station located at 1400 Fairlane Road. The department anticipates that the current police force will be adequate to provide police protection needs to Yreka residents at the same level of service through 2022, barring a large increase in population due to a major change such as a large employer locating in Yreka (City of Yreka 2003).

Fire Services

Fire protection services in Yreka are provided by the Yreka Fire Department, which is staffed by volunteers. The fire station is located at 401 West Miner Street. The department also provides Basic Life Support services. Although the personnel are volunteers, equipment needs are funded through the City of Yreka's property assessment for fire services. The service boundaries of the department are the City limits, although the department has a mutual aid agreement with CAL FIRE to provide fire protection services to outlying areas (City of Yreka 2003).

Schools

The Yreka Union Elementary School District serves school-aged children in kindergarten through eighth grade (K–8). Three public schools serve elementary school-aged children: Evergreen School, Jackson Street School, and Mattole Valley Charter School. The Yreka Union High School District serves high school-aged children in grades 9 through 12 at Yreka High School (City of Yreka 2003).

Parks

The City of Yreka maintains eight parks and a plaza, which are available for public enjoyment, recreation and sporting events. The City also operates and maintains the Yreka Creek Greenway, a natural streamside area that will eventually span 4.5 miles along Yreka and Greenhorn creeks (City of Yreka 2016).

Other Public Facilities

Other local public facilities found in Yreka include Siskiyou County Administration, Courts, Public Health, and Library; College of the Siskiyous; Yreka City Administration; California Highway Patrol; National Forest Service; CAL FIRE; Siskiyou County Fairgrounds; and a variety of other state and federal offices.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

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

Less than significant impact.

4.15.2.1 Fire Protection

Development of the Project site would result in a need for fire protection services to respond to any potential incidents that may occur at the Project Site. However, the Project Site is located in a developed part of the City that currently receives fire service. While a new commercial building and hotel could potentially require services, it would not result in the need for new fire personnel or facilities, as services can adequately be provided by existing personnel out of existing facilities. Therefore, this impact is less than significant.

4.15.2.2 Police Services

Development of the Project site could potentially result in a need for police protection services to respond to any potential incidents that may occur at the site. However, the Project Site is located in a developed part of the City that currently receives police service. While a new commercial and hotel land use would require services, it would not result in the need for new police personnel or facilities, as services can adequately be provided by existing personnel out of existing facilities. Therefore, this impact is less than significant.

4.15.2.3 Schools

The Proposed Project does not propose any permanent housing and would not include any other components that would result in an increased demand for schools. As such, there would be no need for additional facilities to maintain acceptable service ratios for schools. No impact would occur.

4.15.2.4 Parks

The Proposed Project does not propose any housing or population that would require additional recreational facilities (visitors to the Proposed hotel on site are not considered permanent residents and therefore are not accounted for when assessing the need for recreational facilities in the City limits) and would not include any other components that would result in an increased demand for parks. As such, there would be no need for additional facilities to maintain acceptable service ratios for parks. No impact would occur.

4.15.2.5 Other Public Facilities

The Proposed Project does not propose any housing or population that would require additional demand other public services, such as libraries. As such, there would be no need for additional facilities to maintain acceptable service ratios. No impact would occur.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

Recreational opportunities for both youth and adults are varied in Yreka. A well-rounded variety of programs and activities is available to Yreka's residents at City, school, and private recreational facilities. The City's Department of Public Works operates and maintains eight parks, a plaza, one pool, the Yreka Creek Greenway, a senior center and community theater, all funded by the City's General Fund (City of Yreka 2016). Private recreational facilities include the YMCA, fitness centers, and a bowling alley.

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

The need for additional parkland is primarily based on an increase in population to an area. Given that the Proposed Project would not result in a significant or direct increase in population (the Proposed hotel population onsite is considered transient as hotel guests are not permanent residents), the Project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the Proposed Project would not increase the use of park and recreational facilities resulting in substantial physical deterioration of the facility. There would be no impact to recreational facilities as a result of construction of the Proposed Project.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Proposed Project does not include or allow for the creation of recreational facilities. As such, the Proposed Project will have no impact due to construction and expansion of recreational facilities.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

4.17.1 Environmental Setting

A Traffic Impact Analysis Memorandum (TIAM) was prepared for the previous Yreka Travel Center and Hotel Project on July 12, 2019 by GHD. However, since that time the Project has been revised to include new and altered uses. Therefore, an updated traffic study is required by the City in order to analyze impacts associated with the updated Proposed Project. The traffic study will be updated to reflect the current Project and Transportation will be further analyzed in the EIR.

4.17.2 Regulatory Setting

4.17.2.1 City of Yreka 2007 General Plan

Regional access to the Project Site is provided by I-5, which spans north to the Canadian border and south to Los Angeles, California. In addition, SR 273 connects Yreka and Redding, and runs parallel to the Project Site. The Circulation Element of the General Plan (City of Yreka 2007) encourages use of parallel routes when travelling to other communities, such as SR 273. In addition, the Circulation Element encourages use of alternative transportation when possible; including walking, biking, or riding the bus. The City of Yreka General Plan contains the following transportation goals and policies related to construction and operation of commercial development, which may result from the Proposed Project:

Goal CI.2: To maintain a functional performance of roadways throughout the community at a Level of Service C or better.

Goal CI.4: Ensure that circulation improvements are adequate to serve transportation demands of new development within Yreka.

Program CI.4.F: New development shall provide improvements as needed to avoid creating significant traffic impacts on streets surrounding the proposed project.

Traffic impacts are considered significant if they result in traffic that exceeds the "Environmental Capacity" of Average Daily Trips (ADT) as defined below:

- Local: Greater than 1,500 ADT;
- Collector: Greater than 2,500 ADT
- Arterial: Greater than 5,000 ADT

Consistent with the City's policies, Level of Service (LOS) "C" as the standard threshold acceptable operations for any roadway under the City of Yreka jurisdiction.

Caltrans LOS Guidelines

The Caltrans guide *Preparation of Traffic Impact Studies* (dated December 2002) states the following:

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not be always feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.

Consistent with Caltrans practice, the TIAM considered LOS "D" as the standard threshold acceptable operations for any intersection under Caltrans jurisdiction. LOS "D" will also be applied to City-controlled intersections in the absence of specific City significance criteria for intersection operations.

Senate Bill 743 – Vehicle Miles Traveled

SB 743, which was signed into law in 2013, initiated an update to the CEQA Guidelines to change how lead agencies evaluate transportation impacts under CEQA, with the goal of better measuring the actual transportation-related environmental impacts of any given project.

According to the Legislature: "New methodologies under the California Environmental Quality Act [were] needed for evaluating transportation impacts that are better able to promote the state's goals of reducing greenhouse gas emissions and traffic-related air pollution, promoting the development of a multimodal transportation system, and providing clean, efficient access to destinations."

Starting on July 1, 2020, agencies analyzing the transportation impacts of new projects were required now look at a metric known as vehicle miles traveled (VMT) instead of LOS. VMT measures how much actual auto travel (additional miles driven) a proposed project would create on California roads. If the project adds excessive car travel onto our roads, the project may cause a significant transportation impact (OPR 2022).

4.17.2.2 Transit Service

The County of Siskiyou provides a public bus system, the Siskiyou Transit and General Express (STAGE), that makes several stops in Yreka, while providing transportation to the communities in Siskiyou County generally along I-5. Another STAGE route travels SR 3 from Etna into Yreka and returns along the same route. A senior bus service is also provided in Yreka by the Yreka Senior Center. This service works in conjunction with STAGE to provide a greater service area for STAGE.

4.17.2.3 Pedestrian and Bicycle Facilities

The terrain and layout of Yreka is favorable for bicycle and pedestrian circulation. Sidewalks exist on most streets. Most streets have sufficient width and low traffic volumes, permitting their safe use by bicyclists. Streets in Yreka have designated areas between the vehicle travel way and the edge of pavement of sufficient width to accommodate bicyclists. These include SR 3 throughout the City, Oregon Street, and SR 263 from SR 3 north. The Yreka Creek Greenway is identified as a future Class I bike path facility, which is identified as a separate right-of-way for the exclusive use of bicycles and pedestrians (City of Yreka 2007).

4.17.3 Transportation (XVII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

The Proposed Project is anticipated to increase roadway traffic and may affect the local roadways including bicycle and pedestrian facilities. A traffic/transportation study is being required by the City for the Project. However, at this time, this study has not yet been completed. Therefore, this potential impact will be discussed further in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

CEQA Guidelines Section 15064.3, subdivision (b) provides criteria for analyzing transportation impacts based on a vehicle-miles-traveled (VMT) methodology instead of the now superseded (as of January 1, 2019) LOS methodology. Pertinent to the Proposed Project are those criteria identified in Section 15064.3(b)(1) Land Use Projects. According to this section:

"Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor² should be presumed to cause a less than significant transportation impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact."

A traffic/transportation study is being required by the City for the Project, which will also include a VMT analysis. However, at this time, this study has not yet been completed. Therefore, this potential impact will be discussed further in the EIR.

² *High-quality transit corridor* means an existing corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours. For the purposes of this Appendix, an *existing stop along a high-quality transit corridor* may include a planned and funded stop that is included in an adopted regional transportation improvement program.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

Modifications to roadways may be required to allow for semi-truck use to access the semi-truck fueling center and hotel onsite. The initial TIAM conducted for the Project determined the northbound approach of the Project Access Drive is not wide enough to accommodate separate left- and right-turn lanes. This increases the potential for vehicle conflicts at this intersection. With the increase in vehicle traffic associated with the increase in guests at the proposed hotel, an updated traffic study is needed in order to determine the level of increase in impacts to Project Area roadways and any modifications to the local roadways would result in a potentially significant impact. As such, how the Proposed Project will affect these roadways will be discussed further in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Access to the Project Site is provided via Montague Road/SR 3, that would provide adequate emergency access upon Project completion. Development of the Project site would include the construction of six driveway entrances/exits. These entrances/exits would provide emergency access redundancy. A less than significant impact would occur.

4.17.4 Mitigation Measures

To be determined as a part of the EIR analysis.

4.18 Tribal Cultural Resources**4.18.1 Environmental Setting**

A Cultural Resources Records Search and Literature Review was prepared by ECorp (2021b) for the Proposed Project to determine if cultural resources or tribal cultural resources were present in or adjacent to the Project Site and assess the sensitivity of the Project Site for undiscovered or buried cultural resources. The following information was excerpted from this report.

The archaeological record of the native population is limited. It is known that at the time of European *discovery*, the area now home to Yreka was settled by the Shasta Indians and used for winter hunting. Typical of increased European settlement, the native population declined during the Gold Rush era.

The Karuk Tribe is also located within the surrounding area of Yreka and the Project site. The Karuk Tribe is a federally recognized Indian tribe of Karuk people. A tribe from the far northwestern portion of California, inland along the middle section of the Klamath River. Karuk means "upstream," as opposed to the word for their neighbors, Yurok, which means "downstream." Culturally, the Karuk were very similar to the neighboring Yurok and Hupa. Their language is one of the Hokan language family. They traditionally relied on the salmon runs that occur twice each year, as well as on gathering foods. Karuk population in the 18th century is estimated to have been around 1,500. Today, the Karuk are one of the largest tribes in California, with approximately 4,800 members, although the tribe has a small land base. Today, Karuk Indians live in the Orleans district in Humboldt County, the Happy Camp district, the Yreka district, along the Forks of the Salmon region in Siskiyou County, and in southern Oregon (SDSU 2022).

4.18.2 Tribal Consultation

As a part of the Cultural Resources Records Search and Literature Review, ECORP contacted the California Native American Heritage Commission (NAHC) on January 14, 2021, to request a search of the Sacred Lands File for the Area of Potential Effects. A search of the NAHC's Sacred Lands File failed to indicate the presence of Native American cultural resources in the Project Site.

Existing Northeast Information Center (NEIC) records document that all of the Project Site has been subjected to prior archeological investigation. Per the NEIC records, no prehistoric or historic era sites have been documented in the Project Site (ECORP 2021b).

AB 52 requires that prior to the release of a CEQA document for a project, an agency begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the Proposed Project if:

1. the California Native American tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe and
2. the California Native American tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

On June 28, 2022, as part of outreach for the Project pursuant to AB 52, the City of Yreka sent a certified letters to the Shasta Indian Nation and the Karuk Tribe informing them of the Project and offering an opportunity to consult about the potential for Tribal Cultural Resources to exist in the Project Site. Tribal Cultural Resources may be synonymous with cultural resources. At the time of this writing, the City has not received any responses by the Shasta Indian Nation or the Karuk Tribe.

4.18.3 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
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	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

Previous cultural resource investigations conducted for projects in the vicinity of the Project area indicate that there is little likelihood for Native American archaeological sites, or burial sites, to be present in the area. Regardless, there is a possibility of the unanticipated and accidental discovery of human remains during ground-disturbing Project-related activities. As such, mitigation will be required. In order to provide an uncomplicated review process, the full analysis of this item will occur as a part of the EIR.

4.18.4 Mitigation Measures

To be determined as a part of the EIR analysis.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 Water Service

The City's water supplies are secured through six water rights. Three rights are adjudicated rights based on pre-1914 claims. The adjudicated rights are recognized in the Shasta River Adjudication Proceeding, Judgment and Decree, No. 7035 (Decree No. 7035). Three additional rights from Fall Creek, Yreka Creek and Greenhorn Creek, are based on one permit and two licenses issued by the SWRCB. Approximately, 7,799 acre-feet per year (af/yr) of water can be supplied to the City from these water rights (City of Yreka 2015). While the City has rights to this amount of water, the availability of water depends on current conditions.

The City of Yreka gets its normal water supply from Fall Creek at a location 23 miles northeast of the City limits. Raw water is diverted from Fall Creek, pre-chlorinated, and pumped to the Klamath Pass Tank through the Fall Creek Pump Station. Water is then gravity-fed from the Klamath Pass Tank through the Filter Pump Station where a filter-aid is added prior to filtration and post-chlorination at the Water Treatment Plant. The treated water is piped the remaining few miles to the City's water distribution system, which includes six booster pump stations, eight water storage facilities with a capacity of 7.98 million gallons, and 310,000 feet of water mains. Seven pressure zones are maintained to provide adequate pressures throughout the system. Yreka has a current average usage of 1.1 million gallons per day (mgd) in the winter and 3.8 mgd in the summer with the capacity to treat up to 8.7 mgd (City of Yreka 2018) There are existing City water lines located in Montague Road/SR-3.

4.19.1.2 Wastewater

The wastewater treatment facility for Yreka is located between SR 263 (North Main Street) and Yreka Creek, approximately 600 feet north of the intersection of Montague Road and SR 263. The wastewater treatment plant has a design capacity of 1.2 million gallons per day of average dry weather flow. Average dry weather flow (ADWF) is 0.8 million gallons per day. There are existing City wastewater collection facilities located in Montague Road/SR-3.

4.19.1.3 Storm Drainage

The City is traversed by a number of natural and manufactured drainages that all eventually lead to Yreka Creek, which flows north to the Shasta River, a tributary to the Klamath River. Overall drainage in the City is adequate, with only localized flooding during storm events. Floodwater and drainage have had a negative effect on the wastewater collection and treatment systems. The City prepared and adopted the comprehensive City of Yreka Master Plan of Drainage in 2005. There is an existing stormwater detention basin located southwest of the Project Site. This basin was engineered to collect all of the stormwater runoff from PUD 5-98, including the Project Site.

4.19.1.4 Solid Waste

The City of Yreka is a participating member of the Siskiyou County Integrated Solid Waste Management Regional Agency. The Agency manages solid waste and green waste collection and disposal throughout the County. As shown in Table 4.19-1, the majority of the County's solid waste in 2018 was exported to Oregon and sent to a local facility in 2019 (Altamont Landfill).

Table 4.19-1. Solid Waste Disposal Facilities Used by the Siskiyou County Integrated Solid Waste Management Regional Agency						
Destination Facility	Solid Waste Disposal (tons/year)			Landfill Information		
	2017	2018	2019	Remaining Capacity (cubic yards)	Remaining Capacity Date	Cease Operation Date
Altamont Landfill	3.96	14.6	37,346	65,400,000	6/30/2016	12/1/2070
Anderson Landfill Inc.	149.61	1852.58	-	10,409,132	1/1/2015	1/1/2093
Forward Landfill Inc.	-	4.25	-	24,720,669	1/31/2020	1/1/2036
McKittrick Waste Treatment	15.78		-	769,790	4/5/2012	12/31/2059
Potrero Hills Landfill	22.87	35.66	-	13,872,000	1/1/2006	2/14/2048
Recology Hay Road	67.36	35.12	-	37,000,000	7/28/2010	1/1/2077
West Central Landfill	46.17	48.2	-	6,589,044	12/1/2013	3/1/2032
Yolo County General Landfill	-	1.21	-	33,544,909	6/1/2021	2/21/2124
Yreka Solid Waste Landfill	-	1,457.31		3,924,000	1/1/2002	1/1/2065
Exported to Oregon		35,902.73	-	N/A	N/A	N/A
Yearly Total	40,264.34	39,343.68	37,346			
Average per Resident (lbs/day)	5.0	3.3	4.7			
Average per Employee (lbs/day)	13.3	13.3	13.3			

Source: CalRecycle 2022a, 2022b, and 2022c

4.19.1.5 Electricity/Natural Gas Services

Refer to *Section 4.6 Energy*.

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

4.19.2.1 Water

Development of the Project would increase the demand for water in the City due to human consumption and irrigation required for landscaping. As previously stated, the City has a current average usage of 1.1 mgd in the winter and 3.8 mgd in the summer with the capacity to treat up to 8.7 mgd. For the convenience store and restaurants included in the Project, mercantile and fast food or small restaurant water use data was obtained from rates provided by the USGS Water Resources, which provides water consumption information based on type of use by state. This information is divided into various categories such as mercantile, food service, education. For the Proposed Project, the categories most closely related would be mercantile, and fast food or small restaurant. Mercantile water consumption per day is estimated at 11.8 gallons per square foot. Fast food water consumption per day is estimated at 24.9 gallons per square foot (USGS 2017). The USGS does not provide hotel water consumption at this time. However, estimated hotel water demand is available through other sources. According to most studies (4Hoteliers 2007), depending on the hotel, each occupied guestroom uses between 100 and 200 gallons per day (gpd) of fresh water. Based on this information and assuming full occupancy, the Project's hotel water consumption per day ranges between 7,000 to 14,000 gpd. The following assumptions were used to determine the potential water demand for the Project:

Table 4.19-2. Potential Water Demand			
Total building size 12,300 sf	Square Footage	Water Demand Factor	Projected Demand (gpd)
Convenience Store	3,180	11.8 gal/sf/day (mercantile)	37,524
Remainder (assumed to be restaurant related)	9,120	24.9 gal/sf/day (fast food restaurant)	227,088
Hotel	17,036	100-200 room/day	7,000 to 14,000
Total:	29,336		271,612 to 278,612

Based on this calculation, the Project is estimated to use 271,612 to 278,612 gpd of water. Yreka has a current average usage of 1.1 mgd in the winter and 3.8 mgd in the summer with the capacity to treat up to 8.7 mgd.

Additionally, the City has Development Impact Fees (DIF) for public facilities, streets, water system, wastewater collection system and storm drainage charged to all new residential, commercial, office, and industrial projects. The Project would be required to pay these fees. The water system DIF is used for water system improvements required because of new development in the City.

As shown, the additional demand of from the Project would not result in a need for new or expanded water treatment facilities. Therefore, the Proposed Project would have a less than significant impact to the City's water treatment facilities.

4.19.2.2 Wastewater

The City's Wastewater Treatment Plant is permitted to treat up to 1.2 mgd ADWF and the City currently produces approximately 0.8 mgd ADWF. There were 2,789 wastewater system connections in 2017. In December 2017, there were 2,135 single-family residential connections, 192 multi-family connections, 436 commercial connections, 19 institutional connections, and six industrial connections (City of Yreka 2018). The City currently has approximately 0.4 mgd of additional ADWF before exceeding the permitted treatment capacity at the treatment plant. Additionally, the Project would result in new wastewater flows through the sewer collection system in the City.

The City's DIF for the wastewater system is used for wastewater system improvements required because of new development in the City, including those that may be required for the Proposed Project.

Based on the number of connections currently being served to the treatment plant, the addition of the Project wastewater flows would not result in the exceedance of the treatment plant's capacity. As such, the Project would have a less than significant impact in this area.

4.19.2.3 Storm Drainage

The Proposed Project would increase the amount of impervious surfaces on the Project Site, resulting in greater stormwater runoff potential. However, the addition of these surfaces would not significantly impact stormwater systems, as there is an existing stormwater detention basin located southwest of the Project Site. All stormwater flowing from the Project's parking lot and new buildings would flow into this basin. The basin has been designed to retain all stormwater from the Project as well as the rest of PUD 5-98 properties regardless of use type as the basin's design is based on land area and not type of use. As such, existing stormwater retention and conveyance systems would be unaffected. A less than significant impact would occur.

4.19.2.4 Electric Power

Electricity is provided to the Project Area by Pacific Power. The electricity provider's ability to provide its services concurrently for each project is evaluated during the development review process. The utility company is bound by contract to update its systems to meet any additional demand. During operation of Project-induced commercial or heavy commercial development, the ability of the electricity provider to power the Site would be evaluated. As explained under *Section 4.6 Energy*, there would be no significant

energy use impact. As such, no new electric facilities will be required to provide electricity to the Project. Therefore, the Project would have a less than significant impact in this area.

4.19.2.5 *Natural Gas*

Natural gas is not available in Yreka or in Siskiyou County. All uses which may require gas such as stove cooktops or water heaters, would use propane. As such, the Project would have no impact to natural gas facilities.

4.19.2.6 *Telecommunications*

Telecommunication will be through existing company and personal cell phones. No new telecommunication facilities will be required to serve the Project.

Would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Refer to Item a) above. The Project will have a less than significant impact in this area.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

Refer to Item a) above. The Project will have a less than significant impact in this area.

Would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

According to CalRecycle (2022c), the estimated solid waste generation rates for employees is 11.0 pounds per employee per day. Based on this information and an anticipated maximum of 50 employees at full operation of the Project, the Project would produce approximately 550 pounds per day (lbs/day) or 100.4 tons annually.³

As shown in Table 4.19-1, the County exports approximately 99 percent of its solid waste disposal to Oregon. The Proposed Project's annual solid waste of 120.5 tons represents 0.004 percent increase in the exported solid waste. As such, the Proposed Project would not substantially increase solid waste exported by the County. All solid waste companies exporting solid waste from the County to Oregon are under contract with the various landfills in Oregon. If at such time these landfills determine that there is insufficient capacity to accommodate the amounts of waste coming from Siskiyou County, additional facilities will need to be found. However, the minor amount of solid waste that would be generated by the Proposed Project would not result in a determination of insufficient capacity. As such, this is a less than significant impact.

Would the Project:	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than significant impact.

The Proposed Project is required to comply with all state and federal statutes regarding solid waste. This impact is considered less than significant.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

³ 550 lbs/day X 365 days / 2000 lbs/ ton =100.4 tons per year.

4.20 Wildfire

4.20.1 Environmental Setting

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (e.g., winds, temperatures, humidity levels and fuel moisture contents), and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area-to-mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area-to-mass ratio and require more heat to reach the ignition point.

The Project Area is relatively flat and dominated by vacant undeveloped land. As discussed in *Section 4.8 Greenhouse Gas*, the area is not designated as a FHSZ (CAL FIRE 2009).

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project Site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project Site is not located in a state responsibility area (CAL FIRE 2009). The Project would have no impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project Site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project Site is not located in a state responsibility area (CAL FIRE 2009). The Project would have no impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project Site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project Site is not located in a state responsibility area (CAL FIRE 2009). The Project would have no impact in this area.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No impact.

The Project Site is not in an area designated by CAL FIRE as a FHSZ. Furthermore, no Very High FHSZs are located nearby. Also, the Project Site is not located in a state responsibility area (CAL FIRE 2009). The Project would have no impact in this area.

4.20.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance

4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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 a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

As discussed in *Sections 4.4 Biological Resources* and *4.5 Cultural Resources*, the Proposed Project may have potential impacts to these resources. These areas will be discussed in the EIR.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially than significant.

Implementation of the Proposed Project, in conjunction with other approved or pending projects in the region, may have the potential to result in cumulatively considerable impacts to the physical environment. Cumulative impacts will be discussed in the EIR.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially significant impact.

Direct and indirect impacts to human beings may occur as a result of implementation of the Proposed Project. As such, these will be discussed in the EIR.

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NATIVE AMERICAN HERITAGE COMMISSION

July 8, 2022

Juliana Lucchesi, Planning Director
City of Yreka
701 Fourth Street
Yreka, CA 96097

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(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Re: 2022070047, Yreka Travel Center and Hotel Project, Siskiyou County

Dear Ms. Lucchesi:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

- 1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:** Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
- 2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:** A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1 (b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
- 3. Mandatory Topics of Consultation If Requested by a Tribe:** The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
- 4. Discretionary Topics of Consultation:** The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
- 5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process:** With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
- 6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document:** If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- Avoidance and preservation of the resources in place, including, but not limited to:
 - Planning and construction to avoid the resources and protect the cultural and natural context,
 - Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - Protecting the cultural character and integrity of the resource.
 - Protecting the traditional use of the resource.
 - Protecting the confidentiality of the resource.
 - Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

- The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
- The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
- The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, § 15064.5(f) (CEQA Guidelines § 15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code § 7050.5, Public Resources Code § 5097.98, and Cal. Code Regs., tit. 14, § 15064.5, subdivisions (d) and (e) (CEQA Guidelines § 15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Cameron.Vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

cc: State Clearinghouse

Yreka Travel Center and Hotel Development--SCH#2022070047

Thompson, Brendan@Waterboards <Brendan.Thompson@waterboards.ca.gov>

Tue 8/2/2022 3:55 PM

To: Juliana Lucchesi <jlucchesi@ci.yreka.ca.us>

Cc: Moore, Heaven@Waterboards <Heaven.Moore@Waterboards.ca.gov>; State Clearinghouse <state.clearinghouse@opr.ca.gov>

Dear Mr. Lucchesi,

Thank you for providing North Coast Regional Water Quality Control Board (Regional Water Board) staff the opportunity to comment on the City of Yreka's [Draft Initial Study](#) (IS) for the Yreka Travel Center and Hotel Project (Project), which involves construction of an approximately 12,300 square foot building with retail shops, a fuel center, and a 99-space parking lot. The total new impervious surface added would be approximately 29,000 square feet, not counting the unknown square footage associated with the new parking lot. We offer the following IS comments so that appropriate changes may be made to the project early in the planning process.

The City of Yreka is a permittee under [State Water Resources Control Board Water Quality Order No. 2013-0001-DWQ, Waste Discharge Requirements for Storm Water Discharges From Small Municipal Separate Storm Sewer Systems](#) (MS4) (Stormwater Permit). The Stormwater Permit includes post-construction stormwater management program requirements to control stormwater from new and redeveloped projects within the City's MS4 boundary. Because the Project would create more than 5,000 square feet of impervious surface, the Project must implement Low Impact Development stormwater control measures to control the quality and volume of stormwater runoff from the Project site, as detailed in Stormwater Permit section E.12 (starting page 48).

As noted above, stormwater quality and volume must be controlled using Low Impact Development control measures. To meet the *Maximum Extent Practicable* treatment standard and to comply with the Stormwater Permit Low Impact Development criteria, vegetated, infiltration-based features must be used. The IS notes that "all Project stormwater runoff will be directed to an existing stormwater detention basin located southwest of the site." Detention basins are generally an older stormwater control technology designed to slowly meter water out through a small orifice to meet stormwater volume control goals—they are not designed to meet stormwater treatment goals via infiltration and plant uptake like bioretention basins are—additionally, detention basins are vulnerable to failure because the small orifices are prone to clogging. Bioretention units will meet the City's Low Impact Development stormwater permit requirements, but a detention basin will not.

We recommend the City require either the existing basin be replaced/retrofitted with a bioretention basin or a new bioretention basin be constructed to receive runoff from the Project area. If the City wishes to permit this project using the existing detention basin, then we recommend a meeting with Regional Water Board staff to discuss the proposed BMP design and ensure the City is meeting its MS4 Stormwater Permit requirements.

Thanks again for the opportunity to comment. Feel free to contact me if you wish to discuss.

Brendan Thompson

Environmental Scientist
North Coast Regional Water Quality Control Board
5550 Skylane Blvd. Ste. A
Santa Rosa, CA 95403-1072
(707) 576-6795

SCH#2022070047 Notice of Preparation for Yreka Travel Center and Hotel Development Project

Henderson, Amy@Wildlife <Amy.Henderson@wildlife.ca.gov>

Thu 8/4/2022 10:40 AM

To: OPR State Clearinghouse <State.Clearinghouse@opr.ca.gov>; Juliana Lucchesi <jlucchesi@ci.yreka.ca.us>

Dear Juliana Lucchesi:

The California Department of Fish and Wildlife (Department) has reviewed the Notice of Preparation (NOP) dated July 6, 2022, and the Initial Study dated July 2022 for the Yreka Travel Center and Hotel Development project (Project). As a trustee for the State's fish and wildlife resources, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and their habitat. As a responsible agency, the Department administers the California Endangered Species Act and other provisions of the Fish and Game Code that conserve the State's fish and wildlife public trust resources. The Department offers the following comments on this Project in our role as a trustee and responsible agency pursuant to the California Environmental Quality Act, California Public Resources Code §21000 et seq.

The Project, as described in the NOP, will be completed in two phases. Phase I is a travel center consisting of a 12,300-square-foot building housing a convenience store, a food hall, and a retail shop open seven days a week, 24 hours a day. Phase II is a 70-room, three-story hotel with parking. The Project is located at 717, 727, 737, and 747 Montague Road (State Highway 3) in the City of Yreka on Assessor's Parcel Numbers 059-642-350, -360, -370, and -380.

Biological surveys have been completed by ECORP Consulting, Inc. but were not included during the NOP review period. The Department looks forward to reviewing the Draft Environmental Impact Report.

If you have any questions or concerns, please call feel free to contact me.

Thank you,

Amy Henderson
Senior Environmental Scientist (Specialist)
California Dept. of Fish and Wildlife
601 Locust Street
Redding, CA 96001
(530)598-7194 (cell)

Yreka Travel Center IS Comments

Eric Olson <eolson@co.siskiyou.ca.us>

Thu 8/18/2022 2:39 PM

To: Juliana Lucchesi <jlucchesi@ci.yreka.ca.us>

Cc: James Smith <jsmith@co.siskiyou.ca.us>; Michael Sims <msims@co.siskiyou.ca.us>

 1 attachments (6 MB)

Yreka Travel Center IS.pdf;

Juliana Lucchesi
Planning Director
City of Yreka

Juliana,

The Siskiyou County Air Pollution Control District (District) submits the following comments and attachment regarding the Yreka Travel Center and Hotel Project.

Before commencing construction the proposed gas dispensing facility will require submittals of a completed Authority To Construct (ATC) and supplemental informational applications for:

Gasoline Vapor Recovery System at retail gas dispensing facilities,

Each stationary generator greater than 50 horsepower,

Boilers and/or other potential sources of air emissions deemed significant by Federal, State, District rule or Air Pollution Control Officer, and

Naturally Occurring Asbestos (NOA) Dust Mitigation Plan.

During construction contractors' diesel powered mobile off road equipment and portable equipment greater than 50 horsepower shall be currently registered with the California Air Resources Board.

The District cannot make further determination of air quality requirements before analysis of completed ATC application submittals for the project.

Please contact the District if you have any questions.

Best regards,

Eric Olson
Air Pollution Specialist II
Siskiyou County APCD
Yreka, CA 96097
530-841-4031

Air Quality & Greenhouse Gas Emissions Assessment Yreka Travel Center and Hotel Project

Yreka, California

Prepared For:

City of Yreka
701 Fourth Street
Yreka, CA 96097

Prepared By:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

November 2022

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Attachment A – CalEEMod Output File for Air Quality Emissions

Attachment B – Health Risk Analysis Output Files

Attachment C – CalEEMod Output File for Greenhouse Gas Emissions

LIST OF ACRONYMS AND ABBREVIATIONS

µg/m ³	Micrograms per cubic meter; ppm = parts per million
1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
AB	Assembly Bill
ASF	Age sensitivity factor
AT	Averaging time
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BMPs	Best Management Practices
BR	Beathing Rate
BW	Body Weight
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCAA	California Clean Air Act
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CPF	Cancer potency factor
CH ₄	Methane
City	City of Yreka
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent

LIST OF ACRONYMS AND ABBREVIATIONS

County	Siskiyou County
DPM	Diesel particulate matter
ED	Exposure duration
EF	Exposure factor
EIR	Environmental Impact Report
EO	Executive Order
EV	Electric vehicle
FAH	Fraction of time at home
GHG	Greenhouse gas
GLC	Ground level concentration
GWP	Global warming potential
HAP	Hazardous Air Pollutant
HFC	Hydrofluorocarbon
HRA	Health Risk Assessment
I-5	Interstate 5
IPCC	Intergovernmental Panel on Climate Change
kg	kilogram
L	Liter
L/kg	Liter per kilogram
MEIR	Maximumly Exposed Individual Resident
MEIW	Maximumly Exposed Individual Worker
mg	milligram
MT	Metric Ton
N ₂ O	Nitrous oxide
NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NO ₂	Nitrogen dioxide
NO _x	Nitric oxides
NPAB	Northeastern Plateau Air Basin
OAL	Office of Administrative Law
OEHHA	Office of Environmental Health Hazard Assessment
O ₃	Ozone
PM	Particulate matter
PM ₁₀	Coarse particulate matter
PM _{2.5}	Fine particulate matter
PMI	Point of Maximum Impact
ppb	Parts per billion
ppm	Parts per million
Project	Yreka Travel Center and Hotel Project
REL	Reference Exposure Level
ROGs	Reactive organic gases
SB	Senate Bill
SMAQMD	Sacramento Metropolitan Air Quality Management District
SCAPCD	Siskiyou County Air Pollution Control District
sf	square feet
SIP	State Implementation Plan

LIST OF ACRONYMS AND ABBREVIATIONS

SO ₂	Sulfur dioxide
SO _x	Sulfur oxides
SR	State Route
TACs	Toxic air contaminants
T-BACT	Toxics - Best Available Control Technology
USEPA	U.S. Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This report documents the results of an Air Quality and Greenhouse Gas (GHG) Emissions Assessment completed for the Yreka Travel Center and Hotel Project (Project), which includes the construction of a travel plaza, hotel and associated features in the City of Yreka (City), California. The purpose of this assessment is to estimate Project-generated criteria air pollutants and GHG emissions consumption attributable to the Project and to determine the level of impact the Project would have on the environment. This assessment was prepared using methodologies and assumptions recommended in the provisions promulgated by the Siskiyou County Air Pollution Control District (SCAPCD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations.

1.1 Project Location

The Project Site is located in the northeast area of the City of Yreka south of Montague Road/State Route 3 (SR 3). The assigned addresses for the four undeveloped parcels of the Project Site are 717, 727, 737 and 747 Montague Road.

The Project is located on four parcels including the following:

Accessor's Parcel Numbers			
053-642-350	053-642-360	053-642-370	053-642-380

The 4.97-acre Project Site is undeveloped vacant land. Surrounding uses include the Yreka RV Park, vacant land with a drainage basin, and large lot single family uses to the south, and a Holiday Inn Hotel, and Interstate 5 (I-5) to the west. North of the site is Montague Road/SR 3 with vacant land beyond. The Yreka Truck Stop is east of the site, with vacant land and a lumber yard and mini-storage beyond.

1.2 Project Description

The Project proposes the construction of a travel plaza, hotel, and associated features. The Project is proposed to be completed in two phases with construction of Phase 1 beginning in June 2023 and ending in May 2024 and Phase 2 beginning in June 2024 and ending in May 2025. The buildout for each phase is as follows:

Phase I

- 12,300-square feet (sf) building including a convenience store, a food hall, bar, retail shop, and outdoor patio, open 7 days a week, 24 hours a day
- Eight-dispenser fuel center (16 fueling stations) with a 6,298-sf canopy for automobiles and RVs
- Four-dispenser fuel center (4 fueling stations) with a 1,872-sf canopy for semi-trucks
- Two underground gasoline/diesel fuel tanks (size to be determined), three 12,000-gallon above-ground diesel tanks, and a 10-foot propane tank
- Parking accommodating 99 spaces, including 12 spaces for Electric Vehicle (EV)s charging,

- Pet park area,
- Two monument signs and a goalpost sign

Anticipated average throughput of gasoline and diesel fuel per day when the Project is in operation is as follows:

- Approximately 6,500 gallons of gasoline per day
- Approximately 7,000 gallons of diesel fuel per day

Phase II

- a 70-room, three-story hotel (44 feet tall, 17,032 sf).
- parking accommodating 76 spaces, including two spaces for EV charging,
- a goalpost sign, and
- perimeter landscaping (44,676 sf total for Phases I and II).

Once completed, the Project is estimated to employ 40 to 50 persons total, with approximately 12 to 15 employees per shift. Access to the Project Site is provided by two driveways for the convenience store/fueling site and two driveways for the hotel site, all via an existing private road from Montague Road/SR 3.

2.0 AIR QUALITY

2.1 Air Quality Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the Northeastern Plateau Air Basin (NPAB), which encompasses the Project Site, pursuant to the regulatory authority of the SCAPCD.

2.1.1 Northeastern Plateau Air Basin

The California Air Resources Board (CARB) has divided California into regional air basins according to topographic drainage features. Yreka and the Project area are in a region identified as the NPAB, which principally includes Siskiyou, Modoc, and Lassen counties. The NPAB is divided into local air districts, which are charged with the responsibility of implementing air quality programs. The local air quality agency affecting Yreka is the SCAPCD. Air quality in this area is determined by such natural factors as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. Within the SCAPCD, the primary sources of air pollution are wood-burning stoves, wildfires, farming operations, unpaved road dust, managed burning and disposal, and motor vehicles.

From an air quality perspective, the topography and meteorology of the NPAB combine such that local conditions predominate in determining the effect of emissions in the basin. Regional airflows are affected by the mountains and hills, which direct surface airflows to cause vertical air mixing and dispersing pollutant concentrations. Air quality in Yreka is better than virtually any other air basin in California. For instance, all federal and state air quality standards are met in the region.

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O₃), coarse particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO₂), and sulfur dioxide (SO₂) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant. Health effects commonly associated with criteria pollutants are summarized in Table 2-1.

Table 2-1. Criteria Air Pollutants- Summary of Common Sources and Effects

Pollutant	Major Manmade Sources	Human Health & Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO ₂	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O ₃	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (N ₂ O) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM ₁₀ & PM _{2.5}	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	A colorless, nonflammable gas formed when fuel containing sulfur is burned. Examples are refineries, cement manufacturing, and locomotives.	Respiratory irritant. Aggravates lung and heart problems. Can damage crops and natural vegetation. Impairs visibility.

Source: California Air Pollution Control Officers Association (CAPCOA 2013)

2.1.2.1 Carbon Monoxide

CO in the urban environment is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances of the source. Overall CO emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973. CO levels in the NPAB are in compliance with the state and federal one- and eight-hour standards.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x , such as NO and NO_2 , attribute to the formation of O_3 and $\text{PM}_{2.5}$. Epidemiological studies have also shown associations between NO_2 concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

O_3 is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOCs) or ROGs and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. NO_x forms as a result of the combustion process, most notably due to the operation of motor vehicles. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas well away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Particulate Matter

PM includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and small than or equal to 2.5 microns in diameter ($\text{PM}_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $\text{PM}_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x , sulfur oxides (SO_x) and VOCs. $\text{PM}_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $\text{PM}_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency

room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the U.S. Environmental Protection Agency (USEPA), some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

Most recently, CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), fuel formulations (high/low sulfur fuel), and the year of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.1.2.1 Diesel Particulate Matter

Diesel particulate matter (DPM) is emitted from both mobile and stationary sources. In California, on-road diesel-fueled engines contribute approximately 24 percent of the statewide total, with an additional 71 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about five percent of total DPM. It should be noted that CARB has developed several plans and programs to reduce diesel emissions such

as the Diesel Risk Reduction Plan, the Statewide Portable Equipment Registration Program, and the Diesel Off-Road Reporting System.

Diesel exhaust and many individual substances contained in it (including arsenic, benzene, formaldehyde, and nickel) have the potential to contribute to mutations in cells that can lead to cancer. Long-term exposure to diesel exhaust particles poses the highest cancer risk of any TAC evaluated by the Office of Environmental Health Hazard Assessment (OEHHA). CARB estimates that about 70 percent of the cancer risk that the average Californian faces from breathing toxic air pollutants stems from diesel exhaust particles.

In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Using information from OEHHA's assessment, CARB estimates that diesel particle levels measured in California's air in the year 2000 could cause 540 "excess" cancers in a population of one million people over a 70-year lifetime. Other researchers and scientific organizations, including the National Institute for Occupational Safety and Health, have calculated cancer risks from diesel exhaust similar to those developed by OEHHA and CARB.

Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

Diesel engines are a major source of fine particulate pollution. The elderly and people with emphysema, asthma, and chronic heart and lung disease are especially sensitive to fine-particulate pollution. Numerous studies have linked elevated particle levels in the air to increased hospital admissions, emergency room visits, asthma attacks, and premature deaths among those suffering from respiratory problems. Because children's lungs and respiratory systems are still developing, they are also more susceptible than healthy adults to fine particles. Exposure to fine particles is associated with increased frequency of childhood illnesses and can also reduce lung function in children. In California, diesel exhaust particles have been identified as a carcinogen.

2.1.2.2 Benzene

Approximately 84 percent of the benzene emitted in California comes from motor vehicles, including evaporative leakage and unburned fuel exhaust. Benzene is highly carcinogenic and occurs throughout California. Benzene also has non-cancer health effects. Brief inhalation exposure to high concentrations can cause central nervous system symptoms of nausea, tremors, drowsiness, dizziness, headache, intoxication, and unconsciousness.

Neurological symptoms of inhalation exposure to benzene include drowsiness, dizziness, headaches, and unconsciousness. Ingestion of large amounts of benzene may result in vomiting, dizziness, and convulsions.

Exposure to liquid and vapor may irritate the skin, eyes, and upper respiratory tract. Redness and blisters may result from dermal exposure to benzene. Chronic inhalation of certain levels of benzene causes blood disorders because benzene specifically affects bone marrow, which produces blood cells. Aplastic anemia, excessive bleeding, and damage to the immune system (by changes in blood levels of antibodies and loss of white blood cells) may develop. Increased incidence of leukemia (cancer of the tissues that form white blood cells) has been observed in humans occupationally exposed to benzene.

2.1.4 Ambient Air Quality

Ambient air quality at the Project Site can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potently affecting the Project region. As described in detail below, the region is designated as being in attainment or unclassified for all state and federal standards (CARB 2019). The nearest air quality monitoring station to the Project Site is the Yreka air quality monitoring station (530 South Foothill Drive, Yreka), located approximately 0.90 mile southeast of the Project Site, which monitors ambient concentrations of O₃ and PM_{2.5}. There is no monitoring station in Siskiyou County (County) that monitors ambient concentrations of PM₁₀ concentrations will vary due to localized variations in emission sources and climate and should be considered “generally” representative of ambient concentrations in the Project Area.

Table 2-2 summarizes the published data concerning O₃ and PM_{2.5} since 2019 for each year that the monitoring data is provided.

Table 2-2. Summary of Ambient Air Quality Data			
Pollutant Standards	2019	2020	2021
O₃			
Max 1-hour concentration (ppm)	0.069	0.071	0.077
Max 8-hour concentration (ppm) (state/federal)	0.060	0.063	0.070
Number of days above 1-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
Number of days above 8-hour standard (state/federal)	0 / 0	0 / 0	0 / 0
PM₁₀			
Max 24-hour concentration (µg/m ³) (state/federal)	* / *	* / *	* / *
Number of days above 24-hour standard (state/federal)	* / *	* / *	* / *
PM_{2.5}			
Max 24-hour concentration (µg/m ³) (state/federal)	73.9 / 73.9	309.2 / 309.2	134.6 / 134.6
Number of days above federal 24-hour standard	4.1	23.4	32.5

Source: CARB 2022a

µg/m³ = micrograms per cubic meter; ppm = parts per million

* = Insufficient (or no) data available

The USEPA and CARB designate air basins or portions of air basins and counties as being in “attainment” or “nonattainment” for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. The National Ambient Air Quality Standards (NAAQS) (other than O₃, PM₁₀ and PM_{2.5} and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the Siskiyou County portion of the NPAB, which encompasses the Project Site, is included in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the Siskiyou County Portion of the Northeastern Plateau Air Basin

Pollutant	State Designation	Federal Designation
O ₃	Attainment	Unclassified/Attainment
PM ₁₀	Attainment	Unclassified
PM _{2.5}	Attainment	Unclassified/Attainment
CO	Unclassified	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment

Source: CARB 2019

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. As described above, the region is designated as being in attainment or unclassified for all state and federal standards (CARB 2019).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive land use receptor is a single-family residence located 580 feet southwest of the Project Site beyond the Project Access Roadway and RV park.

2.2 Regulatory Framework

2.2.1 Federal

2.2.1.1 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific pollutants.

These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those “sensitive receptors” most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the NPAB for the criteria pollutants.

2.2.2 State

2.2.2.1 California Clean Air Act

The California Clean Air Act (CCAA) allows the State to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California’s State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

2.2.2.2 Tanner Air Toxics Act & Air Toxics “Hot Spots” Information and Assessment Act

CARB’s statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California’s program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure (ATCM) for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the State’s mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics “Hot Spots” Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results to the public in the form of notices and public meetings. In September 1992, the

"Hot Spots" Act was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.2.3 Mobile Source Strategy

In 2016 CARB released the update to the Mobile Source Strategy (Strategy). This demonstrates how the state will meet air quality standards, achieve GHG emission reduction targets, decrease health risks from transportation emissions, and reduce petroleum consumption over the next 15 years. This includes engine technology that is effectively 90 percent cleaner than today's current standards, with clean, renewable fuels comprising half the fuels burned.

The strategy also relies on the increased use of renewable fuels to ensure that air pollutant reductions are achieved while meeting the ongoing demand for liquid and gaseous fuels in applications where combustion technologies remain, including in heavy-duty trucks and equipment and light-duty hybrid vehicles. The estimated benefits of the Mobile Source Strategy in reducing emissions from mobile sources includes an 80 percent reduction of O₃-forming emissions (ROG and NO_x). Statewide, the Strategy would also result in a 45 percent reduction of GHG emissions and a 50 percent reduction in the consumption of petroleum-based fuels.

2.2.2.4 Governor's Sustainable Freight Action Plan

Under the Governor's Sustainable Freight Action Plan strategy, CARB is working with agency partners and stakeholders to implement a broad program that includes regulations, incentives, and policies designed to support the transformation to a more sustainable freight system and reduce community impacts from freight operations in California. The Governor's Sustainable Freight Action Plan identifies strategies and actions to achieve a sustainable freight transportation system that meets California's environmental, energy, mobility, safety and economic needs. The plan also identifies and initiates corridor-level freight pilot projects within the state's primary trade corridors that integrate advanced technologies, alternative fuels, freight and fuel infrastructure and local economic development opportunities. The plan seeks to improve the state freight system efficiency 25 percent by "increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030" as well as to deploy over 100,000 zero-emission freight vehicles and equipment and maximizing near-zero equipment and equipment powered by renewable energy by 2030.

2.2.2.5 Truck and Bus Regulation Reducing Emissions from Existing Diesel Vehicles

In 2008, CARB approved the Truck and Bus Regulation to significantly reduce PM and NO_x emissions from existing diesel vehicles operating in California. The regulation requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Heavier trucks had to be retrofitted with PM filters beginning January 1, 2012, and older trucks had to be replaced by January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010-model-year engines or equivalent.

The regulation applies to nearly all privately and federally owned diesel fueled trucks and buses and to privately and publicly owned school buses with a gross vehicle weight rating greater than 14,000 pounds.

Small fleets with three or fewer diesel trucks can delay compliance for heavier trucks by reporting and there are a number of extensions for low-mileage construction trucks, early PM filter retrofits, adding cleaner vehicles, and other situations. Privately and publicly owned school buses have different requirements.

2.2.2.6 Heavy-Duty Vehicle Idling Emission Reduction Program

The purpose of CARB's ATCM *to Limit Diesel-Fueled Commercial Motor Vehicle Idling* is to reduce public exposure to DPM and criteria pollutants by limiting the idling of diesel-fueled commercial vehicles.¹ The driver of any vehicle subject to this ATCM is prohibited from idling the vehicle's primary diesel engine for greater than five minutes at any location and is prohibited from idling a diesel-fueled auxiliary power system for more than five minutes to power a heater, air conditioner, or any ancillary equipment on the vehicle if it has a sleeper berth and the truck is located within 100 feet of a restricted area (homes and schools).

CARB Final Regulation Order, *Requirements to Reduce Idling Emissions from New and In-Use Trucks*, which began in 2008, requires that new 2008 and subsequent model-year heavy-duty diesel engines be equipped with an engine shutdown system that automatically shuts down the engine after 300 seconds of continuous idling operation once the vehicle is stopped, the transmission is set to "neutral" or "park", and the parking brake is engaged.

2.2.3 Local

2.2.3.1 Siskiyou County Air Pollution Control District

As noted above, the SCAPCD is the local air quality agency with jurisdiction over the Project Site. The SCAPCD adopts and enforces controls on stationary sources of air pollutants through its permit and inspection programs and regulates agricultural and nonagricultural burning. Other district responsibilities include monitoring air quality, preparing air quality plans, and responding to citizen air quality complaints.

All projects in the County are subject to applicable SCAPCD rules and regulations in effect at the time of construction. Descriptions of specific rules applicable to construction resulting from implementation of the Proposed Project may include, but are not limited to:

- **SCAPCD Rule 2.1-A (Authorities to Construct/Permits to Operate)** – Allows any person to use construction equipment for construction activities and must obtain a permit to operate prior to installation activities.
- **SCAPCD Rule 2.14-A (Compliance With CEQA)** – In making a determination to issue a permit for a project under these regulations, the Air Pollution Control Officer may make findings as required by the California Environmental Quality Act ("CEQA"), Public Resources Code section 21000 et seq., including, but not limited to, the determinations that a permit is exempt from CEQA, that a negative

¹ The ATCM *to Limit Diesel-Fueled Commercial Motor Vehicle Idling* is codified in Title 13 of the CCR, Chapter 10, § 2485.

declaration should be adopted, or an environmental impact report ("EIR") has been prepared and should be certified as adequate.

- **SCAPCD Rule 4.2-A (Nuisance)** – No person shall discharge from any source whatsoever, such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.
- **SCAPCD Rule 4.4 (Specific Air Contaminants)** – This rule controls the amount of air contaminants allowed to be discharged into the atmosphere.
- **SCAPCD Rule 4.5 (Particulate Matter)** – No person shall discharge from any non-combustion source particulate matter in excess of 0.30 grains per cubic foot of exhaust gas at standard conditions, or in any one hour total quantities in excess of the amount shown in Rule 4.5 Table I.
- **SCAPCD Rule 4.7 A-B (Gasoline Storage)** –
 - A. Except as provided in this rule, no person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is a pressure tank as described in Section 41951, or is equipped with a vapor recovery system as described in Section 41952 or with a floating roof as described in Section 41953 or unless such tank is equipped with other apparatus of equal efficiency which has been approved by the Control Officer.
 - B. No person shall install any gasoline tank with a capacity of 250 gallons or more which does not meet these requirements.
- **SCAPCD Rule 6.1 (Construction Permit Standards for Criteria Air Pollutants)** – The Control Officer shall deny a permit to construct for any new stationary source or modification or any portion thereof, unless the applicant certifies that all other stationary sources in the State, which are owned or operated by the applicant are in compliance or are on an approved schedule for compliance, with all applicable emission limitations and standards under the Clean Air Act (42 USC 7401 et.seq.) and all applicable emission limitations and standards which are part of the SIP approved by the EPA.

B.1. - Sections B., C., D., E., F., G., H., and I. shall apply to new stationary sources and modifications which result in either:

- a. A net increase in emissions of 250 or more pounds during any day of any pollutant for which there is a national ambient air quality standard (excluding carbon monoxide), or any precursor of such a pollutant; or
- b. A net increase in emissions of 2,500 or more pounds of carbon monoxide during any day.

- **SCAPCD Rule 6.4-A (Construction Permit Standards for Hazardous Air Pollutants)** – This rule requires the installation of best available control technology for toxics (T-BACT) at any constructed or reconstructed major source of hazardous air pollutants (HAPs).
- **SCAPCD Rule 8.1-A (Benzene Emissions From Retail Service Stations)** – To comply with California Code of Regulations, Section 93101, by reducing airborne benzene emissions from retail service stations. Requirements under California Code of Regulations Section 93101 for Phase I and Phase II vapor recovery systems are as follows:
 - A. Phase I – “No owner or operator shall transfer, permit the transfer, or provide equipment for the transfer of gasoline, and no other person shall transfer gasoline from a gasoline delivery tank equipped with a vapor recovery system into a stationary storage tank at a retail service station unless an ARB-certified Phase I vapor recovery system is installed on the stationary storage tank and used during the transfer.”
 - B. Phase II – “No owner or operator shall transfer, permit the transfer or provide equipment for the transfer of gasoline from a stationary storage tank at a retail service station into a motor vehicle fuel tank unless an ARB-certified Phase II vapor recovery system is installed and used during the transfer.

In addition to the Phase I and II requirements under SCAPCD Rule 8.1, the operator of each retail facility using a Phase II vapor recovery system shall conspicuously post operating instructions for the system in the gasoline dispensing area. The instructions shall clearly describe how to fuel vehicles correctly with vapor recovery nozzles used at the station and shall include a warning that topping off may result in spillage or recirculation of gasoline and is prohibited. Furthermore, the instructions shall include a prominent display of the Siskiyou County Air Pollution Control District's or the ARB's toll-free telephone number for complaints.

All Phase I and Phase II gasoline vapor recovery equipment shall be installed as required by ARB certification and operated as recommended by the manufacturer and shall be maintained to be leak free, vapor tight, and in good working order.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Thresholds of Significance

2.3.1.1 Regional Thresholds

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

- 1) Conflict with or obstruct implementation of any applicable air quality plan.

- 2) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for O₃ precursors).
- 3) Expose sensitive receptors to substantial pollutant concentrations.
- 4) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

The SCAPCD has no established thresholds for air quality impacts under CEQA. For the purpose of this analysis, emissions of criteria air pollutants are compared against current SCAPCD rules and regulations pertaining to air quality management. Section 6 "New Source Siting" Rule 6.1 – *Construction Permit Standards for Criteria Air Pollutants* includes thresholds for new stationary sources and are consistent with the New Source Review Rule 110 adopted by the SCAPCD as required by the CCAA. While the Proposed Project is not considered a stationary source, in the absence of established CEQA-related thresholds, Project comparison to Rule 6.1 for emissions is appropriate. The thresholds of significance are summarized in Table 2-4 below:

Table 2-4. Thresholds of Significance – Pounds per Day						
Thresholds	Emission (Maximum Pounds/ Day)					
	NO_x	ROG	CO	SO₂	PM₁₀	PM_{2.5}
SCAPCD Significance Threshold	250	250	2,500	250	250	250

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

2.3.1.2 Health Risk Thresholds

In addition to the emission of criteria air pollutants, this Projects evaluates the health risk from operations of the Proposed Project. Specifically, the Project would be a source of gasoline vapors such as benzene, methyl tertiary-butyl ether, toluene, and xylene. Additionally, the Project would be a source of DPM generated by Project vehicular traffic exiting and entering I-5 and traveling on local roadways to the Project Site.

The SCAPCD thresholds for what constitute an exposure of substantial air toxics are as follows.

- Cancer Risk: Emit carcinogenic or toxic contaminants that exceed the maximum individual cancer risk of 10 in one million.
- Non-Cancer Risk: Emit toxic contaminants that exceed the maximum hazard quotient of 1 in one

million.

CARB identifies benzene as the primary TAC of concern associated with gas stations. Benzene is highly carcinogenic and occurs throughout California. According to CAPCOA, benzene is the most important substance driving cancer risk, while xylene, another air toxic associated with gasoline stations, is the only substance which is associated with acute adverse health effects (CAPCOA 1997). According to CAPCOA, not until the benzene emissions are three orders of magnitude above the rate of an increase of 10 per million cancer risk, do the emissions of xylene begin to cause acute adverse health effects. The SCAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities. SCAPCD Rule 8.1, *Benzene Emissions From Retail Service Stations*, prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used. Additionally, Rule 8.1 further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). Phase I vapor recovery system components include the couplers that connect tanker trucks to the underground tanks, spill containment drain valves, overfill prevention devices, and vent pressure/vacuum valves. Phase II vapor recovery system components include gasoline dispensers, nozzles, piping, break away, hoses, face plates, vapor processors, and system monitors.

Stationary sources having the potential to emit TACs, including gas stations such as those proposed by the Project, are required to obtain permits from the SCAPCD. Permits may be granted to these operations provided they are operated in accordance with applicable SCAPCD rules and regulations. SCAPCD's gasoline station permitting process provides for the review of gasoline TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. SCAPCD's permitting procedures require substantial control of emissions, and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.

Additionally, CARB identifies DPM as a TAC. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Diesel exhaust is composed of two phases, either gas or particulate – both contribute to the risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particulate phase has many different types that can be classified by size or composition. The sizes of diesel particulates of greatest health concern are fine and ultrafine particles. These particles may be composed of elemental carbon with adsorbed compounds such as organics, sulfates, nitrates, metals, and other trace elements. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines. The Project's diesel fuel dispensing center would attract heavy-duty trucks, a source of DPM.

2.3.2 Methodology

Air quality impacts were assessed in accordance with methodologies recommended by the SCAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for Siskiyou County coupled with details associated with construction timing and duration provided by the Project proponent. Operational air pollutant emissions were based on Project Site plans and traffic trip generation rates from GHD (2022). Lastly, CalEEMod does not account for ROG emissions associated with gasoline vapors that are released during fuel dispensing activities. In order to calculate these emissions, the CAPCOA's Gasoline Service Station Industry Wide Risk Assessment Guidelines (1997) is employed.

Additionally, DPM and benzene concentrations associated with heavy-duty trucks and the proposed gasoline dispensing station as a result of Project operations were modeled using the HARP2 modeling program provided by CARB, with regulatory default settings, to perform the dispersion and health risk modeling for this analysis. HARP2 implements the latest regulatory guidance to develop inputs to the U.S. EPA AERMOD dispersion model for dispersion and as the inputs for calculations for the various health risk levels. AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. The resultant concentration values at vicinity sensitive receptors were then used to calculate chronic and carcinogenic health risk using the standardized equations contained in the OEHHA Guidance Manual for Preparation of Health Risk Assessments (2015). Project specific methodology is discussed further in Section 2.3.3.4.

2.3.3.1 Project Construction-Generated Criteria Air Quality Emissions

Construction-generated emissions are temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., excavators, trenchers, dump trucks), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts. The dry climate of the area during the summer months creates a high potential for dust generation.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. See Attachment A for more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 2-5. Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the SCAPCD Rule 6.1 thresholds of significance.

Table 2-5. Construction-Related Emissions						
Construction Year	Pollutant (pounds per day)					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Construction Year One (Phase 1)	4.76	59.09	32.25	0.17	25.50	12.70
Construction Year Two (Phase 1 & Phase 2)	17.00	82.62	64.03	0.21	27.08	13.82
Construction Year Three (Phase 2)	12.22	22.30	31.73	0.05	1.45	1.02
<i>Significance Threshold</i>	<i>250</i>	<i>250</i>	<i>2,500</i>	<i>250</i>	<i>250</i>	<i>250</i>
Exceed Significance Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2020.4.0. Refer to Attachment A for Model Data Outputs.

Notes: Emissions taken from the season (summer or winter) with the highest output. Building construction, paving, and painting assumed to occur simultaneously. Emissions account for the cut of 160 cubic yards of soil and fill of 35,900 cubic yards of soil distributed evenly between the two construction phases.

As shown in Table 2-5, emissions generated during Project construction would not exceed the SCAPCD Rule 6.1 thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

2.3.3.2 Project Operations Criteria Air Quality Emissions

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM₁₀, PM_{2.5}, CO, and SO₂ as well as O₃ precursors such as ROG and NO_x. As previously described, operational air pollutant emissions were based on the Project Site plans and traffic trip generation rates from GHD (2022). ROG emissions are based on the amount of Project daily gasoline throughput. Long-term operational emissions attributable to the Project are identified in Table 2-6 and compared to the operational significance thresholds promulgated by the SCAPCD Rule 6.1.

Table 2-6. Operational-Related Criteria Air Pollutant Emissions						
Emission Source	Pollutant					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Summer Emissions						
Area	11.53	0.00	0.02	0.00	0.00	0.00
Energy	0.06	0.58	0.49	0.00	0.04	0.04
Mobile	9.36	12.36	66.22	0.12	12.08	3.32
Total:	20.95	12.94	66.73	0.12	12.12	3.36
Winter Emissions						
Area	11.53	0.00	0.02	0.00	0.00	0.00
Energy	0.06	0.58	0.49	0.00	0.04	0.04
Mobile	9.22	14.81	80.72	0.12	12.08	3.32
Total:	20.81	15.39	81.23	0.12	12.12	3.36
<i>Significance Threshold</i>	<i>250</i>	<i>250</i>	<i>2,500</i>	<i>250</i>	<i>250</i>	<i>250</i>
Exceeds Significance Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2020.4.0. Refer to Attachment A for Model Data Outputs.

Notes: Operational emissions were calculated using a combination of model defaults for Siskiyou County and a calculated project trip generation rate of 2,619 average daily trips (GHD 2022). Refer to Attachment A for Model Data Outputs.

Area source emissions for the gasoline station include ROG released gasoline vapor during dispensing activities. Gasoline vapor emissions are calculated based on an emission factor of 1.27 pounds per 1,000 gallons of gasoline dispensed (CAPCOA 1997) and the prediction of 6,500 gallons of gasoline dispensed per day ($6,500 \times 365 = 2,372,500$ gallons annually) as provided by the Project applicant [$(2,372,500/1,000) \times 1.27 = 3,013$ pounds annually. $3,013/365 = 8.25$ pounds daily].

As shown in Table 2-6, the Proposed Project's emissions would not exceed the SCAPCD Rule 6.1 thresholds of significance for any criteria air pollutants during operation.

2.3.3.3 Conflict with the SCAPCD Air Quality Planning

As part of its enforcement responsibilities, the USEPA requires each state with nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. The SIP is a legal agreement between each state and the federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analysis. CARB is the lead agency for developing the SIP in California. Local air districts prepare air quality attainment plans or air quality management plans and submit them to CARB for review, approval, and incorporation into the applicable SIP. The air districts develop the strategies stated in the SIPs for achieving air quality standards on a regional basis. As identified in Table 2-3, the Project region

of the NPAB is classified as attainment or unclassified for all federal standards (CARB 2019). Therefore, there is no SIP required for Siskiyou County.

2.3.3.4 Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. As previously stated, the nearest sensitive land use receptor consists of a single-family residence 580 feet southwest of the Project Site beyond the Project Access Roadway and RV Park.

Construction-Generated Air Contaminants

Construction-related activities would result in temporary, short-term Proposed Project-generated emissions of DPM, ROG, NO_x, CO, and PM₁₀ from the exhaust of off-road, heavy-duty diesel equipment for site preparation (e.g., clearing, grading); soil hauling truck traffic; paving; and other miscellaneous activities. The City of Yreka portion of the NPAB is listed as being in attainment or unclassified for all state and federal standards (CARB 2019). Thus, existing emission levels in the Project portion of the NPAB are currently at acceptable levels. Additionally, as shown in Table 2-5 the Project would not exceed the SCAPCD Rule 6.1 significance thresholds for construction emissions.

The health effects associated with O₃ are generally associated with reduced lung function. Because the Project would not involve construction activities that would result in O₃ precursor emissions (ROG or NO_x) in excess of the SCAPCD thresholds, the Project is not anticipated to substantially contribute to regional O₃ concentrations and the associated health impacts.

CO tends to be a localized impact associated with congested intersections. In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions. The Project would not involve construction activities that would result in CO emissions in excess of the SCAPCD Rule 6.1 thresholds. Thus, the Project's CO emissions would not contribute to the health effects associated with this pollutant.

Particulate matter (PM₁₀ and PM_{2.5}) contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing. For construction activity, DPM is the primary TAC of concern. PM₁₀ exhaust is considered a surrogate for DPM as all diesel exhaust is considered to be DPM. As with O₃ and NO_x, the Project would not generate emissions of PM₁₀ or PM_{2.5} that would exceed the SCAPCD Rule 6.1 thresholds. Accordingly, the Project's PM₁₀ and PM_{2.5} emissions are not expected to cause any increase in related regional health effects for these pollutants.

In summary, Project construction would not result in a potentially significant contribution to regional concentrations of nonattainment pollutants and would not result in a significant contribution to the adverse health impacts associated with those pollutants.

Operational Health Risk

Operation of the Proposed Project would result in the development of sources of air toxins. Specifically, the Project would be a source of gasoline vapors such as benzene, toluene, and xylene. Additionally, the Project would be a source of DPM generated by Project heavy-duty truck traffic exiting and entering I-5 and traveling on local roadways to the Project Site.

CARB identifies benzene as the primary TAC of concern associated with gas stations. Benzene is highly carcinogenic and occurs throughout California. According to CAPCOA, benzene is the most important substance driving cancer risk, while xylene, another air toxic associated with gasoline stations, is the only substance which is associated with acute adverse health effects (CAPCOA 1997). According to CAPCOA, not until the benzene emissions are three orders of magnitude above the rate of an increase of 10 per million cancer risk, do the emissions of xylene begin to cause acute adverse health effects.

The SCAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities. SCAPCD Rule 8.1, Benzene Emissions From Retail Service Stations, prohibits the transfer or allowance of the transfer of gasoline into stationary tanks at a gasoline-dispensing facility unless a CARB-certified Phase I vapor recovery system is used. Additionally, Rule 8.1 further prohibits the transfer or allowance of the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline-dispensing facility unless a CARB-certified Phase II vapor recovery system is used during each transfer. Vapor recovery systems collect gasoline vapors that would otherwise escape into the air during bulk fuel delivery (Phase I) or fuel storage and vehicle refueling (Phase II). Phase I vapor recovery system components include the couplers that connect tanker trucks to the underground tanks, spill containment drain valves, overfill prevention devices, and vent pressure/vacuum valves. Phase II vapor recovery system components include gasoline dispensers, nozzles, piping, break away, hoses, face plates, vapor processors, and system monitors.

Stationary sources having the potential to emit TACs, including gas stations, are required to obtain permits from the SCAPCD. Permits may be granted to these operations provided they are operated in accordance with applicable SCAPCD rules and regulations. SCAPCD's gasoline station permitting process provides for the review of gasoline TAC emissions in order to evaluate potential public exposure and health risk, to mitigate potentially significant health risks resulting from these exposures, and to provide net health risk benefits by improving the level of control when existing sources are modified or replaced. SCAPCD's permitting procedures require substantial control of emissions, and permits are not issued unless TAC risk screening or TAC risk assessment can show that risks are not significant. In addition, California has statewide limits on the benzene content in gasoline, which greatly reduces the toxic potential of gasoline emissions.

Additionally, CARB identifies DPM as a TAC. Mobile sources (including trucks, buses, automobiles, trains, ships, and farm equipment) are by far the largest source of diesel emissions. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Diesel exhaust is composed of two phases, either gas or particulate – both contribute to the risk. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene,

1,3-butadiene, formaldehyde, and polycyclic aromatic hydrocarbons. The particulate phase has many different types that can be classified by size or composition. The sizes of diesel particulates of greatest health concern are fine and ultrafine particles. These particles may be composed of elemental carbon with adsorbed compounds such as organics, sulfates, nitrates, metals, and other trace elements. Diesel exhaust is emitted from a broad range of on- and off-road diesel engines.

Dispersion Modeling

The air dispersion modeling for the HRA was performed using the USEPA AERMOD Version 22112 dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources. A 30-meter DEM file was used for the elevation data as provided by the Lakes AERMODView software data gathering feature.

AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Pre-processed meteorological data files provided by CARB using USEPA's AERMET program on meteorological data collected at the Siskiyou County Airport. AERMET is designed to create AERMOD input files with the most representative meteorology based on proximity to the Project. The location of the meteorological monitoring site is shown in Attachment B of this document.

The unit emission rate of one gram per second was utilized in AERMOD to create plot files containing the dispersion factor (X/Q) for each source group. The Lakes AERMODView Software was utilized to create "line-volume" sources "links" with uniform emission rates for each of the Project routes. The "line-volume" source utilizes multiple volume sources to model emissions from trucks along defined "routes" which better capture the dispersion characteristics than a line source. Emissions for each source group as described above were input into the HARP2 model to calculate the ground level concentrations (GLCs) related to Project operations. AERMOD summary files, calculations and figures can be found in Attachment B of this document.

The fueling station was modeled as point sources and volume sources per the latest guidance for Gasoline Service Station Risk Assessment (CARB 2022b). Per the latest guidance, the working and breathing loss from the underground gasoline storage tanks were modeled as point sources. The other sources of ROG/VOC emissions during fueling of customer vehicles including spillage and hose permeation were modeled as four volume sources. These four sources each accounted for four pumps or one station or island. The dispersion modeling parameters for the fueling station volume and point sources were obtained from Tables 14 and 15 of CARB's Gasoline Service Station Risk Assessment (CARB 2022b).

A uniform grid was placed over the Project Area with a spacing of no more than 50 meters by 50 meters encompassing 0.7 mile and including 626 receptors. The grid was placed evenly over the area surrounding the Project. No onsite receptors were modeled for this analysis. In addition, receptors were placed on the surrounding schools to model health risk.

Risk during construction and operations was also modeled utilizing worker factors and residential factors to find the Maximumly Exposed Individual Resident (MEIR), Maximumly Exposed Individual Worker (MEIW), Point of Maximum Impact (PMI) and maximumly exposed school child. The chronic and carcinogenic health

risk calculations are based on the standardized equations contained in the OEHHA Guidance Manual (2015) as implemented in CARB's HARP2 program (CARB 2022b). All regulatory defaults were used for dispersion modeling as configured in the latest version of HARP2 (22118). The risk associated with traffic emissions related to Project operations was assessed as risk associated with future Project operations.

Based on the OEHHA methodology, the residential inhalation cancer risk from the annual average TAC concentrations is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor (ASF), the frequency of time spent at home, and the exposure duration divided by averaging time, to yield the excess cancer risk. These factors are discussed in more detail below. Cancer risk must be separately calculated for specified age groups, because of age differences in sensitivity to carcinogens and age differences in intake rates (per kg body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure.

Exposure through inhalation (Dose-air) is a function the breathing rate, the exposure frequency, and the concentration of a substance in the air. For residential exposure, the breathing rates are determined for specific age groups, so Dose-air is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. To estimate cancer risk, the dose was estimated by applying the following formula to each ground-level concentration:

$$\text{Dose-air} = (C_{\text{air}} * \{BR/BW\} * A * EF * 10^{-6})$$

Where:

Dose-air = dose through inhalation (mg/kg/day)

C_{air} = air concentration ($\mu\text{g}/\text{m}^3$) from air dispersion model

$\{BR/BW\}$ = daily breathing rate normalized to body weight (L/kg body weight – day) (361 L/kg BW-day for 3rd Trimester, 1,090 L/kg BW-day for 0<2 years, 861 L/kg BW-day for 2<9 years, 745 L/kg BW-day for 2<16 years, 335 L/kg BW-day for 16<30 years, and 290 L/kg BW-day 16<70 years)

A = Inhalation absorption factor (unitless [1])

EF = exposure frequency (unitless), days/365 days (0.96 [approximately 350 days per year])

10^{-6} = conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to take into account the increased sensitivity to carcinogens during early-in-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood and an ASF of 1 for ages 16 through 70 years.

Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not

occurring away from home. OEHHA recommends the following FAH values: from the third trimester to age <2 years, 85 percent of time is spent at home; from age 2 through <16 years, 72 percent of time is spent at home; from age 16 years and greater, 73 percent of time is spent at home.

To estimate the cancer risk, the dose is multiplied by the cancer potency factor, the ASF, the exposure duration divided by averaging time, and the frequency of time spent at home (for residents only):

$$\text{Risk}_{\text{inh-res}} = (\text{Dose}_{\text{air}} * \text{CPF} * \text{ASF} * \text{ED/AT} * \text{FAH})$$

Where:

$\text{Risk}_{\text{inh-res}}$	=	residential inhalation cancer risk (potential chances per million)
Dose_{air}	=	daily dose through inhalation (mg/kg-day)
CPF	=	inhalation cancer potency factor (mg/kg-day ⁻¹)
ASF	=	age sensitivity factor for a specified age group (unitless)
ED	=	exposure duration (in years) for a specified age group (0.25 years for 3 rd trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70)
AT	=	averaging time of lifetime cancer risk (years)
FAH	=	fraction of time spent at home (unitless)

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = \text{Ci}/\text{RELi}$$

Where:

Ci	=	Concentration in the air of substance i (annual average concentration in µg/m ³)
RELi	=	Chronic noncancer Reference Exposure Level for substance i (µg/m ³)

Cancer Risk

Operational cancer risk calculations for existing residential receptors are based on 70-, 30-, and 9-year exposure periods and worker receptors are based on a 25-year exposure period to for operations. The calculated cancer risk accounts for 350 days per year of exposure to residential receptors. While the average American spends 87 percent of their life indoors (USEPA 2001), neither the pollutant dispersion modeling nor the health risk calculations account for the reduced exposure structures provide. Instead, health risk calculations account for the equivalent exposure of continual outdoor living. The calculated carcinogenic risk at Project vicinity receptors is depicted in Table 2-7.

Table 2-7. Maximum Cancer Risk Summary

Maximum Exposure Scenario	Total Maximum Risk
Project Operations	
70-Year Exposure Resident	2.38
30-Year Exposure Resident	1.96
9-Year Exposure Resident	1.41
25-Year Exposure Worker	0.44
Maximum School Child (9-Year)	0.08
Exceed Threshold?	No

Source: ECORP Consulting 2022. See Attachment B.

As shown, impacts related to cancer risk for all modeled scenarios would be below the 10 in one million threshold for Project operations. These calculations do not account for any pollutant-reducing remedial components inherent to the Project or the Project site.

The MEIR for operational emissions is located along the Project's southern boundary at a single-family home located at the northern end of Herzog Boulevard directly east of I-5. The MEIW for Project operations is located at the RV Park along the Project's southern fence line. The offsite PMI is located along the Project's northern fence line. All the above listed points are presented on the Cancer Risk Location Map in Attachment B of this document. In addition, the maximum cancer risk at nearby schools is located at the southern field of Yreka High School.

Table 2-8 shows the Cancer risk by pollutant for the various exposure scenarios. Table 2-8 shows that the primary driver of health risk from this project is DPM. All cancer risk is via the inhalation pathway.

Table 2-8. Maximum Operational Cancer Risk Summary by Pollutant

Cancer Risk by Pollutant (in a million)				
Scenario	Diesel Particulate Matter	Benzene	Ethyl Benzene	Naphthalene
70-Year Exposure Resident	2.27	0.094	0.002	0.011
30-Year Exposure Resident	1.92	0.079	0.002	0.009
9-Year Exposure Resident	1.33	0.055	0.001	0.006
25-Year Exposure Worker	0.19	0.220	0.004	0.026

Source: ECORP Consulting 2022.

Non-Carcinogenic Hazards

In addition to cancer risk, the significance thresholds for TAC exposure requires an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. The potential for chronic non-cancer hazards is evaluated by comparing the maximum long-term exposure level to a chronic REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is similar to the procedure for chronic non-cancer impacts.

An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the REL. The highest maximum chronic hazard indexes for residents and workers in the Project vicinity as a result of Project air toxics is shown in Table 2-9. It is noted that the TACs associated with vapor emissions from a fueling station have associated acute risk while DPM does not. Thus, the acute risk associated with this Project is a result of fueling operations only.

Table 2-9. Maximum Non-Carcinogenic Hazard Index Health Risk Summary			
Chronic Health Hazard Index			
Exposure Scenario	Maximum (70 yr.) Residential Hazard	Maximum (25 yr.) Worker Hazard	Maximum (9 yr.) School Hazard
Operation	0.0004	0.0131	0.0001
<i>Significance Threshold</i>	<i>1</i>	<i>1</i>	<i>1</i>
Exceed Threshold?	No	No	No
Acute Health Hazard Index			
Exposure Scenario	Maximum Residential Hazard	Maximum Worker Hazard	Maximum School Hazard
Operation	0.1992	0.8586	0.0581
<i>Significance Threshold</i>	<i>1</i>	<i>1</i>	<i>1</i>
Exceed Threshold?	No	No	No

Source: ECORP Consulting 2022. See Attachment B.

As shown in Table 2-9, impacts related to non-cancer risk (chronic hazard index) as a result of the Project site would not surpass significance thresholds. Table 2-10 provides the non-carcinogenic risk by pollutant. Table 2-10 shows that chronic non-carcinogenic risk is driven by DPM and benzene, while acute risk is primarily due to benzene. The locations of the maximum hazard points presented below can be found in the Chronic and Acute Risk Point Maps presented in Attachment B of this document.

Table 2-10. Maximum Non-Carcinogenic Health Risk by Pollutant

Inhalation Chronic Risk by Pollutant (Hazard Index)								
Scenario	DPM	Benzene	Ethyl Benzene	Hexane	Naphthalene	Propylene	Toluene	Xylenes
70 Year Residential	0.0022	0.0010	0.0002	0.00003	0.0001	0.0001	0.0024	0.0009
25 Year Worker	0.003	0.034	0.008	0.001	0.003	0.003	0.083	0.030
Max Acute Risk by Pollutant all Pathways (Hazard Index)								
Scenario	DPM	Benzene	Ethyl Benzene	Hexane	Naphthalene	Propylene	Toluene	Xylenes
Residential	--	0.157	--	--	--	--	0.002	0.0002
Worker	--	0.859	--	--	--	--	0.011	0.001

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or "hot spots," are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the NPAB is designated as unclassified/attainment. Detailed modeling of Project-specific CO "hot spots" is not necessary and thus this potential impact is addressed qualitatively.

A CO "hot spot" would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD's) 1992 *Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 AQMP can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD is the air pollution control officer for much of southern California. The SCAQMD conducted a CO hot spot analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood),

Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the Los Angeles, a CO “hot spot” analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Thus, there was no violation of CO standards.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD), the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to the Traffic Study Technical Memorandum provided by GHD (2022), the Proposed Project is expected to have a trip generation of 2,619 average daily traffic trips. Thus, the Proposed Project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the Project traffic exceeding CO values.

2.3.3.5 Odors

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

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

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word “strong” to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration

decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

The Project Site could be considered a source of unpleasant odors by some given its proposed use as a gasoline dispensing station; however, as previously stated, SCAPCD has stringent requirements for the control of gasoline vapor emissions from gasoline-dispensing facilities as articulated in SCAPCD Rule 4.7. Adherence to these rules would ensure a substantial number of people are not adversely affected by operational odor emissions.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), and N₂O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is "extremely likely" that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic factors together (Intergovernmental Panel on Climate Change [IPCC] 2014).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (IPCC 2014). Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Of the total annual human-caused CO₂ emissions, approximately 55 percent is sequestered through ocean and land uptakes every year, averaged over the

last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remains stored in the atmosphere (IPCC 2013).

Table 3-1. Greenhouse Gases	
Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: ¹USEPA 2016a, ²USEPA 2016b, ³USEPA 2016c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2021, CARB released the 2021 edition of the California GHG inventory covering calendar year 2019 emissions. In 2019, California emitted 418.2 million gross metric tons of CO₂e including from imported electricity. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2019, accounting for approximately 40 percent of total GHG emissions in the State. When emissions from extracting, refining and moving transportation fuels in California are included, transportation is responsible for over 50 percent of statewide emissions in 2019. Continuing the downward

trend from 2018, transportation emissions decreased 3.5 million metric tons of CO₂e in 2019, only being outpaced by electricity, which reduced emissions by 4.3 million metric tons of CO₂e in 2019. Emissions from the electricity sector account for 14 percent of the inventory and have shown a substantial decrease in 2019 due to increases in renewables. California's industrial sector accounts for the second largest source of the State's GHG emissions in 2019, accounting for 21 percent (CARB 2021).

3.2 Regulatory Framework

3.2.1 State

3.2.1.1 Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

3.2.1.2 Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2017 Scoping Plan Update, addresses the 2030 target established by Senate Bill (SB) 32 as discussed below and establishes a proposed framework of action for California to meet a 40 percent reduction in GHG emissions by 2030 compared to 1990 levels. The key programs that the Scoping Plan Update builds on include increasing the use of renewable energy in the State, the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and reduction of methane emissions from agricultural and other wastes.

3.2.1.3 Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566, which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

3.2.1.4 Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard.

3.2.1.5 2019 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2019 Building Energy Efficiency Standards improve upon the 2016 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The 2019 standards are a major step toward meeting Zero Net Energy. The most significant efficiency improvement to the residential Standards includes the introduction of photovoltaic into the perspective package, improvements for attics, walls, water heating and lighting. Buildings permitted on or after January 1, 2020, must comply with the 2019 Standards.

In 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CalGreen Building Standard (CalGreen) and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development, energy efficiency, water conservation, material conservation, and interior air quality. Like Part 6 of Title 24, the CalGreen standards are periodically updated, with increasing energy savings and efficiencies associated with each code update. CalGreen contains voluntary "Tier 1" and "Tier 2" standards that are not mandatory statewide but could be required by a City or County. These are 'reach' standards that can be adopted by local jurisdictions and may be incorporated as mandatory standards in future code cycles.

3.2.1.6 Phase 1 and Phase 2 Heavy-Duty Vehicle GHG Standards

CARB has adopted a new regulation for GHG emissions from heavy-duty trucks and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the USEPA rule for new trucks and engines nationally. Existing heavy-duty truck vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer Greenhouse Gas Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. In September 2011, the USEPA adopted their new rule for heavy-duty trucks and engines. The USEPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements begin with model year 2014 with stringency levels increasing through model year 2018. The rule organizes truck compliance into three groupings, which include a) heavy-duty pickups and vans; b) vocational vehicles; and c) combination tractors. The USEPA rule does not regulate trailers. CARB staff has worked jointly with the USEPA and the National Highway Traffic Safety Administration (NHTSA) on the next phase of federal GHG emission standards for medium-duty trucks and heavy-duty truck vehicles, called federal Phase 2. The

federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year heavy-duty truck vehicles, including trailers. In February 2019, the Office of Administrative Law (OAL) approved the Phase 2 Heavy-Duty Vehicle GHG Standards and became effective April 1, 2019. The Phase 2 GHG standards are needed to offset projected vehicle miles traveled (VMT) growth and keep heavy-duty truck CO₂ emissions declining. The federal Phase 2 standards establish for the first time, federal emissions requirements for trailers hauled by heavy-duty tractors. The federal Phase 2 standards are more technology-forcing than the federal Phase 1 standards, requiring manufacturers to improve existing technologies or develop new technologies to meet the standards. The federal Phase 2 standards for tractors, vocational vehicles, and heavy-duty pick-up trucks and vans will be phased-in from 2021-2027, additionally for trailers, the standards are phased-in from 2018 (2020 in California) through 2027.

3.2.2 Local

3.2.2.1 Siskiyou County Air Pollution Control District

The SCAPCD has primary responsibility for developing and implementing rules and regulations to maintain national and state air quality standards, permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations for all projects in Siskiyou County. The AB 32 Scoping Plan does not specify an explicit role for local air districts with respect to implementing statewide GHG reduction strategies, but it does state that CARB will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting, but also via their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

The SCAPCD has not adopted thresholds of significance for the analysis of GHG emissions under CEQA.

3.3 Greenhouse Gas Emissions Impact Assessment

3.3.1 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to GHG emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases or

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation

measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 CCR 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

As previously stated, the SCAPCD has not adopted thresholds of significance for the analysis of GHG emissions under CEQA. Therefore, the significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Specifically, the Project will be assessed for consistency with the California AB 32 Scoping Plan and subsequent updates, described in detail above.

3.3.2 Methodology

Where GHG emission quantification was required, emissions were modeled using CalEEMod, version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction generated GHG emissions were calculated a combination of CalEEMod model defaults for Siskiyou County coupled with details associated with construction timing and duration provided by the Project proponent. Operational GHG emissions were based on the Project Site plans and traffic trip generation rates from GHD (2022).

3.3.3 Impact Analysis

In view of the above considerations, this assessment quantifies the Project's total annual GHG emissions.

Construction

Construction-related activities that would generate GHG emissions include worker commute trips, haul trucks carrying supplies and materials to and from the Project Site, and off-road construction equipment (e.g., dozers, loaders, excavators). Table 3-2 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 3-2. Construction-Related Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Construction Year One (Phase 1)	436
Construction Year Two (Phase 1 & Phase 2)	705
Construction Year Three (Phase 2)	266

Source: CalEEMod version 2020.4.0. Refer to Attachment C for Model Data Outputs.

Notes: Building construction, paving, and painting assumed to occur simultaneously. Emissions account for the cut of 160 cubic yards of soil and fill of 35,900 cubic yards of soil distributed evenly between the two construction phases.

As shown in Table 3-2, Project construction would result in the generation of approximately 436 metric tons of CO₂e during the first year of construction, 655 metric tons of CO₂e during the second year of construction, and 266 metric tons of CO₂e during the third year of construction. Once construction is complete, the generation of these GHG emissions would cease. Furthermore, GHG emissions generated by the

construction sector have been declining in recent years. For instance, construction equipment engine efficiency has continued to improve year after year. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower (hp) and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the USEPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis- Con, and Yanmar). On August 27, 1998, the USEPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 hp and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards. Tier 3 engine standards reduce precursor and subset GHG emissions such as nitrogen oxide by as much as 60 percent. On May 11, 2004, the USEPA signed the final rule introducing Tier 4 emission standards, which were phased in over the period of 2008-2015. The Tier 4 standards require that emissions of nitrogen oxide be further reduced by about 90 percent. All off-road, diesel-fueled construction equipment manufactured in 2015 or later will be manufactured to Tier 4 standards.

In addition, the California Energy Commission recently released the 2019 Building Energy Efficiency Standards contained in the California Code of Regulations, Title 24, Part 6 (also known as the California Energy Code). The 2019 updates to the Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions, and alterations to existing buildings. For instance, effective January 1, 2017, owners/builders of construction projects have been required to divert (recycle) 65 percent of construction waste materials generated during the project construction phase. This requirement greatly reduces the generation of GHG emissions by reducing decomposition at landfills, which is a source of CH₄, and reducing demand for natural resources.

Operations

Operation of the Project would result in an increase in GHG emissions primarily associated with motor vehicle trips. Long-term operational GHG emissions attributed to the Project are identified in Table 3-3.

Table 3-3. Operational Greenhouse Gas Emissions	
Emissions Source	CO₂e (Metric Tons/ Year)
Area Source	0
Energy	620
Mobile	2,156
Waste	43
Water	14
Total	2,833

Source: CalEEMod version 2020.4.0. Refer to Attachment C for Model Data Outputs.

Notes: Emission projections predominately based on CalEEMod model defaults for Siskiyou County. Average daily vehicle trips provided by GHD (2022).

As shown in Table 3-3 Project operations would result in the generation of 2,833 metric tons of CO₂e annually. A large majority of these emissions would be generated by mobile sources, which is an emission source that cannot be regulated by the City. Additionally, GHG emissions are global pollutants. They can be carried miles away from the original source and have long atmospheric lifetimes compared to local pollutants. GHG Emissions do not directly pose a threat to human health but can have numerous indirect effects. As previously stated, GHG emissions have been directly correlated to climate change. This can lead to events such as droughts, heat waves, increased intensity in storm events and rising sea levels. These can result in decreased precipitation, increased wildfires, saltwater infiltration of groundwater tables and decreased crop yields. A reduction of vehicle trips to and from the Proposed Project Site would reduce the amounts of mobile emissions. Methods of reducing vehicle trips include carpooling, transit, cycling, and pedestrian connections. However, this Project is proposing a fueling center, convenience store, and hotel. The reduction of vehicle trips is only feasible for the employees working in the facilities, though the majority of traffic trips instigated by the Project would be related to long-distance traveler and hauling trips.

As stated above, the State of California has implemented numerous strategies pertaining to automobiles and trucks and the reduction of emissions that directly apply to the Project. Urban goods delivery is an essential component of the greater freight system and vital to the urban economy. While urban goods delivery represents a small share of urban traffic, it generates a disproportionate amount of GHG emissions. The State of California promulgates policies designed and implemented to improve the efficiency and environmental footprint of the urban freight system, including the introduction of zero and near-zero emission vehicles - a strategy embedded in the Governor's Sustainable Freight Action Plan as well as CARB's AB 32 Scoping Plan and Mobile Source Strategy.

Additionally, the Project Site is located approximately 0.3 mile east of I-5, a major regional freeway corridor. Further, I-5 has been identified as a "Major International Trade Highway Route" in the California State Goods Movement Action Plan (2007) and therefore serves to accommodate existing truck trips along the interstate. The Goods Movement Action Plan is a statewide initiative to improve and expand California's goods

movement industry and infrastructure in a manner which will increase mobility and relieve traffic congestion as well as reduce GHG emissions.

3.3.3.1 Generation of Greenhouse Gas Emissions Resulting in Conflicts with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

As previously described, the significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines Section 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Specifically, the Project will be assessed for consistency with the California Scoping Plan and subsequent updates.

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California's GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations. It does not provide recommendations for lead agencies to develop evidence-based numeric thresholds consistent with the Scoping Plan, the state's long-term GHG goals, and climate change science. Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of the Scoping Plan and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. Table 3-4 highlights measures that have been, or will be, developed under the Scoping Plan and presents the Project's consistency with Scoping Plan measures. The Project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the Project.

Table 3-4. Project Consistency with Scoping Plan GHG Emission Reduction Strategies		
Scoping Plan Measure	Measure Number	Proposed Project Consistency
<i>Transportation Sector</i>		
Advanced Clean Cars	T-1	<i>Consistent.</i> The Project's employees and customers would purchase vehicles in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.
Low Carbon Fuel Standard	T-2	<i>Consistent.</i> Motor vehicles driven by the Project's employees and customers would use compliant fuels.
Regional Transportation-Related GHG Targets	T-3	<i>Consistent.</i> The Siskiyou County Regional Transportation Plan establishes to several goals, policies, and implementation measures.
Advanced Clean Transit	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	<i>Consistent.</i> The Project would result in a VMT reductions with the implementation of the required City, County, State, and federal policies and actions needed for Project approval. Additionally, the Project Site can be identified for its "location efficiency". Location efficiency describes the location of the Project Site relative to the type of urban landscape its proposed to fit within. In general, compared to the statewide average, a project could realize vehicle miles traveled (VMT) reductions up to 65 percent in a urbanized area, and thus reductions in GHG emissions. The Project is in proximity to residential land uses and thus would provide nearby shopping and employment opportunities for the existing residents in the Project vicinity. The increases in land use diversity and mix of uses in the Project Area would reduce vehicle trips and VMT by encouraging short vehicular trips, walking and non-automotive forms of transportation, which would result in corresponding reductions in transportation-related emissions.

Table 3-4. Project Consistency with Scoping Plan GHG Emission Reduction Strategies		
Scoping Plan Measure	Measure Number	Proposed Project Consistency
Vehicle Efficiency Measure Tire Pressure Fuel Efficiency Tire Program Low-Friction Oil Solar-Reflective Automotive Paint and Window Glazing	T-4	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures Port Drayage Trucks Transport Refrigeration Units Cold Storage Prohibition Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification Goods Movement Systemwide Efficiency Improvements Commercial Harbor Craft Maintenance and Design Efficiency Clean Ships Vessel Speed Reduction	T-6	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction Tractor-Trailer GHG Regulation Heavy-Duty GHG Standards for New Vehicle and Engines (Phase I)	T-7	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Proposed Project	T-8	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Medium and Heavy-Duty GHG Phase 2	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure.
Electricity and Natural Gas Sector		
Energy Efficiency Measures (Electricity)	E-1	<i>Consistent.</i> The Project would be constructed in accordance with Cal Green and Title 24 building standards.
Energy Efficiency Measures (Natural Gas)	CR-1	<i>Consistent.</i> The Project would be constructed in accordance with Cal Green and Title 24 building standards.

Table 3-4. Project Consistency with Scoping Plan GHG Emission Reduction Strategies		
Scoping Plan Measure	Measure Number	Proposed Project Consistency
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Combined Heat and Power	E-2	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Renewables Portfolio Standard (33% by 2020)	E-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Renewables Portfolio Standard (60% by 2030)	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Water Sector		
Water Use Efficiency	W-1	<i>Consistent.</i> The Project would be constructed in accordance with Cal Green and Title 24 building standards.
Water Recycling	W-2	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Water System Energy Efficiency	W-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Reuse Urban Runoff	W-4	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Renewable Energy Production	W-5	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Green Buildings		
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	<i>Consistent.</i> The Project would be constructed in accordance with Cal Green and Title 24 building standards.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential, and Commercial Buildings)	GB-1	<i>Consistent.</i> The Project would be constructed in accordance with Cal Green and Title 24 building standards. Additionally, the state is poised to increase the use of green building practices. The

Table 3-4. Project Consistency with Scoping Plan GHG Emission Reduction Strategies		
Scoping Plan Measure	Measure Number	Proposed Project Consistency
		Proposed Project would implement required green building strategies through existing regulation that requires the Proposed Project to comply with various Cal Green requirements. The Project includes sustainability design features that support the Green Building Strategy.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Industry Sector		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Oil and Gas Extraction GHG Emissions Reduction	I-2	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Refinery Flare Recovery Process Improvements	I-4	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Work with the Local Air Districts to Evaluate Amendments to Their Existing Leak Detection and Repair Rules for Industrial Facilities to Include Methane Leaks	I-5	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Recycling and Waste Management Sector		
Landfill Methane Control Measure	RW-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Increasing the Efficiency of Landfill Methane Capture	RW-2	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Mandatory Commercial Recycling	RW-3	<i>Consistent.</i> The Project would include recycling during both construction and operation consistent with the requirements of the Title 24 Building Standards
Increase Production and Markets for Compost and Other Organics	RW-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure

Table 3-4. Project Consistency with Scoping Plan GHG Emission Reduction Strategies		
Scoping Plan Measure	Measure Number	Proposed Project Consistency
Anaerobic/Aerobic Digestion	RW-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Extended Producer Responsibility	RW-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Environmentally Preferable Purchasing	RW-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Forests Sector		
Sustainable Forest Target	F-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Motor Vehicle Air Condition Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
SF ₆ Limits in Non-Utility and Non-Semiconductor Applications	H-2	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Limit High GWP Use in Consumer Products	H-4	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
SF ₆ Leak Reduction Gas Insulated Switchgear	H-6	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
40% Reduction in Methane and Hydrofluorocarbon (HFC) Emissions	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
50% Reduction in Black Carbon Emissions	N/A	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure
Agriculture Sector		

Table 3-4. Project Consistency with Scoping Plan GHG Emission Reduction Strategies		
Scoping Plan Measure	Measure Number	Proposed Project Consistency
Methane Capture at Large Dairies	A-1	<i>Not applicable.</i> The Project would not prevent CARB from implementing this measure

Based on the analysis in Table 3-5, the Project would be consistent with the applicable strategies and measures in the Scoping Plan.

The Project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-03-05 and SB 32. EO S-03-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, ensures that statewide GHG emissions are reduced to at least 40 percent below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory toward meeting these long-term GHG goals, although the specific path to compliance is unknown (CARB 2014).

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

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

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in SB 32 and EO S-03-05. This is confirmed in the Second Update, which states (CARB 2017):

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

As discussed previously, the Project is consistent with the GHG emission reduction measures in the Scoping Plan and would not conflict with the state's trajectory toward future GHG reductions. In addition, since the specific path to compliance for the state in regard to the long-term goals will likely require development of technology or other changes that are not currently known or available, specific additional mitigation measures for the Project would be speculative and cannot be identified at this time. The Project's consistency would assist in meeting the City's contribution to GHG emission reduction targets in California. With respect to future GHG targets under SB 32 and EO S-03-05, CARB has also made clear its legal interpretation is that it has the requisite authority to adopt whatever regulations are necessary, beyond the AB 32 horizon year of 2020, to meet SB 32's 40 percent reduction target by 2030 and EO S-03-05's 80 percent reduction target by 2050; this legal interpretation by an expert agency provides evidence that future regulations will be adopted to continue the state on its trajectory toward meeting these future GHG targets. The Project would not interfere with implementation of any of the previously described GHG reduction goals for 2030 or 2050 or impede the state's trajectory toward the previously described statewide GHG reduction goals for 2030 or 2050.

4.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A – CalEEMod Output File for Air Quality Emissions

Attachment B – Health Risk Analysis Output Files

Attachment C – CalEEMod Output File for Greenhouse Gas Emissions

ATTACHMENT A

CalEEMod Output Files – Criteria Air Pollutants

PHASE 1 CONSTRUCTION EMISSIONS

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Yreka Travel Center and Hotel Project- Phase 1****Siskiyou County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.34	Acre	2.34	101,930.40	0
Parking Lot	99.00	Space	0.89	39,600.00	0
Convenience Market (24 hour)	12.30	1000sqft	0.28	12,300.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2024
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Other non-asphalt surface added to account for pat park area and other associated features.

Construction Phase - Building construction, paving and painting assume to occur simultaneously. Construction timing provided by project applicant.

Trips and VMT - Between 4 and 10 construction workers per day per project applicant.

Grading - Cut and fill provided by project applicant. Total divided between phase 1 and phase 2.

Vehicle Trips - Model run done for phase 1 construction only.

Energy Use - Model run done for phase 1 construction only.

Water And Wastewater - Model run done for phase 1 construction only.

Solid Waste - Model run done for phase 1 construction only.

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	249.00
tblConstructionPhase	NumDays	18.00	249.00
tblConstructionPhase	NumDays	18.00	249.00
tblEnergyUse	LightingElect	5.70	0.00
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	2.81	0.00
tblEnergyUse	NT24E	1.85	0.00
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	4.47	0.00
tblEnergyUse	T24E	0.56	0.00
tblEnergyUse	T24NG	7.14	0.00
tblEnergyUse	T24NG	3.17	0.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialImported	0.00	8,975.00
tblGrading	MaterialImported	0.00	8,975.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	36.96	0.00
tblSolidWaste	SolidWasteGenerationRate	10.78	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	64.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleTrips	ST_TR	1,084.17	0.00

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	182.17	0.00
tblVehicleTrips	SU_TR	901.17	0.00
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	WD_TR	762.28	0.00
tblVehicleTrips	WD_TR	172.01	0.00
tblWater	IndoorWaterUseRate	911,092.01	0.00
tblWater	IndoorWaterUseRate	265,637.78	0.00
tblWater	OutdoorWaterUseRate	558,411.23	0.00
tblWater	OutdoorWaterUseRate	162,810.25	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.7381	56.5297	32.1876	0.1701	23.9422	1.5640	25.5062	11.2518	1.4498	12.7017	0.0000	17,654.01 29	17,654.01 29	1.2254	2.1794	18,334.10 33
2024	4.5733	24.1834	31.9965	0.0572	0.5427	1.0835	1.6262	0.1476	1.0164	1.1639	0.0000	5,514.241 2	5,514.241 2	1.2001	0.0810	5,568.383 1
Maximum	4.7381	56.5297	32.1876	0.1701	23.9422	1.5640	25.5062	11.2518	1.4498	12.7017	0.0000	17,654.01 29	17,654.01 29	1.2254	2.1794	18,334.10 33

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.7381	56.5297	32.1876	0.1701	23.9422	1.5640	25.5062	11.2518	1.4498	12.7017	0.0000	17,654.01 29	17,654.01 29	1.2254	2.1794	18,334.10 33
2024	4.5733	24.1834	31.9965	0.0572	0.5427	1.0835	1.6262	0.1476	1.0164	1.1639	0.0000	5,514.241 2	5,514.241 2	1.2001	0.0810	5,568.383 1
Maximum	4.7381	56.5297	32.1876	0.1701	23.9422	1.5640	25.5062	11.2518	1.4498	12.7017	0.0000	17,654.01 29	17,654.01 29	1.2254	2.1794	18,334.10 33

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

[illegible]

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4980	1.2000e-004	0.0136	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005	0.0000	0.0312

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4980	1.2000e-004	0.0136	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005	0.0000	0.0312

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/7/2023	5	5	
2	Grading	Grading	6/8/2023	6/19/2023	5	8	
3	Building Construction	Building Construction	6/20/2023	5/31/2024	5	249	
4	Paving	Paving	6/20/2023	5/31/2024	5	249	
5	Architectural Coating	Architectural Coating	6/20/2023	5/31/2024	5	249	

Acres of Grading (Site Preparation Phase): 7.5**Acres of Grading (Grading Phase): 8****Acres of Paving: 3.23****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,685; Non-Residential Outdoor: 7,562; Striped Parking Area: 8,492 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	26.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.8609	1.2660	21.1269	10.1333	1.1647	11.2981		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6274	28.9682	7.3445	0.1308	3.9535	0.2971	4.2506	1.0847	0.2842	1.3689		13,844.85 82	13,844.85 82	0.0292	2.1761	14,494.07 15
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.6893	29.0055	7.8164	0.1320	4.0813	0.2980	4.3793	1.1185	0.2851	1.4036		13,966.70 48	13,966.70 48	0.0329	2.1794	14,616.98 14

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.8609	1.2660	21.1269	10.1333	1.1647	11.2981	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6274	28.9682	7.3445	0.1308	3.9535	0.2971	4.2506	1.0847	0.2842	1.3689		13,844.85 82	13,844.85 82	0.0292	2.1761	14,494.07 15
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.6893	29.0055	7.8164	0.1320	4.0813	0.2980	4.3793	1.1185	0.2851	1.4036		13,966.70 48	13,966.70 48	0.0329	2.1794	14,616.98 14

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.691 0	2,872.691 0	0.9291		2,895.918 2
Total	1.7109	17.9359	14.7507	0.0297	7.2100	0.7749	7.9849	3.4440	0.7129	4.1570		2,872.691 0	2,872.691 0	0.9291		2,895.918 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3921	18.1052	4.5903	0.0818	2.4710	0.1857	2.6566	0.6779	0.1777	0.8556		8,653.036 4	8,653.036 4	0.0183	1.3601	9,058.794 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.4540	18.1424	5.0622	0.0829	2.5987	0.1866	2.7853	0.7118	0.1785	0.8903		8,774.882 9	8,774.882 9	0.0219	1.3633	9,181.704 6

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.691 0	2,872.691 0	0.9291		2,895.918 2
Total	1.7109	17.9359	14.7507	0.0297	7.2100	0.7749	7.9849	3.4440	0.7129	4.1570	0.0000	2,872.691 0	2,872.691 0	0.9291		2,895.918 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3921	18.1052	4.5903	0.0818	2.4710	0.1857	2.6566	0.6779	0.1777	0.8556		8,653.036 4	8,653.036 4	0.0183	1.3601	9,058.794 7
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.4540	18.1424	5.0622	0.0829	2.5987	0.1866	2.7853	0.7118	0.1785	0.8903		8,774.882 9	8,774.882 9	0.0219	1.3633	9,181.704 6

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0578	1.1703	0.5263	4.9800e-003	0.1595	8.1900e-003	0.1677	0.0459	7.8300e-003	0.0538		523.7471	523.7471	2.8200e-003	0.0738	545.8015
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.1197	1.2076	0.9982	6.1700e-003	0.2872	9.0900e-003	0.2963	0.0798	8.6600e-003	0.0885		645.5936	645.5936	6.5100e-003	0.0770	668.7115

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0578	1.1703	0.5263	4.9800e-003	0.1595	8.1900e-003	0.1677	0.0459	7.8300e-003	0.0538		523.7471	523.7471	2.8200e-003	0.0738	545.8015
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.1197	1.2076	0.9982	6.1700e-003	0.2872	9.0900e-003	0.2963	0.0798	8.6600e-003	0.0885		645.5936	645.5936	6.5100e-003	0.0770	668.7115

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0538	1.1491	0.5033	4.8900e-003	0.1595	8.0800e-003	0.1676	0.0459	7.7300e-003	0.0537		514.8067	514.8067	2.6400e-003	0.0720	536.3365
Worker	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636
Total	0.1117	1.1820	0.9351	6.0400e-003	0.2872	8.9200e-003	0.2961	0.0798	8.5100e-003	0.0883		633.6957	633.6957	5.9400e-003	0.0750	656.2001

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0538	1.1491	0.5033	4.8900e-003	0.1595	8.0800e-003	0.1676	0.0459	7.7300e-003	0.0537		514.8067	514.8067	2.6400e-003	0.0720	536.3365
Worker	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636
Total	0.1117	1.1820	0.9351	6.0400e-003	0.2872	8.9200e-003	0.2961	0.0798	8.5100e-003	0.0883		633.6957	633.6957	5.9400e-003	0.0750	656.2001

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.430 4	1,805.430 4	0.5673		1,819.612 2
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9274	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.430 4	1,805.430 4	0.5673		1,819.612 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.430 4	1,805.430 4	0.5673		1,819.612 2
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9274	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.430 4	1,805.430 4	0.5673		1,819.612 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8907	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636
Total	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8907	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636
Total	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	1.9944	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	1.9944	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100
Total	0.0619	0.0373	0.4719	1.1900e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		121.8466	121.8466	3.6900e-003	3.2600e-003	122.9100

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	1.9835	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636
Total	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	1.9835	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636
Total	0.0579	0.0329	0.4318	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		118.8890	118.8890	3.3000e-003	2.9900e-003	119.8636

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	0.00	0.00	0.00		
Gasoline/Service Station	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 hour)	14.70	6.60	6.60	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	14.70	6.60	6.60	2.00	79.00	19.00	14	27	59
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 hour)	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Gasoline/Service Station	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Other Non-Asphalt Surfaces	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Parking Lot	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas s Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non- Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Unmitigated	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3738					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2600e-003	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Total	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3738					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2600e-003	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Total	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

7.0 Water Detail**7.1 Mitigation Measures Water**

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Yreka Travel Center and Hotel Project- Phase 1****Siskiyou County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.34	Acre	2.34	101,930.40	0
Parking Lot	99.00	Space	0.89	39,600.00	0
Convenience Market (24 hour)	12.30	1000sqft	0.28	12,300.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2024
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Other non-asphalt surface added to account for pat park area and other associated features.

Construction Phase - Building construction, paving and painting assume to occur simultaneously. Construction timing provided by project applicant.

Trips and VMT - Between 4 and 10 construction workers per day per project applicant.

Grading - Cut and fill provided by project applicant. Total divided between phase 1 and phase 2.

Vehicle Trips - Model run done for phase 1 construction only.

Energy Use - Model run done for phase 1 construction only.

Water And Wastewater - Model run done for phase 1 construction only.

Solid Waste - Model run done for phase 1 construction only.

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	249.00
tblConstructionPhase	NumDays	18.00	249.00
tblConstructionPhase	NumDays	18.00	249.00
tblEnergyUse	LightingElect	5.70	0.00
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	2.81	0.00
tblEnergyUse	NT24E	1.85	0.00
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	4.47	0.00
tblEnergyUse	T24E	0.56	0.00
tblEnergyUse	T24NG	7.14	0.00
tblEnergyUse	T24NG	3.17	0.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialImported	0.00	8,975.00
tblGrading	MaterialImported	0.00	8,975.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	36.96	0.00
tblSolidWaste	SolidWasteGenerationRate	10.78	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	64.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleTrips	ST_TR	1,084.17	0.00

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	182.17	0.00
tblVehicleTrips	SU_TR	901.17	0.00
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	WD_TR	762.28	0.00
tblVehicleTrips	WD_TR	172.01	0.00
tblWater	IndoorWaterUseRate	911,092.01	0.00
tblWater	IndoorWaterUseRate	265,637.78	0.00
tblWater	OutdoorWaterUseRate	558,411.23	0.00
tblWater	OutdoorWaterUseRate	162,810.25	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.7651	59.0954	32.2567	0.1703	23.9422	1.5645	25.5067	11.2518	1.4503	12.7022	0.0000	17,674.90 95	17,674.90 95	1.2235	2.1845	18,356.46 52
2024	4.5990	24.3279	32.0651	0.0571	0.5427	1.0835	1.6262	0.1476	1.0164	1.1640	0.0000	5,499.551 1	5,499.551 1	1.2013	0.0839	5,554.586 6
Maximum	4.7651	59.0954	32.2567	0.1703	23.9422	1.5645	25.5067	11.2518	1.4503	12.7022	0.0000	17,674.90 95	17,674.90 95	1.2235	2.1845	18,356.46 52

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	4.7651	59.0954	32.2567	0.1703	23.9422	1.5645	25.5067	11.2518	1.4503	12.7022	0.0000	17,674.90 95	17,674.90 95	1.2235	2.1845	18,356.46 52
2024	4.5990	24.3279	32.0651	0.0571	0.5427	1.0835	1.6262	0.1476	1.0164	1.1640	0.0000	5,499.551 1	5,499.551 1	1.2013	0.0839	5,554.586 6
Maximum	4.7651	59.0954	32.2567	0.1703	23.9422	1.5645	25.5067	11.2518	1.4503	12.7022	0.0000	17,674.90 95	17,674.90 95	1.2235	2.1845	18,356.46 52

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

[illegible]

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4980	1.2000e-004	0.0136	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005	0.0000	0.0312

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.4980	1.2000e-004	0.0136	0.0000	0.0000	5.0000e-005	5.0000e-005	0.0000	5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005	0.0000	0.0312

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/7/2023	5	5	
2	Grading	Grading	6/8/2023	6/19/2023	5	8	
3	Building Construction	Building Construction	6/20/2023	5/31/2024	5	249	
4	Paving	Paving	6/20/2023	5/31/2024	5	249	
5	Architectural Coating	Architectural Coating	6/20/2023	5/31/2024	5	249	

Acres of Grading (Site Preparation Phase): 7.5**Acres of Grading (Grading Phase): 8****Acres of Paving: 3.23****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,685; Non-Residential Outdoor: 7,562; Striped Parking Area: 8,492 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	26.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647		3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.8609	1.2660	21.1269	10.1333	1.1647	11.2981		3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5759	31.5182	7.5126	0.1311	3.9535	0.2976	4.2512	1.0847	0.2847	1.3694		13,871.27 67	13,871.27 67	0.0268	2.1803	14,521.67 96
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.6468	31.5712	7.9984	0.1322	4.0813	0.2985	4.3798	1.1185	0.2856	1.4041		13,987.60 14	13,987.60 14	0.0310	2.1845	14,639.34 34

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6595	27.5242	18.2443	0.0381		1.2660	1.2660		1.1647	1.1647	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9
Total	2.6595	27.5242	18.2443	0.0381	19.8609	1.2660	21.1269	10.1333	1.1647	11.2981	0.0000	3,687.308 1	3,687.308 1	1.1926		3,717.121 9

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5759	31.5182	7.5126	0.1311	3.9535	0.2976	4.2512	1.0847	0.2847	1.3694		13,871.27 67	13,871.27 67	0.0268	2.1803	14,521.67 96
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.6468	31.5712	7.9984	0.1322	4.0813	0.2985	4.3798	1.1185	0.2856	1.4041		13,987.60 14	13,987.60 14	0.0310	2.1845	14,639.34 34

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129		2,872.691 0	2,872.691 0	0.9291		2,895.918 2
Total	1.7109	17.9359	14.7507	0.0297	7.2100	0.7749	7.9849	3.4440	0.7129	4.1570		2,872.691 0	2,872.691 0	0.9291		2,895.918 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3600	19.6989	4.6954	0.0819	2.4710	0.1860	2.6570	0.6779	0.1780	0.8559		8,669.547 9	8,669.547 9	0.0168	1.3627	9,076.049 8
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.4308	19.7519	5.1812	0.0831	2.5987	0.1869	2.7856	0.7118	0.1788	0.8906		8,785.872 6	8,785.872 6	0.0209	1.3668	9,193.713 5

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.7109	17.9359	14.7507	0.0297		0.7749	0.7749		0.7129	0.7129	0.0000	2,872.691 0	2,872.691 0	0.9291		2,895.918 2
Total	1.7109	17.9359	14.7507	0.0297	7.2100	0.7749	7.9849	3.4440	0.7129	4.1570	0.0000	2,872.691 0	2,872.691 0	0.9291		2,895.918 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3600	19.6989	4.6954	0.0819	2.4710	0.1860	2.6570	0.6779	0.1780	0.8559		8,669.547 9	8,669.547 9	0.0168	1.3627	9,076.049 8
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.4308	19.7519	5.1812	0.0831	2.5987	0.1869	2.7856	0.7118	0.1788	0.8906		8,785.872 6	8,785.872 6	0.0209	1.3668	9,193.713 5

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0580	1.2757	0.5536	4.9900e-003	0.1595	8.2400e-003	0.1677	0.0459	7.8800e-003	0.0538		525.1874	525.1874	2.7100e-003	0.0743	547.3863
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.1288	1.3287	1.0395	6.1300e-003	0.2872	9.1400e-003	0.2964	0.0798	8.7100e-003	0.0885		641.5121	641.5121	6.8900e-003	0.0784	665.0501

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0580	1.2757	0.5536	4.9900e-003	0.1595	8.2400e-003	0.1677	0.0459	7.8800e-003	0.0538		525.1874	525.1874	2.7100e-003	0.0743	547.3863
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.1288	1.3287	1.0395	6.1300e-003	0.2872	9.1400e-003	0.2964	0.0798	8.7100e-003	0.0885		641.5121	641.5121	6.8900e-003	0.0784	665.0501

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0537	1.2520	0.5316	4.9100e-003	0.1595	8.1300e-003	0.1676	0.0459	7.7700e-003	0.0537		516.2532	516.2532	2.5400e-003	0.0725	537.9202
Worker	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369
Total	0.1202	1.2988	0.9768	6.0100e-003	0.2872	8.9700e-003	0.2962	0.0798	8.5500e-003	0.0884		629.7633	629.7633	6.2900e-003	0.0763	652.6571

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0537	1.2520	0.5316	4.9100e-003	0.1595	8.1300e-003	0.1676	0.0459	7.7700e-003	0.0537		516.2532	516.2532	2.5400e-003	0.0725	537.9202
Worker	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369
Total	0.1202	1.2988	0.9768	6.0100e-003	0.2872	8.9700e-003	0.2962	0.0798	8.5500e-003	0.0884		629.7633	629.7633	6.2900e-003	0.0763	652.6571

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.430 4	1,805.430 4	0.5673		1,819.612 2
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9274	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025		1,805.430 4	1,805.430 4	0.5673		1,819.612 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9181	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.430 4	1,805.430 4	0.5673		1,819.612 2
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9274	8.7903	12.1905	0.0189		0.4357	0.4357		0.4025	0.4025	0.0000	1,805.430 4	1,805.430 4	0.5673		1,819.612 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8907	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369
Total	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	9.3600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8907	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369
Total	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	1.9944	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	1.9944	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638
Total	0.0708	0.0530	0.4858	1.1400e-003	0.1277	9.0000e-004	0.1286	0.0339	8.3000e-004	0.0347		116.3247	116.3247	4.1800e-003	4.1400e-003	117.6638

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	1.9835	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369
Total	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.8028					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	1.9835	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369
Total	0.0665	0.0468	0.4452	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.8000e-004	0.0347		113.5101	113.5101	3.7500e-003	3.8000e-003	114.7369

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	0.00	0.00	0.00		
Gasoline/Service Station	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 hour)	14.70	6.60	6.60	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	14.70	6.60	6.60	2.00	79.00	19.00	14	27	59
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 hour)	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Gasoline/Service Station	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Other Non-Asphalt Surfaces	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Parking Lot	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Unmitigated	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3738					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2600e-003	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Total	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.1230					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3738					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.2600e-003	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312
Total	0.4980	1.2000e-004	0.0136	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0293	0.0293	8.0000e-005		0.0312

7.0 Water Detail**7.1 Mitigation Measures Water**

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

PHASE 2 CONSTRUCTION EMISSIONS

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Yreka Travel Center and Hotel Project- Phase 2****Siskiyou County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	79.00	Space	0.71	31,600.00	0
Hotel	70.00	Room	2.33	101,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2024
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Building construction, paving and painting assume to occur simultaneously. Construction timing provided by project applicant.

Trips and VMT - Between 4 and 10 construction workers per day per project applicant.

Grading - Cut and fill provided by project applicant. Total divided between phase 1 and phase 2.

Vehicle Trips - Model run done for phase 2 construction only.

Energy Use - Model run done for phase 2 construction only.

Water And Wastewater - Model run done for phase 2 construction only.

Solid Waste - Model run done for phase 2 construction only.

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	247.00
tblConstructionPhase	NumDays	18.00	247.00
tblConstructionPhase	NumDays	18.00	247.00
tblEnergyUse	LightingElect	2.57	0.00
tblEnergyUse	NT24E	2.87	0.00
tblEnergyUse	T24E	1.81	0.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialImported	0.00	8,975.00
tblGrading	MaterialImported	0.00	8,975.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	38.32	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	56.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	11.00	10.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	1,775,673.90	0.00
tblWater	OutdoorWaterUseRate	197,297.10	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.3856	55.7723	31.9134	0.1671	23.9423	1.5261	25.4684	11.2519	1.4149	12.6668	0.0000	17,341.49 18	17,341.49 18	1.2251	2.1307	18,007.06 66
2025	12.1962	22.1861	31.6672	0.0563	0.5181	0.9405	1.4587	0.1405	0.8823	1.0227	0.0000	5,408.456 3	5,408.456 3	1.1945	0.0676	5,458.470 7
Maximum	12.3856	55.7723	31.9134	0.1671	23.9423	1.5261	25.4684	11.2519	1.4149	12.6668	0.0000	17,341.49 18	17,341.49 18	1.2251	2.1307	18,007.06 66

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.3856	55.7723	31.9134	0.1671	23.9423	1.5261	25.4684	11.2519	1.4149	12.6668	0.0000	17,341.49 18	17,341.49 18	1.2251	2.1307	18,007.06 66
2025	12.1962	22.1861	31.6672	0.0563	0.5181	0.9405	1.4587	0.1405	0.8823	1.0227	0.0000	5,408.456 3	5,408.456 3	1.1945	0.0676	5,458.470 7
Maximum	12.3856	55.7723	31.9134	0.1671	23.9423	1.5261	25.4684	11.2519	1.4149	12.6668	0.0000	17,341.49 18	17,341.49 18	1.2251	2.1307	18,007.06 66

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

[illegible]

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Energy	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9008	0.5614	0.4867	3.3700e-003	0.0000	0.0427	0.0427	0.0000	0.0427	0.0427		673.5921	673.5921	0.0130	0.0124	677.5969

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Energy	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9008	0.5614	0.4867	3.3700e-003	0.0000	0.0427	0.0427	0.0000	0.0427	0.0427		673.5921	673.5921	0.0130	0.0124	677.5969

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2024	6/7/2024	5	5	
2	Grading	Grading	6/8/2024	6/19/2024	5	8	
3	Building Construction	Building Construction	6/20/2024	5/30/2025	5	247	
4	Paving	Paving	6/20/2024	5/30/2025	5	247	
5	Architectural Coating	Architectural Coating	6/20/2024	5/30/2025	5	247	

Acres of Grading (Site Preparation Phase): 7.5**Acres of Grading (Grading Phase): 8****Acres of Paving: 0.71****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 152,460; Non-Residential Outdoor: 50,820; Striped Parking Area: 1,896 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	22.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.010 0	3,688.010 0	1.1928		3,717.829 4
Total	2.6609	27.1760	18.3356	0.0381	19.8609	1.2294	21.0903	10.1333	1.1310	11.2643		3,688.010 0	3,688.010 0	1.1928		3,717.829 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6244	28.5634	7.3575	0.1279	3.9537	0.2959	4.2496	1.0847	0.2831	1.3678		13,536.98 93	13,536.98 93	0.0291	2.1277	14,171.77 01
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.6822	28.5963	7.7874	0.1290	4.0814	0.2968	4.3782	1.1186	0.2839	1.4025		13,653.48 18	13,653.48 18	0.0324	2.1307	14,289.23 73

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.010 0	3,688.010 0	1.1928		3,717.829 4
Total	2.6609	27.1760	18.3356	0.0381	19.8609	1.2294	21.0903	10.1333	1.1310	11.2643	0.0000	3,688.010 0	3,688.010 0	1.1928		3,717.829 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.6244	28.5634	7.3575	0.1279	3.9537	0.2959	4.2496	1.0847	0.2831	1.3678		13,536.98 93	13,536.98 93	0.0291	2.1277	14,171.77 01
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e- 003	0.1277	8.4000e- 004	0.1286	0.0339	7.7000e- 004	0.0347		116.4926	116.4926	3.3000e- 003	2.9900e- 003	117.4672
Total	0.6822	28.5963	7.7874	0.1290	4.0814	0.2968	4.3782	1.1186	0.2839	1.4025		13,653.48 18	13,653.48 18	0.0324	2.1307	14,289.23 73

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665		2,873.054 1	2,873.054 1	0.9292		2,896.284 2
Total	1.6617	17.0310	14.7594	0.0297	7.2100	0.7244	7.9344	3.4440	0.6665	4.1105		2,873.054 1	2,873.054 1	0.9292		2,896.284 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3903	17.8522	4.5985	0.0799	2.4711	0.1849	2.6560	0.6779	0.1769	0.8549		8,460.618 3	8,460.618 3	0.0182	1.3298	8,857.356 3
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.4481	17.8850	5.0283	0.0811	2.5988	0.1858	2.7846	0.7118	0.1777	0.8895		8,577.110 9	8,577.110 9	0.0215	1.3328	8,974.823 5

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665	0.0000	2,873.054 1	2,873.054 1	0.9292		2,896.284 2
Total	1.6617	17.0310	14.7594	0.0297	7.2100	0.7244	7.9344	3.4440	0.6665	4.1105	0.0000	2,873.054 1	2,873.054 1	0.9292		2,896.284 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3903	17.8522	4.5985	0.0799	2.4711	0.1849	2.6560	0.6779	0.1769	0.8549		8,460.618 3	8,460.618 3	0.0182	1.3298	8,857.356 3
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.4481	17.8850	5.0283	0.0811	2.5988	0.1858	2.7846	0.7118	0.1777	0.8895		8,577.110 9	8,577.110 9	0.0215	1.3328	8,974.823 5

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0455	0.9723	0.4259	4.1400e-003	0.1350	6.8400e-003	0.1418	0.0389	6.5400e-003	0.0454		435.6057	435.6057	2.2300e-003	0.0610	453.8232
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.1033	1.0052	0.8558	5.2900e-003	0.2627	7.6800e-003	0.2704	0.0727	7.3100e-003	0.0801		552.0983	552.0983	5.5300e-003	0.0639	571.2903

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0455	0.9723	0.4259	4.1400e-003	0.1350	6.8400e-003	0.1418	0.0389	6.5400e-003	0.0454		435.6057	435.6057	2.2300e-003	0.0610	453.8232
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.1033	1.0052	0.8558	5.2900e-003	0.2627	7.6800e-003	0.2704	0.0727	7.3100e-003	0.0801		552.0983	552.0983	5.5300e-003	0.0639	571.2903

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0430	0.9514	0.4114	4.0600e-003	0.1350	6.6800e-003	0.1416	0.0389	6.3900e-003	0.0453		427.2153	427.2153	2.1200e-003	0.0593	444.9463
Worker	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401
Total	0.0971	0.9805	0.8062	5.1700e-003	0.2627	7.4700e-003	0.2702	0.0727	7.1200e-003	0.0799		539.8573	539.8573	5.0700e-003	0.0621	558.4864

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0430	0.9514	0.4114	4.0600e-003	0.1350	6.6800e-003	0.1416	0.0389	6.3900e-003	0.0453		427.2153	427.2153	2.1200e-003	0.0593	444.9463
Worker	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401
Total	0.0971	0.9805	0.8062	5.1700e-003	0.2627	7.4700e-003	0.2702	0.0727	7.1200e-003	0.0799		539.8573	539.8573	5.0700e-003	0.0621	558.4864

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8889	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8889	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8273	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401
Total	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8273	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401
Total	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	9.8062	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	9.8062	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672
Total	0.0578	0.0329	0.4299	1.1500e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		116.4926	116.4926	3.3000e-003	2.9900e-003	117.4672

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	9.7963	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401
Total	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	9.7963	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401
Total	0.0541	0.0292	0.3947	1.1100e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		112.6420	112.6420	2.9500e-003	2.7700e-003	113.5401

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	58	38	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Parking Lot	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
NaturalGas Unmitigated	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	5725.26	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	5.72526	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621

6.0 Area Detail

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Unmitigated	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1863					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-003	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Total	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1863					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-003	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Total	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347

7.0 Water Detail**7.1 Mitigation Measures Water**

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Yreka Travel Center and Hotel Project- Phase 2****Siskiyou County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	79.00	Space	0.71	31,600.00	0
Hotel	70.00	Room	2.33	101,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2024
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Building construction, paving and painting assume to occur simultaneously. Construction timing provided by project applicant.

Trips and VMT - Between 4 and 10 construction workers per day per project applicant.

Grading - Cut and fill provided by project applicant. Total divided between phase 1 and phase 2.

Vehicle Trips - Model run done for phase 2 construction only.

Energy Use - Model run done for phase 2 construction only.

Water And Wastewater - Model run done for phase 2 construction only.

Solid Waste - Model run done for phase 2 construction only.

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	247.00
tblConstructionPhase	NumDays	18.00	247.00
tblConstructionPhase	NumDays	18.00	247.00
tblEnergyUse	LightingElect	2.57	0.00
tblEnergyUse	NT24E	2.87	0.00
tblEnergyUse	T24E	1.81	0.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialImported	0.00	8,975.00
tblGrading	MaterialImported	0.00	8,975.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	38.32	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	56.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	11.00	10.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	1,775,673.90	0.00
tblWater	OutdoorWaterUseRate	197,297.10	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.4114	58.3035	31.9775	0.1673	23.9423	1.5266	25.4690	11.2519	1.4154	12.6673	0.0000	17,362.45 55	17,362.45 55	1.2232	2.1357	18,029.46 21
2025	12.2206	22.3079	31.7306	0.0561	0.5181	0.9405	1.4587	0.1405	0.8823	1.0228	0.0000	5,394.419 3	5,394.419 3	1.1957	0.0702	5,445.241 3
Maximum	12.4114	58.3035	31.9775	0.1673	23.9423	1.5266	25.4690	11.2519	1.4154	12.6673	0.0000	17,362.45 55	17,362.45 55	1.2232	2.1357	18,029.46 21

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2024	12.4114	58.3035	31.9775	0.1673	23.9423	1.5266	25.4690	11.2519	1.4154	12.6673	0.0000	17,362.45 55	17,362.45 55	1.2232	2.1357	18,029.46 21
2025	12.2206	22.3079	31.7306	0.0561	0.5181	0.9405	1.4587	0.1405	0.8823	1.0228	0.0000	5,394.419 3	5,394.419 3	1.1957	0.0702	5,445.241 3
Maximum	12.4114	58.3035	31.9775	0.1673	23.9423	1.5266	25.4690	11.2519	1.4154	12.6673	0.0000	17,362.45 55	17,362.45 55	1.2232	2.1357	18,029.46 21

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

[illegible]

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Energy	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9008	0.5614	0.4867	3.3700e-003	0.0000	0.0427	0.0427	0.0000	0.0427	0.0427		673.5921	673.5921	0.0130	0.0124	677.5969

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Energy	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.9008	0.5614	0.4867	3.3700e-003	0.0000	0.0427	0.0427	0.0000	0.0427	0.0427		673.5921	673.5921	0.0130	0.0124	677.5969

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2024	6/7/2024	5	5	
2	Grading	Grading	6/8/2024	6/19/2024	5	8	
3	Building Construction	Building Construction	6/20/2024	5/30/2025	5	247	
4	Paving	Paving	6/20/2024	5/30/2025	5	247	
5	Architectural Coating	Architectural Coating	6/20/2024	5/30/2025	5	247	

Acres of Grading (Site Preparation Phase): 7.5**Acres of Grading (Grading Phase): 8****Acres of Paving: 0.71****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 152,460; Non-Residential Outdoor: 50,820; Striped Parking Area: 1,896 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	22.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310		3,688.010 0	3,688.010 0	1.1928		3,717.829 4
Total	2.6609	27.1760	18.3356	0.0381	19.8609	1.2294	21.0903	10.1333	1.1310	11.2643		3,688.010 0	3,688.010 0	1.1928		3,717.829 4

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5727	31.0807	7.5257	0.1281	3.9537	0.2964	4.2501	1.0847	0.2836	1.3683		13,563.22 27	13,563.22 27	0.0267	2.1319	14,199.18 32
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.6391	31.1275	7.9690	0.1292	4.0814	0.2973	4.3787	1.1186	0.2844	1.4030		13,674.44 55	13,674.44 55	0.0304	2.1357	14,311.63 27

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					19.8609	0.0000	19.8609	10.1333	0.0000	10.1333			0.0000			0.0000
Off-Road	2.6609	27.1760	18.3356	0.0381		1.2294	1.2294		1.1310	1.1310	0.0000	3,688.010 0	3,688.010 0	1.1928		3,717.829 4
Total	2.6609	27.1760	18.3356	0.0381	19.8609	1.2294	21.0903	10.1333	1.1310	11.2643	0.0000	3,688.010 0	3,688.010 0	1.1928		3,717.829 4

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.5727	31.0807	7.5257	0.1281	3.9537	0.2964	4.2501	1.0847	0.2836	1.3683		13,563.22 27	13,563.22 27	0.0267	2.1319	14,199.18 32
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.6391	31.1275	7.9690	0.1292	4.0814	0.2973	4.3787	1.1186	0.2844	1.4030		13,674.44 55	13,674.44 55	0.0304	2.1357	14,311.63 27

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665		2,873.054 1	2,873.054 1	0.9292		2,896.284 2
Total	1.6617	17.0310	14.7594	0.0297	7.2100	0.7244	7.9344	3.4440	0.6665	4.1105		2,873.054 1	2,873.054 1	0.9292		2,896.284 2

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3579	19.4255	4.7036	0.0801	2.4711	0.1853	2.6563	0.6779	0.1773	0.8552		8,477.014 2	8,477.014 2	0.0167	1.3324	8,874.489 5
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.4244	19.4722	5.1468	0.0812	2.5988	0.1861	2.7849	0.7118	0.1780	0.8898		8,588.237 0	8,588.237 0	0.0204	1.3362	8,986.939 0

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.2100	0.0000	7.2100	3.4440	0.0000	3.4440			0.0000			0.0000
Off-Road	1.6617	17.0310	14.7594	0.0297		0.7244	0.7244		0.6665	0.6665	0.0000	2,873.054 1	2,873.054 1	0.9292		2,896.284 2
Total	1.6617	17.0310	14.7594	0.0297	7.2100	0.7244	7.9344	3.4440	0.6665	4.1105	0.0000	2,873.054 1	2,873.054 1	0.9292		2,896.284 2

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.3579	19.4255	4.7036	0.0801	2.4711	0.1853	2.6563	0.6779	0.1773	0.8552		8,477.014 2	8,477.014 2	0.0167	1.3324	8,874.489 5
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.4244	19.4722	5.1468	0.0812	2.5988	0.1861	2.7849	0.7118	0.1780	0.8898		8,588.237 0	8,588.237 0	0.0204	1.3362	8,986.939 0

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769		2,555.6989	2,555.6989	0.6044		2,570.8077

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0455	1.0594	0.4498	4.1500e-003	0.1350	6.8800e-003	0.1418	0.0389	6.5800e-003	0.0455		436.8296	436.8296	2.1500e-003	0.0613	455.1633
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.1119	1.1061	0.8930	5.2500e-003	0.2627	7.7200e-003	0.2704	0.0727	7.3500e-003	0.0801		548.0524	548.0524	5.9000e-003	0.0651	567.6128

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077
Total	1.4716	13.4438	16.1668	0.0270		0.6133	0.6133		0.5769	0.5769	0.0000	2,555.6989	2,555.6989	0.6044		2,570.8077

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0455	1.0594	0.4498	4.1500e-003	0.1350	6.8800e-003	0.1418	0.0389	6.5800e-003	0.0455		436.8296	436.8296	2.1500e-003	0.0613	455.1633
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.1119	1.1061	0.8930	5.2500e-003	0.2627	7.7200e-003	0.2704	0.0727	7.3500e-003	0.0801		548.0524	548.0524	5.9000e-003	0.0651	567.6128

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963		2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0428	1.0364	0.4358	4.0700e-003	0.1350	6.7200e-003	0.1417	0.0389	6.4300e-003	0.0453		428.4388	428.4388	2.0500e-003	0.0597	446.2814
Worker	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853
Total	0.1051	1.0778	0.8435	5.1300e-003	0.2627	7.5100e-003	0.2702	0.0727	7.1600e-003	0.0799		535.9939	535.9939	5.4200e-003	0.0632	554.9667

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1
Total	1.3674	12.4697	16.0847	0.0270		0.5276	0.5276		0.4963	0.4963	0.0000	2,556.474 4	2,556.474 4	0.6010		2,571.498 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0428	1.0364	0.4358	4.0700e-003	0.1350	6.7200e-003	0.1417	0.0389	6.4300e-003	0.0453		428.4388	428.4388	2.0500e-003	0.0597	446.2814
Worker	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853
Total	0.1051	1.0778	0.8435	5.1300e-003	0.2627	7.5100e-003	0.2702	0.0727	7.1600e-003	0.0799		535.9939	535.9939	5.4200e-003	0.0632	554.9667

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8889	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685		1,805.6205	1,805.6205	0.5673		1,819.8039

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8814	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8889	8.2730	12.2210	0.0189		0.3987	0.3987		0.3685	0.3685	0.0000	1,805.6205	1,805.6205	0.5673		1,819.8039

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8273	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259		1,805.3926	1,805.3926	0.5673		1,819.5741

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853
Total	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.8197	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741
Paving	7.5300e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.8273	7.5321	12.1778	0.0189		0.3524	0.3524		0.3259	0.3259	0.0000	1,805.3926	1,805.3926	0.5673		1,819.5741

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853
Total	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	9.8062	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	9.8062	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495
Total	0.0664	0.0467	0.4433	1.1000e-003	0.1277	8.4000e-004	0.1286	0.0339	7.7000e-004	0.0347		111.2228	111.2228	3.7500e-003	3.8000e-003	112.4495

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2025****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	9.7963	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853
Total	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2025****Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	9.6254					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	9.7963	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853
Total	0.0623	0.0415	0.4077	1.0600e-003	0.1277	7.9000e-004	0.1285	0.0339	7.3000e-004	0.0346		107.5552	107.5552	3.3700e-003	3.5100e-003	108.6853

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	58	38	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Parking Lot	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
NaturalGas Unmitigated	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	5725.26	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Hotel	5.72526	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621

6.0 Area Detail

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Unmitigated	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1863					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-003	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Total	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.6514					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.1863					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.4000e-003	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347
Total	2.8391	1.4000e-004	0.0152	0.0000		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005		0.0326	0.0326	9.0000e-005		0.0347

7.0 Water Detail**7.1 Mitigation Measures Water**

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

OPERATIONAL BUILDOUT EMISSIONS

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Yreka Travel Center and Hotel Project****Siskiyou County, Summer****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Parking Lot	79.00	Space	0.71	31,600.00	0
Hotel	70.00	Room	3.03	101,640.00	0
Convenience Market (24 hour)	12.30	1000sqft	0.28	12,300.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2025
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to match the project site.

Construction Phase - Model run done for operations only

Off-road Equipment - Model run done for operations only

Trips and VMT - Model run done for operations only

Architectural Coating - Model run done for operations only

Vehicle Trips - Daily trips provided by traffic report (GHD 2022). Passby account for in traffic report.

Mobile Land Use Mitigation -

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Interior	250.00	0.00
tblConstructionPhase	NumDays	18.00	0.00
tblLandUse	LotAcreage	2.33	3.03
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblVehicleTrips	PB_TP	61.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	24.00	85.00
tblVehicleTrips	PR_TP	14.00	73.00
tblVehicleTrips	PR_TP	58.00	62.00
tblVehicleTrips	ST_TR	1,084.17	212.92
tblVehicleTrips	ST_TR	182.17	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	901.17	212.92
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	762.28	212.92
tblVehicleTrips	WD_TR	172.01	0.00
tblVehicleTrips	WD_TR	8.36	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Energy	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231
Mobile	9.3625	12.3690	66.2282	0.1286	11.9357	0.1511	12.0868	3.1846	0.1420	3.3266		13,101.3847	13,101.3847	0.9216	0.7439	13,346.1026
Total	12.7087	12.9568	66.7502	0.1322	11.9357	0.1959	12.1316	3.1846	0.1868	3.3714		13,806.4794	13,806.4794	0.9353	0.7568	14,055.3911

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Energy	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231
Mobile	9.3625	12.3690	66.2282	0.1286	11.9357	0.1511	12.0868	3.1846	0.1420	3.3266		13,101.3847	13,101.3847	0.9216	0.7439	13,346.1026
Total	12.7087	12.9568	66.7502	0.1322	11.9357	0.1959	12.1316	3.1846	0.1868	3.3714		13,806.4794	13,806.4794	0.9353	0.7568	14,055.3911

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	12/16/2023	12/15/2023	5	0	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 1.6****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 175,145; Non-Residential Outdoor: 58,382; Striped Parking Area: 4,272 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction On-Site

[illegible]

[illegible]

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.3625	12.3690	66.2282	0.1286	11.9357	0.1511	12.0868	3.1846	0.1420	3.3266		13,101.38 47	13,101.38 47	0.9216	0.7439	13,346.10 26
Unmitigated	9.3625	12.3690	66.2282	0.1286	11.9357	0.1511	12.0868	3.1846	0.1420	3.3266		13,101.38 47	13,101.38 47	0.9216	0.7439	13,346.10 26

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	2,618.92	2,618.92	2618.92	5,645,546	5,645,546
Gasoline/Service Station	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,618.92	2,618.92	2,618.92	5,645,546	5,645,546

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 hour)	14.70	6.60	6.60	0.90	80.10	19.00	85	15	0
Gasoline/Service Station	14.70	6.60	6.60	2.00	79.00	19.00	73	27	0

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	62	38	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 hour)	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Gasoline/Service Station	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Hotel	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Parking Lot	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231
NaturalGas Unmitigated	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	240.608	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003		28.3069	28.3069	5.4000e-004	5.2000e-004	28.4751
Gasoline/Service Station	26.9199	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1671	3.1671	6.0000e-005	6.0000e-005	3.1859
Hotel	5725.26	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	0.240608	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003		28.3069	28.3069	5.4000e-004	5.2000e-004	28.4751
Gasoline/Service Station	0.0269199	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1671	3.1671	6.0000e-005	6.0000e-005	3.1859
Hotel	5.72526	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231

6.0 Area Detail**6.1 Mitigation Measures Area**

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Unmitigated	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6300e-003	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Total	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6300e-003	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Total	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Yreka Travel Center and Hotel Project - Siskiyou County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Yreka Travel Center and Hotel Project****Siskiyou County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Parking Lot	79.00	Space	0.71	31,600.00	0
Hotel	70.00	Room	3.03	101,640.00	0
Convenience Market (24 hour)	12.30	1000sqft	0.28	12,300.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2025
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to match the project site.

Construction Phase - Model run done for operations only

Off-road Equipment - Model run done for operations only

Trips and VMT - Model run done for operations only

Architectural Coating - Model run done for operations only

Vehicle Trips - Daily trips provided by traffic report (GHD 2022). Passby account for in traffic report.

Mobile Land Use Mitigation -

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Interior	250.00	0.00
tblConstructionPhase	NumDays	18.00	0.00
tblLandUse	LotAcreage	2.33	3.03
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblVehicleTrips	PB_TP	61.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	24.00	85.00
tblVehicleTrips	PR_TP	14.00	73.00
tblVehicleTrips	PR_TP	58.00	62.00
tblVehicleTrips	ST_TR	1,084.17	212.92
tblVehicleTrips	ST_TR	182.17	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	901.17	212.92
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	762.28	212.92
tblVehicleTrips	WD_TR	172.01	0.00
tblVehicleTrips	WD_TR	8.36	0.00

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction

[illegible]

Mitigated Construction

[illegible][illegible]

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Energy	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231
Mobile	9.2208	14.8132	80.7291	0.1249	11.9357	0.1513	12.0870	3.1846	0.1422	3.3268		12,723.9938	12,723.9938	1.1374	0.8437	13,003.8646
Total	12.5670	15.4010	81.2511	0.1284	11.9357	0.1960	12.1317	3.1846	0.1869	3.3715		13,429.0886	13,429.0886	1.1511	0.8567	13,713.1530

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Energy	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231
Mobile	9.2208	14.8132	80.7291	0.1249	11.9357	0.1513	12.0870	3.1846	0.1422	3.3268		12,723.9938	12,723.9938	1.1374	0.8437	13,003.8646
Total	12.5670	15.4010	81.2511	0.1284	11.9357	0.1960	12.1317	3.1846	0.1869	3.3715		13,429.0886	13,429.0886	1.1511	0.8567	13,713.1530

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	12/16/2023	12/15/2023	5	0	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 0****Acres of Paving: 1.6****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 175,145; Non-Residential Outdoor: 58,382; Striped Parking Area: 4,272 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Mitigated Construction On-Site

[illegible]

Mitigated Construction Off-Site

[illegible]

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.2208	14.8132	80.7291	0.1249	11.9357	0.1513	12.0870	3.1846	0.1422	3.3268		12,723.99 38	12,723.99 38	1.1374	0.8437	13,003.86 46
Unmitigated	9.2208	14.8132	80.7291	0.1249	11.9357	0.1513	12.0870	3.1846	0.1422	3.3268		12,723.99 38	12,723.99 38	1.1374	0.8437	13,003.86 46

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	2,618.92	2,618.92	2618.92	5,645,546	5,645,546
Gasoline/Service Station	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,618.92	2,618.92	2,618.92	5,645,546	5,645,546

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 hour)	14.70	6.60	6.60	0.90	80.10	19.00	85	15	0
Gasoline/Service Station	14.70	6.60	6.60	2.00	79.00	19.00	73	27	0

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	62	38	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 hour)	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Gasoline/Service Station	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Hotel	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Parking Lot	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231
NaturalGas Unmitigated	0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	240.608	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003		28.3069	28.3069	5.4000e-004	5.2000e-004	28.4751
Gasoline/Service Station	26.9199	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1671	3.1671	6.0000e-005	6.0000e-005	3.1859
Hotel	5725.26	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Convenience Market (24 hour)	0.240608	2.5900e-003	0.0236	0.0198	1.4000e-004		1.7900e-003	1.7900e-003		1.7900e-003	1.7900e-003		28.3069	28.3069	5.4000e-004	5.2000e-004	28.4751
Gasoline/Service Station	0.0269199	2.9000e-004	2.6400e-003	2.2200e-003	2.0000e-005		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		3.1671	3.1671	6.0000e-005	6.0000e-005	3.1859
Hotel	5.72526	0.0617	0.5613	0.4715	3.3700e-003		0.0427	0.0427		0.0427	0.0427		673.5595	673.5595	0.0129	0.0124	677.5621
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0646	0.5875	0.4935	3.5300e-003		0.0447	0.0447		0.0447	0.0447		705.0334	705.0334	0.0135	0.0129	709.2231

6.0 Area Detail**6.1 Mitigation Measures Area**

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Unmitigated	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6300e-003	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Total	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.7549					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	2.5240					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6300e-003	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653
Total	3.2815	2.6000e-004	0.0285	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0613	0.0613	1.6000e-004		0.0653

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Yreka Travel Center and Hotel Project - Siskiyou County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.0 Waste Detail**

8.1 Mitigation Measures Waste**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

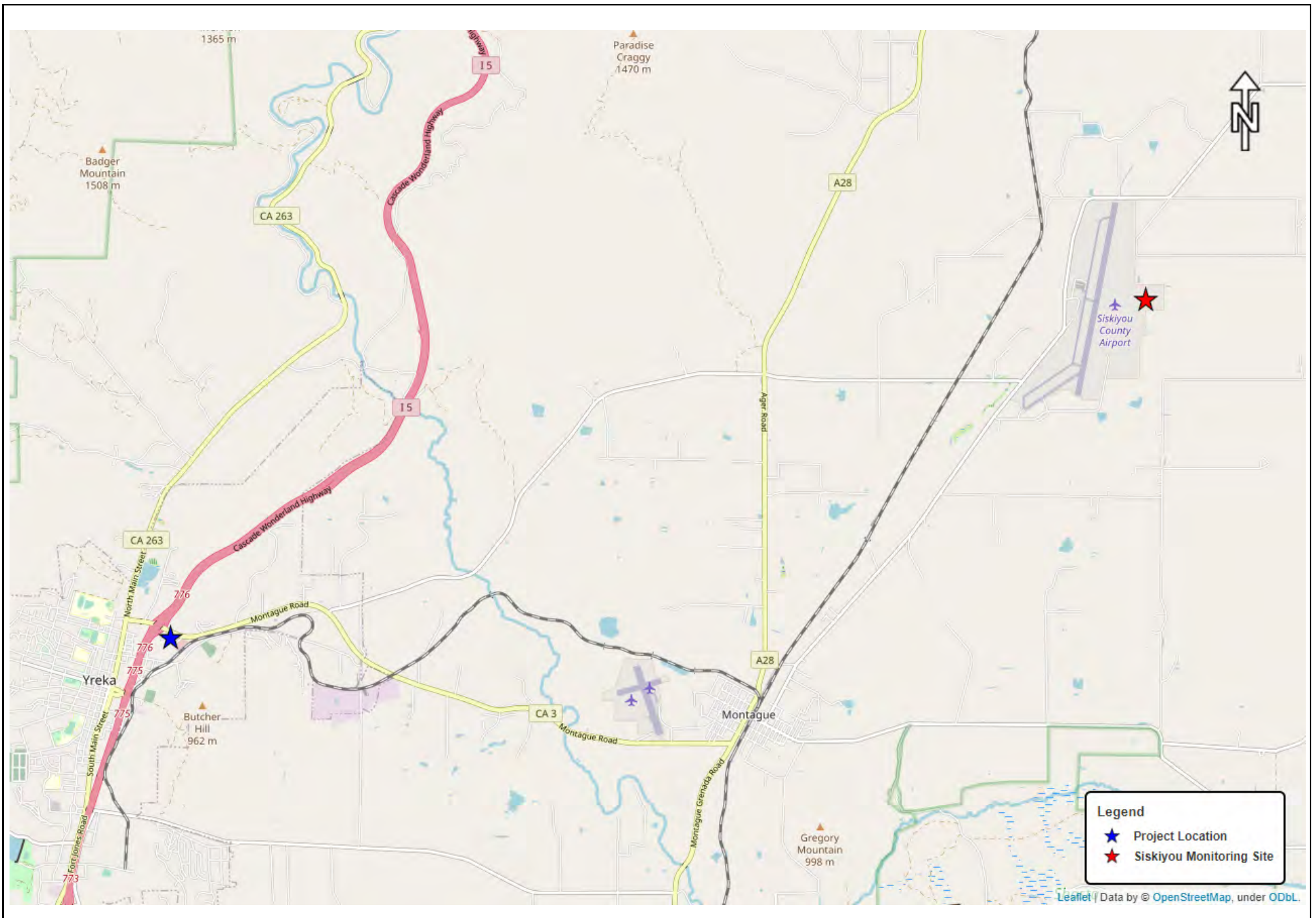
User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

ATTACHMENT B

Health Risk Analysis Output Files



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Figure B-1. Meteorological Monitoring Site Location

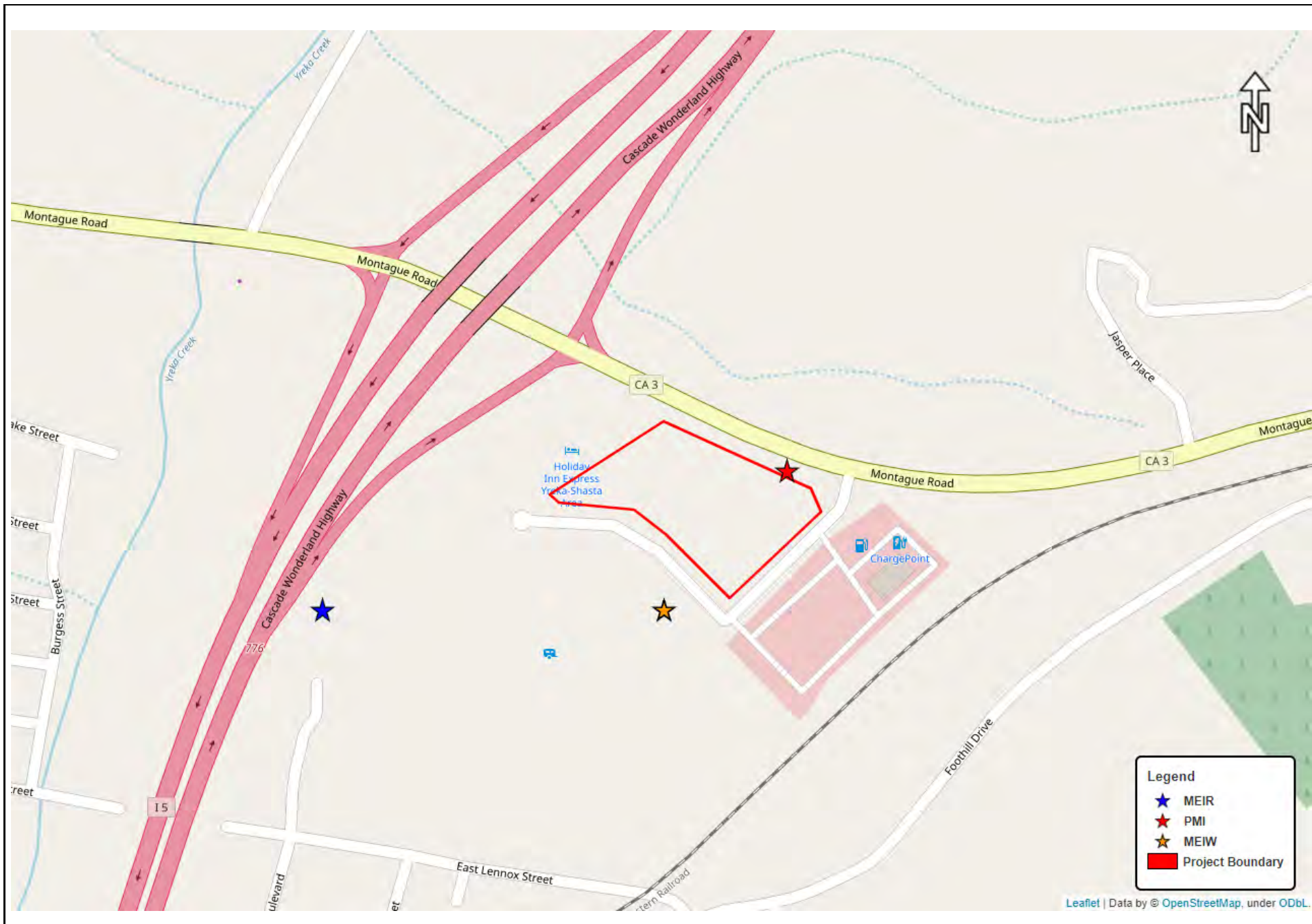
2022-107 Yreka Travel Plaza and Hotel



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Figure B-2. Modeled Receptor Locations

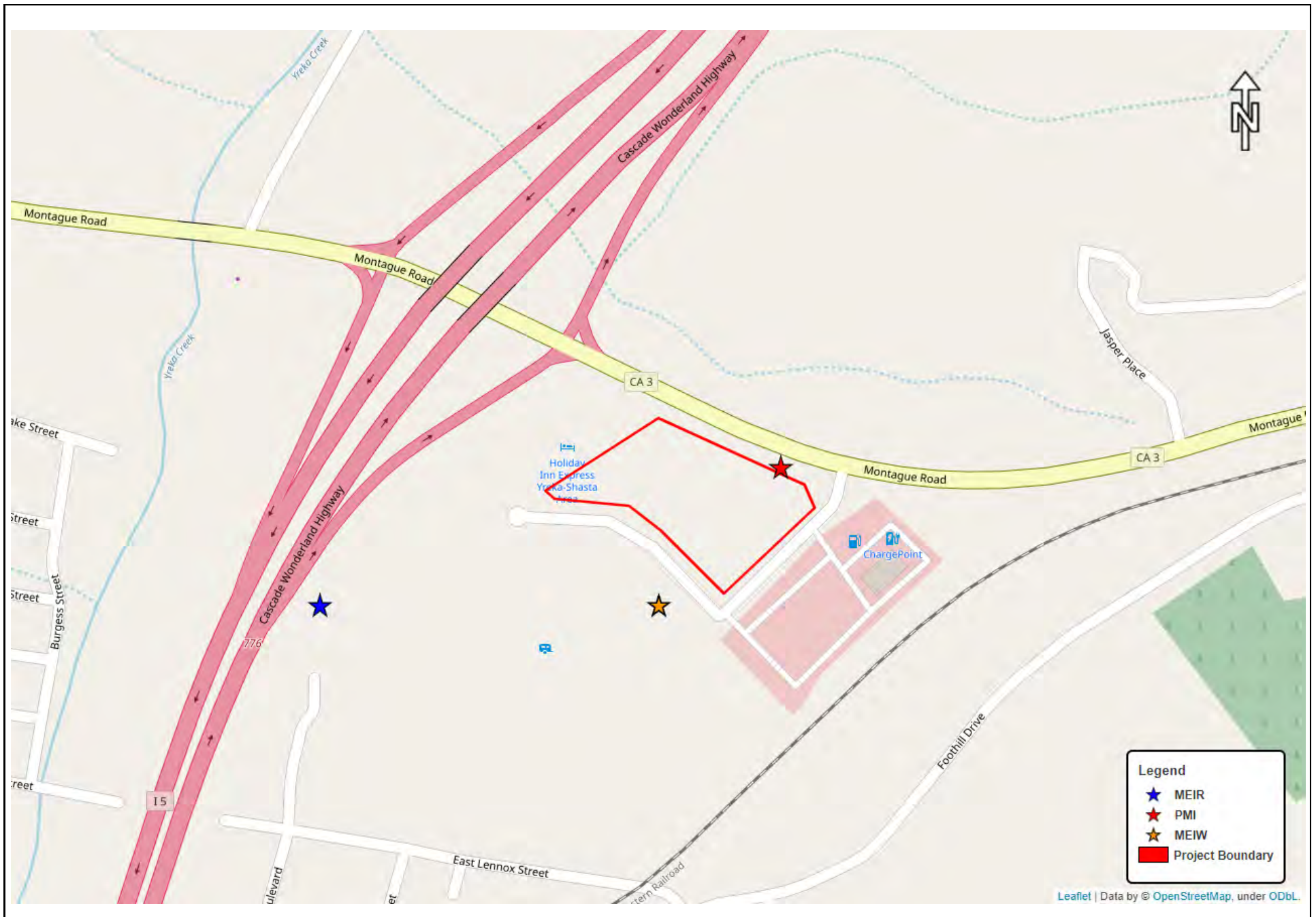
2022-107 Yreka Travel Plaza and Hotel



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Figure B-3. Maximum Cancer Risk Locations

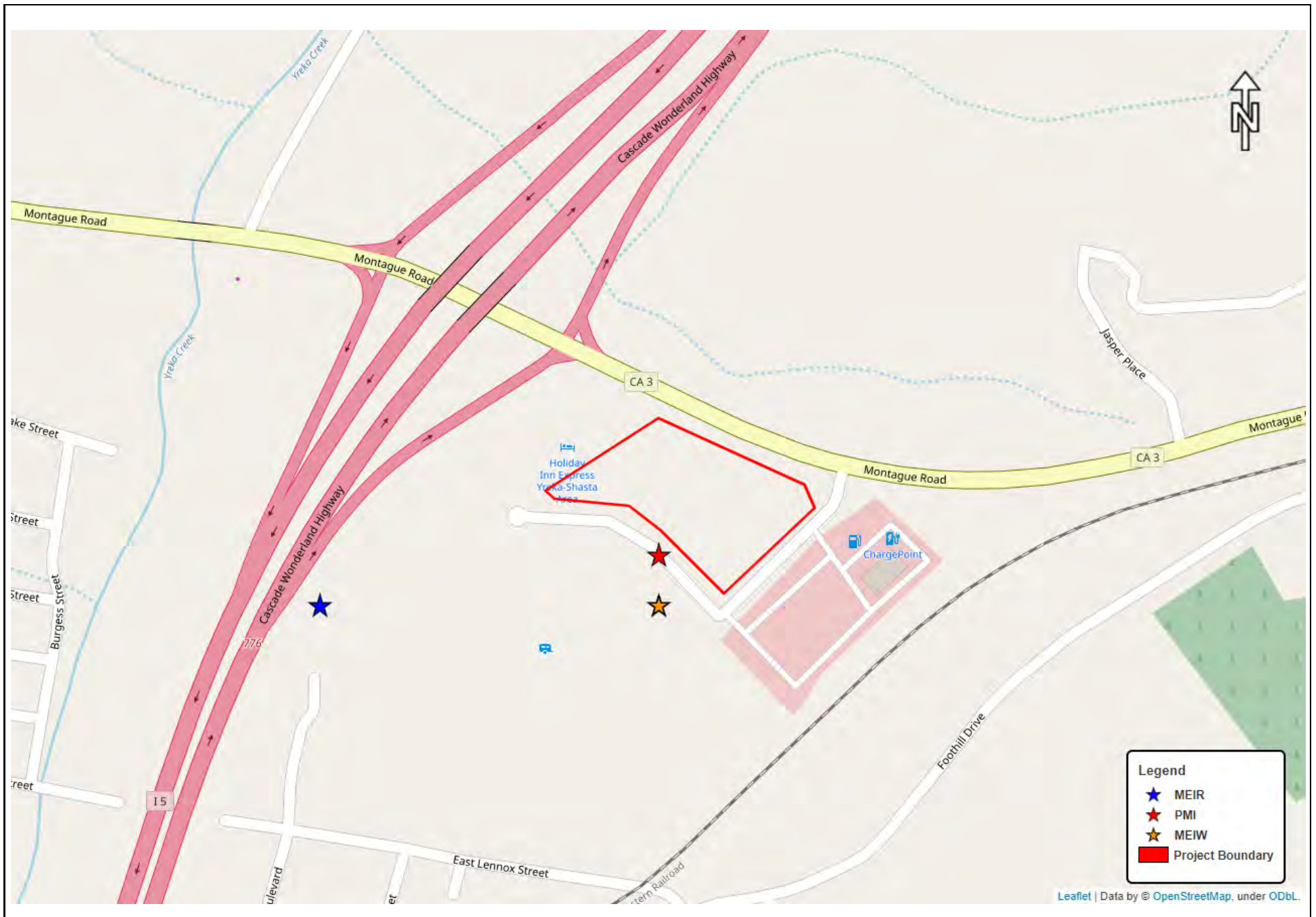
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Figure B-4. Maximum Chronic Risk Locations

2022-107 Yreka Travel Plaza and Hotel



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Figure B-5. Maximum Acute Risk Locations

2022-107 Yreka Travel Plaza and Hotel

**Yreka - Travel Plaza and Hotel Emissions Calculations
Diesel Particulate Matter from Diesel Truck Trips**

Table B-1. Modeled Roadway Dimensions

Roadway Link Description	AERMOD ID	Length (miles)	Width (m)	Area (m ²)
3 East	SLINE1	0.42	6	4,039.80
3 West	SLINE4	0.58	6	5,622.60
I-5 North	SLINE2	0.50	6	4,827.60
I-5 South	SLINE3	0.54	6	5,258.40

(1) All roadways modeled as two lanes with standard 3 meter width per lane.

Table B-2. Total Trip Information

Trip Type	Trips
Average Daily Refueler ¹	4
Average Daily Customer (Trucks) ²	314
Max Hourly Refueler	2
Max Hourly Customer ³	35

(1) 2.4 million estimate gallons gasoline a year per / 365 days per year

(2) Average daily customer trips are 291 * 9 per traffic modeling and 12% diesel trucks per EMFAC2021 2025 Yreka Mix

(3) 291 peak hourly trips estimated in Traffic Model and 12% diesel trucks per EMFAC2021.

Table B-3. Modeled Roadway Trip Information

Roadway Link	Trip Information					
	Fueling Trucks			Customer Vehicles		
	Percentage Total Trips ¹	Peak Hourly	Average Daily	Percentage Total Trips ¹	Peak Hourly	Average Daily
3 East	5%	0.1	0.4	5%	2	16
3 West	10%	0.2	0.8	10%	3	31
I-5 North	40%	0.8	3.2	40%	14	126
I-5 South	45%	0.9	3.6	45%	16	141

(1) All refueler traffic assumed to originate from I-5

**Yreka - Travel Plaza and Hotel Emissions Calculations
Diesel Particulate Matter from Diesel Truck Trips**

Table B-4. Vehicle EMFAC2021 Emission Rates

Vehicle Type	DPM Emission Rates ¹ (g/mi)				
	Idle ²	5 mph	25 mph	45 mph	Composite ⁴
HHDT	0.051	0.021	0.010	0.017	0.022
MHD	0.025	0.030	0.011	0.007	0.011
LHDT2	0.028	0.081	0.030	0.020	0.026
Station Customer Composite ³	0.046	0.025	0.011	0.016	0.021

(1) DPM Emission Rates conservatively represented using EMFAC2021 PM10 Exhaust emission factors for 2025.

(2) Idle emission rates in grams per minute.

(3) Customer diesel vehicle emission composite estimated at 81% HHDT, 3% LHDT2, and 16% MDV pre CalEEMod.

(4) Composite factor is 90% @ 45 mph + 5% @ 25 mph + 5% @ 5 mph + .1 minute idle per mile

Table B-5. Modeled Roadway Emission Rates

Roadway Link	DPM Emissions ^{1,2}					
	Fueling Trucks		Customer Vehicles		Total for HARP2	
	Peak Hourly (lbs/hr)	Annual (lbs/yr)	Peak Hourly (lbs/hr)	Annual (lbs/yr)	Peak Hourly (lbs/hr)	Annual (lbs/yr)
3 East	2.03153E-06	0.0030	0.0000	0.11	0.00004	0.11
3 West	5.65496E-06	0.0083	0.0001	0.30	0.0001	0.31
I-5 North	1.94215E-05	0.0284	0.0003	1.05	0.0003	1.08
I-5 South	2.3799E-05	0.0347	0.0004	1.28	0.0004	1.32

(1) Peak Hourly Emissions = DPM Emission Rate (g/mi) * Peak Hourly Trips * Link Length (mi) / 453.6 (g/lb)

(2) Annual Emissions = DPM Emission Rate (g/mi) * Daily Trips * Link Length (mi) * 365 (days/yr) / 453.6 (g/lb)

**Yreka - Travel Plaza and Hotel Emission Calculations
VOC Emissions from Fueling Stations and Tanks**

Table B-6. Fueling Information

Fuel Tank¹	Annual (gallons/yr)
Total Gasoline	2,372,500
Tank 1 Throughput	1,186,250
Tank 2 Throughput	1,186,250
Peak Hourly Filling ¹	6,000
Peak Hourly Throughput ²	3,840

(1) Peak hourly filling conservatively estimated as 6,000 gallons per hour as maximum truckload split between tanks.

(2) Peak hourly throughput = 16 pumps * 20 gallons per fill * 12 fills an hour.

Notes: Evaporative emissions from diesel are considered negligible.

Table B-7. TOG Emission Factor by Category

Scenario	Total Organic Gas (TOG) Emission Factors (lb/1,000 gal)				
	Loading	Breathing	Fueling¹	Spillage	Hose Permeation
EVR Phase 1 and II	0.15	0.092	0.089	0.24	0.009

Source: Table 9. Emission Factors per Gas Station Scenario (CARB, 2022)

(1) Assumes 88% of vehicles have ORVR in 2021 per CARB Revised Phase II Doc (2013)

Table B-8. Peak Hourly and Annual Emissions by Activity

Activity	Peak Hourly¹ (lbs/hr)	Annual² (lbs/yr)	Peak Hourly¹ (lbs/hr)	Annual² (lbs/yr)
Gasoline UST (Point Sources) (2)	Total Emissions ROG		Emissions ROG per Tank	
Filling Storage Tanks	0.90	355.88	0.45	177.94
Storage Tanks Breathing	0.55	218.27	0.28	109.14
Station (Volume Sources) (4)	Total Emissions ROG		Emissions ROG per Station	
Consumer Filling	0.34	211.15	0.09	52.79
Spillage	0.92	569.40	0.23	142.35
Hose Permeation	0.03	21.35	0.01	5.34

(1) Peak Hourly Emissions = Peak Hourly Throughput (gal/hr) * TOG EF (lbs/1,000 gal) / 1,000 gal

(2) Annual Emissions = Annual Throughput (gal/yr) * TOG EF (lbs/1,000 gal) / 1,000 gal

Yreka - Travel Plaza and Hotel Emission Calculations
VOC Emissions from Fueling Stations and Tanks

Table B-9. Gasoline Speciation

Chemical	Weight Percentage
Benzene	0.457%
Ethyl Benzene	0.107%
n-Hexane	0.0182%
Naphthalene	0.0445%
Propylene (propene)2	0.0359%
Toluene	1.11%
Xylenes	0.4090%

Table B-10. Total VOC Emissions by HARP2 Source

HARP2 Source	Max Hourly VOC (lbs/hr)	Annual VOC (lbs/yr)
Tank 1 Filling + Breathing	0.73	287.07
Tank 2 Filling + Breathing	0.73	287.07
Station 1	0.32	200.48
Station 2	0.32	200.48
Station 3	0.32	200.48
Station 4	0.32	200.48

Source: Table 11. Content of Gasoline (Combined Winter/Summer) (CARB, 2022)

Table B-11. Peak Hourly HARP2 Emissions Input

HARP2 Source	Max Hourly Emissions						
	Benzene	Ethyl Benzene	n-Hexane	Naphthalene	Propylene	Toluene	Xylenes
Tank 1 Filling + Breathing	0.0033	0.0008	0.0001	0.0003	0.0003	0.0081	0.0030
Tank 2 Filling + Breathing	0.0033	0.0008	0.0001	0.0003	0.0003	0.0081	0.0030
Station 1	0.0015	0.0003	0.0001	0.0001	0.0001	0.0036	0.0013
Station 2	0.0015	0.0003	0.0001	0.0001	0.0001	0.0036	0.0013
Station 3	0.0015	0.0003	0.0001	0.0001	0.0001	0.0036	0.0013
Station 4	0.0015	0.0003	0.0001	0.0001	0.0001	0.0036	0.0013

Table B-11. Annual HARP2 Emissions Input

HARP2 Source	Annual Emissions						
	Benzene	Ethyl Benzene	n-Hexane	Naphthalene	Propylene	Toluene	Xylenes
Tank 1 Filling + Breathing	1.3119	0.3072	0.0522	0.1277	0.1032	3.1865	1.1741
Tank 2 Filling + Breathing	1.3119	0.3072	0.0522	0.1277	0.1032	3.1865	1.1741
Station 1	0.9162	0.2145	0.0365	0.0892	0.0721	2.2253	0.8199
Station 2	0.9162	0.2145	0.0365	0.0892	0.0721	2.2253	0.8199
Station 3	0.9162	0.2145	0.0365	0.0892	0.0721	2.2253	0.8199
Station 4	0.9162	0.2145	0.0365	0.0892	0.0721	2.2253	0.8199

Source Pathway - Source Inputs

AERMOD

Point Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Gas Exit Temp. [K]	Gas Exit Velocity [m/s]	Stack Inside Diameter [m]
POINT	STCK1	531149.43	4620735.54	804.24	1.12	1.00000	290.00	0.00	0.05
		Underground Storage Breathing and Loading							
POINT	STCK2	531165.53	4620753.43	804.79	1.12	1.00000	290.00	0.00	0.05
		Underground Storage Tank Loading and Breathing							

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL4	531188.11	4620712.23	807.04	0.46	1.00000	13.00		3.02	1.86
VOLUME	VOL6	531205.22	4620726.32	807.97	0.46	1.00000	13.00		3.02	1.86
VOLUME	VOL7	531173.33	4620729.10	805.76	0.46	1.00000	13.00		3.02	1.86
VOLUME	VOL8	531192.51	4620745.37	806.65	0.46	1.00000	13.00		3.02	1.86

Source Pathway - Source Inputs

AERMOD

Line Volume Sources

Source Type: LINE VOLUME

Source: SLINE1 (3 East)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
6.00	1.00000		531090.01	4620794.24	800.26	0.00
			531155.41	4620747.95	804.21	0.00
			531284.20	4620782.16	812.08	0.00
			531407.96	4620766.06	821.27	0.00
			531734.98	4620839.52	844.57	0.00

Source Type: LINE VOLUME

Source: SLINE2 (5 North)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
6.00	1.00000		531095.67	4620803.55	800.57	0.00
			531154.53	4620771.85	803.79	0.00
			531260.94	4620787.70	810.07	0.00
			531057.18	4620882.78	793.31	0.00
			531068.50	4620962.02	792.33	0.00
			531247.35	4621233.70	799.37	0.00

Source Type: LINE VOLUME

Source: SLINE3 (5 South)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
6.00	1.00000		530713.06	4620506.97	792.00	0.00
			530796.83	4620701.67	792.00	0.00
			530878.33	4620780.91	792.00	0.00
			531034.54	4620880.52	793.11	0.00
			531236.03	4620799.02	809.54	0.00
			531170.38	4620767.32	804.51	0.00
			531100.20	4620794.49	800.85	0.00

Source Pathway - Source Inputs

AERMOD

Source Type: LINE VOLUME

Source: SLINE4 (3 West)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
6.00	1.00000		531109.25	4620799.02	800.98	0.00
			531159.06	4620767.32	804.06	0.00
			531240.56	4620792.23	809.93	0.00
			530814.94	4620973.34	792.00	0.00
			530486.67	4621009.56	792.00	0.00

Source Pathway - Source Inputs

AERMOD

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE1	L0000001	531092.46	4620792.50	799.41	0.00	0.01786	6.00		5.58	2.09
	L0000002	531102.25	4620785.57	800.27	0.00	0.01786	6.00		5.58	2.09
	L0000003	531112.05	4620778.64	801.13	0.00	0.01786	6.00		5.58	2.09
	L0000004	531121.84	4620771.71	801.87	0.00	0.01786	6.00		5.58	2.09
	L0000005	531131.64	4620764.78	802.59	0.00	0.01786	6.00		5.58	2.09
	L0000006	531141.43	4620757.84	803.30	0.00	0.01786	6.00		5.58	2.09
	L0000007	531151.23	4620750.91	804.02	0.00	0.01786	6.00		5.58	2.09
	L0000008	531162.06	4620749.72	804.67	0.00	0.01786	6.00		5.58	2.09
	L0000009	531173.65	4620752.80	805.27	0.00	0.01786	6.00		5.58	2.09
	L0000010	531185.25	4620755.88	805.90	0.00	0.01786	6.00		5.58	2.09
	L0000011	531196.85	4620758.96	806.67	0.00	0.01786	6.00		5.58	2.09
	L0000012	531208.45	4620762.04	807.44	0.00	0.01786	6.00		5.58	2.09
	L0000013	531220.05	4620765.12	808.22	0.00	0.01786	6.00		5.58	2.09
	L0000014	531231.64	4620768.20	808.99	0.00	0.01786	6.00		5.58	2.09
	L0000015	531243.24	4620771.28	809.76	0.00	0.01786	6.00		5.58	2.09
	L0000016	531254.84	4620774.36	810.53	0.00	0.01786	6.00		5.58	2.09
	L0000017	531266.44	4620777.44	811.27	0.00	0.01786	6.00		5.58	2.09
	L0000018	531278.03	4620780.53	812.03	0.00	0.01786	6.00		5.58	2.09
	L0000019	531289.77	4620781.44	812.84	0.00	0.01786	6.00		5.58	2.09
	L0000020	531301.67	4620779.89	813.70	0.00	0.01786	6.00		5.58	2.09
	L0000021	531313.57	4620778.34	814.55	0.00	0.01786	6.00		5.58	2.09
	L0000022	531325.47	4620776.79	815.41	0.00	0.01786	6.00		5.58	2.09
	L0000023	531337.37	4620775.25	816.29	0.00	0.01786	6.00		5.58	2.09
	L0000024	531349.27	4620773.70	817.16	0.00	0.01786	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE1	L0000025	531361.17	4620772.15	818.04	0.00	0.01786	6.00		5.58	2.09
	L0000026	531373.07	4620770.60	818.91	0.00	0.01786	6.00		5.58	2.09
	L0000027	531384.97	4620769.06	819.79	0.00	0.01786	6.00		5.58	2.09
	L0000028	531396.87	4620767.51	820.59	0.00	0.01786	6.00		5.58	2.09
	L0000029	531408.76	4620766.24	821.29	0.00	0.01786	6.00		5.58	2.09
	L0000030	531420.47	4620768.87	821.93	0.00	0.01786	6.00		5.58	2.09
	L0000031	531432.17	4620771.50	822.58	0.00	0.01786	6.00		5.58	2.09
	L0000032	531443.88	4620774.13	823.23	0.00	0.01786	6.00		5.58	2.09
	L0000033	531455.59	4620776.76	823.88	0.00	0.01786	6.00		5.58	2.09
	L0000034	531467.30	4620779.39	824.61	0.00	0.01786	6.00		5.58	2.09
	L0000035	531479.01	4620782.02	825.41	0.00	0.01786	6.00		5.58	2.09
	L0000036	531490.72	4620784.65	826.22	0.00	0.01786	6.00		5.58	2.09
	L0000037	531502.42	4620787.28	827.03	0.00	0.01786	6.00		5.58	2.09
	L0000038	531514.13	4620789.91	827.86	0.00	0.01786	6.00		5.58	2.09
	L0000039	531525.84	4620792.54	828.70	0.00	0.01786	6.00		5.58	2.09
	L0000040	531537.55	4620795.17	829.53	0.00	0.01786	6.00		5.58	2.09
	L0000041	531549.26	4620797.80	830.35	0.00	0.01786	6.00		5.58	2.09
	L0000042	531560.97	4620800.43	831.16	0.00	0.01786	6.00		5.58	2.09
	L0000043	531572.67	4620803.06	831.98	0.00	0.01786	6.00		5.58	2.09
	L0000044	531584.38	4620805.69	832.80	0.00	0.01786	6.00		5.58	2.09
	L0000045	531596.09	4620808.32	833.62	0.00	0.01786	6.00		5.58	2.09
	L0000046	531607.80	4620810.95	834.33	0.00	0.01786	6.00		5.58	2.09
	L0000047	531619.51	4620813.58	835.02	0.00	0.01786	6.00		5.58	2.09
	L0000048	531631.22	4620816.21	835.72	0.00	0.01786	6.00		5.58	2.09
	L0000049	531642.92	4620818.84	836.43	0.00	0.01786	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE1	L0000050	531654.63	4620821.47	837.14	0.00	0.01786	6.00		5.58	2.09
	L0000051	531666.34	4620824.10	837.87	0.00	0.01786	6.00		5.58	2.09
	L0000052	531678.05	4620826.73	838.97	0.00	0.01786	6.00		5.58	2.09
	L0000053	531689.76	4620829.36	840.15	0.00	0.01786	6.00		5.58	2.09
	L0000054	531701.47	4620831.99	841.33	0.00	0.01786	6.00		5.58	2.09
	L0000055	531713.17	4620834.62	842.52	0.00	0.01786	6.00		5.58	2.09
	L0000056	531724.88	4620837.25	843.70	0.00	0.01786	6.00		5.58	2.09

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000309	531098.31	4620802.12	799.61	0.00	0.01493	6.00		5.58	2.09
	L0000310	531108.87	4620796.43	800.51	0.00	0.01493	6.00		5.58	2.09
	L0000311	531119.44	4620790.74	801.33	0.00	0.01493	6.00		5.58	2.09
	L0000312	531130.01	4620785.06	802.06	0.00	0.01493	6.00		5.58	2.09
	L0000313	531140.57	4620779.37	802.79	0.00	0.01493	6.00		5.58	2.09
	L0000314	531151.14	4620773.68	803.52	0.00	0.01493	6.00		5.58	2.09
	L0000315	531162.59	4620773.05	804.20	0.00	0.01493	6.00		5.58	2.09
	L0000316	531174.46	4620774.82	804.85	0.00	0.01493	6.00		5.58	2.09
	L0000317	531186.33	4620776.59	805.54	0.00	0.01493	6.00		5.58	2.09
	L0000318	531198.19	4620778.35	806.36	0.00	0.01493	6.00		5.58	2.09
	L0000319	531210.06	4620780.12	807.18	0.00	0.01493	6.00		5.58	2.09
	L0000320	531221.93	4620781.89	807.99	0.00	0.01493	6.00		5.58	2.09
	L0000321	531233.80	4620783.66	808.81	0.00	0.01493	6.00		5.58	2.09
	L0000322	531245.67	4620785.42	809.63	0.00	0.01493	6.00		5.58	2.09
	L0000323	531257.54	4620787.19	810.45	0.00	0.01493	6.00		5.58	2.09
	L0000324	531253.17	4620791.32	810.05	0.00	0.01493	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000325	531242.30	4620796.40	809.16	0.00	0.01493	6.00		5.58	2.09
	L0000326	531231.42	4620801.47	808.26	0.00	0.01493	6.00		5.58	2.09
	L0000327	531220.55	4620806.54	807.37	0.00	0.01493	6.00		5.58	2.09
	L0000328	531209.67	4620811.62	806.48	0.00	0.01493	6.00		5.58	2.09
	L0000329	531198.80	4620816.69	805.58	0.00	0.01493	6.00		5.58	2.09
	L0000330	531187.93	4620821.77	804.69	0.00	0.01493	6.00		5.58	2.09
	L0000331	531177.05	4620826.84	803.89	0.00	0.01493	6.00		5.58	2.09
	L0000332	531166.18	4620831.92	803.15	0.00	0.01493	6.00		5.58	2.09
	L0000333	531155.30	4620836.99	802.41	0.00	0.01493	6.00		5.58	2.09
	L0000334	531144.43	4620842.07	801.67	0.00	0.01493	6.00		5.58	2.09
	L0000335	531133.56	4620847.14	800.94	0.00	0.01493	6.00		5.58	2.09
	L0000336	531122.68	4620852.22	800.20	0.00	0.01493	6.00		5.58	2.09
	L0000337	531111.81	4620857.29	799.41	0.00	0.01493	6.00		5.58	2.09
	L0000338	531100.93	4620862.37	798.40	0.00	0.01493	6.00		5.58	2.09
	L0000339	531090.06	4620867.44	797.36	0.00	0.01493	6.00		5.58	2.09
	L0000340	531079.18	4620872.51	796.31	0.00	0.01493	6.00		5.58	2.09
	L0000341	531068.31	4620877.59	795.25	0.00	0.01493	6.00		5.58	2.09
	L0000342	531057.44	4620882.66	794.16	0.00	0.01493	6.00		5.58	2.09
	L0000343	531058.84	4620894.38	794.00	0.00	0.01493	6.00		5.58	2.09
	L0000344	531060.53	4620906.26	793.82	0.00	0.01493	6.00		5.58	2.09
	L0000345	531062.23	4620918.14	793.61	0.00	0.01493	6.00		5.58	2.09
	L0000346	531063.93	4620930.02	793.36	0.00	0.01493	6.00		5.58	2.09
	L0000347	531065.63	4620941.90	793.07	0.00	0.01493	6.00		5.58	2.09
	L0000348	531067.32	4620953.78	792.75	0.00	0.01493	6.00		5.58	2.09
	L0000349	531070.52	4620965.09	792.42	0.00	0.01493	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000350	531077.12	4620975.11	792.07	0.00	0.01493	6.00		5.58	2.09
	L0000351	531083.72	4620985.14	792.00	0.00	0.01493	6.00		5.58	2.09
	L0000352	531090.32	4620995.16	792.00	0.00	0.01493	6.00		5.58	2.09
	L0000353	531096.91	4621005.18	792.00	0.00	0.01493	6.00		5.58	2.09
	L0000354	531103.51	4621015.21	792.00	0.00	0.01493	6.00		5.58	2.09
	L0000355	531110.11	4621025.23	792.00	0.00	0.01493	6.00		5.58	2.09
	L0000356	531116.71	4621035.25	792.34	0.00	0.01493	6.00		5.58	2.09
	L0000357	531123.31	4621045.28	792.96	0.00	0.01493	6.00		5.58	2.09
	L0000358	531129.91	4621055.30	793.53	0.00	0.01493	6.00		5.58	2.09
	L0000359	531136.51	4621065.32	794.06	0.00	0.01493	6.00		5.58	2.09
	L0000360	531143.10	4621075.34	794.55	0.00	0.01493	6.00		5.58	2.09
	L0000361	531149.70	4621085.37	795.00	0.00	0.01493	6.00		5.58	2.09
	L0000362	531156.30	4621095.39	795.41	0.00	0.01493	6.00		5.58	2.09
	L0000363	531162.90	4621105.41	795.77	0.00	0.01493	6.00		5.58	2.09
	L0000364	531169.50	4621115.44	796.10	0.00	0.01493	6.00		5.58	2.09
	L0000365	531176.10	4621125.46	796.38	0.00	0.01493	6.00		5.58	2.09
	L0000366	531182.69	4621135.48	796.63	0.00	0.01493	6.00		5.58	2.09
	L0000367	531189.29	4621145.50	796.89	0.00	0.01493	6.00		5.58	2.09
	L0000368	531195.89	4621155.53	797.15	0.00	0.01493	6.00		5.58	2.09
	L0000369	531202.49	4621165.55	797.44	0.00	0.01493	6.00		5.58	2.09
	L0000370	531209.09	4621175.57	797.77	0.00	0.01493	6.00		5.58	2.09
	L0000371	531215.69	4621185.60	798.07	0.00	0.01493	6.00		5.58	2.09
	L0000372	531222.29	4621195.62	798.36	0.00	0.01493	6.00		5.58	2.09
	L0000373	531228.88	4621205.64	798.62	0.00	0.01493	6.00		5.58	2.09
	L0000374	531235.48	4621215.67	798.86	0.00	0.01493	6.00		5.58	2.09

Source Pathway - Source Inputs

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Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE2	L0000375	531242.08	4621225.69	799.08	0.00	0.01493	6.00		5.58	2.09

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE3	L0000376	530714.25	4620509.72	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000377	530718.99	4620520.75	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000378	530723.73	4620531.77	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000379	530728.47	4620542.79	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000380	530733.22	4620553.82	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000381	530737.96	4620564.84	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000382	530742.70	4620575.86	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000383	530747.44	4620586.89	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000384	530752.19	4620597.91	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000385	530756.93	4620608.93	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000386	530761.67	4620619.96	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000387	530766.41	4620630.98	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000388	530771.16	4620642.00	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000389	530775.90	4620653.02	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000390	530780.64	4620664.05	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000391	530785.38	4620675.07	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000392	530790.13	4620686.09	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000393	530794.87	4620697.12	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000394	530801.88	4620706.58	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000395	530810.48	4620714.94	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000396	530819.09	4620723.31	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000397	530827.69	4620731.67	792.00	0.00	0.01370	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE3	L0000398	530836.29	4620740.04	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000399	530844.90	4620748.40	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000400	530853.50	4620756.77	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000401	530862.11	4620765.13	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000402	530870.71	4620773.50	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000403	530879.49	4620781.64	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000404	530889.60	4620788.10	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000405	530899.72	4620794.55	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000406	530909.84	4620801.00	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000407	530919.96	4620807.45	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000408	530930.08	4620813.90	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000409	530940.19	4620820.36	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000410	530950.31	4620826.81	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000411	530960.43	4620833.26	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000412	530970.55	4620839.71	792.00	0.00	0.01370	6.00		5.58	2.09
	L0000413	530980.67	4620846.16	792.17	0.00	0.01370	6.00		5.58	2.09
	L0000414	530990.78	4620852.62	792.45	0.00	0.01370	6.00		5.58	2.09
	L0000415	531000.90	4620859.07	792.67	0.00	0.01370	6.00		5.58	2.09
	L0000416	531011.02	4620865.52	792.82	0.00	0.01370	6.00		5.58	2.09
	L0000417	531021.14	4620871.97	792.92	0.00	0.01370	6.00		5.58	2.09
	L0000418	531031.26	4620878.42	792.96	0.00	0.01370	6.00		5.58	2.09
	L0000419	531042.05	4620877.48	793.17	0.00	0.01370	6.00		5.58	2.09
	L0000420	531053.18	4620872.98	794.09	0.00	0.01370	6.00		5.58	2.09
	L0000421	531064.30	4620868.48	795.17	0.00	0.01370	6.00		5.58	2.09
	L0000422	531075.43	4620863.98	796.23	0.00	0.01370	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE3	L0000423	531086.55	4620859.48	797.27	0.00	0.01370	6.00		5.58	2.09
	L0000424	531097.67	4620854.98	798.30	0.00	0.01370	6.00		5.58	2.09
	L0000425	531108.80	4620850.48	799.31	0.00	0.01370	6.00		5.58	2.09
	L0000426	531119.92	4620845.98	800.17	0.00	0.01370	6.00		5.58	2.09
	L0000427	531131.05	4620841.48	800.91	0.00	0.01370	6.00		5.58	2.09
	L0000428	531142.17	4620836.98	801.65	0.00	0.01370	6.00		5.58	2.09
	L0000429	531153.30	4620832.48	802.39	0.00	0.01370	6.00		5.58	2.09
	L0000430	531164.42	4620827.98	803.13	0.00	0.01370	6.00		5.58	2.09
	L0000431	531175.55	4620823.48	803.87	0.00	0.01370	6.00		5.58	2.09
	L0000432	531186.67	4620818.98	804.66	0.00	0.01370	6.00		5.58	2.09
	L0000433	531197.79	4620814.48	805.56	0.00	0.01370	6.00		5.58	2.09
	L0000434	531208.92	4620809.98	806.46	0.00	0.01370	6.00		5.58	2.09
	L0000435	531220.04	4620805.48	807.36	0.00	0.01370	6.00		5.58	2.09
	L0000436	531231.17	4620800.99	808.26	0.00	0.01370	6.00		5.58	2.09
	L0000437	531229.95	4620796.08	808.27	0.00	0.01370	6.00		5.58	2.09
	L0000438	531219.14	4620790.86	807.60	0.00	0.01370	6.00		5.58	2.09
	L0000439	531208.34	4620785.65	806.93	0.00	0.01370	6.00		5.58	2.09
	L0000440	531197.53	4620780.43	806.26	0.00	0.01370	6.00		5.58	2.09
	L0000441	531186.72	4620775.21	805.59	0.00	0.01370	6.00		5.58	2.09
	L0000442	531175.92	4620770.00	805.04	0.00	0.01370	6.00		5.58	2.09
	L0000443	531164.92	4620769.43	804.41	0.00	0.01370	6.00		5.58	2.09
	L0000444	531153.73	4620773.77	803.67	0.00	0.01370	6.00		5.58	2.09
	L0000445	531142.54	4620778.10	802.93	0.00	0.01370	6.00		5.58	2.09
	L0000446	531131.35	4620782.43	802.19	0.00	0.01370	6.00		5.58	2.09
	L0000447	531120.16	4620786.76	801.45	0.00	0.01370	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE3	L0000448	531108.97	4620791.09	800.64	0.00	0.01370	6.00		5.58	2.09

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE4	L0000449	531111.78	4620797.41	800.70	0.00	0.01282	6.00		5.58	2.09
	L0000450	531121.91	4620790.96	801.46	0.00	0.01282	6.00		5.58	2.09
	L0000451	531132.03	4620784.52	802.19	0.00	0.01282	6.00		5.58	2.09
	L0000452	531142.15	4620778.08	802.91	0.00	0.01282	6.00		5.58	2.09
	L0000453	531152.28	4620771.64	803.63	0.00	0.01282	6.00		5.58	2.09
	L0000454	531162.85	4620768.48	804.31	0.00	0.01282	6.00		5.58	2.09
	L0000455	531174.32	4620771.99	804.90	0.00	0.01282	6.00		5.58	2.09
	L0000456	531185.80	4620775.49	805.52	0.00	0.01282	6.00		5.58	2.09
	L0000457	531197.28	4620779.00	806.28	0.00	0.01282	6.00		5.58	2.09
	L0000458	531208.75	4620782.51	807.03	0.00	0.01282	6.00		5.58	2.09
	L0000459	531220.23	4620786.01	807.78	0.00	0.01282	6.00		5.58	2.09
	L0000460	531231.71	4620789.52	808.54	0.00	0.01282	6.00		5.58	2.09
	L0000461	531238.04	4620793.30	808.92	0.00	0.01282	6.00		5.58	2.09
	L0000462	531227.00	4620798.00	808.02	0.00	0.01282	6.00		5.58	2.09
	L0000463	531215.95	4620802.70	807.12	0.00	0.01282	6.00		5.58	2.09
	L0000464	531204.91	4620807.40	806.22	0.00	0.01282	6.00		5.58	2.09
	L0000465	531193.87	4620812.09	805.32	0.00	0.01282	6.00		5.58	2.09
	L0000466	531182.83	4620816.79	804.43	0.00	0.01282	6.00		5.58	2.09
	L0000467	531171.79	4620821.49	803.70	0.00	0.01282	6.00		5.58	2.09
	L0000468	531160.74	4620826.19	802.96	0.00	0.01282	6.00		5.58	2.09
	L0000469	531149.70	4620830.89	802.22	0.00	0.01282	6.00		5.58	2.09
	L0000470	531138.66	4620835.59	801.48	0.00	0.01282	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE4	L0000471	531127.62	4620840.29	800.74	0.00	0.01282	6.00		5.58	2.09
	L0000472	531116.58	4620844.98	800.00	0.00	0.01282	6.00		5.58	2.09
	L0000473	531105.53	4620849.68	799.07	0.00	0.01282	6.00		5.58	2.09
	L0000474	531094.49	4620854.38	798.05	0.00	0.01282	6.00		5.58	2.09
	L0000475	531083.45	4620859.08	797.03	0.00	0.01282	6.00		5.58	2.09
	L0000476	531072.41	4620863.78	795.98	0.00	0.01282	6.00		5.58	2.09
	L0000477	531061.37	4620868.48	794.92	0.00	0.01282	6.00		5.58	2.09
	L0000478	531050.33	4620873.18	793.84	0.00	0.01282	6.00		5.58	2.09
	L0000479	531039.28	4620877.88	793.11	0.00	0.01282	6.00		5.58	2.09
	L0000480	531028.24	4620882.57	792.80	0.00	0.01282	6.00		5.58	2.09
	L0000481	531017.20	4620887.27	792.58	0.00	0.01282	6.00		5.58	2.09
	L0000482	531006.16	4620891.97	792.41	0.00	0.01282	6.00		5.58	2.09
	L0000483	530995.12	4620896.67	792.25	0.00	0.01282	6.00		5.58	2.09
	L0000484	530984.07	4620901.37	792.10	0.00	0.01282	6.00		5.58	2.09
	L0000485	530973.03	4620906.07	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000486	530961.99	4620910.77	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000487	530950.95	4620915.46	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000488	530939.91	4620920.16	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000489	530928.87	4620924.86	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000490	530917.82	4620929.56	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000491	530906.78	4620934.26	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000492	530895.74	4620938.96	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000493	530884.70	4620943.66	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000494	530873.66	4620948.36	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000495	530862.61	4620953.05	792.00	0.00	0.01282	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE4	L0000496	530851.57	4620957.75	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000497	530840.53	4620962.45	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000498	530829.49	4620967.15	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000499	530818.45	4620971.85	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000500	530806.80	4620974.24	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000501	530794.87	4620975.56	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000502	530782.95	4620976.87	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000503	530771.02	4620978.19	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000504	530759.09	4620979.50	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000505	530747.16	4620980.82	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000506	530735.23	4620982.14	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000507	530723.31	4620983.45	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000508	530711.38	4620984.77	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000509	530699.45	4620986.08	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000510	530687.52	4620987.40	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000511	530675.60	4620988.72	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000512	530663.67	4620990.03	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000513	530651.74	4620991.35	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000514	530639.81	4620992.67	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000515	530627.89	4620993.98	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000516	530615.96	4620995.30	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000517	530604.03	4620996.61	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000518	530592.10	4620997.93	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000519	530580.18	4620999.25	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000520	530568.25	4621000.56	792.00	0.00	0.01282	6.00		5.58	2.09

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE4	L0000521	530556.32	4621001.88	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000522	530544.39	4621003.19	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000523	530532.47	4621004.51	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000524	530520.54	4621005.83	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000525	530508.61	4621007.14	792.00	0.00	0.01282	6.00		5.58	2.09
	L0000526	530496.68	4621008.46	792.00	0.00	0.01282	6.00		5.58	2.09

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	530416.39	4620353.01	25	25	50.00	50.00

Discrete Receptors

Plant Boundary Receptors

Cartesian Plant Boundary

Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	531272.85	4620771.32	FENCEPRI	811.83	
2	531263.91	4620742.70	FENCEPRI	811.78	
3	531169.11	4620656.84	FENCEPRI	807.06	
4	531013.48	4620807.09	FENCEPRI	793.91	
5	531051.05	4620857.18	FENCEPRI	794.40	
6	531226.35	4620782.05	FENCEPRI	808.31	

Discrete Cartesian Receptors (ARC) for EVALFILE Output

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	530319.13	4621202.00	ARCRC	793.98	
2	530169.71	4621068.43	ARCRC	801.16	
3	530147.07	4620771.85	ARCRC	800.44	
4	529970.49	4620513.76	ARCRC	802.22	

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors
2	ARCRC	Discrete Cartesian Receptors for EVALFILE Output
3	UCART1	Receptors generated from Uniform Cartesian Grid

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: ..\725955.SFC
Format Type: Default AERMET format

Profile Met Data

Filename: ..\725955.PFL
Format Type: Default AERMET format

Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 3.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface Upper Air		2009 2009			MEDFORD/JACKSON COUNTY ARPT

Data Period

Data Period to Process

Start Date: 1/1/2009 Start Hour: 1 End Date: 1/2/2014 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Control Pathway

AERMOD

Dispersion Options

Titles W:\Projects\2022\2022-107 Yreka Travel Plaza and Hotel\Modeling\Yrik	
Dispersion Options <input checked="" type="checkbox"/> Regulatory Default <input type="checkbox"/> Non-Default Options	Dispersion Coefficient Rural
	Output Type <input checked="" type="checkbox"/> Concentration <input type="checkbox"/> Total Deposition (Dry & Wet) <input type="checkbox"/> Dry Deposition <input type="checkbox"/> Wet Deposition
	Plume Depletion <input type="checkbox"/> Dry Removal <input type="checkbox"/> Wet Removal
	Output Warnings <input type="checkbox"/> No Output Warnings <input type="checkbox"/> Non-fatal Warnings for Non-sequential Met Data

Pollutant / Averaging Time / Terrain Options

Pollutant Type OTHER - UNIT	Exponential Decay Option not available
Averaging Time Options Hours <input checked="" type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> 8 <input type="checkbox"/> 12 <input type="checkbox"/> 24 <input type="checkbox"/> Month <input checked="" type="checkbox"/> Period <input type="checkbox"/> Annual	Terrain Height Options <input type="checkbox"/> Flat <input checked="" type="checkbox"/> Elevated SO: Meters RE: Meters TG: Meters
Flagpole Receptors <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Default Height = 0.00 m	

Optional Files



Re-Start File



Init File



Multi-Year Analyses



Event Input File



Error Listing File

Detailed Error Listing File

Filename: Yrika_Gas_Htl.err

ATTACHMENT C

CalEEMod Output Files – Greenhouse Gas Emissions

PHASE 1 CONSTRUCTION EMISSIONS

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Yreka Travel Center and Hotel Project- Phase 1****Siskiyou County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Non-Asphalt Surfaces	2.34	Acre	2.34	101,930.40	0
Parking Lot	99.00	Space	0.89	39,600.00	0
Convenience Market (24 hour)	12.30	1000sqft	0.28	12,300.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2024
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Other non-asphalt surface added to account for pat park area and other associated features.

Construction Phase - Building construction, paving and painting assume to occur simultaneously. Construction timing provided by project applicant.

Trips and VMT - Between 4 and 10 construction workers per day per project applicant.

Grading - Cut and fill provided by project applicant. Total divided between phase 1 and phase 2.

Vehicle Trips - Model run done for phase 1 construction only.

Energy Use - Model run done for phase 1 construction only.

Water And Wastewater - Model run done for phase 1 construction only.

Solid Waste - Model run done for phase 1 construction only.

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	249.00
tblConstructionPhase	NumDays	18.00	249.00
tblConstructionPhase	NumDays	18.00	249.00
tblEnergyUse	LightingElect	5.70	0.00
tblEnergyUse	LightingElect	1.81	0.00
tblEnergyUse	LightingElect	0.35	0.00
tblEnergyUse	NT24E	2.81	0.00
tblEnergyUse	NT24E	1.85	0.00
tblEnergyUse	NT24NG	0.31	0.00
tblEnergyUse	T24E	4.47	0.00
tblEnergyUse	T24E	0.56	0.00
tblEnergyUse	T24NG	7.14	0.00
tblEnergyUse	T24NG	3.17	0.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialImported	0.00	8,975.00
tblGrading	MaterialImported	0.00	8,975.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	36.96	0.00
tblSolidWaste	SolidWasteGenerationRate	10.78	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	64.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	10.00
tblVehicleTrips	ST_TR	1,084.17	0.00

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	ST_TR	182.17	0.00
tblVehicleTrips	SU_TR	901.17	0.00
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	WD_TR	762.28	0.00
tblVehicleTrips	WD_TR	172.01	0.00
tblWater	IndoorWaterUseRate	911,092.01	0.00
tblWater	IndoorWaterUseRate	265,637.78	0.00
tblWater	OutdoorWaterUseRate	558,411.23	0.00
tblWater	OutdoorWaterUseRate	162,810.25	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3467	2.0850	2.3820	4.8600e-003	0.1341	0.0924	0.2264	0.0543	0.0866	0.1409	0.0000	430.3334	430.3334	0.0823	0.0153	436.9383
2024	0.2519	1.3333	1.7601	3.1400e-003	0.0284	0.0596	0.0880	7.7600e-003	0.0559	0.0637	0.0000	274.5595	274.5595	0.0599	4.1100e-003	277.2816
Maximum	0.3467	2.0850	2.3820	4.8600e-003	0.1341	0.0924	0.2264	0.0543	0.0866	0.1409	0.0000	430.3334	430.3334	0.0823	0.0153	436.9383

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.3467	2.0850	2.3820	4.8600e-003	0.1341	0.0924	0.2264	0.0543	0.0866	0.1409	0.0000	430.3330	430.3330	0.0823	0.0153	436.9379
2024	0.2519	1.3333	1.7601	3.1400e-003	0.0284	0.0596	0.0880	7.7600e-003	0.0559	0.0637	0.0000	274.5592	274.5592	0.0599	4.1100e-003	277.2814
Maximum	0.3467	2.0850	2.3820	4.8600e-003	0.1341	0.0924	0.2264	0.0543	0.0866	0.1409	0.0000	430.3330	430.3330	0.0823	0.0153	436.9379

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	5-18-2023	8-17-2023	0.9562	0.9562
4	8-18-2023	11-17-2023	1.0052	1.0052
5	11-18-2023	2-17-2024	0.9780	0.9780
6	2-18-2024	5-17-2024	0.9269	0.9269
7	5-18-2024	8-17-2024	0.1438	0.1438
		Highest	1.0052	1.0052

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0908	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0908	1.0000e-005	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0908	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0908	1.0000e-005	1.2300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2023	6/7/2023	5	5	
2	Grading	Grading	6/8/2023	6/19/2023	5	8	
3	Building Construction	Building Construction	6/20/2023	5/31/2024	5	249	

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	6/20/2023	5/31/2024	5	249
5	Architectural Coating	Architectural Coating	6/20/2023	5/31/2024	5	249

Acres of Grading (Site Preparation Phase): 7.5**Acres of Grading (Grading Phase): 8****Acres of Paving: 3.23****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 22,685; Non-Residential Outdoor: 7,562; Striped Parking Area: 8,492 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	26.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2023****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0497	0.0000	0.0497	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0497	3.1700e-003	0.0528	0.0253	2.9100e-003	0.0282	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0748	0.0185	3.3000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3200e-003	0.0000	31.4248	31.4248	6.0000e-005	4.9400e-003	32.8983
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.1700e-003	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2669	0.2669	1.0000e-005	1.0000e-005	0.2696
Total	1.6700e-003	0.0749	0.0197	3.3000e-004	9.7500e-003	7.4000e-004	0.0105	2.6900e-003	7.1000e-004	3.4000e-003	0.0000	31.6917	31.6917	7.0000e-005	4.9500e-003	33.1679

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0497	0.0000	0.0497	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	6.6500e-003	0.0688	0.0456	1.0000e-004	0.0497	3.1700e-003	0.0528	0.0253	2.9100e-003	0.0282	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0748	0.0185	3.3000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3200e-003	0.0000	31.4248	31.4248	6.0000e-005	4.9400e-003	32.8983
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.6000e-004	1.1000e-004	1.1700e-003	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2669	0.2669	1.0000e-005	1.0000e-005	0.2696
Total	1.6700e-003	0.0749	0.0197	3.3000e-004	9.7500e-003	7.4000e-004	0.0105	2.6900e-003	7.1000e-004	3.4000e-003	0.0000	31.6917	31.6917	7.0000e-005	4.9500e-003	33.1679

3.3 Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0288	0.0000	0.0288	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	6.8400e-003	0.0717	0.0590	1.2000e-004	0.0288	3.1000e-003	0.0319	0.0138	2.8500e-003	0.0166	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0748	0.0185	3.3000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3200e-003	0.0000	31.4248	31.4248	6.0000e-005	4.9400e-003	32.8983
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.8000e-004	1.8700e-003	0.0000	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4271	0.4271	1.0000e-005	1.0000e-005	0.4314
Total	1.7700e-003	0.0749	0.0204	3.3000e-004	9.9400e-003	7.4000e-004	0.0107	2.7400e-003	7.1000e-004	3.4500e-003	0.0000	31.8519	31.8519	7.0000e-005	4.9500e-003	33.3297

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0288	0.0000	0.0288	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	6.8400e-003	0.0717	0.0590	1.2000e-004	0.0288	3.1000e-003	0.0319	0.0138	2.8500e-003	0.0166	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0748	0.0185	3.3000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3200e-003	0.0000	31.4248	31.4248	6.0000e-005	4.9400e-003	32.8983
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.6000e-004	1.8000e-004	1.8700e-003	0.0000	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4271	0.4271	1.0000e-005	1.0000e-005	0.4314
Total	1.7700e-003	0.0749	0.0204	3.3000e-004	9.9400e-003	7.4000e-004	0.0107	2.7400e-003	7.1000e-004	3.4500e-003	0.0000	31.8519	31.8519	7.0000e-005	4.9500e-003	33.3297

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1093	0.9998	1.1290	1.8700e-003		0.0486	0.0486		0.0458	0.0458	0.0000	161.1043	161.1043	0.0383	0.0000	162.0624
Total	0.1093	0.9998	1.1290	1.8700e-003		0.0486	0.0486		0.0458	0.0458	0.0000	161.1043	161.1043	0.0383	0.0000	162.0624

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0100e-003	0.0842	0.0375	3.5000e-004	0.0106	5.7000e-004	0.0112	3.0800e-003	5.5000e-004	3.6300e-003	0.0000	33.0596	33.0596	1.8000e-004	4.6700e-003	34.4542
Worker	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961
Total	8.4700e-003	0.0873	0.0701	4.3000e-004	0.0191	6.3000e-004	0.0197	5.3200e-003	6.1000e-004	5.9300e-003	0.0000	40.4805	40.4805	4.3000e-004	4.9000e-003	41.9503

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1093	0.9998	1.1290	1.8700e-003		0.0486	0.0486		0.0458	0.0458	0.0000	161.1041	161.1041	0.0383	0.0000	162.0622
Total	0.1093	0.9998	1.1290	1.8700e-003		0.0486	0.0486		0.0458	0.0458	0.0000	161.1041	161.1041	0.0383	0.0000	162.0622

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	4.0100e-003	0.0842	0.0375	3.5000e-004	0.0106	5.7000e-004	0.0112	3.0800e-003	5.5000e-004	3.6300e-003	0.0000	33.0596	33.0596	1.8000e-004	4.6700e-003	34.4542
Worker	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961
Total	8.4700e-003	0.0873	0.0701	4.3000e-004	0.0191	6.3000e-004	0.0197	5.3200e-003	6.1000e-004	5.9300e-003	0.0000	40.4805	40.4805	4.3000e-004	4.9000e-003	41.9503

3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0809	0.7394	0.8892	1.4800e-003		0.0337	0.0337		0.0317	0.0317	0.0000	127.5170	127.5170	0.0302	0.0000	128.2709
Total	0.0809	0.7394	0.8892	1.4800e-003		0.0337	0.0337		0.0317	0.0317	0.0000	127.5170	127.5170	0.0302	0.0000	128.2709

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9500e-003	0.0654	0.0284	2.7000e-004	8.4100e-003	4.5000e-004	8.8500e-003	2.4400e-003	4.3000e-004	2.8600e-003	0.0000	25.7164	25.7164	1.3000e-004	3.6000e-003	26.7936
Worker	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850
Total	6.2600e-003	0.0676	0.0520	3.3000e-004	0.0151	5.0000e-004	0.0156	4.2200e-003	4.7000e-004	4.6800e-003	0.0000	31.4469	31.4469	3.1000e-004	3.7700e-003	32.5787

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0809	0.7394	0.8892	1.4800e-003		0.0337	0.0337		0.0317	0.0317	0.0000	127.5169	127.5169	0.0302	0.0000	128.2707
Total	0.0809	0.7394	0.8892	1.4800e-003		0.0337	0.0337		0.0317	0.0317	0.0000	127.5169	127.5169	0.0302	0.0000	128.2707

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.9500e-003	0.0654	0.0284	2.7000e-004	8.4100e-003	4.5000e-004	8.8500e-003	2.4400e-003	4.3000e-004	2.8600e-003	0.0000	25.7164	25.7164	1.3000e-004	3.6000e-003	26.7936
Worker	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850
Total	6.2600e-003	0.0676	0.0520	3.3000e-004	0.0151	5.0000e-004	0.0156	4.2200e-003	4.7000e-004	4.6800e-003	0.0000	31.4469	31.4469	3.1000e-004	3.7700e-003	32.5787

3.5 Paving - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0638	0.6109	0.8472	1.3200e-003		0.0303	0.0303		0.0280	0.0280	0.0000	113.8312	113.8312	0.0358	0.0000	114.7254
Paving	6.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0645	0.6109	0.8472	1.3200e-003		0.0303	0.0303		0.0280	0.0280	0.0000	113.8312	113.8312	0.0358	0.0000	114.7254

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961
Total	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0638	0.6109	0.8472	1.3200e-003		0.0303	0.0303		0.0280	0.0280	0.0000	113.8311	113.8311	0.0358	0.0000	114.7252
Paving	6.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0645	0.6109	0.8472	1.3200e-003		0.0303	0.0303		0.0280	0.0280	0.0000	113.8311	113.8311	0.0358	0.0000	114.7252

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961
Total	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961

3.5 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0485	0.4550	0.6722	1.0400e-003		0.0219	0.0219		0.0203	0.0203	0.0000	90.0917	90.0917	0.0283	0.0000	90.7994
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0490	0.4550	0.6722	1.0400e-003		0.0219	0.0219		0.0203	0.0203	0.0000	90.0917	90.0917	0.0283	0.0000	90.7994

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850
Total	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0485	0.4550	0.6722	1.0400e-003		0.0219	0.0219		0.0203	0.0203	0.0000	90.0916	90.0916	0.0283	0.0000	90.7993
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0490	0.4550	0.6722	1.0400e-003		0.0219	0.0219		0.0203	0.0203	0.0000	90.0916	90.0916	0.0283	0.0000	90.7993

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850
Total	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850

3.6 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0906	0.1259	2.1000e-004		4.9200e-003	4.9200e-003		4.9200e-003	4.9200e-003	0.0000	17.7451	17.7451	1.0600e-003	0.0000	17.7717
Total	0.1386	0.0906	0.1259	2.1000e-004		4.9200e-003	4.9200e-003		4.9200e-003	4.9200e-003	0.0000	17.7451	17.7451	1.0600e-003	0.0000	17.7717

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961
Total	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.1253					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0133	0.0906	0.1259	2.1000e-004		4.9200e-003	4.9200e-003		4.9200e-003	4.9200e-003	0.0000	17.7451	17.7451	1.0600e-003	0.0000	17.7716
Total	0.1386	0.0906	0.1259	2.1000e-004		4.9200e-003	4.9200e-003		4.9200e-003	4.9200e-003	0.0000	17.7451	17.7451	1.0600e-003	0.0000	17.7716

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961
Total	4.4600e-003	3.0900e-003	0.0326	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	6.0000e-005	2.3000e-003	0.0000	7.4209	7.4209	2.5000e-004	2.3000e-004	7.4961

3.6 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0992					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9400e-003	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627
Total	0.1091	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850
Total	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0992					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.9400e-003	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627
Total	0.1091	0.0670	0.0996	1.6000e-004		3.3500e-003	3.3500e-003		3.3500e-003	3.3500e-003	0.0000	14.0429	14.0429	7.9000e-004	0.0000	14.0627

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Architectural Coating - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850
Total	3.3100e-003	2.1600e-003	0.0236	6.0000e-005	6.6700e-003	5.0000e-005	6.7200e-003	1.7800e-003	4.0000e-005	1.8200e-003	0.0000	5.7305	5.7305	1.8000e-004	1.7000e-004	5.7850

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	0.00	0.00	0.00		
Gasoline/Service Station	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 hour)	14.70	6.60	6.60	0.90	80.10	19.00	24	15	61
Gasoline/Service Station	14.70	6.60	6.60	2.00	79.00	19.00	14	27	59
Other Non-Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

5.1 Mitigation Measures Energy

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigated

[illegible]

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0908	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003
Unmitigated	0.0908	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0682					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003
Total	0.0908	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0224					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0682					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.1000e-004	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003
Total	0.0908	1.0000e-005	1.2300e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.3900e-003	2.3900e-003	1.0000e-005	0.0000	2.5400e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0 / 0	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0 / 0	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail

8.1 Mitigation Measures Waste

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	0	0.0000	0.0000	0.0000	0.0000
Gasoline/Service Station	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Yreka Travel Center and Hotel Project- Phase 1 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number
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11.0 Vegetation

PHASE 2 CONSTRUCTION EMISSIONS

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Yreka Travel Center and Hotel Project- Phase 2****Siskiyou County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	79.00	Space	0.71	31,600.00	0
Hotel	70.00	Room	2.33	101,640.00	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2024
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - Building construction, paving and painting assume to occur simultaneously. Construction timing provided by project applicant.

Trips and VMT - Between 4 and 10 construction workers per day per project applicant.

Grading - Cut and fill provided by project applicant. Total divided between phase 1 and phase 2.

Vehicle Trips - Model run done for phase 2 construction only.

Energy Use - Model run done for phase 2 construction only.

Water And Wastewater - Model run done for phase 2 construction only.

Solid Waste - Model run done for phase 2 construction only.

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	247.00
tblConstructionPhase	NumDays	18.00	247.00
tblConstructionPhase	NumDays	18.00	247.00
tblEnergyUse	LightingElect	2.57	0.00
tblEnergyUse	NT24E	2.87	0.00
tblEnergyUse	T24E	1.81	0.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialExported	0.00	40.00
tblGrading	MaterialImported	0.00	8,975.00
tblGrading	MaterialImported	0.00	8,975.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblSolidWaste	SolidWasteGenerationRate	38.32	0.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00
tblTripsAndVMT	WorkerTripNumber	15.00	10.00
tblTripsAndVMT	WorkerTripNumber	56.00	10.00
tblTripsAndVMT	WorkerTripNumber	20.00	10.00
tblTripsAndVMT	WorkerTripNumber	11.00	10.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	8.36	0.00
tblWater	IndoorWaterUseRate	1,775,673.90	0.00
tblWater	OutdoorWaterUseRate	197,297.10	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.8780	1.9558	2.3630	4.7800e-003	0.1325	0.0827	0.2151	0.0539	0.0775	0.1313	0.0000	422.4123	422.4123	0.0819	0.0142	428.6826
2025	0.6590	1.2007	1.7103	3.0300e-003	0.0266	0.0508	0.0774	7.2600e-003	0.0476	0.0549	0.0000	264.4131	264.4131	0.0586	3.3700e-003	266.8817
Maximum	0.8780	1.9558	2.3630	4.7800e-003	0.1325	0.0827	0.2151	0.0539	0.0775	0.1313	0.0000	422.4123	422.4123	0.0819	0.0142	428.6826

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2024	0.8780	1.9558	2.3630	4.7800e-003	0.1325	0.0827	0.2151	0.0539	0.0775	0.1313	0.0000	422.4119	422.4119	0.0819	0.0142	428.6822
2025	0.6590	1.2007	1.7103	3.0300e-003	0.0266	0.0508	0.0774	7.2600e-003	0.0476	0.0549	0.0000	264.4128	264.4128	0.0586	3.3700e-003	266.8814
Maximum	0.8780	1.9558	2.3630	4.7800e-003	0.1325	0.0827	0.2151	0.0539	0.0775	0.1313	0.0000	422.4119	422.4119	0.0819	0.0142	428.6822

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
7	5-18-2024	8-17-2024	1.0733	1.0733
8	8-18-2024	11-17-2024	1.1984	1.1984
9	11-18-2024	2-17-2025	1.1662	1.1662
10	2-18-2025	5-17-2025	1.0951	1.0951
11	5-18-2025	8-17-2025	0.1596	0.1596
		Highest	1.1984	1.1984

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5180	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Energy	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	117.4651	117.4651	2.3000e-003	2.0600e-003	118.1379
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.5293	0.1025	0.0874	6.1000e-004	0.0000	7.7900e-003	7.7900e-003	0.0000	7.7900e-003	7.7900e-003	0.0000	117.4678	117.4678	2.3100e-003	2.0600e-003	118.1407

Yreka Travel Center and Hotel Project- Phase 2 - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5180	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Energy	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	117.4651	117.4651	2.3000e-003	2.0600e-003	118.1379
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.5293	0.1025	0.0874	6.1000e-004	0.0000	7.7900e-003	7.7900e-003	0.0000	7.7900e-003	7.7900e-003	0.0000	117.4678	117.4678	2.3100e-003	2.0600e-003	118.1407

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/1/2024	6/7/2024	5	5	
2	Grading	Grading	6/8/2024	6/19/2024	5	8	
3	Building Construction	Building Construction	6/20/2024	5/30/2025	5	247	

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

4	Paving	Paving	6/20/2024	5/30/2025	5	247
5	Architectural Coating	Architectural Coating	6/20/2024	5/30/2025	5	247

Acres of Grading (Site Preparation Phase): 7.5**Acres of Grading (Grading Phase): 8****Acres of Paving: 0.71****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 152,460; Non-Residential Outdoor: 50,820; Striped Parking Area: 1,896 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	10.00	0.00	1,127.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	10.00	22.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	10.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2024****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0497	0.0000	0.0497	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0679	0.0458	1.0000e-004		3.0700e-003	3.0700e-003		2.8300e-003	2.8300e-003	0.0000	8.3643	8.3643	2.7100e-003	0.0000	8.4319
Total	6.6500e-003	0.0679	0.0458	1.0000e-004	0.0497	3.0700e-003	0.0527	0.0253	2.8300e-003	0.0282	0.0000	8.3643	8.3643	2.7100e-003	0.0000	8.4319

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0737	0.0186	3.2000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3100e-003	0.0000	30.7264	30.7264	6.0000e-005	4.8300e-003	32.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.0000e-004	1.0700e-003	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2552	0.2552	1.0000e-005	1.0000e-005	0.2577
Total	1.6600e-003	0.0738	0.0196	3.2000e-004	9.7500e-003	7.4000e-004	0.0105	2.6900e-003	7.1000e-004	3.3900e-003	0.0000	30.9816	30.9816	7.0000e-005	4.8400e-003	32.4249

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0497	0.0000	0.0497	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0679	0.0458	1.0000e-004		3.0700e-003	3.0700e-003		2.8300e-003	2.8300e-003	0.0000	8.3643	8.3643	2.7100e-003	0.0000	8.4319
Total	6.6500e-003	0.0679	0.0458	1.0000e-004	0.0497	3.0700e-003	0.0527	0.0253	2.8300e-003	0.0282	0.0000	8.3643	8.3643	2.7100e-003	0.0000	8.4319

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Site Preparation - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0737	0.0186	3.2000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3100e-003	0.0000	30.7264	30.7264	6.0000e-005	4.8300e-003	32.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.0000e-004	1.0700e-003	0.0000	3.0000e-004	0.0000	3.1000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2552	0.2552	1.0000e-005	1.0000e-005	0.2577
Total	1.6600e-003	0.0738	0.0196	3.2000e-004	9.7500e-003	7.4000e-004	0.0105	2.6900e-003	7.1000e-004	3.3900e-003	0.0000	30.9816	30.9816	7.0000e-005	4.8400e-003	32.4249

3.3 Grading - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0288	0.0000	0.0288	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0681	0.0590	1.2000e-004		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099
Total	6.6500e-003	0.0681	0.0590	1.2000e-004	0.0288	2.9000e-003	0.0317	0.0138	2.6700e-003	0.0165	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0737	0.0186	3.2000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3100e-003	0.0000	30.7264	30.7264	6.0000e-005	4.8300e-003	32.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	1.7100e-003	0.0000	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4084	0.4084	1.0000e-005	1.0000e-005	0.4123
Total	1.7500e-003	0.0739	0.0203	3.2000e-004	9.9400e-003	7.4000e-004	0.0107	2.7400e-003	7.1000e-004	3.4400e-003	0.0000	31.1347	31.1347	7.0000e-005	4.8400e-003	32.5795

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0288	0.0000	0.0288	0.0138	0.0000	0.0138	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0681	0.0590	1.2000e-004		2.9000e-003	2.9000e-003		2.6700e-003	2.6700e-003	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099
Total	6.6500e-003	0.0681	0.0590	1.2000e-004	0.0288	2.9000e-003	0.0317	0.0138	2.6700e-003	0.0165	0.0000	10.4256	10.4256	3.3700e-003	0.0000	10.5099

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.3 Grading - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.5100e-003	0.0737	0.0186	3.2000e-004	9.4500e-003	7.4000e-004	0.0102	2.6100e-003	7.1000e-004	3.3100e-003	0.0000	30.7264	30.7264	6.0000e-005	4.8300e-003	32.1672
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.4000e-004	1.6000e-004	1.7100e-003	0.0000	4.9000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.4084	0.4084	1.0000e-005	1.0000e-005	0.4123
Total	1.7500e-003	0.0739	0.0203	3.2000e-004	9.9400e-003	7.4000e-004	0.0107	2.7400e-003	7.1000e-004	3.4400e-003	0.0000	31.1347	31.1347	7.0000e-005	4.8400e-003	32.5795

3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1023	0.9343	1.1236	1.8700e-003		0.0426	0.0426		0.0401	0.0401	0.0000	161.1351	161.1351	0.0381	0.0000	162.0877
Total	0.1023	0.9343	1.1236	1.8700e-003		0.0426	0.0426		0.0401	0.0401	0.0000	161.1351	161.1351	0.0381	0.0000	162.0877

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1500e-003	0.0699	0.0304	2.9000e-004	8.9900e-003	4.8000e-004	9.4700e-003	2.6100e-003	4.6000e-004	3.0600e-003	0.0000	27.4967	27.4967	1.4000e-004	3.8500e-003	28.6486
Worker	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642
Total	7.3300e-003	0.0726	0.0601	3.7000e-004	0.0174	5.4000e-004	0.0180	4.8500e-003	5.1000e-004	5.3600e-003	0.0000	34.5921	34.5921	3.6000e-004	4.0600e-003	35.8128

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1023	0.9343	1.1236	1.8700e-003		0.0426	0.0426		0.0401	0.0401	0.0000	161.1349	161.1349	0.0381	0.0000	162.0875
Total	0.1023	0.9343	1.1236	1.8700e-003		0.0426	0.0426		0.0401	0.0401	0.0000	161.1349	161.1349	0.0381	0.0000	162.0875

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.1500e-003	0.0699	0.0304	2.9000e-004	8.9900e-003	4.8000e-004	9.4700e-003	2.6100e-003	4.6000e-004	3.0600e-003	0.0000	27.4967	27.4967	1.4000e-004	3.8500e-003	28.6486
Worker	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642
Total	7.3300e-003	0.0726	0.0601	3.7000e-004	0.0174	5.4000e-004	0.0180	4.8500e-003	5.1000e-004	5.3600e-003	0.0000	34.5921	34.5921	3.6000e-004	4.0600e-003	35.8128

3.4 Building Construction - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0738	0.6734	0.8686	1.4600e-003		0.0285	0.0285		0.0268	0.0268	0.0000	125.2365	125.2365	0.0294	0.0000	125.9725
Total	0.0738	0.6734	0.8686	1.4600e-003		0.0285	0.0285		0.0268	0.0268	0.0000	125.2365	125.2365	0.0294	0.0000	125.9725

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0532	0.0229	2.2000e-004	6.9900e-003	3.6000e-004	7.3500e-003	2.0200e-003	3.5000e-004	2.3700e-003	0.0000	20.9533	20.9533	1.0000e-004	2.9100e-003	21.8244
Worker	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804
Total	5.3500e-003	0.0550	0.0441	2.8000e-004	0.0135	4.0000e-004	0.0139	3.7600e-003	3.9000e-004	4.1500e-003	0.0000	26.2844	26.2844	2.5000e-004	3.0600e-003	27.2048

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0738	0.6734	0.8686	1.4600e-003		0.0285	0.0285		0.0268	0.0268	0.0000	125.2364	125.2364	0.0294	0.0000	125.9723
Total	0.0738	0.6734	0.8686	1.4600e-003		0.0285	0.0285		0.0268	0.0268	0.0000	125.2364	125.2364	0.0294	0.0000	125.9723

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.4 Building Construction - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.3100e-003	0.0532	0.0229	2.2000e-004	6.9900e-003	3.6000e-004	7.3500e-003	2.0200e-003	3.5000e-004	2.3700e-003	0.0000	20.9533	20.9533	1.0000e-004	2.9100e-003	21.8244
Worker	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804
Total	5.3500e-003	0.0550	0.0441	2.8000e-004	0.0135	4.0000e-004	0.0139	3.7600e-003	3.9000e-004	4.1500e-003	0.0000	26.2844	26.2844	2.5000e-004	3.0600e-003	27.2048

3.5 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0613	0.5750	0.8494	1.3200e-003		0.0277	0.0277		0.0256	0.0256	0.0000	113.8432	113.8432	0.0358	0.0000	114.7374
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0618	0.5750	0.8494	1.3200e-003		0.0277	0.0277		0.0256	0.0256	0.0000	113.8432	113.8432	0.0358	0.0000	114.7374

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642
Total	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0613	0.5750	0.8494	1.3200e-003		0.0277	0.0277		0.0256	0.0256	0.0000	113.8431	113.8431	0.0358	0.0000	114.7373
Paving	5.2000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0618	0.5750	0.8494	1.3200e-003		0.0277	0.0277		0.0256	0.0256	0.0000	113.8431	113.8431	0.0358	0.0000	114.7373

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642
Total	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642

3.5 Paving - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0443	0.4067	0.6576	1.0200e-003		0.0190	0.0190		0.0176	0.0176	0.0000	88.4425	88.4425	0.0278	0.0000	89.1373
Paving	4.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0447	0.4067	0.6576	1.0200e-003		0.0190	0.0190		0.0176	0.0176	0.0000	88.4425	88.4425	0.0278	0.0000	89.1373

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804
Total	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0443	0.4067	0.6576	1.0200e-003		0.0190	0.0190		0.0176	0.0176	0.0000	88.4424	88.4424	0.0278	0.0000	89.1371
Paving	4.1000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0447	0.4067	0.6576	1.0200e-003		0.0190	0.0190		0.0176	0.0176	0.0000	88.4424	88.4424	0.0278	0.0000	89.1371

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.5 Paving - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804
Total	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804

3.6 Architectural Coating - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6690					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0847	0.1258	2.1000e-004		4.2300e-003	4.2300e-003		4.2300e-003	4.2300e-003	0.0000	17.7451	17.7451	1.0000e-003	0.0000	17.7701
Total	0.6815	0.0847	0.1258	2.1000e-004		4.2300e-003	4.2300e-003		4.2300e-003	4.2300e-003	0.0000	17.7451	17.7451	1.0000e-003	0.0000	17.7701

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642
Total	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.6690					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0126	0.0847	0.1258	2.1000e-004		4.2300e-003	4.2300e-003		4.2300e-003	4.2300e-003	0.0000	17.7451	17.7451	1.0000e-003	0.0000	17.7701
Total	0.6815	0.0847	0.1258	2.1000e-004		4.2300e-003	4.2300e-003		4.2300e-003	4.2300e-003	0.0000	17.7451	17.7451	1.0000e-003	0.0000	17.7701

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642
Total	4.1800e-003	2.7200e-003	0.0297	8.0000e-005	8.4300e-003	6.0000e-005	8.4900e-003	2.2400e-003	5.0000e-005	2.3000e-003	0.0000	7.0953	7.0953	2.2000e-004	2.1000e-004	7.1642

3.6 Architectural Coating - 2025**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5198					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.0619	0.0977	1.6000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003	0.0000	13.7876	13.7876	7.5000e-004	0.0000	13.8064
Total	0.5290	0.0619	0.0977	1.6000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003	0.0000	13.7876	13.7876	7.5000e-004	0.0000	13.8064

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2025****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804
Total	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5198					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.2300e-003	0.0619	0.0977	1.6000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003	0.0000	13.7876	13.7876	7.5000e-004	0.0000	13.8064
Total	0.5290	0.0619	0.0977	1.6000e-004		2.7800e-003	2.7800e-003		2.7800e-003	2.7800e-003	0.0000	13.7876	13.7876	7.5000e-004	0.0000	13.8064

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.6 Architectural Coating - 2025****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804
Total	3.0400e-003	1.8800e-003	0.0212	6.0000e-005	6.5500e-003	4.0000e-005	6.5900e-003	1.7400e-003	4.0000e-005	1.7800e-003	0.0000	5.3311	5.3311	1.5000e-004	1.5000e-004	5.3804

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	58	38	4
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Hotel	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157
Parking Lot	0.463527	0.065478	0.196538	0.150553	0.048906	0.009644	0.005052	0.023105	0.000601	0.000156	0.030415	0.000868	0.005157

5.0 Energy Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.9498	5.9498	1.7000e-004	2.0000e-005	5.9599
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	5.9498	5.9498	1.7000e-004	2.0000e-005	5.9599
NaturalGas Mitigated	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
NaturalGas Unmitigated	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	11060	5.9498	1.7000e-004	2.0000e-005	5.9599
Total		5.9498	1.7000e-004	2.0000e-005	5.9599

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	11060	5.9498	1.7000e-004	2.0000e-005	5.9599
Total		5.9498	1.7000e-004	2.0000e-005	5.9599

6.0 Area Detail

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5180	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Unmitigated	0.5180	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1189					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3990					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Total	0.5180	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1189					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3990					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.3000e-004	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003
Total	0.5180	1.0000e-005	1.3700e-003	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.6600e-003	2.6600e-003	1.0000e-005	0.0000	2.8400e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Hotel	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Hotel	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

OPERATIONAL BUILDOUT EMISSIONS

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Yreka Travel Center and Hotel Project****Siskiyou County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Parking Lot	99.00	Space	0.89	39,600.00	0
Parking Lot	79.00	Space	0.71	31,600.00	0
Hotel	70.00	Room	3.03	101,640.00	0
Convenience Market (24 hour)	12.30	1000sqft	0.28	12,300.00	0
Gasoline/Service Station	20.00	Pump	0.06	2,823.50	0

1.2 Other Project Characteristics

Urbanization	Rural	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	85
Climate Zone	14			Operational Year	2025
Utility Company	PacifiCorp				
CO2 Intensity (lb/MWhr)	1185.983	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Lot acreage adjusted to match the project site.

Construction Phase - Model run done for operations only

Off-road Equipment - Model run done for operations only

Trips and VMT - Model run done for operations only

Architectural Coating - Model run done for operations only

Vehicle Trips - Daily trips provided by traffic report (GHD 2022). Passby account for in traffic report.

Mobile Land Use Mitigation -

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Interior	250.00	0.00
tblConstructionPhase	NumDays	18.00	0.00
tblLandUse	LotAcreage	2.33	3.03
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblProjectCharacteristics	CO2IntensityFactor	1185.98	1185.983
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblTripsAndVMT	WorkerTripNumber	15.00	0.00
tblVehicleTrips	PB_TP	61.00	0.00
tblVehicleTrips	PB_TP	59.00	0.00
tblVehicleTrips	PB_TP	4.00	0.00
tblVehicleTrips	PR_TP	24.00	85.00
tblVehicleTrips	PR_TP	14.00	73.00
tblVehicleTrips	PR_TP	58.00	62.00
tblVehicleTrips	ST_TR	1,084.17	212.92
tblVehicleTrips	ST_TR	182.17	0.00
tblVehicleTrips	ST_TR	8.19	0.00
tblVehicleTrips	SU_TR	901.17	212.92
tblVehicleTrips	SU_TR	166.88	0.00
tblVehicleTrips	SU_TR	5.95	0.00
tblVehicleTrips	WD_TR	762.28	212.92
tblVehicleTrips	WD_TR	172.01	0.00
tblVehicleTrips	WD_TR	8.36	0.00

2.0 Emissions Summary

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
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Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Highest

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5986	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003
Energy	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	618.8402	618.8402	0.0162	3.8300e-003	620.3878
Mobile	1.6486	2.4447	13.2596	0.0229	2.0637	0.0275	2.0911	0.5529	0.0258	0.5788	0.0000	2,112.4657	2,112.4657	0.1703	0.1307	2,155.6813
Waste						0.0000	0.0000		0.0000	0.0000	17.4694	0.0000	17.4694	1.0324	0.0000	43.2797
Water						0.0000	0.0000		0.0000	0.0000	0.9367	10.3235	11.2601	0.0965	2.3100e-003	14.3597
Total	2.2590	2.5519	13.3523	0.0235	2.0637	0.0356	2.0993	0.5529	0.0340	0.5869	18.4061	2,741.6343	2,760.0404	1.3155	0.1369	2,833.7138

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**2.2 Overall Operational****Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.5986	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003
Energy	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	618.8402	618.8402	0.0162	3.8300e-003	620.3878
Mobile	1.6486	2.4447	13.2596	0.0229	2.0637	0.0275	2.0911	0.5529	0.0258	0.5788	0.0000	2,112.4657	2,112.4657	0.1703	0.1307	2,155.6813
Waste						0.0000	0.0000		0.0000	0.0000	17.4694	0.0000	17.4694	1.0324	0.0000	43.2797
Water						0.0000	0.0000		0.0000	0.0000	0.7493	8.6047	9.3540	0.0772	1.8500e-003	11.8342
Total	2.2590	2.5519	13.3523	0.0235	2.0637	0.0356	2.0993	0.5529	0.0340	0.5869	18.2187	2,739.9155	2,758.1343	1.2962	0.1364	2,831.1884

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.06	0.07	1.47	0.34	0.09

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	12/16/2023	12/15/2023	5	0	

Acres of Grading (Site Preparation Phase): 0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Acres of Paving: 1.6

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 175,145; Non-Residential Outdoor: 58,382; Striped Parking Area: 4,272 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.46

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

[illegible]

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**3.2 Architectural Coating - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

4.0 Operational Detail - Mobile**4.1 Mitigation Measures Mobile**

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.6486	2.4447	13.2596	0.0229	2.0637	0.0275	2.0911	0.5529	0.0258	0.5788	0.0000	2,112.4657	2,112.4657	0.1703	0.1307	2,155.6813
Unmitigated	1.6486	2.4447	13.2596	0.0229	2.0637	0.0275	2.0911	0.5529	0.0258	0.5788	0.0000	2,112.4657	2,112.4657	0.1703	0.1307	2,155.6813

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Convenience Market (24 hour)	2,618.92	2,618.92	2618.92	5,645,546	5,645,546
Gasoline/Service Station	0.00	0.00	0.00		
Hotel	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	2,618.92	2,618.92	2,618.92	5,645,546	5,645,546

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Convenience Market (24 hour)	14.70	6.60	6.60	0.90	80.10	19.00	85	15	0
Gasoline/Service Station	14.70	6.60	6.60	2.00	79.00	19.00	73	27	0
Hotel	14.70	6.60	6.60	19.40	61.60	19.00	62	38	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Convenience Market (24 hour)	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Gasoline/Service Station	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Hotel	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867
Parking Lot	0.470259	0.064793	0.196287	0.148148	0.046407	0.009358	0.004989	0.023157	0.000588	0.000155	0.030135	0.000857	0.004867

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	502.1140	502.1140	0.0140	1.6900e-003	502.9679
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	502.1140	502.1140	0.0140	1.6900e-003	502.9679
NaturalGas Mitigated	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7262	116.7262	2.2400e-003	2.1400e-003	117.4198
NaturalGas Unmitigated	0.0118	0.1072	0.0901	6.4000e-004		8.1500e-003	8.1500e-003		8.1500e-003	8.1500e-003	0.0000	116.7262	116.7262	2.2400e-003	2.1400e-003	117.4198

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market (24 hour)	87822	4.7000e-004	4.3000e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.6865	4.6865	9.0000e-005	9.0000e-005	4.7144
Gasoline/Service Station	9825.78	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5275
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0118	0.1072	0.0901	6.4000e-004		8.1600e-003	8.1600e-003		8.1600e-003	8.1600e-003	0.0000	116.7262	116.7262	2.2400e-003	2.1400e-003	117.4198

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Convenience Market (24 hour)	87822	4.7000e-004	4.3000e-003	3.6200e-003	3.0000e-005		3.3000e-004	3.3000e-004		3.3000e-004	3.3000e-004	0.0000	4.6865	4.6865	9.0000e-005	9.0000e-005	4.7144
Gasoline/Service Station	9825.78	5.0000e-005	4.8000e-004	4.0000e-004	0.0000		4.0000e-005	4.0000e-005		4.0000e-005	4.0000e-005	0.0000	0.5243	0.5243	1.0000e-005	1.0000e-005	0.5275
Hotel	2.08972e+006	0.0113	0.1024	0.0861	6.1000e-004		7.7900e-003	7.7900e-003		7.7900e-003	7.7900e-003	0.0000	111.5153	111.5153	2.1400e-003	2.0400e-003	112.1780
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0118	0.1072	0.0901	6.4000e-004		8.1600e-003	8.1600e-003		8.1600e-003	8.1600e-003	0.0000	116.7262	116.7262	2.2400e-003	2.1400e-003	117.4198

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 hour)	159654	85.8863	2.3900e-003	2.9000e-004	86.0324
Gasoline/Service Station	11915.2	6.4098	1.8000e-004	2.0000e-005	6.4207
Hotel	736890	396.4121	0.0110	1.3400e-003	397.0863
Parking Lot	11060	5.9498	1.7000e-004	2.0000e-005	5.9599
Parking Lot	13860	7.4560	2.1000e-004	3.0000e-005	7.4687
Total		502.1140	0.0140	1.7000e-003	502.9679

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**5.3 Energy by Land Use - Electricity****Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Convenience Market (24 hour)	159654	85.8863	2.3900e-003	2.9000e-004	86.0324
Gasoline/Service Station	11915.2	6.4098	1.8000e-004	2.0000e-005	6.4207
Hotel	736890	396.4121	0.0110	1.3400e-003	397.0863
Parking Lot	11060	5.9498	1.7000e-004	2.0000e-005	5.9599
Parking Lot	13860	7.4560	2.1000e-004	3.0000e-005	7.4687
Total		502.1140	0.0140	1.7000e-003	502.9679

6.0 Area Detail**6.1 Mitigation Measures Area**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.5986	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003
Unmitigated	0.5986	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1378					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4606					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003
Total	0.5986	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.1378					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.4606					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003
Total	0.5986	2.0000e-005	2.5700e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	5.0100e-003	5.0100e-003	1.0000e-005	0.0000	5.3300e-003

7.0 Water Detail**7.1 Mitigation Measures Water**

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Install Low Flow Shower

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	9.3540	0.0772	1.8500e-003	11.8342
Unmitigated	11.2601	0.0965	2.3100e-003	14.3597

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0.911092 / 0.558411	3.9925	0.0298	7.1000e-004	4.9499
Gasoline/Service Station	0.265638 / 0.16281	1.1641	8.6900e-003	2.1000e-004	1.4432
Hotel	1.77567 / 0.197297	6.1036	0.0580	1.3800e-003	7.9666
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		11.2601	0.0965	2.3000e-003	14.3597

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Convenience Market (24 hour)	0.728874 / 0.558411	3.4043	0.0238	5.7000e-004	4.1706
Gasoline/Service Station	0.21251 / 0.16281	0.9926	6.9500e-003	1.7000e-004	1.2160
Hotel	1.42054 / 0.197297	4.9571	0.0464	1.1100e-003	6.4477
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		9.3540	0.0772	1.8500e-003	11.8343

8.0 Waste Detail**8.1 Mitigation Measures Waste**

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	17.4694	1.0324	0.0000	43.2797
Unmitigated	17.4694	1.0324	0.0000	43.2797

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	36.96	7.5026	0.4434	0.0000	18.5872
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		17.4694	1.0324	0.0000	43.2797

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**8.2 Waste by Land Use****Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Convenience Market (24 hour)	36.96	7.5026	0.4434	0.0000	18.5872
Gasoline/Service Station	10.78	2.1882	0.1293	0.0000	5.4213
Hotel	38.32	7.7786	0.4597	0.0000	19.2712
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		17.4694	1.0324	0.0000	43.2797

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Yreka Travel Center and Hotel Project - Siskiyou County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Equipment Type	Number
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11.0 Vegetation

Biological Resources Assessment

Refresh Travel Plaza Project

Siskiyou County, California

Prepared For:

City of Yreka

January 29, 2021



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Attachment A – Results of Database Queries

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LIST OF ACRONYMS AND ABBREVIATIONS

BA	Biological Assessment
BCC	Birds of Conservation Concern
BO	Biological Opinion
BRA	Biological Resources Assessment
CARI	California Aquatic Resources Inventory
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Database

LIST OF ACRONYMS AND ABBREVIATIONS

CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EFH	Essential fish habitat
ESA	Endangered Species Act
F	Fahrenheit
IPaC	Information, Planning and Consultation
LSA	Lake or Streambed Alteration
MBTA	Migratory Bird Treaty Act
MSL	Mean sea level
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
RWQCB	Regional Water Quality Control Board
SFEI	San Francisco Estuary Institute
SSC	Species of Special Concern
Study Area	Refresh Travel Plaza Project
USACE	U.S. Army Corps of Engineers
USC	U.S. Code
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service

1.0 INTRODUCTION

On behalf of the City of Yreka, ECORP Consulting, Inc. conducted a Biological Resources Assessment (BRA) for the 4.77-acre Refresh Travel Plaza Project (Study Area) located in Siskiyou County, California. The purpose of the assessment was to collect information on the biological resources present and evaluate the potential for special-status species and their habitats to occur in the Study Area, assess potential biological impacts related to Project activities, and identify potential mitigation measures to inform the Project's California Environmental Quality Act (CEQA) documentation for biological resources.

1.1 Project Location

The Study Area is located in the southeast quadrant of the Interstate 5/Montague Road (State Highway 3) interchange, and west of Village Oak Drive in the city of Yreka, Siskiyou County, California (Figure 1. *Project Location*). The Study Area corresponds to a portion of Section 23, Township 45 North, Range 7 West (Mount Diablo Base and Meridian) of the "Yreka, California" and "Montague, California" 7.5-minute quadrangles (U.S. Geological Survey [USGS] 1981, photorevised 1984 and 1984, respectively). The approximate center of the Study Area is located at NAD83 coordinates 41.738044° latitude and -122.625541° longitude within the Shasta Watershed (Hydrologic Unit Code #18010207; Natural Resources Conservation Service [NRCS] et al. 2016).

1.2 Purpose of this Biological Resources Assessment

The purpose of this BRA is to assess the potential for occurrence of special-status plant and animal species or their habitats and sensitive habitats such as wetlands, riparian communities, and sensitive natural communities within the Study Area.

This assessment includes a preliminary analysis of impacts on biological resources anticipated to result from the Project, as presently defined. The mitigation recommendations presented in this assessment are based on the preliminary analysis, a review of existing literature, and the results of site reconnaissance surveys.

For the purposes of this assessment, special-status species are defined as plants or animals that:

- are listed, proposed for listing, or candidates for future listing as threatened or endangered under the federal Endangered Species Act (ESA);
- are listed or candidates for future listing as threatened or endangered under the California ESA;
- meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines;
- are identified as a species of special concern (SSC) by the California Department of Fish and Wildlife (CDFW);
- are birds identified as birds of conservation concern (BCC) by the U.S. Fish and Wildlife Service (USFWS);

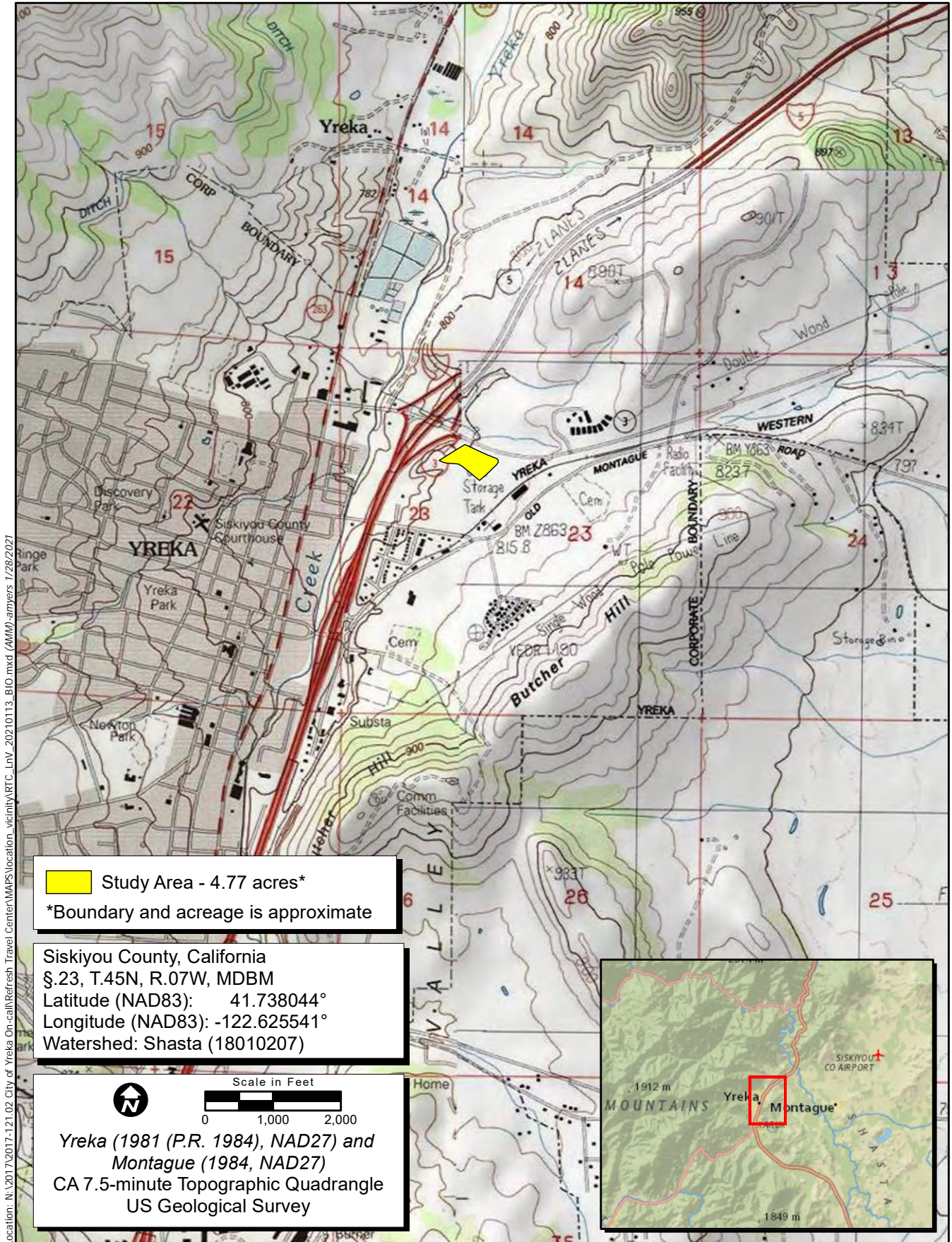


Figure 1. Project Location and Vicinity

2017-121.02/007 Refresh Travel Center

- are plants considered by the California Native Plant Society (CNPS) to be "rare, threatened, or endangered in California" (California Rare Plant Rank [CRPR] 1 and 2), "plants about which more information is needed" (i.e., species with a CRPR of 3), or "plants of limited distribution – a watch list" (i.e., species with a CRPR of 4);
- are plants listed as rare under the California Native Plant Protection Act (NPPA; California Fish and Game Code, § 1900 et seq.); or
- are fully protected in California in accordance with the California Fish and Game Code, §§ 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

Only species that fall into one of the above-listed groups were considered for this assessment. While other species (e.g., special-status lichens, mosses and bryophytes, California Natural Diversity Database- (CNDDB-) tracked species with no special status) are sometimes found in database searches or within the literature, these species were not included within this analysis. This BRA does not include determinate field surveys for other wildlife or plant species, or an aquatic resources delineation performed according to U.S. Army Corps of Engineers (USACE) protocol.

2.0 REGULATORY SETTING

2.1 Federal Regulations

2.1.1 *Federal Endangered Species Act*

The ESA protects plants and animals that are listed as endangered or threatened by the USFWS and the National Marine Fisheries Service (NMFS). Section 9 of the ESA prohibits the taking of listed wildlife, where take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any listed plant on federal land and removing, cutting, digging up, damaging, or destroying any listed plant on non-federal land in knowing violation of State law (16 U.S. Code [USC] 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its Critical Habitat. Through consultation and the issuance of a biological opinion (BO), the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a habitat conservation plan is developed.

Section 7

Section 7 of the ESA mandates that all federal agencies consult with USFWS and/or NMFS to ensure that federal agencies' actions do not jeopardize the continued existence of a listed species or adversely modify Critical Habitat for listed species. If direct and/or indirect effects will occur to Critical Habitat that appreciably diminish the value of Critical Habitat for both the survival and recovery of a species, the adverse modifications will require formal consultation with USFWS or NMFS. If adverse effects are likely,

the applicant must conduct a biological assessment (BA) for the purpose of analyzing the potential effects of a project on listed species and critical habitat to establish and justify an "effect determination." The federal agency reviews the BA; if it concludes that the project may adversely affect a listed species or its habitat, it prepares a BO, which may recommend "reasonable and prudent alternatives" to the project to avoid jeopardizing or adversely modifying habitat.

Critical Habitat and Essential Habitat

Critical Habitat is defined in Section 3 of the ESA as:

1. the specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the ESA, on which are found those physical or biological features essential to the conservation of the species and that may require special management considerations or protection; and
2. specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Critical Habitat designations identify, to the extent known and using the best scientific data available, habitat areas that provide essential lifecycle needs of the species. These include but are not limited to the following:

1. Space for individual and population growth and for normal behavior;
2. Food, water, air, light, minerals, or other nutritional or physiological requirements;
3. Cover or shelter;
4. Sites for breeding, reproduction, or rearing (or development) of offspring;
5. Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species;

2.1.2 *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized under the MBTA, USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of non-game birds in § 3800, migratory birds in § 3513, and birds of prey in § 3503.5 of the California Fish and Game Code.

2.1.3 Federal Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into “Waters of the United States” without a permit from the USACE. The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (USEPA) also has authority over wetlands and may override a USACE permit.

Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; in California, this certification or waiver is issued by the Regional Water Quality Control Board (RWQCB).

2.1.4 Magnuson-Stevens Fishery Conservation and Management Act

The 1996 Magnuson-Stevens Fishery Conservation and Management Act, as amended (16 USC 1801), requires federal agencies to consult with NMFS whenever a proposed action has a potential to adversely affect essential fish habitat (EFH). Although states are not required to consult with NMFS, NMFS is required to develop EFH conservation recommendations for any state agency activities with the potential to affect EFH. EFH is defined as “...those waters and substrates necessary to fish for spawning, breeding, feeding or growth to maturity” and includes the necessary habitat for managed fish to complete their life cycles and contribute to a sustainable fishery and healthy ecosystem. Although the concept of EFH is similar to the ESA definition of Critical Habitat, measures recommended by NMFS or a regional fisheries management council to protect EFH are advisory, rather than prescriptive (NMFS 1998).

2.2 State or Local Regulations

2.2.1 California Endangered Species Act

The California ESA (California Fish and Game Code §§ 2050-2116) protects species of fish, wildlife, and plants listed by the State as endangered or threatened. Species identified as candidates for listing may also receive protection. Section 2080 of the California ESA prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California ESA allows for take incidental to otherwise lawful projects under permits issued by CDFW.

2.2.2 Fully Protected Species

The State of California first began to designate species as “fully protected” prior to the creation of the federal and the California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under the federal and/or California ESAs. Fully protected species are identified in the California Fish and Game Code § 4700 for mammals, § 3511 for birds, § 5050 for reptiles and amphibians, and § 5515 for fish.

These sections of the California Fish and Game Code provide that fully protected species may not be taken or possessed at any time, including prohibition of CDFW from issuing incidental take permits for fully protected species under the California ESA. CDFW will issue licenses or permits for take of these species for necessary scientific research or live capture and relocation pursuant to the permit and may allow incidental take for lawful activities carried out under an approved Natural Community Conservation Plan within which such species are covered.

2.2.3 Native Plant Protection Act

The NPPA of 1977 (California Fish and Game Code §§ 1900-1913) was established with the intent to “preserve, protect and enhance rare and endangered plants in this state.” The NPPA is administered by CDFW. The Fish and Game Commission has the authority to designate native plants as “endangered” or “rare.” The NPPA prohibits the take of plants listed under the NPPA, but the NPPA contains a number of exemptions to this prohibition that have not been clarified by regulation or judicial rule. In 1984, the California ESA brought under its protection all plants previously listed as endangered under NPPA. Plants listed as rare under NPPA are not protected under the California ESA but are still protected under the provisions of NPPA. The Fish and Game Commission no longer lists plants under NPPA, reserving all listings to the California ESA.

2.2.4 California Fish and Game Code Special Protections for Birds

In addition to protections contained within the California ESA and California Fish and Game Code § 3511 described above, the California Fish and Game Code includes a number of sections that specifically protect certain birds:

- Section 3800 states that it is unlawful to take nongame birds, such as those occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds, except when in accordance with regulations of the California Fish and Game Commission or a mitigation plan approved by CDFW for mining operations.
- Section 3503 prohibits the take, possession, or needless destruction of the nest or eggs of any bird.
- Section 3503.5 protects birds of prey (which includes eagles, hawks, falcons, kites, ospreys, and owls) and prohibits the take, possession, or destruction of any birds and their nests.

- Section 3505 makes it unlawful to take, sell, or purchase egrets, ospreys, and several exotic nonnative species, or any part of these birds.
- Section 3513 specifically prohibits the take or possession of any migratory nongame bird as designated in the MBTA.

2.2.5 Lake or Streambed Alteration Agreements

Section 1602 of the California Fish and Game Code requires individuals or agencies to provide a Notification of Lake or Streambed Alteration (LSA) to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” CDFW reviews the proposed actions and, if necessary, proposed measures to protect affected fish and wildlife resources. The final proposal mutually agreed upon by CDFW and the applicant is the LSA Agreement.

2.2.6 Porter-Cologne Water Quality Act

The RWQCB implements water quality regulations under the federal CWA and the state Porter-Cologne Water Quality Act. These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Water Quality Act, the RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, with any region that could affect the water of the state” (Water Code 13260(a)). Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code 13050 (e)). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

2.2.7 California Environmental Quality Act

In accordance with CEQA Guidelines § 15380, a species or subspecies not specifically protected under the federal or California ESAs or NPPA may be considered endangered, rare, or threatened for CEQA review purposes if the species meets certain criteria specified in the Guidelines. These criteria parallel the definitions used in the federal ESA, California ESA, and NPPA. Section 15380 was included in the CEQA Guidelines primarily to address situations in which a project under review may have a significant effect on a species that has not been listed under the federal ESA, California ESA, or NPPA, but that may meet the definition of endangered, rare, or threatened. Animal species identified as SSC by CDFW, birds identified as BCC by USFWS, and plants identified by the CNPS as rare, threatened, or endangered may meet the CEQA definition of rare or endangered.

Species of Special Concern

SSC are defined by CDFW as a species, subspecies, or distinct population of an animal native to California that are not legally protected under the federal ESA, California ESA, or California Fish and Game Code, but currently satisfies one or more of the following criteria:

- The species has been completely extirpated from the state or, as in the case of birds, it has been extirpated from its primary seasonal or breeding range.
- The species is listed as federally (but not state) threatened or endangered or meets the State definition of threatened or endangered but has not formally been listed.
- The species has or is experiencing serious (nonscyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status.
- The species has naturally small populations that exhibit high susceptibility to risk from any factor that if realized, could lead to declines that would qualify it for State threatened or endangered status.
- SSC are typically associated with habitats that are threatened.

Projects that result in substantial impacts to SSC may be considered significant under CEQA.

U.S. Fish and Wildlife Service Birds of Conservation Concern

The 1988 amendment to the Fish and Wildlife Conservation Act mandates USFWS “identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under ESA.” To meet this requirement, USFWS published a list of BCC (USFWS 2008) for the U.S. The list identifies the migratory and nonmigratory bird species (beyond those already designated as federally threatened or endangered) that represent USFWS’ highest conservation priorities. Projects that result in substantial impacts to BCC may be considered significant under CEQA.

Sensitive Natural Communities

The CDFW maintains the *California Natural Community List* (CDFW 2019), which provides a list of vegetation alliances, associations, and special stands as defined in the *Manual of California Vegetation* (Sawyer et al. 2009), along with their respective state and global rarity ranks. Natural communities with a state rarity rank of S1, S2, or S3 are considered sensitive natural communities. Impacts to sensitive natural communities may be considered significant under CEQA.

California Rare Plant Ranks

The CNPS maintains the Inventory of Rare and Endangered Plants of California (CNPS 2021), which provides a list of plant species native to California that are threatened with extinction, have limited distributions, and/or low populations. Plant species meeting one of these criteria are assigned to one of six CRPRs. The rank system was developed in collaboration with government, academia, non-

governmental organizations, and private-sector botanists, and is jointly managed by CDFW and the CNPS. The CRPRs are currently recognized in the CNDDDB. The following are definitions of the CNPS CRPRs:

- Rare Plant Rank 1A – presumed extirpated in California and either rare or extinct elsewhere.
- Rare Plant Rank 1B – rare, threatened, or endangered in California and elsewhere.
- Rare Plant Rank 2A – presumed extirpated in California, but more common elsewhere.
- Rare Plant Rank 2B – rare, threatened, or endangered in California but more common elsewhere.
- Rare Plant Rank 3 – a review list of plants about which more information is needed.
- Rare Plant Rank 4 – a watch list of plants of limited distribution.

Additionally, CNPS has defined Threat Ranks that are added to the CRPR as an extension. Threat Ranks designate the level of threat on a scale of 1 through 3, with 1 being the most threatened and 3 being the least threatened. Threat Ranks are generally present for all plants ranked 1B, 2B, or 4, and for the majority of plants ranked 3. Plant species ranked 1A and 2A (presumed extirpated in California), and some species ranked 3, which lack threat information, do not typically have a Threat Rank extension. The following are definitions of the CNPS Threat Ranks:

- Threat Rank 0.1 – Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat).
- Threat Rank 0.2 – Moderately threatened in California (20 to 80 percent occurrences threatened/moderate degree and immediacy of threat).
- Threat Rank 0.3 – Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

Factors such as habitat vulnerability and specificity, distribution, and condition of occurrences are considered in setting the Threat Rank; and differences in Threat Ranks do not constitute additional or different protection (CNPS 2021).

Substantial impacts to plants ranked 1A, 1B, 2, and 3 are typically considered significant under CEQA Guidelines § 15380. Significance under CEQA is typically evaluated on a case-by-case basis for plants ranked 4 and at the discretion of the CEQA lead agency.

CEQA Significance Criteria

Sections 15063-15065 of the CEQA Guidelines address how an impact is identified as significant. Generally, impacts to listed (rare, threatened, or endangered) species are considered significant. Assessment of "impact significance" to populations of non-listed species (e.g., SSC) usually considers the proportion of the species' range that will be affected by a project, impacts to habitat, and the regional and population level effects.

Specifically, § 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds that the agency uses in determining the significance of environmental effects caused by

projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines, which provides examples of impacts that would normally be considered significant.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, State, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant under CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

2.2.8 City of Yreka General Plan

The Conservation, Open Space, Parks and Recreation Element of the Yreka General Plan Update 2002-2022 (City of Yreka 2003) includes "A conservation element for the conservation, development, and utilization of natural resources including water and its hydraulic force, forests, soils, rivers and other water, harbors, fisheries, wildlife, minerals, and other natural resources." The General Plan is required to address various open space issues, including the preservation of natural resources (fish and wildlife habitat), managed production of resources (food, fiber, and mineral resources), outdoor recreation including areas of scenic, historic and cultural value, and open space for health and safety.

The following General Plan Goals and Programs are pertinent to biological resources for this Project:

Goal CO.4: Minimize impacts to wildlife and wildlife habitat as new development occurs within Yreka.

Program CO.4.A: Apply appropriate mitigation measures to development projects to minimize impacts to biological resources during and after construction.

Program CO.4.C: Applicants for new development proposals shall be responsible for costs related to determining the potential for occurrence of protected plant and wildlife species within the proposed project area. City staff shall make the determination on the degree of field investigation required based on the projects location in relation to known occurrences.

Program CO.4.D: If the presence of protected species is determined to be likely, the project applicant shall be responsible for all costs associated with investigating species presence and preparation of any required mitigation plans.

3.0 METHODS

3.1 Literature Review

The following resources were queried to determine the special-status species that had been documented within or in the vicinity of the Study Area:

- CDFW CNDDDB data for the "Yreka, California" and "Montague, California" 7.5-minute USGS quadrangles (CDFW 2021a).
- USFWS Information, Planning, and Consultation System (IPaC) Resource Report List for the Study Area (USFWS 2021).
- CNPS' electronic Inventory of Rare and Endangered Plants of California for the "Yreka, California" and "Montague, California" 7.5-minute USGS quadrangles and the 10 surrounding USGS quadrangles (CNPS 2021).
- National Oceanic and Atmospheric Administration (NOAA)/NMFS species list (NOAA/NMFS 2021).
- BIOS, Terrestrial Connectivity, Areas of Conservation Emphasis (ACE) (CDFW 2021b).

The results of the CNPS, CNDDDB, USFWS, and NOAA/NMFS database queries are included in Attachment A.

3.2 Field Surveys Conducted

This biological resource assessment includes a reconnaissance level site visit to generally characterize onsite resources, including plant communities, wildlife, special-status species, aquatic resources (i.e., potential Waters of the U.S./State), and sensitive natural communities.

A biological resources field assessment was conducted by ECORP biologist Keith Kwan on January 19, 2021. The purpose of this assessment was to identify potential biological resources constraints (e.g., aquatic resources, special-status species) onsite, identify regulatory requirements for development of the site, and assess potential mitigation needs. During the assessment, the following biological resource information was collected:

- Direct observations of special-status species;
- Animal and plant species directly observed;
- Habitat and vegetation communities; and
- Aquatic resources.

This assessment did not include focused technical studies. The aquatic resources assessment was intended for general planning purposes and was not performed accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) or the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (Arid West Region Supplement; USACE 2008).

3.3 Special-Status Species Considered for the Project

Based on species occurrence information from the literature review and field observations, a list of special-status species considered to have the potential to occur within the Study Area was generated (Table 1). Each of the species that were considered as potentially occurring within the Study Area or vicinity was evaluated based on the following criteria:

- **Present** - Species was observed during field surveys or is known to occur within the Study Area based on documented occurrences within the CNDDDB or other literature.
- **Potential to Occur** - Habitat (including soils and elevation requirements) for the species occurs within the Study Area.
- **Low Potential to Occur** - Marginal or limited amounts of habitat occur, and/or the species is not known to occur within the vicinity of the Study Area based on CNDDDB records and other available documentation.
- **Absent** - No suitable habitat (including soils and elevation requirements), and/or the species is not known to occur within the Study Area or the vicinity of the Study Area based on CNDDDB records and other documentation or determinate field surveys.

3.4 Sensitive Natural Communities

Vegetation communities were mapped according to the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009) during the site assessment on January 19, 2021.

3.5 Preliminary Aquatic Resources Assessment

This site assessment included a preliminary aquatic resources assessment, which included visually estimating the general extent of potential waters of the U.S./State. If present, aquatic resources were noted by documenting the presence of hydrophytic vegetation and obvious wetland hydrology characteristics or the presence of aquatic resources with an ordinary high water mark. In addition, the California Aquatic Resources Inventory (CARI) was queried for previously documented aquatic resources within the Study Area (San Francisco Estuary Institute [SFEI] 2017).

4.0 RESULTS

4.1 Site Characteristics and Land Use

The Study Area is located in a heavily impacted area in the southeastern quadrant of the Interstate 5/Montague Road intersection. This Study Area is located within hilly terrain situated at an elevational range of approximately 2,630 to 2,660 feet above mean sea level (MSL) at the interface between the California floristic province/Cascade Ranges Region and the Great Basin floristic province/Modoc Plateau Region of California (Baldwin et al. 2012). The average winter low temperature in the vicinity of the Study Area is 25.8 degrees Fahrenheit (°F) and the average summer high temperature is 88.4°F. Average annual precipitation is approximately 19.95 inches (NOAA 2021).

The Study Area is comprised of fallow undeveloped land that appears to have been mass graded around 2004 as the area was undergoing development. A Google Earth aerial photograph dated December 2004 shows evidence of construction grading within the Study Area and surrounding parcels. At present, the Study Area remains undeveloped and is sparsely vegetated with weedy plants.

Representative photographs of the Study Area are included in Attachment B.

4.2 Vegetation Communities

The Study Area was mass graded for construction around 2004 but site construction did not occur. As such, the vegetation composition found onsite is largely comprised of weedy species. The vegetation community most closely resembling the conditions onsite is the *Bromus tectorum*-*Taeniatherum* (*Elymus*) *caput-medusae* herbaceous semi-natural alliance (cheatgrass-medusahead grassland). The dominant herbaceous plants onsite include medusahead grass (*Elymus caput-medusae*) and cheat grass (*Bromus tectorum*), with scattered rabbitbrush (*Ericameria* sp.) and yellow star-thistle (*Centaurea solstitialis*).

4.3 Wildlife Observations, Movement Corridors, and Nursery Sites

The Study Area is surrounded on all sides by developed lands, including Montague Road to the north, a Holiday Inn Express to the west, a recreational vehicle park to the south, and the Yreka Truck Stop to the east. Wildlife use is expected to be minimal and include species accustomed to human activities. There are no wildlife movement corridors and nursery sites present.

4.4 Soils

According to the Web Soil Survey (NRCS 2021), one soil unit, or type, has been mapped within the Study Area (Figure 2. *Natural Resources Conservation Service Soil Types*):

- 152 – Facey loam, 5 to 15 percent slopes

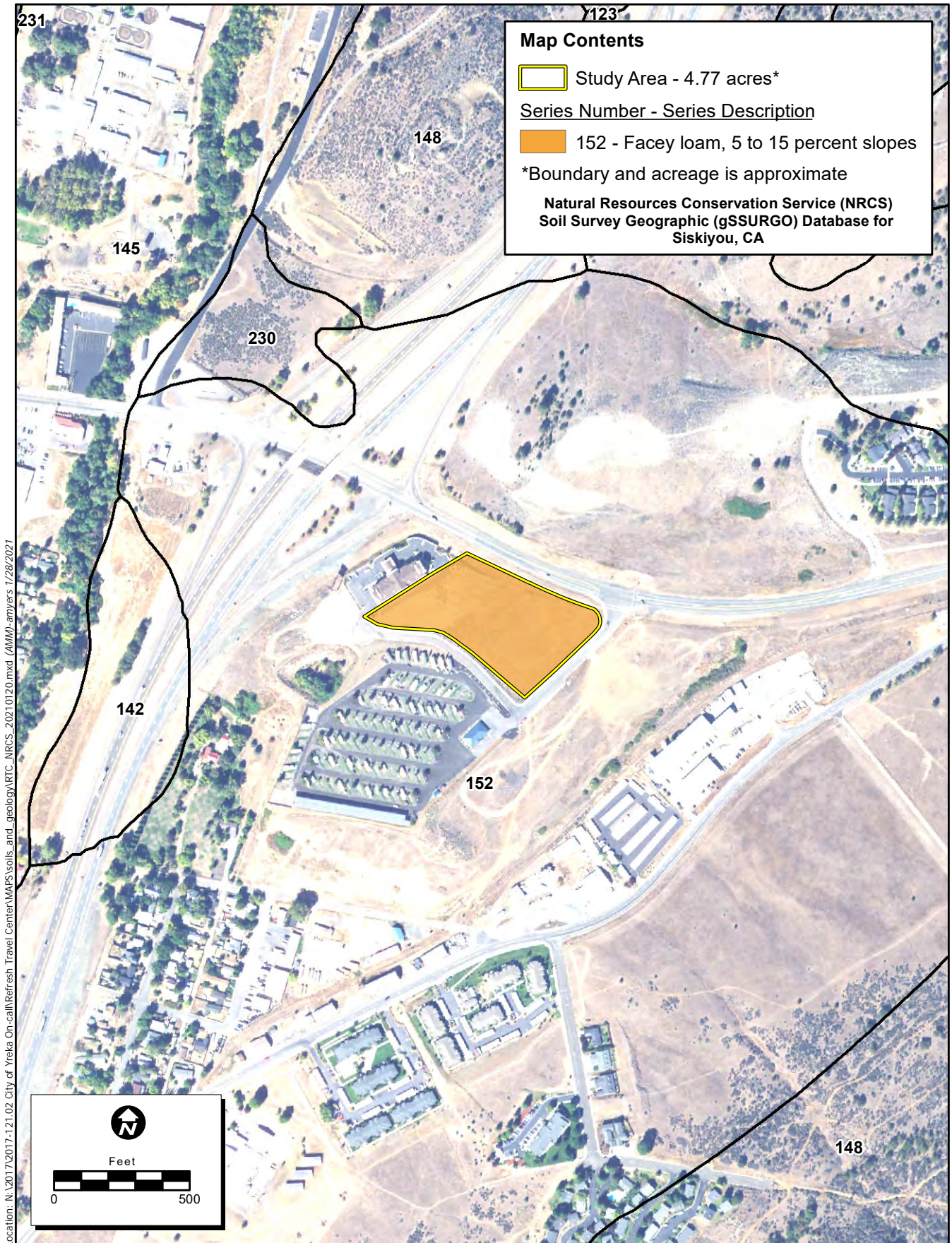
The Facey soil series consists of deep, well-drained soils on mountains. These soils formed in residuum derived from metamorphosed rock. No soil units derived from serpentinite or other ultramafic parent materials are known to occur within the Study Area (Soil Conservation Service 1983).

4.5 Potential Waters of the U.S./State

An aquatic resources delineation to identify potential Waters of the U.S./State was not conducted for the Study Area. During the site assessment in January 2021, no aquatic resources were found onsite. The Study Area has been previously mass-graded for construction and is generally sloped and terraced with no basins or drainageways that could support aquatic resources. According to the CARI, there are no previously mapped aquatic resources for the Study Area (SFEI 2017) (Figure 3. *California Aquatic Resource Inventory*).

4.6 Evaluation of Potentially Occurring Special-Status Species

Table 1 lists all the special-status plant and wildlife species (as defined in Section 3.3) identified in the literature review as potentially occurring within the Study Area. Included in this table is the listing status for each species, a brief habitat description, and a determination on the potential to occur within the Study Area. Following the table is a brief description and discussion of each special-status species that is known to occur in the Study Area (from the literature review) or is considered to potentially occur within the Study Area.



**Figure 2. Natural Resources Conservation Service
Soil Types**

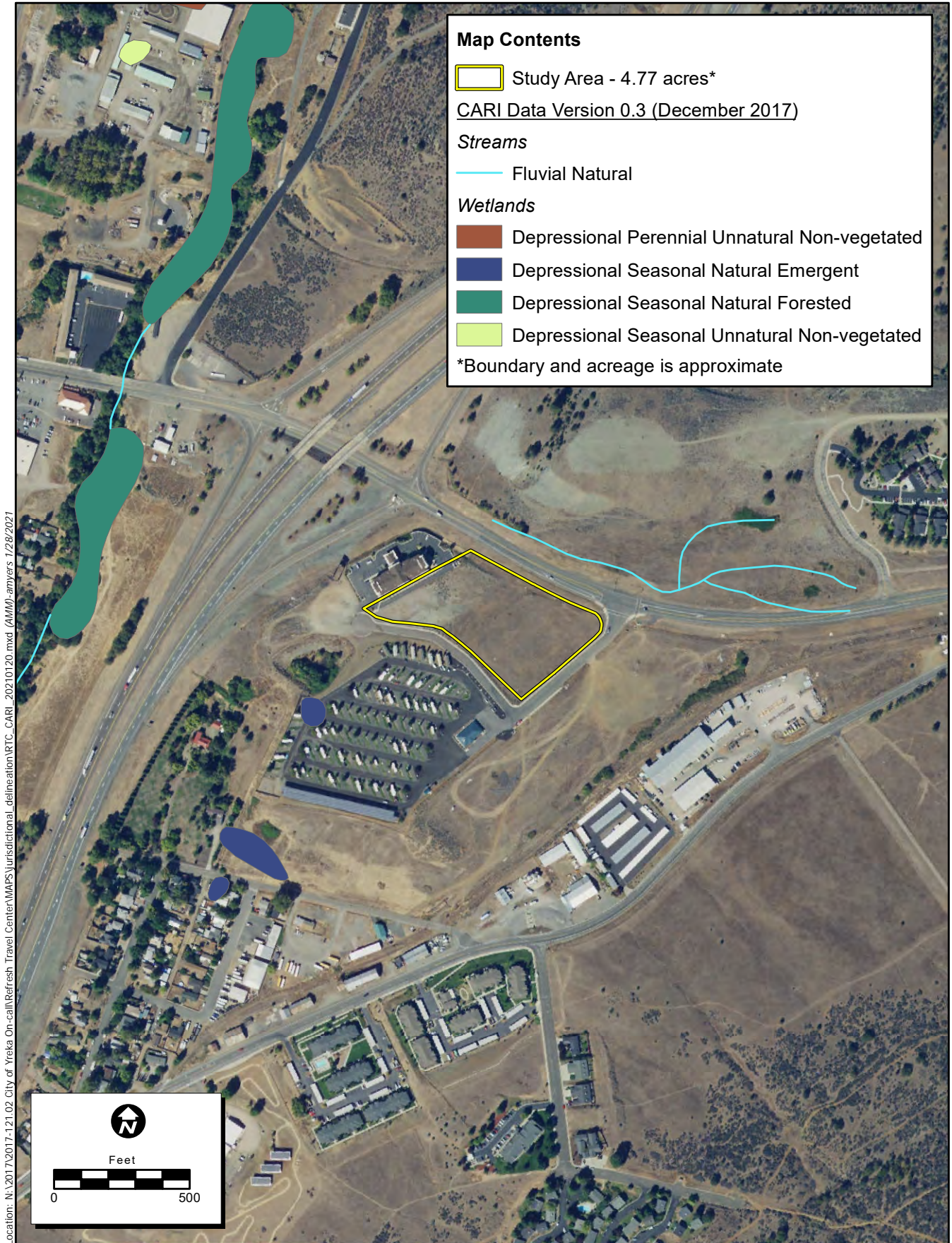


Figure 3. California Aquatic Resource Inventory

2017-121.02/007 Refresh Travel Center

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Plants						
Siskiyou onion (<i>Allium siskiyouense</i>)	–	–	4.3	Rocky, sometimes serpentinite; lower montane coniferous forest, upper montane coniferous forest (2,805'–8,202').	May–July	Absent. No suitable habitat within Study Area.
California androsace (<i>Androsace elongata</i> ssp. <i>acuta</i>)	–	–	4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland (492'–4,281').	March–June	Low potential to occur. Marginally suitable potential habitat (disturbed grassland) within Study Area.
Oregon rockcress (<i>Arabis oregana</i>)	–	–	4.3	Serpentinite; chaparral, lower montane coniferous forest (1,969'–6,004').	May	Absent. No suitable habitat within Study Area.
Woolly balsamroot (<i>Balsamorhiza lanata</i>)	–	–	1B.2	Rocky, volcanic; cismontane woodland (2,625'–6,217').	April–June	Absent. No suitable habitat within Study Area.
Greene's mariposa lily (<i>Calochortus greenei</i>)	–	–	1B.2	Volcanic; cismontane woodland, meadows and seeps, pinyon and juniper woodland, and upper montane coniferous forest (3,396'–6,201').	June–August	Absent. No suitable habitat within Study Area.
Single-flowered mariposa lily (<i>Calochortus persistens</i>)	–	–	1B.2	Meadows and seeps (2,444'–2,625').	June	Absent. No suitable habitat within Study Area.
Siskiyou mariposa lily (<i>Calochortus raichei</i>)	–	–	1B.2	Rocky, acidic; lower montane coniferous forest, North Coast coniferous forest (3,281'–6,102').	June–July	Absent. No suitable habitat within Study Area.
Geyer's sedge (<i>Carex geyeri</i>)	–	–	4.2	Great Basin scrub, lower montane coniferous forest (3,789'–7,201').	May–August	Absent. No suitable habitat within Study Area.
Shasta chaenactis (<i>Chaenactis suffrutescens</i>)	–	–	1B.3	Sandy, serpentinite; lower montane coniferous forest, upper coniferous forest (2,461'–9,186').	May–September	Absent. No suitable habitat within Study Area.
Ashland thistle (<i>Cirsium ciliolatum</i>)	–	–	2B.1	Cismontane woodland, valley and foothill grassland (2,625'–4,593').	June–August	Potential to occur. Suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Clustered lady's-slipper <i>(Cypripedium fasciculatum)</i>	–	–	4.2	In serpentinite seeps, and streambanks of lower montane coniferous forest, and North Coast coniferous forest (328'–7,989').	March–August	Absent. No suitable habitat within Study Area.
Mountain lady's-slipper <i>(Cypripedium montanum)</i>	–	–	4.2	Broadleaf upland forest, cismontane woodland, lower montane coniferous forest, and North Coast coniferous forest (607'–7,300').	March–August	Absent. No suitable habitat within Study Area.
California pitcherplant <i>(Darlingtonia californica)</i>	–	–	4.2	Mesic areas in generally serpentinite seeps of bogs and ferns, and meadows and seeps (0'–8,481').	April–August	Absent. No suitable habitat within Study Area.
Siskiyou buckwheat <i>(Eriogonum siskiyouense)</i>	–	–	4.3	Lower montane coniferous forest (rocky, often serpentinite) (3,182'–8,990').	July–September	Absent. No suitable habitat within Study Area.
Scott Valley buckwheat <i>(Eriogonum umbellatum)</i>	–	–	1B.1	Sandy to gravelly flats; cismontane woodland, lower montane coniferous forest (2,625'–2,953').	July–September	Absent. No suitable habitat within Study Area.
Blushing wild buckwheat <i>(Eriogonum ursinum var. erubescens)</i>	–	–	1B.3	Rocky, scree, talus; chaparral (montane), lower montane coniferous forest (2,461'–6,234').	June–September	Absent. No suitable habitat within Study Area.
Gentner's fritillary <i>(Fritillaria gentneri)</i>	FE	–	1B.1	Sometimes serpentinite; chaparral, cismontane woodland, lower montane coniferous forest (3,297'–9,744').	April–May	Absent. No suitable habitat within Study Area.
Scott Mountain bedstraw <i>(Galium serpenticum ssp. scotticum)</i>	–	–	1B.2	Lower montane coniferous forest (serpentinite) (3,281'–6,808').	May–August	Absent. No suitable habitat within Study Area.
Baker's cypress <i>(Hesperocyparis bakeri)</i>	–	–	4.2	Serpentinite or volcanic; chaparral, lower montane coniferous forest (2,690'–6,545').	Evergreen	Absent. No suitable habitat within Study Area.
Henderson's horkelia <i>(Horkelia hendersonii)</i>	–	–	1B.1	Upper montane coniferous forest (granitic) (6,561'–7,546').	June–August	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Alkali hymenoxys (<i>Hymenoxys lemmonii</i>)	–	–	2B.2	Great Basin scrub, lower montane coniferous forest, and meadows and seeps (subalkaline) (787'–11,122').	June–August	Absent. No suitable habitat within Study Area.
Howell's lewisia (<i>Lewisia cotyledon</i> var. <i>howellii</i>)	–	–	3.2	Rocky; broadleafed upland forest, chaparral, cismontane woodland, and lower montane coniferous forest (492'–6,594').	April–July	Absent. No suitable habitat within Study Area.
Woolly meadowfoam (<i>Limnanthes floccosa</i> ssp. <i>floccosa</i>)	–	–	4.2	Vernally mesic chaparral, cismontane woodland, valley and foothill grassland, and vernal pools (197'–4,380').	March–May	Absent. No suitable habitat within Study Area.
Peck's lomatium (<i>Lomatium peckianum</i>)	–	–	2B.2	Volcanic; chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland (2,297'–5,906').	April–May	Absent. No suitable habitat within Study Area.
Brittle prickly-pear (<i>Opuntia fragilis</i>)	–	–	2B.2	Pinyon and juniper woodland (volcanic) (2,690'–2,887').	April–July	Absent. No suitable habitat within Study Area.
Shasta orthocarpus (<i>Orthocarpus pachystachyus</i>)	–	–	1B.1	Great Basin scrub, meadows and seeps, and valley and foothill grassland (2,756'–2,789').	May	Low potential to occur. Marginally suitable potential habitat (disturbed grassland) within Study Area.
Cook's phacelia (<i>Phacelia cookei</i>)	–	–	1B.1	Sandy, volcanic; Great Basin scrub, lower montane coniferous forest (3,593'–5,577').	June–July	Absent. No suitable habitat within Study Area.
Scott Valley phacelia (<i>Phacelia greenei</i>)	–	–	1B.2	Serpentine; close-cone coniferous forest, lower montane coniferous forest, upper montane coniferous forest (2,625'–8,005').	April–June	Absent. No suitable habitat within Study Area.
Yreka phlox (<i>Phlox hirsuta</i>)	FE	CE	1B.2	Serpentine, talus; lower montane coniferous forest, upper montane coniferous forest (2,690'–4,921').	April–June	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Oregon polemonium (<i>Polemonium carneum</i>)	–	–	2B.2	Coastal prairie, coastal scrub, lower montane coniferous forest (0'–6,004').	April–September	Absent. No suitable habitat within Study Area.
Pendulous bulrush (<i>Scirpus pendulus</i>)	–	–	2B.2	Meadows and seeps (mesic), marshes and swamps (assorted freshwater) (2,625'–3,281').	June, August	Absent. No suitable habitat within Study Area.
Pale yellow stonecrop (<i>Sedum laxum</i> ssp. <i>flavidum</i>)	–	–	4.3	Serpentine or volcanic; broadleaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest, upper montane coniferous forest (1,493'–6,562').	May–July	Absent. No suitable habitat within Study Area.
Hairy marsh hedge-nettle (<i>Stachys pilosa</i>)	–	–	2B.3	Great Basin scrub (mesic), meadows and seeps (3,937'–5,807').	June–August	Absent. No suitable habitat within Study Area.
Siskiyou clover (<i>Trifolium siskiyouense</i>)	–	–	1B.1	Meadow, mesic seeps, and sometimes streambanks (2,887'–4,921').	June–July	Absent. No suitable habitat within Study Area.
Yellow triteleia (<i>Triteleia crocea</i> var. <i>crocea</i>)	–	–	4.3	Lower montane coniferous forest (granitic or serpentine) (3,937'–6,562').	May–June	Absent. No suitable habitat within Study Area.
Invertebrates						
Crotch bumble bee (<i>Bombus crotchii</i>)	-	CC	-	Requires habitat with a sufficient supply of floral resources to provide continuous blooming throughout the flight season. Primarily nests underground in open grassland and scrub habitats from the California coast east to the Sierra Cascade and south to Mexico.	March - September	Absent. No suitable habitat within the Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Franklin's bumble bee <i>(Bombus franklini)</i>	FPE	CC	-	Requires habitat with a sufficient supply of floral resources to provide continuous blooming throughout the colony season. Bumble bees are generalist foragers, gathering pollen and nectar from a wide variety of flowering plants. Isolated patches of habitat are not sufficient to fully support bumble bee populations.	May-September	Absent. No suitable habitat within the Study Area.
Conservancy fairy shrimp <i>(Branchinecta conservatio)</i>	FE	-	-	Vernal pools/wetlands.	November-April	Absent. No suitable habitat within the Study Area.
Vernal pool fairy shrimp <i>(Branchinecta lynchi)</i>	FT	-	-	Vernal pools/wetlands.	November-April	Absent. No suitable habitat within the Study Area.
Vernal pool tadpole shrimp <i>(Lepidurus packardii)</i>	FE	-	-	Vernal pools/wetlands.	November-April	Absent. No suitable habitat within the Study Area.
Fish						
Lost River sucker <i>(Deltistes luxatus)</i>	FE	CE	CFP	This species occupies a few waterbodies in the upper Klamath Basin: Upper Klamath Lake, Tule Lake Sump 1A, Lake Ewauna, and Clear Lake Reservoir.	N/A	Absent. No suitable habitat within Study Area.
Shortnose sucker <i>(Chasmistes brevirostris)</i>	FE	CE	CFP	This species occupies a few waterbodies in the upper Klamath Basin: Upper Klamath Lake, Tule Lake Sump 1A, Gerber Reservoir, Lake Ewauna, and Clear Lake Reservoir.	N/A	Absent. No suitable habitat within Study Area.
Lower Klamath marbled sculpin <i>(Cottus klamathensis polyporus)</i>	-	-	SSC	Found in the lower Klamath River downstream of Klamath Falls, in some its larger tributaries, and possible the Trinity River system.	N/A	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Coho salmon (Southern Oregon/Northern California coasts Environmentally Significant Unit) (<i>Oncorhynchus kisutch</i>)	FT	CT	-	Coastal streams from the Elk River near Cape Blanco, Oregon through and including the Mattole River near Punta Gorda, California. Spanning Oregon and California, SONCC Coho salmon can be found in 13 counties: Coos, Douglas, Curry, Josephine, Jackson, Klamath, Del Norte, Siskiyou, Humboldt, Trinity, Mendocino, Lake, and Glen.	N/A	Absent. No suitable habitat within Study Area.
Amphibians						
Foothill yellow-legged frog (Northwest/North Coast Clade) (<i>Rana boylei</i>)	-	-	SSC	Foothill yellow-legged frogs can be active all year in warmer locations but may become inactive or hibernate in colder climates. At lower elevations, foothill yellow-legged frogs likely spend most of the year in or near streams. Adult frogs, primarily males, will gather along main-stem rivers during spring to breed. Colusa, Del Norte, Glenn, Humboldt, Lake, Marin, Mendocino, Napa, Shasta, Solano, Sonoma, Tehama, Trinity, and Yolo counties. Portions of Butte, Lassen, Modoc, and Siskiyou counties. Applegate, Big-Chico Creek-Sacramento, Lower Klamath, Lower Pit, McCloud, Sacramento Headwaters, Salmon, Scott, Shasta, and Upper Klamath watershed sub-basins.	May-October	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Oregon spotted frog <i>(Rana pretiosa)</i>	FT	-	SSC	They are associated with freshwater marshes and lakes where they breed in early spring in warm emergent vegetated shallows. The Oregon spotted frog is highly aquatic and reliant on connected seasonal habitats for breeding, summer foraging, and overwintering.	Spring Visual Encounter Surveys (VES), generally February-June; summer VES, generally June-September.	Absent. No suitable habitat within Study Area.
Reptiles						
Northwestern pond turtle <i>(Actinemys marmorata)</i>	-	-	SSC	Requires basking sites and upland habitats up to 0.5 km from water for egg laying. Uses ponds, streams, detention basins, and irrigation ditches.	April-September	Absent. No suitable habitat within Study Area.
Birds						
Yellow-billed cuckoo <i>(Coccyzus americanus)</i>	FT	CE	BCC	Breeds in California, Arizona, Utah, Colorado, and Wyoming. In California, they nest along the upper Sacramento River and the South Fork Kern River from Isabella Reservoir to Canebrake Ecological Reserve. Other known nesting locations include Feather River (Butte, Yuba, Sutter counties), Prado Flood Control Basin (San Bernardino and Riverside County), Amargosa River and Owens Valley (Inyo County), Santa Clara River (Los Angeles County), Mojave River and Colorado River (San Bernardino County). Nests in riparian woodland. Winters in South America.	June 15-August 15	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Rufous hummingbird <i>(Selasphorus rufus)</i>	-	-	BCC	Breeds in British Columbia and Alaska (does not breed in California). Winters in coastal Southern California south into Mexico. Common migrant during March-April in Sierra Nevada foothills and June-August in Lower Conifer to Alpine zone of Sierra Nevada. Nesting habitat includes secondary succession communities and openings, mature forests, parks and residential area.	April-July	Absent. No suitable habitat within Study Area.
Greater sandhill crane <i>(Antigone canadensis tabida)</i>	-	CT	CFP	Breeds in NE California, Nevada, Oregon, Washington, and BC, Canada; winters from CA to Florida. In winter, they forage in burned grasslands, pastures, and feed on waste grain in a variety of agricultural settings (corn, wheat, milo, rice, oats, and barley), tilled fields, recently planted fields, alfalfa fields, row crops and burned rice fields.	March-August (breeding); September-March (wintering)	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Long-billed curlew (<i>Numenius americanus</i>)	-	-	BCC	Breeds east of the Cascades in Washington, Oregon, northeastern California (Siskiyou, Modoc, Lassen counties), east-central California (Inyo County), through Great Basin region into Great Plains. Winters in California, Texas, and Louisiana. Wintering habitat includes tidal mudflats and estuaries, wet pastures, sandy beaches, salt marsh, managed wetlands, evaporation ponds, sewage ponds, and grasslands.	September-March (wintering)	Absent. No suitable habitat within Study Area.
Great blue heron (<i>Ardea herodias</i>)	-	-	CNDDB *	Colonial nester; prefers to nest in vegetation on islands or in swamps but may also be found in upland habitats in trees, bushes, on the ground and on artificial structures. Foraging habitat is widely diverse and includes swamps, coastlines, estuaries, beaches, pastures, cultivated fields, and riparian areas.	February-July	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species

Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Golden eagle (<i>Aquila chrysaetos</i>)	-	-	BCC, CFP	Nesting habitat includes mountainous canyon land, rimrock terrain of open desert and grasslands, riparian, oak woodland/ savannah, and chaparral. Nesting occurs on cliff ledges, river banks, trees, and human-made structures (e.g. windmills, platforms, and transmission towers). Breeding occurs throughout California, except the immediate coast, Central Valley floor, Salton Sea region, and the Colorado River region, where they can be found during Winter.	Nest (February-August); winter CV (October-February)	Absent. No suitable habitat within Study Area.
Northern goshawk (<i>Accipiter gentilis</i>)	-	-	SSC	Nesting occurs in mature to old-growth forests composed primarily of large trees with high canopy closure. In California, nests are built primarily in conifer trees in the Sierra Nevada, Cascade and northwestern coastal Ranges.	March-August	Absent. No suitable habitat within Study Area.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	De-listed	CE	CFP, BCC	Typically nests in forested areas near large bodies of water in the northern half of California; nest in trees and rarely on cliffs; wintering habitat includes forest and woodland communities near water bodies (e.g. rivers, lakes), wetlands, flooded agricultural fields, open grasslands	February – September (nesting); October-March (wintering)	Absent. No suitable habitat within Study Area.

Table 1. Potentially Occurring Special-Status Species						
Common Name (Scientific Name)	Status			Habitat Description	Survey Period	Potential To Occur Onsite
	ESA	CESA/ NPPA	Other			
Northern spotted owl <i>(Strix occidentalis caurina)</i>	FT	CC	SSC	Found from Marin County through coastal ranges north to British Columbia; breeds in old growth mature forest. They use forests with greater complexity and structure.	March-June	Absent. No suitable habitat within Study Area.
Olive-sided flycatcher <i>(Contopus cooperi)</i>	-	-	SSC, BCC	Nests in montane and northern coniferous forests, in forest openings, forest edges, semi-open forest stands. In California, nests in coastal forests, Cascade and Sierra Nevada region. Winters in Central to South America.	May-August	Absent. No suitable habitat within Study Area.
Mammals						
Fisher- West Coast DPS <i>(Pekania pennanti)</i>	FPT	CT	SSC	Northern coniferous and mixed forests of Canada and northern U.S.	Any season	Absent. No suitable habitat within Study Area.

Status Codes:

FESA	Federal Endangered Species Act
CESA	California Endangered Species Act
FE	FESA listed, Endangered.
FPE	Formally Proposed for FESA listing as Endangered.
FPT	Formally Proposed for FESA listing as Threatened.
FT	FESA listed, Threatened.
BCC	USFWS Bird of Conservation Concern (USFWS 2002).
CT	CESA- or NPPA-listed, Threatened.
CC	Candidate for CESA listing as Endangered or Threatened.
CE	CESA or NPPA listed, Endangered.
CFP	California Fish and Game Code Fully Protected Species (§ 3511-birds, § 4700-mammals, §5 050-reptiles/amphibians).
NPPA	California Native Plant Protection Act
SSC	CDFW Species of Special Concern (CDFW, updated July 2017).
CNDDDB	Species that is tracked by CDFG's CNDDDB but does not have any of the above special-status designations otherwise.
1B	CRPR/Rare or Endangered in California and elsewhere.
2B	Plants rare, threatened, or endangered in California but more common elsewhere.
3	CRPR/Plants About Which More Information is Needed – A Review List.
4	CRPR/Plants of Limited Distribution – A Watch List.
0.1	Threat Rank/Seriously threatened in California (over 80 percent of occurrences threatened / high degree and immediacy of threat)
0.2	Threat Rank/Moderately threatened in California (20 to 80 percent occurrences threatened / moderate degree and immediacy of threat)
0.3	Threat Rank/Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)
Delisted	Formally Delisted (delisted species are monitored for five years)

4.6.1 Plants

Thirty-five special-status plant species were identified by the literature review as having the potential to occur within the vicinity of the Study Area. All but three of these special-status plant species were determined to be absent from the Study Area due to the lack of suitable habitat and/or the species is not known to occur at the elevation of the Study Area (Table 1). No further discussion of those species is provided in this assessment. A brief discussion of the three special-status plants with potential to occur onsite follows.

California Androsace

California androsace (*Androsace elongata* ssp. *acuta*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 4.2 species. This species is an herbaceous annual that occurs in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland (CNPS 2021). California androsace blooms from March through June and is known to occur at elevations ranging from 492 to 4,281 feet above MSL (CNPS 2021). The current range of this species in California includes Alameda, Contra Costa, Colusa, Fresno, Glenn, Kern, Los Angeles, Merced, Riverside, San Bernardino, San Benito, Santa Clara, San Diego, Siskiyou, San Joaquin, San Luis Obispo, San Mateo, Stanislaus, and Tehama counties (CNPS 2021).

There are no CNDDDB occurrences of this species within five miles of the Study Area (CDFW 2021). The disturbed grassland habitat onsite represents marginally suitable habitat for this species.

Ashland Thistle

Ashland thistle (*Cirsium ciliolatum*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 2B.1 species. This species is an herbaceous perennial that occurs in cismontane woodlands, valley and foothill grassland (CNPS 2021). Ashland thistle blooms from June through August and is known to occur at elevations ranging from 2,625 to 4,593 feet above MSL (CNPS 2021). Big-scale balsamroot is a near-endemic to Oregon, and in California, it has only been found in Siskiyou County (CNPS 2021).

There are no CNDDDB occurrences of this species within five miles of the Study Area (CDFW 2021). The disturbed grassland habitat onsite represents suitable habitat for this species.

Shasta Orthocarpus

Shasta orthocarpus (*Orthocarpus pachystachyus*) is not listed pursuant to either the federal or California ESAs, but is designated as a CRPR 1B.1 species. This species is an herbaceous annual that occurs in Great Basin scrub, meadows and seeps, and valley and foothill grassland (CNPS 2021). Shasta orthocarpus blooms in May and is known to occur at elevations ranging from 2,756 to 2,789 feet above MSL (CNPS 2021). Its current range only includes Siskiyou County (CNPS 2021).

There is one occurrence of this species documented in the CNDDDB reportedly from the "north end of Yreka" (CDFW 2021). The disturbed grassland onsite represents marginally suitable habitat for this species.

4.6.2 Invertebrates

Five special-status invertebrate species were identified as having potential to occur in the Study Area based on the literature review (Table 1). However, upon further analysis and after the site visit, all of these species were considered to be absent from the site due to the lack of suitable habitat. No further discussion of these species is provided within this assessment.

4.6.3 Fish

Four special-status fish were identified as having potential to occur in the Study Area based on the literature review (Table 1). However, upon further analysis and after the site visit, all of these special-status species were considered absent from the site due to the lack of suitable habitat. No further discussion of these species is provided within this assessment.

Essential Fish Habitat

Coho salmon (*Oncorhynchus kisutch*) and Chinook salmon (*Oncorhynchus tshawytscha*) EFH were identified for the Yreka, California and Montague, California 7.5-minute quadrangles. There is no EFH within the Study Area.

4.6.4 Amphibians

Two special-status amphibians were identified as having potential to occur in the Study Area based on the literature review (Table 1). However, upon further analysis and after the site visit, both of these special-status species were considered absent from the site due to the lack of suitable habitat. No further discussion of these species is provided within this assessment.

4.6.5 Reptiles

One special-status reptile was identified as having the potential to occur in the Study Area based on the literature review (Table 1). However, upon further analysis and after the site visit, this special-status species was considered absent from the site due to the lack of suitable habitat. No further discussion of this species is provided within this assessment.

4.6.6 Birds

Ten special-status bird species were identified as having the potential to occur within the Study Area based on the literature review (Table 1). However, upon further analysis and after the site visit, all of these species were considered absent from the site due to the lack of suitable habitat and/or the Study Area is outside the known breeding range of the species. No further discussion of these species is provided in this analysis.

Migratory Bird Treaty Act Birds

The disturbed grasslands and scattered shrubs within the Study Area support potential nesting habitat for a variety of common birds protected under the MBTA and California Fish and Game Code § 3503, among others.

4.6.7 Mammals

One special-status mammal species was identified as having the potential to occur within the Study Area based on the literature review (Table 1). However, upon further analysis and after the site visit this species was considered to be absent from the site due to the lack of suitable habitat. No further discussion of this species is provided within this assessment.

4.7 Sensitive Natural Communities

The Study Area is comprised of a previously graded and disturbed grassland community. There are no sensitive natural communities onsite.

5.0 IMPACTS AND RECOMMENDATIONS

5.1 Waters of the U.S./State

No aquatic resources were found onsite during the initial site assessment.

5.2 Special-Status Species

There is potentially suitable habitat within the Study Area for three special-status plants. In addition, while not considered special-status as defined, the site supports habitat for birds protected under the MBTA. A brief discussion of recommended avoidance and minimization measures is presented below for each group.

5.2.1 Plants

Three special-status plant species have potential to occur with the site including California androsace, Ashland thistle, and Shasta orthocarpus. The following measures are recommended to minimize potential impacts to special-status plant species:

- Perform the focused plant surveys according to USFWS, CDFW, and CNPS protocol. Surveys will be timed according to the blooming period for target species and known reference populations, if available, and/or local herbaria will be visited prior to surveys to confirm the appropriate phenological state of the target species.
- If special-status plant species are found, avoidance zones may be established around plants to clearly demarcate areas for avoidance. Avoidance measures and buffer distances may vary between species and the specific avoidance zone distance will be determined in coordination with appropriate resource agencies (CDFW and USFWS).

- If special-status plant species are found within the Project and avoidance of the species is not possible, then additional measures such as seed collection and/or translocation may be developed in consultation with the appropriate agencies.
- If no special-status plants are found, no further measures pertaining to special-status plants are necessary.

5.2.2 Migratory Bird Treaty Act Birds

For construction and other ground-disturbing activities with potential to affect birds and active nests protected under the MBTA, the following measures are recommended to prevent potential impacts to active bird nests.

- To the extent feasible, vegetation removal shall occur prior to the nesting season, September 16 through January 31.
- For Project activities that begin between February 1 and September 15, including vegetation removal, qualified biologists shall conduct preconstruction nesting bird surveys onsite and accessible areas within 100 feet of the Project site. The surveys shall be conducted within 14 days before the beginning of any construction activities between February 1 and September 15.
- Impacts to special-status bird and MBTA bird nests shall be avoided by establishing appropriate buffers around active raptor nests identified during preconstruction surveys; buffers shall be determined by a qualified biologist in consultation with CDFW. Project activity shall not commence within the buffer areas until a qualified biologist has determined, in coordination with CDFW, that the young have fledged, the nest is no longer active, or reducing the buffer would not result in nest abandonment. The size of the buffer may be adjusted if a qualified biologist and the applicant, in consultation with CDFW, determine that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist during construction activities may be necessary.
- If no active nests are found during preconstruction surveys, no further measures relating to protected birds is necessary.

5.3 Wildlife Movement Corridors/Nursery Sites

The Study Area is comprised of disturbed, previously graded grassland comprised of largely weedy plants. It is surrounded by and in close proximity to developed lands. No wildlife nursery sites were found, and no wildlife movements corridors are expected to occur onsite.

6.0 REFERENCES

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USGS. 1984. "Montague, California" 7.5-minute Quadrangle. Geological Survey. Denver, Colorado.

LIST OF ATTACHMENTS

Attachment A – Results of Database Queries

Attachment B – Representative Site Photos

ATTACHMENT A

Results of Database Queries



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

29 matches found. [Click on scientific name for details](#)

Search Criteria

Found in Quads 4112276, 4112275, 4112274, 4112266, 4112265, 4112264, 4112256 4112255 and 4112254;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium siskiyouense	Siskiyou onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jul	4.3	S4	G4
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5? T3T4
Balsamorhiza lanata	woolly balsamroot	Asteraceae	perennial herb	Apr-Jun	1B.2	S3	G3
Calochortus greenei	Greene's mariposa lily	Liliaceae	perennial bulbiferous herb	Jun-Aug	1B.2	S2S3	G3
Calochortus monanthus	single-flowered mariposa lily	Liliaceae	perennial bulbiferous herb	Jun	1A	SH	GH
Calochortus persistens	Siskiyou mariposa lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	1B.2	S1	G1
Carex geyeri	Geyer's sedge	Cyperaceae	perennial rhizomatous herb	May-Aug	4.2	S4	G5
Chaenactis suffrutescens	Shasta chaenactis	Asteraceae	perennial herb	May-Sep	1B.3	S2S3	G2G3
Cirsium ciliolatum	Ashland thistle	Asteraceae	perennial herb	Jun-Aug	2B.1	S1	G3
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
Eriogonum siskiyouense	Siskiyou buckwheat	Polygonaceae	perennial herb	(Jun)Jul-Sep	4.3	S3	G3
Eriogonum ursinum var. erubescens	blushing wild buckwheat	Polygonaceae	perennial herb	Jun-Sep	1B.3	S3	G3G4T3
Galium serpticum ssp. scotticum	Scott Mountain bedstraw	Rubiaceae	perennial herb	May-Aug	1B.2	S2	G4G5T2
Hesperocyparis bakeri	Baker cypress	Cupressaceae	perennial evergreen tree		4.2	S3	G3
Hymenoxys lemmonii	alkali hymenoxys	Asteraceae	perennial herb	Jun-Aug(Sep)	2B.2	S2S3	G4
Lewisia cotyledon var. howellii	Howell's lewisia	Montiaceae	perennial herb	Apr-Jul	3.2	S2	G4T4Q
	woolly meadowfoam	Limnanthaceae	annual herb	Mar-	4.2	S3	G4T4

Limnanthes floccosa ssp. floccosa

May(Jun)

<u>Lomatium peckianum</u>	Peck's lomatium	Apiaceae	perennial herb	Apr-May(Jun)	2B.2	S1	G4
<u>Opuntia fragilis</u>	brittle prickly-pear	Cactaceae	perennial stem succulent	Apr-Jul	2B.1	S1	G4G5
<u>Orthocarpus pachystachyus</u>	Shasta orthocarpus	Orobanchaceae	annual herb	May	1B.1	S1	G1
<u>Phacelia cookei</u>	Cooke's phacelia	Hydrophyllaceae	annual herb	Jun-Jul	1B.1	S1	G1
<u>Phacelia greenei</u>	Scott Valley phacelia	Hydrophyllaceae	annual herb	Apr-Jun	1B.2	S2	G2
<u>Phlox hirsuta</u>	Yreka phlox	Polemoniaceae	perennial herb	Apr-Jun	1B.2	S1	G1
<u>Polemonium carneum</u>	Oregon polemonium	Polemoniaceae	perennial herb	Apr-Sep	2B.2	S2	G3G4
<u>Scirpus pendulus</u>	pendulous bulrush	Cyperaceae	perennial rhizomatous herb	Jun, Aug	2B.2	S1	G5
<u>Sedum laxum ssp. flavidum</u>	pale yellow stonecrop	Crassulaceae	perennial herb	May-Jul	4.3	S3	G5T3Q
<u>Stachys pilosa</u>	hairy marsh hedge-nettle	Lamiaceae	perennial rhizomatous herb	Jun-Aug	2B.3	S3	G5
<u>Trifolium siskiyouense</u>	Siskiyou clover	Fabaceae	perennial herb	Jun-Jul	1B.1	SH	GH
<u>Triteleia crocea var. crocea</u>	yellow triteleia	Themidaceae	perennial bulbiferous herb	May-Jun	4.3	S3S4	G4T4

Suggested Citation

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Search Criteria

Found in Quads 4112277, 4112276, 4112275, 4112267, 4112266, 4112265, 4112257 4112256 and 4112255;

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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Allium siskiyouense	Siskiyou onion	Alliaceae	perennial bulbiferous herb	(Apr)May-Jul	4.3	S4	G4
Androsace elongata ssp. acuta	California androsace	Primulaceae	annual herb	Mar-Jun	4.2	S3S4	G5? T3T4
Arabis oregana	Oregon rockcress	Brassicaceae	perennial herb	May	4.3	S3	G3G4Q
Balsamorhiza lanata	woolly balsamroot	Asteraceae	perennial herb	Apr-Jun	1B.2	S3	G3
Calochortus greenei	Greene's mariposa lily	Liliaceae	perennial bulbiferous herb	Jun-Aug	1B.2	S2S3	G3
Calochortus monanthus	single-flowered mariposa lily	Liliaceae	perennial bulbiferous herb	Jun	1A	SH	GH
Calochortus persistens	Siskiyou mariposa lily	Liliaceae	perennial bulbiferous herb	Jun-Jul	1B.2	S1	G1
Carex geyeri	Geyer's sedge	Cyperaceae	perennial rhizomatous herb	May-Aug	4.2	S4	G5
Chaenactis suffrutescens	Shasta chaenactis	Asteraceae	perennial herb	May-Sep	1B.3	S2S3	G2G3
Cirsium ciliolatum	Ashland thistle	Asteraceae	perennial herb	Jun-Aug	2B.1	S1	G3
Cypripedium fasciculatum	clustered lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
Cypripedium montanum	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	4.2	S4	G4
Darlingtonia californica	California pitcherplant	Sarraceniaceae	perennial rhizomatous herb (carnivorous)	Apr-Aug	4.2	S4	G4
Eriogonum siskiyouense	Siskiyou buckwheat	Polygonaceae	perennial herb	(Jun)Jul-Sep	4.3	S3	G3
Eriogonum umbellatum var. lautum	Scott Valley buckwheat	Polygonaceae	perennial herb	Jul-Sep	1B.1	S1	G5T1
Eriogonum ursinum var. erubescens	blushing wild buckwheat	Polygonaceae	perennial herb	Jun-Sep	1B.3	S3	G3G4T3
	Scott Mountain	Rubiaceae	perennial herb	May-Aug	1B.2	S2	G4G5T2

<u>Galium serpticum ssp. scotticum</u>	bedstraw						
<u>Horkelia hendersonii</u>	Henderson's horkelia	Rosaceae	perennial herb	Jun-Aug	1B.1	S1	G1
<u>Hymenoxys lemmonii</u>	alkali hymenoxys	Asteraceae	perennial herb	Jun-Aug(Sep)	2B.2	S2S3	G4
<u>Lewisia cotyledon var. howellii</u>	Howell's lewisia	Montiaceae	perennial herb	Apr-Jul	3.2	S2	G4T4Q
<u>Limnanthes floccosa ssp. floccosa</u>	woolly meadowfoam	Limnanthaceae	annual herb	Mar-May(Jun)	4.2	S3	G4T4
<u>Lomatium peckianum</u>	Peck's lomatium	Apiaceae	perennial herb	Apr-May(Jun)	2B.2	S1	G4
<u>Orthocarpus pachystachyus</u>	Shasta orthocarpus	Orobanchaceae	annual herb	May	1B.1	S1	G1
<u>Phacelia greenei</u>	Scott Valley phacelia	Hydrophyllaceae	annual herb	Apr-Jun	1B.2	S2	G2
<u>Phlox hirsuta</u>	Yreka phlox	Polemoniaceae	perennial herb	Apr-Jun	1B.2	S1	G1
<u>Polemonium carneum</u>	Oregon polemonium	Polemoniaceae	perennial herb	Apr-Sep	2B.2	S2	G3G4
<u>Sabulina howellii</u>	Howell's sandwort	Caryophyllaceae	annual herb	Apr-Jul	1B.3	S3	G4
<u>Scirpus pendulus</u>	pendulous bulrush	Cyperaceae	perennial rhizomatous herb	Jun, Aug	2B.2	S1	G5
<u>Sedum laxum ssp. flavidum</u>	pale yellow stonecrop	Crassulaceae	perennial herb	May-Jul	4.3	S3	G5T3Q
<u>Trifolium siskiyouense</u>	Siskiyou clover	Fabaceae	perennial herb	Jun-Jul	1B.1	SH	GH
<u>Triteleia crocea var. crocea</u>	yellow triteleia	Themidaceae	perennial bulbiferous herb	May-Jun	4.3	S3S4	G4T4

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Questions and Comments

rareplants@cnps.org



Selected Elements by Element Code

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad IS (Yreka (4112266) OR Montague (4112265))

Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
AAABH01050	<i>Rana boylei</i> foothill yellow-legged frog	None	Endangered	G3	S3	SSC
ABNKC12060	<i>Accipiter gentilis</i> northern goshawk	None	None	G5	S3	SSC
ABNMK01014	<i>Antigone canadensis tabida</i> greater sandhill crane	None	Threatened	G5T4	S2	FP
AFC4E02153	<i>Cottus klamathensis polyporus</i> Lower Klamath marbled sculpin	None	None	G4T2T4	S2S4	SSC
AMAFJ01010	<i>Erethizon dorsatum</i> North American porcupine	None	None	G5	S3	
AMAJF01020	<i>Pekania pennanti</i> Fisher	None	None	G5	S2S3	SSC
ARAAD02030	<i>Emys marmorata</i> western pond turtle	None	None	G3G4	S3	SSC
IICOL55040	<i>Hydroporus leechi</i> Leech's skyline diving beetle	None	None	G1?	S1?	
IIHYM24010	<i>Bombus franklini</i> Franklin's bumble bee	Proposed Endangered	Candidate Endangered	G1	S1	
IIHYM24460	<i>Bombus morrisoni</i> Morrison bumble bee	None	None	G4G5	S1S2	
IIHYM24480	<i>Bombus crotchii</i> Crotch bumble bee	None	Candidate Endangered	G3G4	S1S2	
PDAP11B1G0	<i>Lomatium peckianum</i> Peck's lomatium	None	None	G4	S1	2B.2
PDAST11047	<i>Balsamorhiza lanata</i> woolly balsamroot	None	None	G3	S3	1B.2
PDAST530C0	<i>Hymenoxys lemmonii</i> alkali hymenoxys	None	None	G4	S2S3	2B.2
PDBOR0A0H2	<i>Cryptantha dissita</i> serpentine cryptantha	None	None	G3	S3	1B.2
PDFAB402S0	<i>Trifolium siskiyouense</i> Siskiyou clover	None	None	GH	SH	1B.1
PDHYD0C1V0	<i>Phacelia greenii</i> Scott Valley phacelia	None	None	G2	S2	1B.2
PDLIM02043	<i>Limnanthes floccosa ssp. floccosa</i> woolly meadowfoam	None	None	G4T4	S3	4.2
PDPGN08632	<i>Eriogonum ursinum var. erubescens</i> blushing wild buckwheat	None	None	G3G4T3	S3	1B.3
PDPLM0D100	<i>Phlox hirsuta</i> Yreka phlox	Endangered	Endangered	G1	S1	1B.2



Selected Elements by Element Code
California Department of Fish and Wildlife
California Natural Diversity Database



Element Code	Species	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
PDPLM0E050	<i>Polemonium carneum</i> Oregon polemonium	None	None	G3G4	S2	2B.2
PDRUB0N1Y6	<i>Galium serpenticum ssp. scotticum</i> Scott Mountain bedstraw	None	None	G4G5T2	S2	1B.2
PDSCR1H0L0	<i>Orthocarpus pachystachyus</i> Shasta orthocarpus	None	None	G1	S1	1B.1
PMCYP0Q160	<i>Scirpus pendulus</i> pendulous bulrush	None	None	G5	S1	2B.2
PMLIL0D0W0	<i>Calochortus monanthus</i> single-flowered mariposa-lily	None	None	GX	SX	1A
PMLIL0D140	<i>Calochortus persistens</i> Siskiyou mariposa-lily	None	Rare	G1	S1	1B.2

Record Count: 26

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Siskiyou County, California



Local office

Yreka Fish And Wildlife Office

☎ (530) 842-5763

📠 (530) 842-4517

1829 South Oregon Street
Yreka, CA 96097-3446

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Birds

NAME

STATUS

Northern Spotted Owl *Strix occidentalis caurina*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/1123>

Yellow-billed Cuckoo *Coccyzus americanus*

Threatened

There is **proposed** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3911>

Amphibians

NAME

STATUS

Oregon Spotted Frog *Rana pretiosa*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/6633>

Fishes

NAME

STATUS

Lost River Sucker *Deltistes luxatus*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/5604>

Shortnose Sucker *Chasmistes brevirostris*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7160>

Crustaceans

NAME

STATUS

Conservancy Fairy Shrimp *Branchinecta conservatio*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/8246>

Vernal Pool Fairy Shrimp *Branchinecta lynchi*

Threatened

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/498>

Vernal Pool Tadpole Shrimp *Lepidurus packardii*

Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/2246>

Flowering Plants

NAME

STATUS

Gentner's Fritillary *Fritillaria gentneri*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8120>

Yreka Phlox *Phlox hirsuta*

Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/8243>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

Breeds Jan 1 to Sep 30

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1626>

Golden Eagle *Aquila chrysaetos*

Breeds Jan 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Great Blue Heron *Ardea herodias fannini*

Breeds Mar 15 to Aug 15

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Long-billed Curlew *Numenius americanus*

Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/5511>

Olive-sided Flycatcher *Contopus cooperi*

Breeds May 20 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/3914>

Rufous Hummingbird *selasphorus rufus*

Breeds Apr 15 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8002>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.

2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

National Marine Fisheries Service Species List

Available online: https://archive.fisheries.noaa.gov/wcr/maps_data/california_species_list_tools.html
(accessed January 2021).

Quad Name: **Yreka**

Quad Number: 41122-F6

ESA Anadromous Fish

SONCC Coho ESU (T)

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat

Essential Fish Habitat

Coho EFH

Chinook Salmon EFH

Quad Name: **Montague**

Quad Number: 41122-F5

ESA Anadromous Fish

SONCC Coho ESU (T)

ESA Anadromous Fish Critical Habitat

SONCC Coho Critical Habitat

Essential Fish Habitat

Coho EFH

Chinook Salmon EFH

ATTACHMENT B

Representative Site Photos



Photo 1. Central portion of site showing terrace slope, facing NE, January 19, 2021

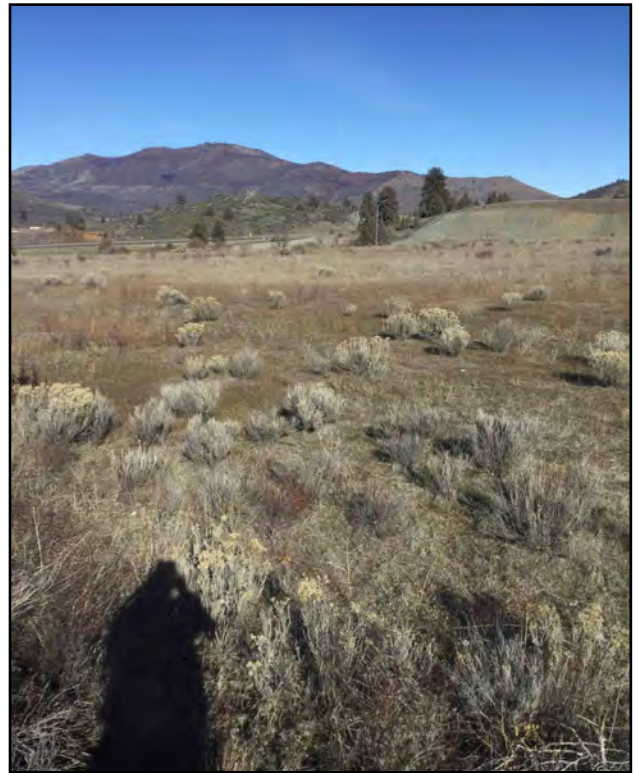


Photo 2. Southern corner of site, facing N, January 19, 2021



Photo 3. Northern boundary adjacent to Montague Road, facing NW, January 19, 2021



Photo 4 Southern boundary, facing NW, January 19, 2021

Representative Site Photographs

2017-121.02 Refresh Travel Plaza Project



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

APPENDIX 3.3

Cultural Resources Records Search and Literature Review for the Refresh Travel Center Project,
City of Yreka, Siskiyou County, California, March 2021

March 22, 2021

Mr. Steven Baker, City Manager
City of Yreka
701 Fourth Street
Yreka, California 96097

RE: *Cultural Resources Records Search and Literature Review for the Refresh Travel Center Project, City of Yreka, Siskiyou County, California*

Dear Mr. Baker:

In 2021, the City of Yreka retained ECORP Consulting, Inc. to conduct a cultural resources records search and literature review for the proposed Refresh Travel Center Project. The City of Yreka proposes to construct a truck-stop/fueling station and supporting commercial use (convenience store) on an existing parcel located southeast of the Interstate 5 and Montague Road/State Route 3 interchange in the City of Yreka in Siskiyou County, California. The purpose of this records search and literature review is to assess the potential for cultural resources to exist on the property, and was prepared to provide information to support the city's determination regarding impacts to Historical Resources, as defined by the California Environmental Quality Act.

For the literature review, ECORP conducted a cultural resources records search and map review for the Project Area. This analysis included a review of cultural resources records and literature on file at the Northeastern Information Center (NEIC) of the California Historical Resources Information System (CHRIS), an examination of cultural resources maps for the Project Area, and a Sacred Lands File search by the California Native American Heritage Commission (NAHC). This assessment did not include a pedestrian field visit or survey to identify any previously unrecorded resources that may be present. The purpose of this review is to provide you with preliminary information about the sensitivity of the Project Area for cultural resources but does not constitute an inventory.

The Project Area consists of approximately 4.77 acres of land within the City of Yreka. The Project Area is known as Assessor Parcel Numbers (APNs) 053-642-350, 053-642-360, 053-642-370, and 053-642-380. The Project is located in the northwestern quarter of Section 23 of Township 45 North, Range 7 West, Mount Diablo Base and Meridian, as depicted on the 1984 Yreka and Montague, California U.S. Geological Survey 7.5-minute topographic quadrangle maps (Figure 1). Elevation within the vacant Project Area ranges from approximately 2,630 to 2,660 feet above mean sea level. The Project Area is located southeast of Montague Road and Interstate 5 in northern Yreka in Siskiyou County, California.

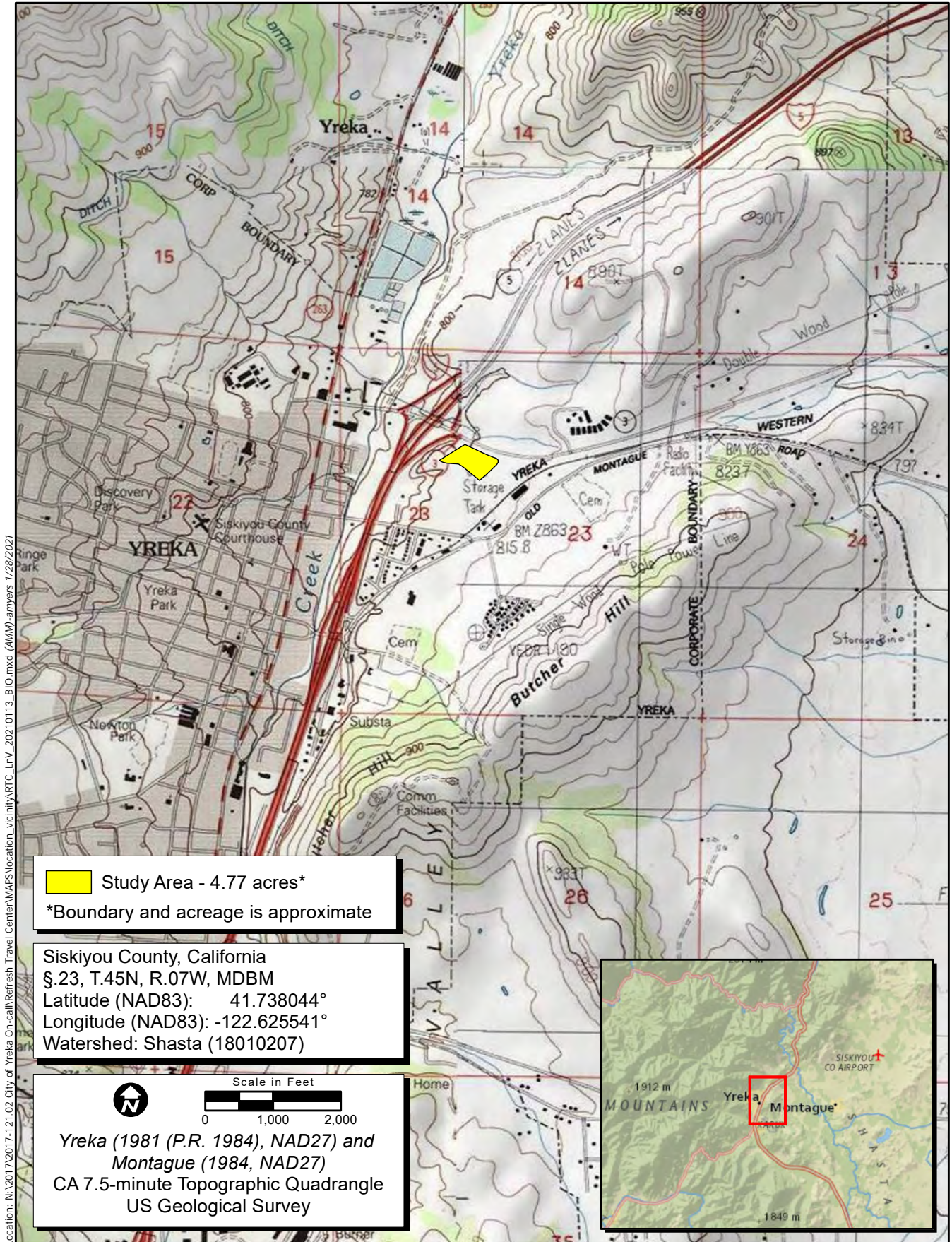


Figure 1. Project Location and Vicinity

2017-121.02/007 Refresh Travel Center

RECORDS SEARCH

Methods

ECORP requested a records search for the property from the NEIC of the CHRIS at California State University, Chico on January 14, 2021 (NEIC search #D21-13; Attachment A). The purpose of the records search was to determine the extent of previous surveys within a 0.5-mile (800-meter) radius of the property, and whether previously documented pre-contact (prehistoric) or historic archaeological sites, architectural resources, cultural landscapes, or ethnic resources exist within this area. The records search was completed by NEIC and returned to ECORP on February 11, 2021.

In addition to the records search, other literature reviewed included survey reports, archaeological site records, historic maps, and listings of resources on the National Register of Historic Places (NRHP), California Register of Historical Resources, California Points of Historical Interest, California Historical Landmarks, and National Historic Landmarks. Additionally, ECORP completed a RealQuest Property Search (based on Assessor's records) and reviewed historic General Land Office (GLO) land patent records from the Bureau of Land Management (BLM). ECORP also contacted the NAHC to request a search of its Sacred Lands File for the presence of traditional cultural properties or sacred, religious, or otherwise important Native American resources on January 14, 2021. ECORP also mailed a letter to the Siskiyou County Historical Society on January 14, 2021, to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of historical significance in the area.

Previous Research

Eleven previous cultural resources investigations have been conducted within 0.5-mile of the property, covering approximately 50 percent of the total area surrounding the property within the records search radius (Table 1). These studies revealed the presence of three historic-period resources within the 0.5-mile radius of the Project Area. The previous surveys were conducted between 1977 and 2015.

Table 1. Previous Cultural Studies In or Within 0.5 Mile of the APE				
Report Number	Author(s)	Report Title	Year	Includes Portion of the APE?
501	Peter Jensen	Archaeological Reconnaissance of 14 Acres Near the Junction of Interstate 5 and State Route 3, Near Yreka, California	1977	Yes
2135	Peter Jensen	Historic Properties Survey Report (HPSR) - Negative, for the Proposed City of Yreka's Proposed East Side Sewer System Project	1998	No
5285	James Rock	Archaeological Survey for the Rezone and General Plan Amendment for the Roman Catholic Diocese of Sacramento and Yreka Western Railroad Property, Co.	1999	No
5755	Peter Jensen	Archaeological Inventory Survey City of Yreka Sewer Improvement Project, Yreka, Siskiyou county, California	2003	No
7646	Dennis Gray	Cultural Resource Inventory, Rogue Valley Manor Residential	1994	No

Table 1. Previous Cultural Studies In or Within 0.5 Mile of the APE				
Report Number	Author(s)	Report Title	Year	Includes Portion of the APE?
		Housing Project, Siskiyou County, California		
8670	James Rock	Archaeological Inventory Report: Yreka Creek R.V. Park Project for RV-Group Partnership	2005	No
10584	Sean Michael Jensen	Archaeological Inventory Survey Proposed Yreka Creek Greenway Development Project c. 8 Acres, City of Yreka, Siskiyou county, California	2009	No
11478	Hamusek, Blossom	Archaeological Survey Report for the Juniper Left Turn Lane Project, Siskiyou County, California	2011	No
11702	Candice Cook-Slette and Jeff LaLande	Archaeological and Historical Resource Report for the Yreka Wastewater Treatment and Collection System Improvement Project	2012	No
12842	Brian Ludwig	State Route 3, State Route 97, and Interstate 5 Encroachment Permit Areas – Yreka to Wedd Archaeological Survey Report	2015	No
13495	John Furry	Archaeological Inventory Survey for the Proposed North View Estates Subdivision Project Involving c. 110 Acres Located North of Yreka, Siskiyou County, California	1991	No

The results of the records search indicate that a small portion of the property has been previously surveyed for cultural resources in 1977; however, this survey was conducted 44 years ago under obsolete standards.

The records search also determined that three previously recorded historic-period cultural resources are located within 0.5 mile of the Project Area (Table 2). No cultural have been previously recorded within the Project Area.

Table 2. Previously Recorded Cultural Resources In or Within 0.5 Mile of the Project Area					
Site Number CA-SIS-	Primary Number P-47-	Recorder and Year	Age/ Period	Site Description	Within Project Area?
4410H	4410	Sean M. Jensen 2009	Historic	Yreka Wastewater Treatment Facility	No
4745H	4745	Blossom Hamusek and D. McGann 2011	Historic	Yreka Chinese Cemetery	No
4746H	4746	Blossom Hamusek and D. McGann 2011	Historic	Trash scatter	No

Literature Review

A search of the NAHC's Sacred Lands File failed to indicate the presence of Native American cultural resources in the Project Area (Attachment B). The NAHC provided a list of Native American contacts and recommends that these individuals be contacted for additional information. ECORP did not carry out any follow-up coordination.

On January 19, 2021, as part of outreach for the Project pursuant to Assembly Bill 52 (AB 52), the City of Yreka sent a certified letter to the Karuk Tribe informing them of the Project and offering an opportunity to consult about the potential for Tribal Cultural Resources to exist in the Project Area. Tribal Cultural Resources may be synonymous with cultural resources. On January 19, 2021, the Tribe responded stating that there were no known Tribal Cultural Resources within the Project Area.

A letter was sent to the Siskiyou County Historical Society on January 14, 2021, to solicit comments or obtain historical information that the repository might have regarding events, people, or resources of historical significance in the area (Attachment A). The Siskiyou County Historical Society responded on January 30, 2021, via email stating that the historical society has identified two Historical cemeteries in the area. These cemeteries include a cemetery located southeast of the Project Area and on Foothill Road. Topographic maps, including Figure 1, mark the location of this cemetery and it is located 0.22 mile east of the Project Area. The second Historical cemetery is a Chinese Cemetery that is not marked on the topographic map. The Chinese Cemetery is located north of SR 3 and approximately 0.4 mile northeast of the Project Area. Neither cemetery is located within the Project Area and the historical society did not identified any historical significance within the Project Area.

The *Office of Historic Preservation's Built Environment Resource Directory* for Siskiyou County (dated March 3, 2020) did not include any resources within the Project Area (OHP 2020). No built environment resources are listed along Montague Road in the City of Yreka.

The National Register Information System (National Park Service [NPS] 2021) failed to reveal any significant properties within the Project Area. The nearest listed properties (Lewis Falkenstein's House, The Forest House, The West Miner Street-Third Street Historic District, and the Yreka Carnegie Library) are located approximately one mile southwest of the Project Area in Historic Yreka.

Resources listed as California Historical Landmarks (OHP 1996) and on the OHP California Historical Landmarks Website (OHP 2021) were reviewed on January 12, 2021. The nearest listed landmark is Historical Landmark number 901, the West Miner Street-Third Street Historic District in Yreka. Gold was discovered in nearby flats in 1851, resulting in Yreka becoming a commercial and transportation hub for the surrounding mining camps. The Historic District consists of three blocks on West Miner Street and four blocks of Third Street, approximately 0.65 mile southwest of the Project Area.

A review of *Historic Spots in California* (Kyle 2002) mentions that Siskiyou is a Cree word for bob-tailed horse, borrowed by the Chinook Jargon from the Oregon territory. Kyle mentions that gold was discovered by Abraham Thompson, a mule train packer, in the Yreka Flats in March 1851. The discovery location, a knoll near the intersection of today's Discovery and Yama streets in Yreka, was called Thompson Dry Diggings. The discovery of gold brought 2,000 men to the flats. Miners set up camp along

Yreka Creek from Greenhorn to Hawkinsville. By May 1851, the townsite for Yreka was laid out. Yreka was designated the county seat when Siskiyou County was formally organized in 1852.

According to *California Place Names* (Gudde 1969), Yreka was first called Thompson's Dry Diggings and later Shasta Butte City. The town name was later changed in 1852 to Wyreka which was derived from an indigenous word for Mount Shasta. The spelling of the name was changed to Yreka due a clerical error.

Historic GLO land patent records from the BLM's patent information database (BLM 2021) revealed that Jerome Churchill and the City of Yreka received a patent for 511 acres of land, including the Project Area, on July 1, 1874. The Yreka townsite included Sections 22, 23, 26, and 27 of Township 45 North, Range 7 West. Later, Charles Herzog Senior received a homestead patent for 137.7 acres of land within Section 23, including the Project Area, on November 13, 1895. The Herzog family owned and operated the City Meat Market beginning in 1854.

A RealQuest online property search for APNs 053-642-350, 053-642-360, 053-642-370, and 053-642-380 revealed that the Project Area is located on four parcels totaling 4.81 acres of vacant commercial land. No other property history information was on record with RealQuest.

The *Handbook of North American Indians* (Silver 1978) lists the nearest Native American village as *Kusta*, located in Yreka.

According to the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS 2021), one soil type is located within the Project Area: Facey loam (152), 5 to 15 percent slopes. The top 10 inches contain a loam and a clay loam, loam extending to 59 inches below surface. Unweathered bedrock may be present between 10 to 59 inches below the surface. Underlying geomorphology consists of pre-Cenozoic metasedimentary and metavolcanics rocks (Jennings et al. 1977).

Map Review and Aerial Photographs

The review of historical aerial photographs and maps of the Project Area provide information on the past land uses of the property. Based on this information, the property has been undeveloped land located northeast of Yreka since at least 1855. Following is a summary of the review of historical maps and photographs.

- The 1885 BLM GLO Plat map for Township 45 North, Range 7 West indicates the townsite of Yreka southwest of the Project Area. Yreka Creek is briefly depicted on the map through the north and south ends of town. No development is depicted within the Project Area.
- The 1886 U.S. Geological Survey (USGS) California, Shasta Sheet (1:250,000) maps show Yreka Creek and the townsite of Yreka southwest of the Project Area.
- The 1922 USGS California, Shasta Valley, Sheet No. 3 (1:24,000) map shows the Project Area as well northeast of the townsite grid of Yreka. Yreka Creek is located west of the Project Area. The Yreka Western Railroad and a cemetery is located southeast of the Project Area. No development is depicted within the Project Area.

- The 1954 USGS Yreka, CA (1:62,500) map shows Highway 99 as today's North Main Street through the town of Yreka. Montague Road is not depicted on the 1954 map. Three cemeteries are located within 0.5 mile of the Project Area, but none are within the Project Area. No development is depicted within the Project Area.
- A review of aerial photographs taken in 1955 show the Project Area as undeveloped land located northeast of the town of Yreka. The Yreka Western Railroad is visible less than 0.5 mile southeast of the Project Area, but the Project Area land is bare and undeveloped land. Interstate 5 has yet to be constructed through Yreka according to the 1955 aerials.
- A review of aerial photographs taken in 1983 show that Interstate 5 and Montague Road has been constructed in the vicinity of the Project Area. No development is visible within the Project Area land.
- The 1984 USGS Yreka, CA (7.5-minute) and the 1984 USGS Weed, CA (7.5-minute) maps show Montague Road north of the Project Area. Interstate 5 has been constructed to bypass the City of Yreka by this time and is located west of the Project Area. A gas storage tank is noted within the Project Area land but unclear if this label denotes something located south of the Project Area. Yreka Creek is located 0.25 mile west of the Project Area. The Yreka Western Railroad is depicted 0.16 mile southeast of the Project Area.
- Aerial photographs from 1993 to present show the Project Area land south of Montague Road as a vacant lot. In 2002, the Project Area and adjacent lots appear to have been graded for future development. By 2009, the Yreka RV Park and a hotel has been constructed south and west, respectfully, of the Project Area. Recent aerial photographs show the Project Area as a vacant property located southeast of the Interstate 5 and Montague Road intersection.

CONCLUSIONS

Based on the results of the records search and literature review, only a portion of the property has been surveyed for cultural resources and no previously recorded resources are known to exist within the Project Area. The property is situated in an area that is considered to have low to moderate sensitivity for pre-contact resources and a relatively low potential for historic-era cultural resources. The proximity of the Project Area to Yreka Creek coupled with the fact that the location of Yreka was noted in the ethnographic literature as a Native American Village indicates there is potential for buried pre-contact resources in the Project Area. However, the soil type and age of the underlying geomorphology somewhat lessen that possibility. There is a relatively low potential for the presence of historic-period cultural resources on this property. Map review did not indicate any past structures, and the three previously recorded historic period resources within the 0.5-mile records search radius have clearly delineated boundaries.

There is no available information to indicate that archaeological sites are present on the property; however, the property has not been surveyed by archaeologists who meet the Secretary of the Interior's Professional Qualification Standards for prehistoric and historic archaeology. There may be archaeological resources present on the property that have not been previously recorded.

If you have any questions or comments regarding the information provided in the literature review or if you need further assistance, please contact me at tfuerstenberg@ecorpconsulting.com or by phone at (916) 782-9100.

Sincerely,

A handwritten signature in black ink, appearing to read 'Theadora', with a long horizontal flourish extending to the right.

Theadora Fuerstenberg
Senior Archaeologist

Attachment(s):

Attachment A – Records Search Confirmation and Historical Society Letter

Attachment B – Sacred Lands File Coordination

REFERENCES

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- _____. 1996. California Historical Landmarks. California Department of Parks and Recreation, Sacramento, California.
- Silver, Shirley. 1978. Shastan Peoples. In *Handbook of North American Indians, Vol. 8: California*, edited by R.F. Heizer, pp. 387-397. Smithsonian Institution, Washington, D.C.

ATTACHMENT A

Records Search Confirmation and Historical Society Letter

Northeast Center of the
California Historical Resources
Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA

SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

123 West 6th Street, Suite 100
Chico CA 95928
Phone (530) 898-6256
neinfocntr@csuchico.edu

ACCESS AGREEMENT

I.C. File #: D21-13

I, the undersigned, have been granted access to historical resources information on file at the Northeast Information Center of the California Historical Resources Information System.

_____ I understand that any CHRIS Confidential Information I receive shall not be disclosed to individuals who do not qualify for access to such information, as specified in Section III (A-E) of the CHRIS Information Center Rules of Operation Manual, or in publicly distributed documents without written consent of the Information Center Coordinator.

_____ I agree to submit historical Resource Records and Reports based in part on the CHRIS information released under this Access Agreement to the Information Center within sixty (60) calendar days of completion.

_____ I agree to pay for CHRIS services provided under this Access Agreement within sixty (60) calendar days of receipt of billing.

_____ I understand that failure to comply with this Access Agreement shall be grounds for denial of access to CHRIS Information.

Print Name: Megan Webb Date: 2/11/2021 Signature: _____

Affiliation: ECORP Consulting, Inc.

Address: 2525 Warren Drive City/State/Zip: Rocklin, CA 95677

Billing Address (if different): _____

Office#: (916) 782-9100 Cell#: _____ Email: mwebb@ecorpconsulting.com

Project Name: Refresh Travel Center - Yreka

Purpose of Access: Records Search

County: Siskiyou Township/Range/Section: Section 23 T45N, R7W

USGS 7.5' Quad: _____

STAFF USE ONLY

Time:	In-House Fees:	<u>1</u> hours @ \$100.00/hour	\$ <u>100</u>
IN: <u>11:00</u>	Staff Charges:	_____ hours @ \$40.00/hour	\$ _____
OUT: <u>11:38</u>	Photocopy Charges:	<u>305</u> copies @ \$0.15/page	\$ <u>45.75</u>
<u>Ryan Bradshaw</u>	Other:	<u>Custom Map Fee</u>	\$ <u>150</u>
Information Center Staff			
Backlog () _____	TOTAL:		\$ <u>295.75</u>

*** THIS IS NOT AN INVOICE ***



January 14, 2021

Siskiyou County Historical Society
P.O. Box 1715
Yreka, CA 96097

RE: *Cultural Resources Identification Effort for the Refresh Travel Center Project, City of Yreka, Siskiyou County, California T 45 North, R 7 West, Section 23 (ECORP Project No. 2017-121.02).*

Dear Siskiyou County Historical Society:

ECORP Consulting, Inc. has been retained to assist in the planning of the development on the project indicated above. The proposed Project is to construct a truck-stop/fueling station and supporting commercial use (AM/PM mini-mart) on an approximately 5-acre parcel. The Project Area is located southeast of Interstate 5 and Montague Road interchange in City of Yreka Siskiyou County, California. As part of the identification effort, we are seeking information from all parties that may have knowledge of or concerns with historic properties or cultural resources in the area of potential effect.

Included is a map showing the project area outlined. We would appreciate input on this undertaking from the historical society with concerns about possible cultural properties or potential impacts within or adjacent to the area of potential effect. If possible, please contact me at (916) 782-9100 or mwebb@ecorpconsulting.com with your response.

Thank you in advance for your assistance in our cultural resource management study.

Sincerely,

Megan Webb
Staff Archaeologist

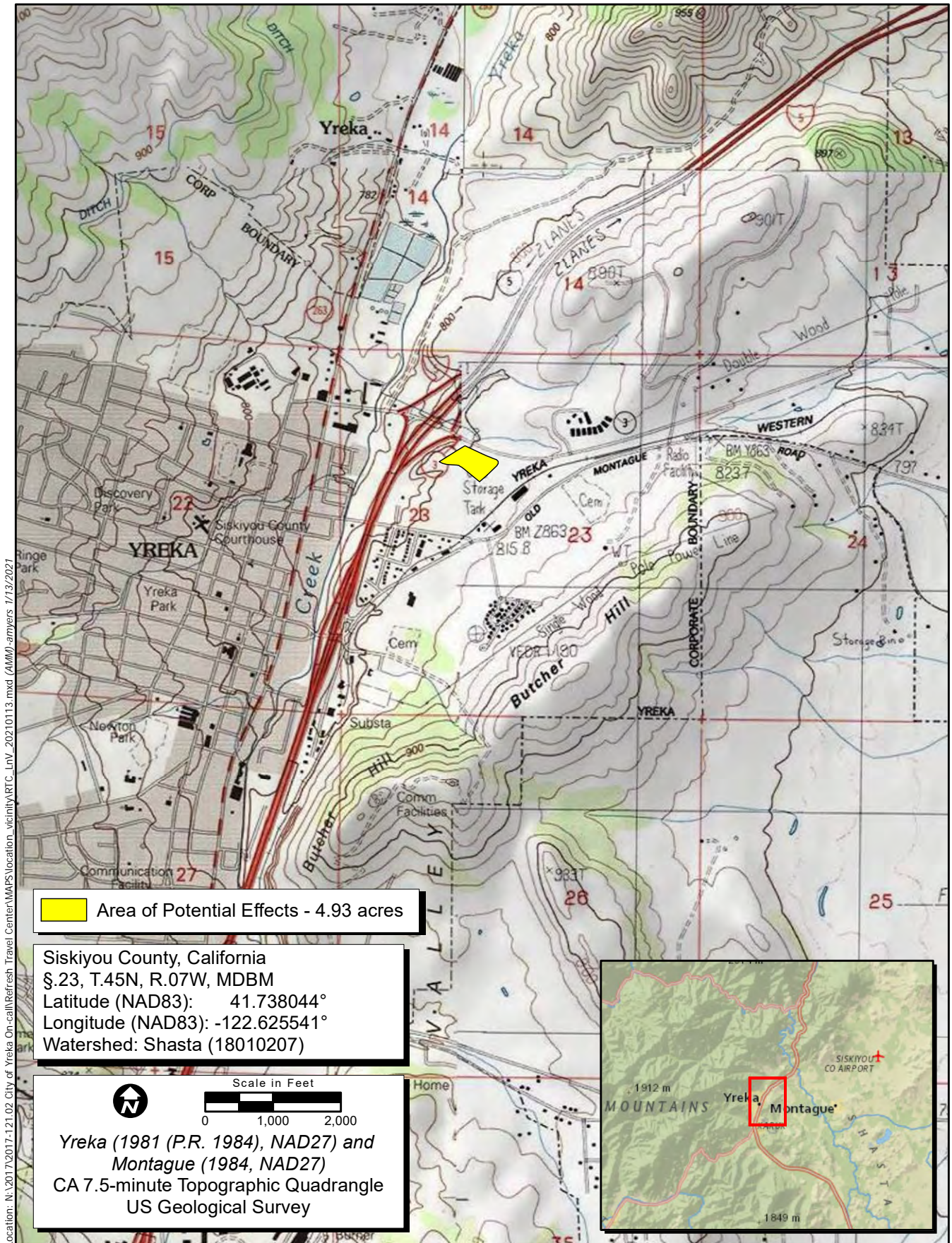


Figure 1. Project Location and Vicinity

2017-121.02/007 Refresh Travel Center

Megan Webb

From: Siskiyou County Historical Society <schs.main@gmail.com>
Sent: Saturday, January 30, 2021 10:24 AM
To: Megan Webb
Subject: ECORP Project #2017-121.02

Hello Megan Webb

The Siskiyou County Historical Society has reviewed the letter and map of Yreka CA that you sent.

The Historical Society has identified the 2 Historical Cemeteries in the area.

The first Historical Cemetery is south of your project located on Foothill Rd, across the road from the Meeks Lumber yard, it is marked on the map

The second Historical Cemetery is the Chinese Cemetery and is not marked on the map, it is located on State Route 3 and appears to be east of your project. The Chinese Cemetery has a small gazebo in front of the entrance and is well marked.

Thank you for checking with our Society.
Jennifer Bryan, Volunteer

--

PRIVILEGE AND CONFIDENTIALITY NOTICE

The information in this electronic mail is intended for named recipients only. It may contain privileged or confidential matters. If you received this electronic mail in error, please notify the sender immediately by replying to this electronic mail. Do not disclose the contents of this electronic mail to anyone.

Siskiyou County Historical Society
P. O. Box 1715
Yreka, CA 96097
(530) 572-1099

The Siskiyou County Historical Society is a 501c3 non-profit organization.

email: SCHS.Main@gmail.com

www.sisqhistory.org ~ Please consider joining our organization if you are not yet a member!

Visit our [website](#) and check out our **great books for sale online!**

ATTACHMENT B

Sacred Lands File Coordination

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION

1550 Harbor Blvd
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Refresh Travel Center Project

County: Siskiyou County

USGS Quadrangle: Yreka and Montague, California

Township: 45 North Range: 7 West Sections: 23

Company/Firm/Agency: ECorp Consulting, Inc.

Contact Person: Megan Webb

Street Address: 2525 Warren Drive

City: Rocklin Zip: 95677

Phone: (916) 782-9100

Fax: (916) 782-9134

Email: mwebb@ecorpconsulting.com

Project Description:

See attached letter and map.



January 14, 2021

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
nahc@nahc.ca.gov

RE: *Cultural Resources Identification Effort for the Refresh Travel Center Project, City of Yreka, Siskiyou County, California T 45 North, R 7 West, Section 23 (ECORP Project No, 2017-121.02).*

Dear NAHC Staff:

ECORP Consulting, Inc. has been retained to assist in the planning of the development on the project indicated above. The proposed Project is to construct a truck-stop/fueling station and supporting commercial use (AM/PM mini-mart) on an approximately 5-acre parcel. The Project Area is located southeast of Interstate 5 and Montague Road interchange in City of Yreka Siskiyou County, California. As part of the identification effort, we are seeking information from all parties that may have knowledge of or concerns with historic properties or cultural resources in the area of potential effect.

Included is a map showing the project area outlined. We would appreciate the results of your search of the Sacred Lands File and list of tribal contacts who can be contacted to provide input on this undertaking.

Please email or fax your response to my attention at mwebb@ecorpconsulting.com or (916) 782-9134. If you have any questions, please contact me at (916) 782-9100.

Thank you in advance for your assistance.

Sincerely,

Megan Webb
Staff Archaeologist

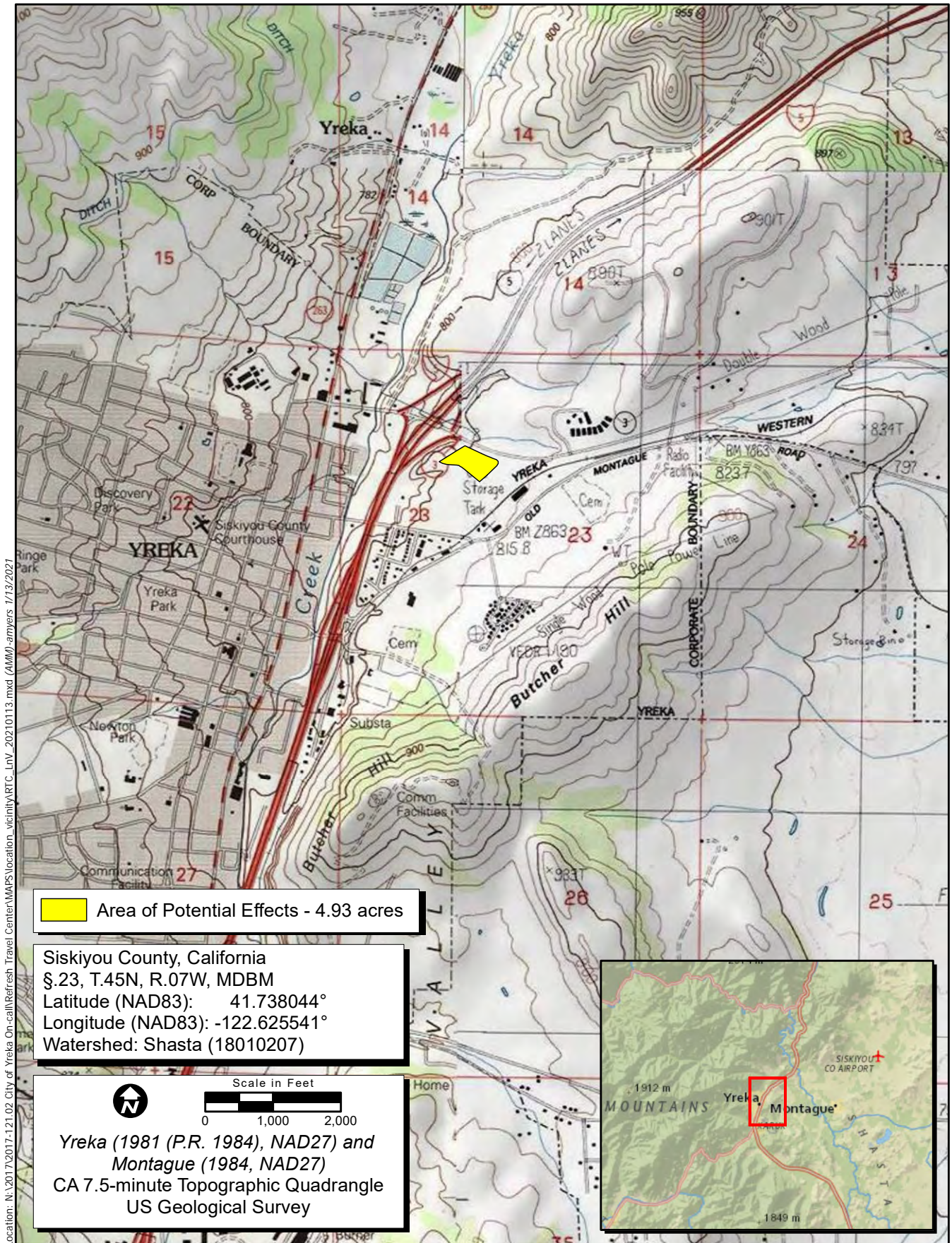


Figure 1. Project Location and Vicinity

2017-121.02/007 Refresh Travel Center

NATIVE AMERICAN HERITAGE COMMISSION

February 3, 2021

Megan Webb

ECORP Consulting, Inc.

Via Email to: mwebb@ecorpconsulting.com

Re: Refresh Travel Center Project, Siskiyou County

Dear Ms. Webb:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Nancy.Gonzalez-Lopez@nahc.ca.gov.

Sincerely,



Nancy Gonzalez-Lopez

Cultural Resources Analyst

Attachment



CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
[Vacant]

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

**Native American Heritage Commission
Native American Contact List
Siskiyou County
2/3/2021**

Shasta Indian Nation

Sami Jo Difuntorum, Cultural
Resource Coordinator
P.O. Box 634
Newport, OR, 97365-0045
Phone: (530) 643 - 2463

Shasta

Shasta Nation

Roy Hall, Chairperson
10808 Quartz Valley Road
Fort Jones, CA, 96032
Phone: (530) 468 - 2314

Shasta

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Refresh Travel Center Project, Siskiyou County.

From: [Liz Casson](#)
To: [Mike Martin](#)
Subject: FW: Yreka Proposed Project - Refresh Travel Plaza
Date: Tuesday, January 19, 2021 1:03:48 PM

Hi, Mike, the Karuk rep is great, he asks that we send an email as well as the Certified Letter, and he almost always responds within 1 or 2 days. See his response below stating that there are no cultural concerns in the area.

Liz

From: Alex Watts-Tobin <atobin@karuk.us>
Sent: Tuesday, January 19, 2021 12:09 PM
To: Liz Casson <casson@ci.yreka.ca.us>
Subject: Re: Yreka Proposed Project - Refresh Travel Plaza

Good Morning, Liz. Many thanks for sending us this information. The APN map was a bit hard to figure out, but I think I got it. That is close to the fairly recently-built Holiday Inn. There are no cultural concerns in that area, from a Karuk perspective.
Best, Alex WT

ALEX R. WATTS-TOBIN, Ph.D.
THPO-Archaeologist
The Karuk Tribe's Department of Natural Resources
39051 Hwy 96, P. O. Box 282, Orleans, CA 95556
www.karuk.us

Office: (530) 627-3446 ext. 3015
Fax: (530) 627-3448
Cell: (530) 643-9823
E-mail: atobin@karuk.us

Vúra yêeshiip kúma súpaah - Have a lovely day

On Jan 19, 2021, at 12:01 PM, Liz Casson <casson@ci.yreka.ca.us> wrote:

Good morning Alex, and Happy New Year! Hope all is well.

As per your request I am emailing our formal notice regarding a proposed new project in Yreka. This project is on the north end of town on Montague Road known as 717-747 Montague Road.

The Original Notice has been mailed via Certified Mail, per your official notice request.

If you have any questions or need further information, please contact me.

<image005.jpg>

Liz

Elizabeth C. Casson
Deputy Planning Director
Yreka Planning Department
701 Fourth Street
Yreka, CA 96097
530-841-2324

casson@ci.yreka.ca.us

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ci.yreka.ca.us

<1-19-21 Ltr to Karuk formal notice of proposed project Refresh Travel Plaza.pdf>

APPENDIX 3.4

Energy Consumption

**Proposed Project
Total Construction-Related and Operational
Gasoline Usage**

Table 1. Construction in First Calendar Year			
Action	Carbon Dioxide Equivalents (CO₂e) in Metric Tons¹	Conversion of Metric Tons to Kilograms²	Construction Equipment Emission Factor²
Project Construction Phase I	437	437,000	10.15
Total Gallons Consumed During First Calendar Year of Construction:			43,054

Table 2. Construction in Second Calendar Year			
Action	Carbon Dioxide Equivalents (CO₂e) in Metric Tons¹	Conversion of Metric Tons to Kilograms²	Construction Equipment Emission Factor²
Project Construction Phase I	277	277,000	10.15
Project Construction Phase II	429	429,000	10.15
Total Gallons Consumed During Second Calendar Year of Construction:			69,557

Table 3. Construction in Third Calendar Year			
Action	Carbon Dioxide Equivalents (CO₂e) in Metric Tons¹	Conversion of Metric Tons to Kilograms²	Construction Equipment Emission Factor²
Project Construction Phase II	267	267,000	10.15
Total Gallons Consumed During Third Calendar Year of Construction:			26,305

Sources:			
¹ ECORP Consulting. 2022. Yreka Travel Plaza and Hotel Project Air Quality and Greenhouse Gas Emissions Assessment.			
² Climate Registry. 2016. <i>General Reporting Protocol for the Voluntary Reporting Program version 2.1</i> . January 2016.			
http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf			

Proposed Project
Total Construction-Related and Operational
Gasoline Usage

Table 4. Average Miles per Gallon in Siskiyou County in 2025 ³								
Area	Sub-Area	Cal. Year	Season	Veh_tech	EMFAC 2021 Category	Total Onroad Vehicle Gallons Consumed in Siskiyou County in 2025	Total Onroad Vehicle Miles Traveled in Siskiyou County in 2025	Total Passenger Vehicle Miles per Gallon in Siskiyou County in 2025
Sub-Areas	Siskiyou County	2025	Annual	All Vehicles	All Vehicles	79,599,915	1,383,586,002	17.38
<div>Sources:</div> <div>³California Air Resource Board. 2021. EMFAC2021 Mobile Emissions Model.</div>								

Table 5. Total Gallons During Project Operations				
Project Onroad Vehicle Daily Trips ³	Estimated Miles per Trip ⁴	Project Onroad Vehicle Daily Miles Traveled	Project Onroad Vehicle Daily Fuel Consumption	Project Onroad Vehicle Annual Fuel Consumption
2,619	7.2	18,856.22	1,084.83	395,962
<div>Sources:</div> <div>³GHD 2022; ⁴CalEEMod 2020.4.0</div>				

Noise Impact Assessment for the Yreka Travel Plaza and Hotel Project, November 2022

Noise Impact Assessment for the Yreka Travel Plaza and Hotel Project

Siskiyou County, California

Prepared For:

City of Yreka
701 Fourth Street
Yreka, CA 96097

Prepared By:



November 2022

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- Attachment A - Baseline (Existing) Noise Measurements – Project Site and Vicinity
- Attachment B – Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Traffic Noise
- Attachment C – Federal Highway Administration Roadway Construction Noise Model Outputs – Construction Noise
- Attachment D – SoundPLAN Onsite Noise Generation

LIST OF ACRONYMS AND ABBREVIATIONS

APN	Assessor Parcel Numbers
Caltrans	California Department of Transportation
City	City of Yreka
CNEL	Community Noise Equivalent Level
County	Siskiyou County
dB	Decibel
dBA	Decibel is A-weighted
EV	Electric vehicle
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
Hz	Hertz
I-5	Interstate 5
L _{dn}	Day-night average sound level
L _{eq}	Measure of ambient noise
L _{max}	The maximum A-weighted noise level during the measurement period.
L _{min}	The minimum A-weighted noise level during the measurement period.
NIOSH	National Institute for Occupational Safety and Health
OPR	Office of Planning and Research
OSHA	Federal Occupational Safety and Health Administration
PPV	Peak particle velocity
PUD	Planned Unit Development
Project	Yreka Travel Plaza and Hotel Project
RCNM	Roadway Construction Noise Model
RMS	Root mean square
RV	Recreation Vehicle
sf	square feet
STC	Sound Transmission Class
SR	State Route
VdB	Vibration Velocity Level
WEAL	Western Electro-Acoustic Laboratory, Inc.
YWRR	Yreka Western Railroad

1.0 INTRODUCTION

This report documents the results of a Noise Impact Assessment completed for the Yreka Travel Plaza and Hotel Project (Project), which proposes the construction of a travel plaza, hotel and associated features in Yreka, California. This report was prepared as a comparison of predicted Project noise levels to noise standards promulgated by the City of Yreka General Plan and the Yreka Municipal Code. The purpose of this report is to estimate Project-generated noise and to determine the level of impact the Project would have on the environment.

1.1 Project Location

The Project Site is located in the northeast area of the City of Yreka south of Montague Road/State Route 3 (SR 3). The assigned addresses for the four undeveloped parcels of the Project Site are 717, 727, 737 and 747 Montague Road.

The 4.97-acre Project Site is undeveloped vacant land. Surrounding uses include the Yreka RV Park, vacant land with a drainage basin, and large lot single family uses to the south, and a Holiday Inn Hotel, and Interstate 5 (I-5) to the west. North of the site is Montague Road/SR 3 with vacant land beyond. The Yreka Truck Stop is east of the site, with vacant land and a lumber yard and mini-storage beyond.

The Project Site is designated GC (General Commercial) by the City's General Plan and is zoned Planned Unit Development (PUD 5-98). The Project Site is bounded by existing commercial uses to the west, an RV park to the south, the Yreka Truck Stop and vacant land to the west, and Montague Road/State Route 3 (SR-3) and vacant lands to the north.

1.2 Project Description

The Project proposes the construction of a travel plaza, hotel, and associated features. The Project is proposed to be completed in two phases with construction of Phase 1 beginning in June 2023 and ending in May 2024 and Phase 2 beginning in June 2024 and ending in May 2025. The buildout for each phase is as follows:

Phase I

- 12,300-square feet (sf) building including a convenience store, a food hall, bar, retail shop, and outdoor patio, open 7 days a week, 24 hours a day
- Eight-dispenser fuel center (16 fueling stations) with a 6,298-sf canopy for automobiles and RVs
- Four-dispenser fuel center (4 fueling stations) with a 1,872-sf canopy for semi-trucks
- Two underground gasoline/diesel fuel tanks (size to be determined), three 12,000-gallon above-ground diesel tanks, and a 10-foot propane tank
- Parking accommodating 99 spaces, including 12 spaces for Electric Vehicle (EV)s charging,
- Pet park area, and

- Two monument signs and a goalpost sign.

Anticipated average throughput of gasoline and diesel fuel per day when the Project is in operation is as follows:

- Approximately 6,500 gallons of gasoline per day
- Approximately 7,000 gallons of diesel fuel per day

Phase II

- a 70-room, three-story hotel (44 feet tall, 17,032 sf).
- parking accommodating 76 spaces, including two spaces for EV charging,
- a goalpost sign, and
- perimeter landscaping (44,676 sf total for Phases I and II).

Once completed, the Project is estimated to employ 40 to 50 persons total, with approximately 12 to 15 employees per shift. Access to the Project Site is provided by two driveways for the convenience store/fueling site and two driveways for the hotel site, all via an existing private road from Montague Road/SR 3.

2.0 ENVIRONMENTAL NOISE AND GROUNDBORNE VIBRATION ANALYSIS

2.1 Fundamentals of Noise and Environmental Sound

2.1.1 Addition of Decibels

The decibel (dB) scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration [FTA] 2018). For example, a 65-dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by three dB). Under the decibel scale, three sources of equal loudness together would produce an increase of five dB.

Typical noise levels associated with common noise sources are depicted in Figure 2-1.

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	
Quiet Urban Daytime	50	Large Business Office
		Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
Quiet Rural Nighttime	30	Bedroom at Night, Concert Hall (Background)
	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: California Department of Transportation (Caltrans) 2020a



Figure 2-1. Common Noise Levels

2.1.2 Sound Propagation and Attenuation

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks and airplanes, and stationary sources such as construction sites, machinery, and industrial operations. Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB (dBA) for each doubling of distance from a stationary or point source (FHWA 2017). Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dBA for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2017). No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dBA per doubling of distance is normally assumed. For line sources, an overall attenuation rate of three dB per doubling of distance is assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures; generally, a single row of detached buildings between the receptor and the noise source reduces the noise level by about five dBA (FHWA 2006), while a solid wall or berm generally reduces noise levels by 10 to 20 dBA (FHWA 2011). However, noise barriers or enclosures specifically designed to reduce site-specific construction noise can provide a sound reduction 35 dBA or greater (Western Electro-Acoustic Laboratory, Inc. [WEAL] 2000). To achieve the most potent noise-reducing effect, a noise enclosure/barrier must physically fit in the available space, must completely break the "line of sight" between the noise source and the receptors, must be free of degrading holes or gaps, and must not be flanked by nearby reflective surfaces. Noise barriers must be sizable enough to cover the entire noise source and extend lengthwise and vertically as far as feasibly possible to be most effective. The limiting factor for a noise barrier is not the component of noise transmitted through the material, but rather the amount of noise flanking around and over the barrier. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver.

The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer residential units is generally 30 dBA or more (Harris Miller, Miller & Hanson Inc. [HMMH] 2006). Generally, in exterior noise environments ranging from 60 dBA Community Noise Equivalent Level (CNEL) to 65 dBA CNEL, interior noise levels can typically be maintained below 45 dBA, a typical residential interior noise standard, with the incorporation of an adequate forced air mechanical ventilation system in each residential building, and standard thermal-pane residential windows/doors with a minimum rating of Sound Transmission Class (STC) 28. (STC is an integer rating of how well a building partition attenuates airborne sound. In the U.S., it is widely used to rate interior partitions, ceilings, floors, doors, windows, and exterior wall configurations). In exterior noise environments of 65 dBA CNEL or greater, a combination of forced-air mechanical ventilation and sound-rated construction methods is often required to meet the interior noise level limit. Attaining the necessary noise reduction from exterior to interior spaces is readily achievable in noise environments less than 75 dBA CNEL with proper wall construction techniques following California Building Code methods, the selections of proper windows and doors, and the incorporation of forced-air mechanical ventilation systems.

2.1.3 Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in L_{dn} /CNEL). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

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

Table 2-1 provides a list of other common acoustical descriptors.

Table 2-1. Common Acoustical Descriptors

Descriptor	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
L_{max} , L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	A 24-hour average L_{eq} with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
Community Noise Equivalent Level, CNEL	A 24-hour average L_{eq} with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.7 dBA CNEL.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content, as well as the prevailing ambient noise level.
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20.

The A-weighted decibel sound level scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about ± 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within about ± 1 to 2 dBA.

2.1.4 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL or L_{dn} is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

2.1.5 Effects of Noise on People

2.1.5.1 Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration (OSHA) has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

2.1.5.2 Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

2.2 Fundamentals of Environmental Groundborne Vibration

2.2.1 Vibration Sources and Characteristics

Sources of earthborne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or manmade causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

PPV is generally accepted as the most appropriate descriptor for evaluating the potential for building damage. For human response, however, an average vibration amplitude is more appropriate because it takes time for the human body to respond to the excitation (the human body responds to an average vibration amplitude, not a peak amplitude). Because the average particle velocity over time is zero, the RMS amplitude is typically used to assess human response. The RMS value is the average of the amplitude squared over time, typically a 1- sec. period (FTA 2018).

Table 2-2 displays the reactions of people and the effects on buildings produced by continuous vibration levels. The annoyance levels shown in the table should be interpreted with care since vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high-noise environments, which are more prevalent where groundborne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Ground vibration can be a concern in instances where buildings shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. For instance, heavy-duty trucks generally generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances, which as identified in Table 2-2 is considered very unlikely to cause damage to buildings of any type. Common sources for groundborne vibration are planes, trains, and construction activities such as earthmoving which requires the use of heavy-duty earth moving equipment.

Table 2-2. Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels

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

Source: Caltrans 2020b

3.0 EXISTING ENVIRONMENTAL NOISE SETTING

3.1 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain 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 nearest existing noise-sensitive land uses to the Project Site is a Recreation Vehicle (RV) Park approximately 45 feet south from the Project Site boundary. There are assumed to be both long-term and short-term residents that live at the RV Park. There is a Holiday Inn Express located approximately 38 feet northeast from the Project Site boundary. Hotel land uses can be considered a noise-sensitive receptor during the nighttime hours (10:00 p.m. – 7:00 a.m.), during which occupants expect conditions suitable for sleeping. However, this is not considered a sensitive noise land use during the daytime hours. Furthermore, only the hotel interior would be considered noise sensitive. As previously described, an exterior-to-interior noise level attenuation of at least 20 dBA could be expected. There is also a residential neighborhood to the south of the Project Site, with the closest residence located on Herzog Boulevard, approximately 580 feet distant.

3.1.1 Existing Ambient Noise Environment

The most common and significant source of noise in the Project Area is mobile noise generated by transportation-related sources. The Project Area is located along I-5 and SR 3, which are both sources of traffic and vehicle noise. Existing ambient noise conditions onsite are also influenced by trains on the nearby Yreka Western Railroad (YWRR) track, which is approximately 438 feet east of the Project Site. Trains intermittently pass by the Project Site, where noise generated by freight rail is primarily generated by the train's steel wheels rolling on steel rails. Other sources of noise are the various land uses (i.e., residential, industrial, and commercial) that generate stationary-source noise. The Project Site is currently vacant and surrounded by residential, commercial, and transient lodging land uses. As shown in Table 3-1 below, the ambient recorded noise levels range from 43.0 to 63.9 dBA L_{eq} near the Project Site.

3.1.2 Existing Ambient Noise Measurements

As previously stated, the Project Site is currently a vacant site. In order to quantify existing ambient noise levels in the Project Area, ECORP Consulting, Inc. conducted four short-term noise measurements (15-minutes) and one long-term noise measurement (24 hour) in the areas surrounding the Project Site. These short-term noise measurements are representative of typical existing noise exposure within and immediately adjacent to the Project Site (see Attachment A). The 15-minute measurements were taken between 2:47 p.m. and 4:08 p.m. on September 16, 2022. The long-term noise measurement was taken from

4:37 p.m. on September 16th to 4:37 p.m. on September 17th. The average noise levels at each location are listed in Table 3-1.

Table 3-1. Existing (Baseline) Noise Measurements						
Location Number	Location	L_{dn} dBA	L_{eq} dBA	L_{min} dBA	L_{max} dBA	Time
Short-Term Measurements						
1	On the Project Site, adjacent to Holiday Inn Express on Montague Road	N/A	53.7	41.8	69.6	2:47 p.m. – 3:02 p.m.
2	Adjacent to Juniper Terrace Apartments	N/A	43.0	35.9	58.1	3:30 p.m. – 3:45 p.m.
3	Entrance of RV Park, Adjacent to Truck Parking Lot	N/A	63.9	60.5	75.3	3:07 p.m. – 3:22 p.m.
4	502 E. Lennox St, on large field	N/A	48.7	37.1	56.8	3:53 p.m. – 4:08 p.m.
Long-Term Measurement						
5	Adjacent to single-family residence, south of Holiday Inn, west of RV Park.	62.8	57.3	35.9	79.6	4:37 p.m. – 4:37 p.m.

Source: Measurements were taken by ECORP with a Larson Davis SoundExpert LxT precision sound level meter, which satisfies the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to manufacturer specifications with a Larson Davis CAL200 Class I Calibrator. See Attachment A for noise measurement outputs.

Notes: L_{eq} is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. L_{min} is the minimum noise level during the measurement period and L_{max} is the maximum noise level during the measurement period. L_{dn} is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime.

As shown in Table 3-1, the ambient recorded noise levels range from 43.0 to 63.9 dBA L_{eq} over the course of the four short-term noise measurements taken in the Project Vicinity. The long-term measurement, which was adjacent to the nearest residential property south of the Project Site, yielded an ambient noise level of 62.8 L_{dn}. The most common noise in the Project vicinity is produced by automotive vehicles (e.g., cars, trucks, buses, motorcycles) traversing I-5.

3.1.3 Existing Roadway Noise Levels

Existing roadway noise levels were calculated for SR 3 (Montague Road), which traverses the northeast boundary of the Project Site. This task was accomplished using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Attachment B) and traffic volumes from the Project’s Traffic Study & VMT Analysis Technical Memorandum (GHD 2022). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California

automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in Table 3-2.

Table 3-2. Existing (Baseline) Traffic Noise Levels		
Roadway Segment	Surrounding Uses	L_{dn} 100 feet from Centerline of Roadway
N. Main Street		
North of Montague Road	Residential	53.2
South of Montague Road	Residential and Commercial	53.9
Montague Road		
Between N. Main Street and Deer Creek Way	Commercial and Lodging	61.5
Deer Creek Way		
North of Montague Road	Residential	41.2
Interstate 5 (I-5) Offramp		
Between I-5 Mainline and Private (Unnamed) Road	Lodging	59.1
Private (Unnamed) Road		
Southwest of Montague Road	Residential and Commercial	49.1
Between Holiday Inn Hotel and Yreka Truck Stop	Residential	58.4

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by GHD (2022). Refer to Attachment B for traffic noise modeling assumptions and results.

As shown, the existing traffic-generated noise level on Project-vicinity roadways currently ranges from 41.2 to 61.5 dBA L_{dn} at a distance of 100 feet from the centerline. As previously described, L_{dn} is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. It should be noted that the modeled noise levels depicted in Table 3-2 may differ from measured levels in Table 3-1 because the measurements represent noise levels at different locations around the Project Site. The short-term measurements are also reported in a different noise metric (e.g., short-term noise measurements are the L_{eq} values and traffic noise levels are reported in L_{dn}).

4.0 REGULATORY FRAMEWORK

4.1 Federal

4.1.1 Occupational Safety and Health Act of 1970

OSHA regulates onsite noise levels and protects workers from occupational noise exposure. To protect hearing, worker noise exposure is limited to 90 decibels with A-weighting (dBA) over an eight-hour work shift (29 Code of Regulations 1910.95). Employers are required to develop a hearing conservation program when employees are exposed to noise levels exceeding 85 dBA. These programs include provision of hearing protection devices and testing employees for hearing loss on a periodic basis.

4.1.2 National Institute of Occupational Safety and Health

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

4.2 State

4.2.1 State of California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The State of California General Plan Guidelines (State of California 2003), published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL/L_{dn} contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

4.2.2 State Office of Planning and Research Noise Element Guidelines

The State OPR *Noise Element Guidelines* include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The Noise Element Guidelines contain a Land Use Compatibility table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL.

4.2.3 California Department of Transportation

In 2020, the California Department of Transportation (Caltrans) published the Transportation and Construction Vibration Manual (Caltrans 2020b). The manual provides general guidance on vibration issues associated with the construction and operation of projects concerning human perception and structural damage. Table 2-2 above presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

4.3 Local

4.3.1 City of Yreka General Plan Noise Element

The Noise Section of the City Yreka General Plan Noise Element addresses noise-related issues within the community. This section contains goals and policies that are intended to protect noise sensitive uses from excessive noise levels. The following policies are applicable to the Proposed Project:

Policy 8: Where the noise level standards of Table [4-1] are predicted to be exceeded at new uses proposed within the City of Yreka which are affected by or include non-transportation noise sources, appropriate noise mitigation measures shall be included in the project design to reduce projected noise levels to a state of compliance with the Table [4-1] standards.

Policy 9: Noise associated with construction noise shall be exempt from Table [4-1].

Policy 10: Construction activities shall be limited to the hours of 7 a.m. to 5 p.m. unless an exemption is received from the City to cover special circumstances.

Policy 11: All internal combustion engines used in conjunction with construction activities shall be muffled according to the equipment manufacturers requirements.

The City of Yreka General Plan Noise Element *Non-Transportation Noise Source Policy 6* regulates non-transportation sources. These standards are design to protect people from objectionable stationary sources of noise, such as machinery, pumps, and other noise causing equipment. The City's exterior and interior standards for Daytime (7:00 a.m. to 10:00 p.m.) and Nighttime (10:00 p.m. to 7:00 m a.m.) are summarized below in Table 4-1.

Table 4-1 City of Yreka Noise Standards for Non-Transportation Uses			
New Land Use Category	Outdoor Activity Area - L_{eq}		Interior Area - L_{eq} Daytime and Nighttime (dBA)
	Daytime (dBA)	Nighttime(dBA)	
All Residential	50	45	35
Transient Lodging	55	--	40
Hospitals & Nursing Homes	50	45	35
Theaters & Auditoriums	--	--	35
Churches, Meeting Halls, Schools, Libraries, etc.	55	--	40
Office Buildings	55	--	45
Commercial Buildings	55	--	45
Playgrounds, Parks, etc.	65	--	--
Industry	65	65	50

Source: City of Yreka General Plan Noise Element (1998)

The Project Site has several sensitive land uses nearby. The adjacent hotel and RV Park are considered "Transient Lodging" land uses. However, these land uses are only sensitive during nighttime hours (10:00 p.m. to 7:00 a.m.), when guests may expect to sleep. The nearest residential sensitive receptor on Herzog Boulevard is approximately 580 feet to the southwest of the Project Site. Under normal circumstances, the Project would be subject to maintaining the standards shown in Table 4-1 at this residential land use. However, the long-term baseline noise measurement shown in Table 3-1 identifies that the ambient noise measurement taken adjacent to the residence on Herzog Boulevard is already experiencing noise levels of 57.3 dBA L_{eq} , which is above the 50 dBA L_{eq} exterior residential standard. Therefore, for the purposes of this analysis, onsite Project-generated noise, as experienced at this residence, is considered a significant impact if it increases the exterior noise level by 5.0 dBA (62.3 dBA total). As previously described, a change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.

The City of Yreka General Plan Noise Element also provides compatibility standards for the traffic and transportation-related noise, as shown in Table 4-2. All Project-related increases in transportation must adhere to these standards. The City's General Plan Noise Element states that if the standards shown in Table 4-2 are to be exceeded, then appropriate noise mitigation measures shall be implemented in the Project's design.

Table 4-2. City of Yreka Noise Standards for Transportation Uses		
New Land Use Category	Outdoor Activity Area - L_{dn} (dBA)	Interior Area – L_{dn} (dBA)
All Residential	60-65	45
Transient Lodging	65	45
Hospitals & Nursing Homes	60	45
Theaters & Auditoriums	--	35
Churches, Meeting Halls, Schools, Libraries, etc.	60	40
Office Buildings	65	45
Commercial Buildings	65	50
Playgrounds, Parks, etc.	70	--
Industry	65	50

Source: City of Yreka General Plan Noise Element (1998)

As shown in Table 4-2, the transportation and traffic compatibility exterior noise standard for residences is 60 - 65 dBA L_{dn} and transient lodging is 65 dBA L_{dn}. The existing baseline traffic noise levels in the Project vicinity, shown in Table 3-2, are under these standards.

5.0 Project Impact Assessment

5.1 Thresholds of Significance

The impact analysis provided below is based on the following California Environmental Quality Act Guidelines Appendix G thresholds of significance. The Project would result in a significant noise-related impact if it would result in the:

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

The City does not promulgate a numeric threshold pertaining to the noise associated with construction. This is because construction noise is temporary, short term, intermittent in nature, and would cease on completion of the Project. Instead, Project construction activities are subject to the City of Yreka General Plan Noise Element's *Policy 10*, which sets a daily limit on construction noise, stating that construction may only occur from 7:00 a.m. to 5:00 p.m. daily. The Project would be required to comply with this Municipal Code requirement. In order to evaluate the potential health-related effects (physical damage to the ear and mental damage from lack of sleep or focus) from construction noise, construction equipment noise levels are calculated and compared against the construction-related noise level threshold established by NIOSH. For vibrational-related impacts, Caltrans (2020b) has recommended the standard of 0.3 inch per second PPV with respect to the prevention of structural damage for older residential buildings to be used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings.

The City of Yreka has established traffic and transportation-related noise standards, as shown in Table 4-2. These thresholds will be used to evaluate the Project's traffic noise. The City of Yreka has established stationary (onsite) noise standards, as shown in Table 4-1. These thresholds will be used to evaluate the Project's onsite noise.

5.2 Methodology

This analysis of the existing and future noise environments is based on empirical observations and noise prediction modeling. Predicted construction noise levels were calculated utilizing the FHWA's Roadway Construction Noise Model (2006). Groundborne vibration levels associated with construction-related activities for the Project have been evaluated utilizing typical groundborne vibration levels associated with construction equipment, as identified by the FTA and Caltrans. Potential groundborne vibration impacts related to structural damage and human annoyance were evaluated, taking into account the distance from construction activities to nearby structures and typically applied criteria for structural damage and human annoyance.

Transportation-source noise levels associated with the Project were calculated using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) with trip generation rates provided by GHD (2022). Onsite operational, stationary source noise levels associated with the Project have been calculated with the SoundPLAN 3D noise model, which predicts noise propagation from a noise source based on the location, noise level, and frequency spectra of the noise sources as well as the geometry and reflective properties of the local terrain, buildings and barriers.

5.3 Impact Analysis

5.3.1 Would the Project Result in Short-Term Construction-Generated Noise in Excess of City Standards?

Onsite Construction Noise

Construction noise associated with the Proposed Project would be temporary and would vary depending on the specific nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, excavation, paving). Noise generated by construction equipment, including earth movers, pile drivers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

As previously discussed, the Project would be subject to the City of Yreka General Plan Noise Element Policy 10, which states construction may only occur between the hours of 7:00 a.m. to 5:00 p.m. The Project would be required to comply with this Municipal Code requirement and therefore the Project would not conflict with this City standard.

To estimate the worst-case onsite construction noise levels that may occur at the nearest noise-sensitive receptors and in order to evaluate the potential health-related effects (physical damage to the ear) from construction noise, the construction equipment noise levels were calculated using the Federal Highway Administration's Roadway Noise Construction Model and compared against the construction-related noise level threshold established in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998 by NIOSH. A division of the U.S. Department of Health and Human Services, NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for more than 8 hours per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for more than 4 hours per day, 92 dBA for more than 1 hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day. For the purposes of this analysis, the lowest, more conservative threshold of 85 dBA L_{eq} is used as an acceptable threshold for construction noise at the nearby sensitive receptors. As previously described, the adjacent hotel and RV land uses can be considered a noise-sensitive

receptor during the nighttime hours (10:00 p.m. – 7:00 a.m.), during which occupants expect conditions suitable for sleeping. However, this is not considered a sensitive noise land use during the daytime hours. The nearest sensitive daytime land use is the single-family residence on Herzog Boulevard, which is approximately 580 feet south from the Project Site's boundary. The Project's construction would be completed in two phases, Phase I and Phase II. The anticipated short-term construction noise levels generated for the necessary equipment are presented in Table 5-1.

Table 5-1. Construction Average (dBA) Noise Levels at Nearest Receptors			
Construction Phase	Estimated Exterior Construction Noise Level @ Closest Noise Sensitive Receptor (dBA L_{eq})	Construction Noise Standard (dBA L_{eq})	Exceeds Standards?
Phase 1			
Site Preparation	66.3	85	No
Grading	66.0	85	No
Building Construction, Architectural Coating & Paving	69.7	85	No
Phase 2			
Site Preparation	66.3	85	No
Grading	66.0	85	No
Building Construction, Architectural Coating & Paving	69.7	85	No

Source: Construction noise levels were calculated by ECORP Consulting using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Attachment C for Model Data Outputs.

Notes: Construction equipment was provided by CalEEMod default values. Construction noise was modeled 580 feet which is the distance to the nearest sensitive receptor. Building construction, architectural coating & paving would occur simultaneously.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 5-1, construction activities would not exceed the NIOSH construction noise standards for the nearest sensitive residences. It is noted that construction noise was modeled on a worst-case basis. It is very unlikely that all pieces of construction equipment would be operating at the same time for the various phases of Project construction as well as at the point closest to residences.

5.3.2 Would the Project Result in a Substantial Permanent Increase in Ambient Noise Levels in Excess of City Standards During Operations?

As previously described, noise-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would each be considered noise-sensitive and may warrant unique measures for protection from intruding noise. The nearest existing noise-sensitive land uses to the Project Site is a residential neighborhood to the south of the Project Site, with the closest residence on Herzog Boulevard located approximately 580 feet away. Additionally, a RV Park approximately 45 feet south from the Project Site boundary. There is a Holiday Inn Express located approximately 38 feet northeast from the Project Site boundary. Hotel and other transient lodging land uses like the RV Park can be considered a noise-sensitive receptor during the nighttime hours (10:00 p.m. – 7:00 a.m.), during which occupants expect conditions suitable for sleeping. However, this is not considered a sensitive noise land use during the daytime hours. Furthermore, only the hotel interior would be considered noise sensitive. As previously described, an exterior-to-interior noise level attenuation of at least 20 dBA could be expected. Once construction is complete, the hotel component of the Proposed Project would be considered a noise-sensitive receptor during the nighttime hours.

Operational Traffic Noise

Future traffic noise levels throughout the Project vicinity (i.e., vicinity roadway segments that traverse noise sensitive land uses) were modeled based on the traffic volumes identified by GHD (2022) to determine the noise levels along Project vicinity roadways. Table 5-2 shows the calculated offsite roadway noise levels under predicted traffic levels once the Project is completed.

Table 5-2. Existing Plus Project Traffic Noise Levels

Roadway Segment	Surrounding Uses	L_{dn} at 100 feet from Centerline of Roadway
N. Main Street		
North of Montague Road	Residential	54.6
South of Montague Road	Residential and Commercial	55.7
Montague Road		
Between N. Main Street and Deer Creek Way	Commercial and Lodging	61.5
Deer Creek Way		
North of Montague Road	Residential	40.8
Interstate 5 (I-5) Offramp		
Between I-5 Mainline and Private (Unnamed) Road	Lodging	60.5
Private Road		
Southwest of Montague Road	Residential and Commercial	54.7
Between Holiday Inn Hotel and Yreka Truck Stop	Residential	60.4

Source: Traffic noise levels were calculated by ECORP using the FHWA roadway noise prediction model in conjunction with the trip generation rate identified by GHD (2022). Refer to Attachment B for traffic noise modeling assumptions and results.

As shown in Table 5-2 the predicted traffic noise in the Project vicinity would range from 40.8 dBA to 61.5 dBA under the Existing plus Project scenario. These predicted noise levels are consistent with the transportation and traffic compatibility exterior noise standard, which is shown in Table 4-2 above. The exterior noise standard for residences is 60 - 65 dBA and transient lodging is 65 dBA. The projected existing conditions plus the Project will result in noise levels under the upper range (65 dBA) standard.

Operational Noise

The Project is proposing to develop a Travel Plaza, consisting of a 12,300-sf building with a convenience store, a food hall, bar, retail shop, and outdoor patio, fueling centers, fuel tanks, pet park, and 17,032-sf hotel. On-site noise associated with the Proposed Project has been calculated using the SoundPLAN 3D noise model. The modeling scenario accounts for parking lot activity (i.e., people talking, internal circulation, car door opening and closing, stereo music, etc.) occurring in the areas adjacent to the hotel and gas station. Additionally, internal truck circulation, occurring at the diesel fueling station, was modeled as line sources traversing the path of travel proposed on the Project Site plan.

For the purposes of this analysis, the City of Yreka noise standards (Table 4-1 above) will be used to evaluate Project related impacts as they provide thresholds for residential and transient lodging land uses. However, the long-term baseline noise measurement shown in Table 3.7-3 identifies that the ambient noise

measurement taken adjacent to the residence on Herzog Boulevard is already experiencing noise levels of 57.3 dBA L_{eq} , which is above the 50 dBA L_{eq} exterior residential standard. Therefore, for the purposes of this analysis, onsite Project-generated noise, as experienced at this residence, is considered a significant impact if it increases the exterior noise level by 5.0 dBA (62.3 dBA total). As previously described, a change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial. Per information provided by the Project applicant, the operational hours for the Yreka Travel Plaza and Hotel are open 24 hours. Per information provided by the Project applicant, the operational hours for the Yreka Travel Plaza and Hotel are open 24 hours.

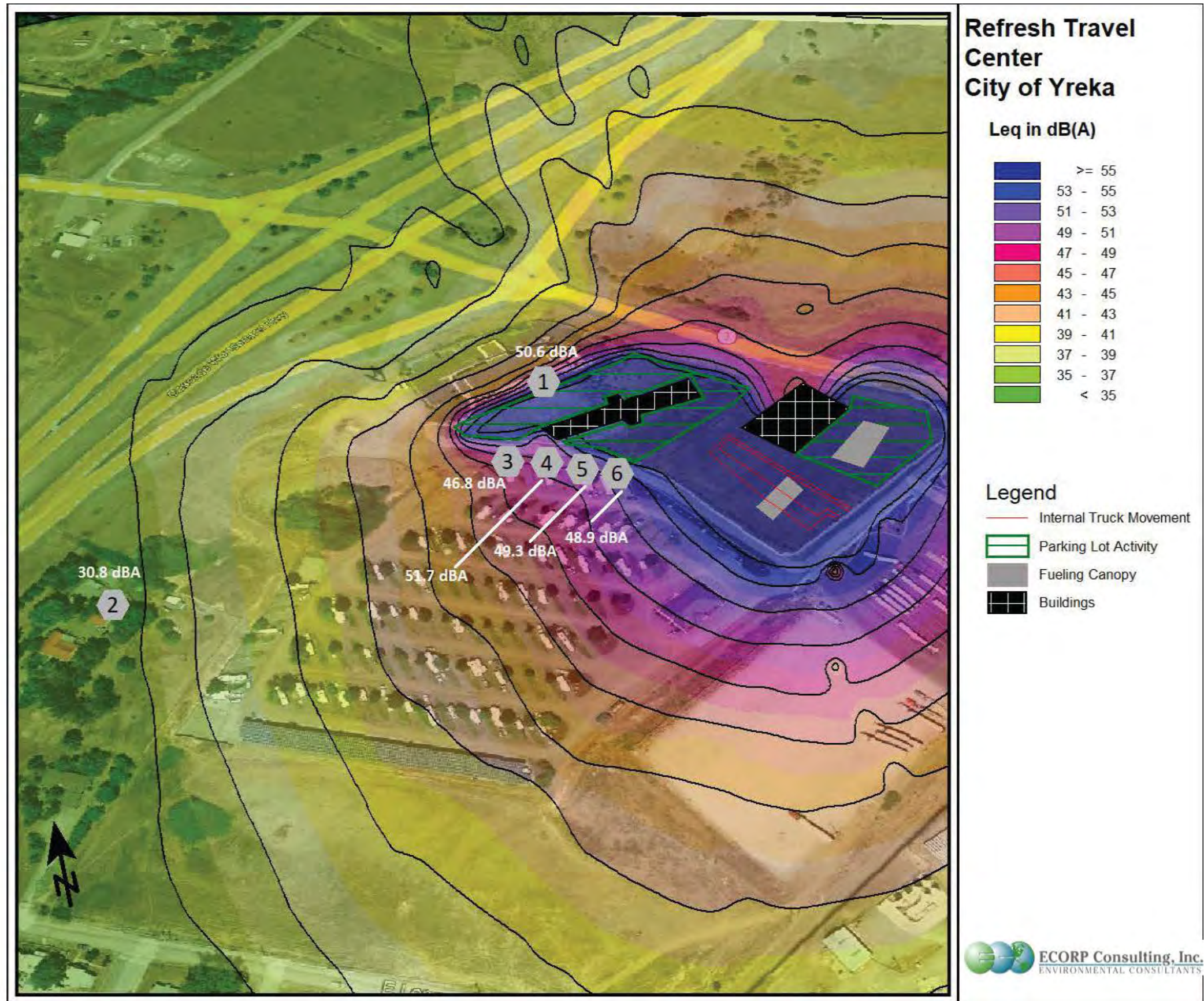
Table 5-3 shows the predicted Project noise levels at six noise-sensitive locations in the Project vicinity including the RV Park, Holiday Inn Express and nearest residence off Herzog Boulevard as predicted by SoundPLAN. Additionally, a noise contour graphic for each scenario (see Figure 5-1) has been prepared to provide a visual depiction of the predicted noise levels in the Project vicinity from Project operations.

Table 5-3. Modeled Operational Noise Levels			
Location	Modeled Operational Noise Attributed to the Project (dBA L_{eq})	Daytime/ Nighttime Exterior Noise Standards (dBA L_{eq})	Exceed Daytime/ Nighttime Exterior Standard?
#1 Holiday Inn Express	50.6	55 / --	No
#2 Nearest Residence off Herzog Boulevard	30.8	50 / 45	No
#3 RV Park	46.8	55 / --	No
#4 RV Park	51.7	55 / --	No
#5 RV Park	49.3	55 / --	No
#6 RV Park	48.9	55 / --	No

Source: SoundPLAN v 8.2. Refer to Attachment D for Model Data Outputs.

As shown in Table 5-3, Project operational noise would not exceed the daytime or nighttime exterior noise standards at any location. Additionally, as described in Table 4-1, the City has interior noise standards for residential and transient lodging land uses, the noise sensitive land uses in the Project Area. Residential land uses have an interior noise standard of 35 dBA L_{eq} and transient lodging land uses have an interior noise standard of 40 dBA L_{eq} . As previously stated, the manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). Thus, using the conservative reduction of 20 dBA, these values would fall below the interior

noise standards as well. Furthermore, it is noted that the modeled noise levels identified are a worst-case scenario. Not all events taking place on the Project Site would generate as much noise as predicted.



Map Date: 11/30/2022
Photo (or Base) Source: SoundPLAN8.2

Figure 5-1. Modeled Operational Noise Levels

5.3.3 Would the Project Expose Structures to Substantial Groundborne Vibration During Construction?

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term construction-related activities. Construction on the Project Site would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is not anticipated that pile drivers would be necessary during Project construction. Vibration decreases rapidly with distance, and it is acknowledged that construction activities would occur throughout the Project Site and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment are summarized in Table 5-4.

Table 5-4. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Pile Driver	0.170
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Source: FTA 2018; Caltrans 2020b

The City of Yreka does not have a numeric threshold associated with construction vibrations. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans (2020b) recommended standard of 0.3 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold. This is also the level at which vibrations may begin to annoy people in buildings. The nearest structure of concern to the construction site, with regard to groundborne vibrations, is the single-family residence southwest of the Project Site on Herzog Boulevard, approximately 580 feet away from the Project Site at the nearest.

Based on the representative vibration levels presented for various construction equipment types in Table 5-4 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}]$$

Table 5-5 presents the expected Project related vibration levels at a distance of 580 feet.

Table 5-5 Construction Vibration Levels at 580 Feet							
Receiver PPV Levels (in/sec) ¹					Peak Vibration	Threshold	Exceed Threshold?
Large Bulldozer, Caisson Drilling, & Hoe Ram	Loaded Trucks	Jackhammer	Pile Driver	Vibratory Roller			
0.0008	0.0007	0.0003	0.002	0.002	0.002	0.3	No

Notes: ¹Based on the Vibration Source Levels of Construction Equipment included on Table 5-4 (FTA 2018). Distance to the nearest structure of concern is approximately 580 feet measured from Project Site boundary.

As shown in Table 5-5, vibration as a result of onsite construction activities on the Project Site would not exceed 0.3 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold.

5.3.4 Would the Project Expose Structures to Substantial Groundborne Vibration During Operations?

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. While the Project may accommodate heavy-duty trucks for fueling, these vehicles can only generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances. Therefore, the Project would result in negligible groundborne vibration impacts during operations.

5.3.5 Would the Project Expose People Residing or Working in the Project area to Excessive Airport Noise?

The Project Site is located approximately 4.15 miles west of the Montague-Yreka Airport. Although aircraft flight patterns may cover the Project Site, noise from aircrafts is not a significant issue in the City. Implementation of the Proposed Project would not affect airport operations, nor result in increased exposure of those on the Project Site to aircraft noise.

6.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A - Baseline (Existing) Noise Measurements – Project Site and Vicinity

Attachment B – Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) Outputs – Traffic Noise

Attachment C – Federal Highway Administration Roadway Construction Noise Model Outputs – Construction Noise

Attachment D – SoundPLAN 3-D Noise Model Outputs - Onsite Noise Generation

Baseline (Existing) Noise Measurements – Project Site and Vicinity

Site Number: 1			
Recorded By: Anaya Ward			
Job Number: 2022-107			
Date: 9/16/22			
Time: 2:47p.m. – 3:02 p.m.			
Location: Adjacent to Holiday Inn on Montague Road			
Source of Peak Noise: Truck Traffic on Montague Road			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
53.7	41.8	69.6	102.0

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	
Weather Data						
Est.	Duration: 15 min			Sky: Partly Cloudy and Sunny		
	Note: dBA Offset = 0.11			Sensor Height (ft): 4.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	2		76		29.9	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.026.s	Computer's File Name	LxT_0006133-20220916 144704-LxT_Data.026.ldbin
Meter	LxT1 0006133	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2022-09-16 14:47:04	Duration	0:15:00.0
End Time	2022-09-16 15:02:04	Run Time	0:15:00.0
		Pause Time	0:00:00.0
Pre-Calibration	2022-09-16 14:46:34	Post-Calibration	None
		Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	53.7 dB		
LAE	83.2 dB	SEA	--- dB
EA	23.4 µPa²h		
EA8	750.2 µPa²h		
EA40	3.8 mPa²h		
LZS _{peak}	102.0 dB		2022-09-16 14:47:41
LAS _{max}	69.6 dB		2022-09-16 14:47:41
LAS _{min}	41.8 dB		2022-09-16 14:59:26
LA _{eq}	53.7 dB		
LC _{eq}	62.7 dB	LC _{eq} - LA _{eq}	9.0 dB
LA _{eq}	58.4 dB	LA _{eq} - LA _{eq}	4.7 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
53.7 dB	53.7 dB	0.0 dB	
LDEN	LDay	LEve	LNight
53.7 dB	53.7 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	53.7 dB		--- dB		--- dB	
L _{S(max)}	69.6 dB	2022-09-16 14:47:41	--- dB	None	--- dB	None
L _{S(min)}	41.8 dB	2022-09-16 14:59:26	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	102.0 dB	2022-09-16 14:47:41

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	58.4 dB
LAS 10.0	56.5 dB
LAS 33.3	53.1 dB
LAS 50.0	51.7 dB
LAS 66.6	50.2 dB
LAS 90.0	47.6 dB

Site Number: 2			
Recorded By: Anaya Ward			
Job Number: 2022-107			
Date: 9/16/22			
Time: 3:30p.m. – 3:45 p.m.			
Location: Adjacent to Juniper Terrace Apartments			
Source of Peak Noise: Interstate Highway 5 Noise			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
43.0	35.9	58.1	84.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	
Weather Data						
Est.	Duration: 15 min			Sky: Partly Cloudy and Sunny		
	Note: dBA Offset = 0.11			Sensor Height (ft): 4.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	4		78		29.9	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.028.s	Computer's File Name	LxT_0006133-20220916 153056-LxT_Data.028.ldbin
Meter	LxT1 0006133	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2022-09-16 15:30:56	Duration	0:15:00.0
End Time	2022-09-16 15:45:56	Run Time	0:15:00.0
		Pause Time	0:00:00.0
Pre-Calibration	2022-09-16 14:46:30	Post-Calibration	None
		Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	43.0 dB		
LAE	72.5 dB	SEA	--- dB
EA	2.0 µPa²h		
EA8	63.8 µPa²h		
EA40	319.2 µPa²h		
LZS _{peak}	84.4 dB		2022-09-16 15:36:00
LAS _{max}	58.1 dB		2022-09-16 15:41:08
LAS _{min}	35.9 dB		2022-09-16 15:45:05
LA _{eq}	43.0 dB		
LC _{eq}	53.3 dB	LC _{eq} - LA _{eq}	10.3 dB
LA _{eq}	44.9 dB	LAI _{eq} - LA _{eq}	1.9 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
43.0 dB	43.0 dB	0.0 dB	
LDEN	LDay	LEve	LNight
43.0 dB	43.0 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	43.0 dB		--- dB		--- dB	
L _{S(max)}	58.1 dB	2022-09-16 15:41:08	--- dB	None	--- dB	None
L _{S(min)}	35.9 dB	2022-09-16 15:45:05	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	84.4 dB	2022-09-16 15:36:00

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	46.6 dB
LAS 10.0	44.6 dB
LAS 33.3	41.3 dB
LAS 50.0	40.1 dB
LAS 66.6	39.0 dB
LAS 90.0	37.7 dB

Site Number: 3			
Recorded By: Anaya Ward			
Job Number: 2022-107			
Date: 9/16/22			
Time: 3:07p.m. – 3:22 p.m.			
Location: Entrance of RV Park, Adjacent to Truck Parking Lot			
Source of Peak Noise: Truck Traffic on Montague Road and Idling Trucks.			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
63.9	60.5	75.3	94.2

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	
Weather Data						
Est.	Duration: 15 min			Sky: Partly Cloudy and Sunny		
	Note: dBA Offset = 0.11			Sensor Height (ft): 4.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	3		77		29.9	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.027.s	Computer's File Name	LxT_0006133-20220916 150747-LxT_Data.027.ldbin
Meter	LxT1 0006133	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2022-09-16 15:07:47	Duration	0:15:00.0
End Time	2022-09-16 15:22:47	Run Time	0:15:00.0
		Pause Time	0:00:00.0
Pre-Calibration	2022-09-16 14:46:30	Post-Calibration	None
		Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	63.9 dB		
LAE	93.4 dB	SEA	--- dB
EA	245.5 µPa²h		
EA8	7.9 mPa²h		
EA40	39.3 mPa²h		
LZS _{peak}	94.2 dB		2022-09-16 15:21:53
LAS _{max}	75.3 dB		2022-09-16 15:21:53
LAS _{min}	60.5 dB		2022-09-16 15:12:24
LA _{eq}	63.9 dB		
LC _{eq}	67.2 dB	LC _{eq} - LA _{eq}	3.3 dB
LAI _{eq}	64.9 dB	LAI _{eq} - LA _{eq}	1.0 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
63.9 dB	63.9 dB	0.0 dB	
LDEN	LDay	LEve	LNight
63.9 dB	63.9 dB	--- dB	--- dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	63.9 dB		--- dB		--- dB	
LS _(max)	75.3 dB	2022-09-16 15:21:53	--- dB	None	--- dB	None
LS _(min)	60.5 dB	2022-09-16 15:12:24	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	94.2 dB	2022-09-16 15:21:53

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	67.9 dB
LAS 10.0	64.6 dB
LAS 33.3	63.0 dB
LAS 50.0	62.6 dB
LAS 66.6	62.1 dB
LAS 90.0	61.5 dB

Site Number: 4			
Recorded By: Anaya Ward			
Job Number: 2022-107			
Date: 9/16/22			
Time: 3:53 p.m. – 4:08 p.m.			
Location: 502 E. Lennox St, on large field.			
Source of Peak Noise: Nearby Interstate Highway 5 noise, neighborhood noise			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
48.7	37.1	56.8	95.5

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	
Weather Data						
Est.	Duration: 15 min			Sky: Partly Cloudy and Sunny		
	Note: dBA Offset = 0.11			Sensor Height (ft): 4.5		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	5		80		29.9	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.029.s	Computer's File Name	LxT_0006133-20220916 155349-LxT_Data.029.ldbin
Meter	LxT1 0006133	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2022-09-16 15:53:49	Duration	0:15:00.0
End Time	2022-09-16 16:08:49	Run Time	0:15:00.0
Pre-Calibration	2022-09-16 14:46:30	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	48.7 dB		
LAE	78.2 dB	SEA	--- dB
EA	7.4 µPa²h		
EA8	237.2 µPa²h		
EA40	1.2 mPa²h		
LZS _{peak}	95.5 dB		2022-09-16 15:56:11
LAS _{max}	56.8 dB		2022-09-16 16:04:41
LAS _{min}	37.1 dB		2022-09-16 16:06:37
LA _{eq}	48.7 dB		
LC _{eq}	56.9 dB	LC _{eq} - LA _{eq}	8.2 dB
LAI _{eq}	50.4 dB	LAI _{eq} - LA _{eq}	1.7 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
48.7 dB	48.7 dB	0.0 dB	
LDEN	LDay	LEve	LNight
48.7 dB	48.7 dB	--- dB	--- dB

Any Data

A		C		Z	
Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	48.7 dB	--- dB		--- dB	
LS _(max)	56.8 dB	--- dB	None	--- dB	None
LS _(min)	37.1 dB	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	--- dB	None	95.5 dB	2022-09-16 15:56:11

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	52.0 dB
LAS 10.0	51.4 dB
LAS 33.3	49.1 dB
LAS 50.0	47.9 dB
LAS 66.6	46.7 dB
LAS 90.0	43.8 dB

Site Number: 5 (Long term)			
Recorded By: Anaya Ward			
Job Number: 2022-107			
Date: 9/16/22 – 9/17/22			
Time: 4:37 p.m. – 4:37 p.m.			
Location: Adjacent to wetlands, south of Holiday Inn, west of RV Park.			
Source of Peak Noise: Nearby Interstate Highway 5 noise			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Ldn (dB)
57.3	35.9	79.6	62.8

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Larson Davis	LxT SE	0006133	02/24/2021	
	Microphone	Larson Davis	377B02	315201	02/24/2021	
	Preamp	Larson Davis	PRMLxT1L	069947	02/24/2021	
	Calibrator	Larson Davis	CAL200	17325	02/25/2021	
Weather Data						
Est.	Duration: 24 hr			Sky: Partly Cloudy and Sunny		
	Note: dBA Offset = 0.01			Sensor Height (ft): 3		
	Wind Ave Speed (mph)		Temperature (degrees Fahrenheit)		Barometer Pressure (hPa)	
	5		80		29.9	

Photo of Measurement Location



Measurement Report

Report Summary

Meter's File Name	LxT_Data.030.s	Computer's File Name	LxT_0006133-20220916 163711-LxT_Data.030.ldbin
Meter	LxT1 0006133	Firmware	2.404
User		Location	
Job Description			
Note			
Start Time	2022-09-16 16:37:11	Duration	24:00:00.0
End Time	2022-09-17 16:37:11	Run Time	24:00:00.0
Pre-Calibration	2022-09-16 16:33:18	Post-Calibration	None
		Pause Time	0:00:00.0
		Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	57.3 dB		
LAE	106.7 dB	SEA	--- dB
EA	5.2 mPa²h		
EA8	1.7 mPa²h		
EA40	8.6 mPa²h		
LZS _{peak}	107.5 dB		2022-09-16 16:37:30
LAS _{max}	79.6 dB		2022-09-16 16:38:00
LAS _{min}	35.9 dB		2022-09-17 02:23:20
LA _{eq}	57.3 dB		
LC _{eq}	62.5 dB	LC _{eq} - LA _{eq}	5.2 dB
LAI _{eq}	58.9 dB	LAI _{eq} - LA _{eq}	1.6 dB

Exceedances

	Count	Duration
LAS > 85.0 dB	0	0:00:00.0
LAS > 115.0 dB	0	0:00:00.0
LZSpeak > 135.0 dB	0	0:00:00.0
LZSpeak > 137.0 dB	0	0:00:00.0
LZSpeak > 140.0 dB	0	0:00:00.0

Community Noise

LDN	LDay	LNight	
62.8 dB	58.0 dB	0.0 dB	
LDEN	LDay	LEve	LNight
63.0 dB	58.3 dB	56.2 dB	56.0 dB

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	57.3 dB		--- dB		--- dB	
LS _(max)	79.6 dB	2022-09-16 16:38:00	--- dB	None	--- dB	None
LS _(min)	35.9 dB	2022-09-17 02:23:20	--- dB	None	--- dB	None
L _{Peak(max)}	--- dB	None	--- dB	None	107.5 dB	2022-09-16 16:37:30

Overloads

Count	Duration
0	0:00:00.0

Statistics

LAS 5.0	62.8 dB
LAS 10.0	60.9 dB
LAS 33.3	56.5 dB
LAS 50.0	54.4 dB
LAS 66.6	52.0 dB
LAS 90.0	45.9 dB

ATTACHMENT B

Federal Highway Administration Highway Noise Prediction Model (FHWA-RD-77-108) Outputs –
Traffic Noise

TRAFFIC NOISE LEVELS

Project Number: 2022-107

Project Name: Yreka Travel Plaza and Hotel

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.

Analysis Scenario(s): **Existing**

Source of Traffic Volumes: GHD (2022)

Community Noise Descriptor: $L_{dn} = \frac{x}{x} \times CNEL$

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour L_{eq} dB(A)	24-Hour L_{dn} dB(A)
N. Main Street													
North of Montague Road	Residential	2	0	241	2,169	35	100	0.5	0	1.8%	0.7%	54.8	53.2
South of Montague Road	Residential & Commercial	2	0	282	2,538	35	100	0.5	0	1.8%	0.7%	55.5	53.9
Montague Rd													
Between N. Main Street & Deer Creek Way	Commercial & Transient Lodging	2	0	465	4,185	40	100	0.5	0	1.8%	0.7%	63.1	61.5
Deer Creek Way													
North of Montague Road	Residential	2	0	11	99	40	100	0.5	0	1.8%	0.7%	42.8	41.2
On-ramp Interstate Highway 5													
Between I-5 Mainline & Private (Unnamed) Road	Residential & Commercial	2	0	388	3,492	50	100	0.5	0	1.8%	0.7%	60.8	59.1
Private (Unnamed) Road													
Southwest of Montague Road	Residential & Commercial	2	0	185	1,665	25	100	0.5	0	1.8%	0.7%	50.6	49.1
Between Holiday Inn Hotel & Yreka Truck Stop	Residential & Commercial	2	0	255	2,295	55	100	0.5	0	1.8%	0.7%	60.0	58.4

TRAFFIC NOISE LEVELS

Project Number: 2022-107

Project Name: Yreka Travel Plaza and Hotel

Background Information

Model Description: FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with California Vehicle Noise (CALVENO) Emission Levels.
 Analysis Scenario(s): **Existing plus Project**
 Source of Traffic Volumes: GHD (2022)
 Community Noise Descriptor: $L_{dn} = x$ CNEL: \quad

Assumed 24-Hour Traffic Distribution:	Day	Evening	Night
Total ADT Volumes	77.70%	12.70%	9.60%
Medium-Duty Trucks	87.43%	5.05%	7.52%
Heavy-Duty Trucks	89.10%	2.84%	8.06%

Traffic Noise Levels

Analysis Condition	Land Use	Lanes	Median Width	Peak Hour Volume	ADT Volume	Design Speed (mph)	Dist. from Center to Receptor'	Alpha Factor	Barrier Attn. dB(A)	Vehicle Mix Medium Trucks	Vehicle Mix Heavy Trucks	Peak Hour L_{eq} dB(A)	24-Hour L_{dn} dB(A)
N. Main Street													
North of Montague Road	Residential	2	0	333	2,997	35	100	0.5	0	1.8%	0.7%	56.2	54.6
South of Montague Road	Residential & Commercial	2	0	427	3,843	35	100	0.5	0	1.8%	0.7%	57.3	55.7
Montague Road													
Between N. Main Street & Deer Creek Way	Commercial & Transient Lodging	2	0	447	4,023	40	100	0.5	0	1.8%	0.7%	63.1	61.5
Deer Creek Way													
North of Montague Road	Residential	2	0	10	90	40	100	0.5	0	1.8%	0.7%	42.4	40.8
On-ramp Interstate Highway 5													
Between I-5 Mainline & Private (Unnamed) Road	Residential & Commercial	2	0	536	4,824	50	100	0.5	0	1.8%	0.7%	62.2	60.5
Private (Unnamed) Road													
Southwest of Montague Road	Residential & Commercial	2	0	682	6,138	25	100	0.5	0	1.8%	0.7%	56.3	54.7
Between Holiday Inn Hotel & Yreka Truck Stop	Residential & Commercial	2	0	408	3,672	55	100	0.5	0	1.8%	0.7%	62.1	60.4

Federal Highway Administration Roadway Construction Noise Model Outputs – Construction
Noise

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/21/2022
Case Description: Phase 1&2 - Site Prep

Description Land Use
Phase 1&2 - Site Prep Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Dozer	No	40		81.7	580
Dozer	No	40		81.7	580
Dozer	No	40		81.7	580
Tractor	No	40	84		580
Tractor	No	40	84		580
Tractor	No	40	84		580
Tractor	No	40	84		580

Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	60.4	56.4
Dozer	60.4	56.4
Dozer	60.4	56.4
Tractor	62.7	58.7
Tractor	62.7	58.7
Tractor	62.7	58.7
Tractor	62.7	58.7
Total	62.7	66.3

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 11/21/2022
Case Description: Phase 1&2 - Grading

Description Land Use
Phase 1&2 - Grading Residential

Description	Impact Device	Usage(%)	Equipment	Actual Lmax (dBA)	Receptor Distance (feet)
			Spec Lmax (dBA)		
Excavator	No	40		80.7	580
Dozer	No	40		81.7	580
Grader	No	40	85		580
Tractor	No	40	84		580
Tractor	No	40	84		580
Tractor	No	40	84		580

Calculated (dBA)

Equipment	*Lmax	Leq
Excavator	59.4	55.4
Dozer	60.4	56.4
Grader	63.7	59.7
Tractor	62.7	58.7
Tractor	62.7	58.7
Tractor	62.7	58.7
Total	63.7	66

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM), Version 1.1

Report date: 11/21/2022

Case Description: Phase 1&2 - Construction, Architectural Coating, and Paving

Description **Land Use**
Phase 1&2 - Construction etc. Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Compressor (air)	No	40		77.7	580
Concrete Mixer Truck	No	40		78.8	580
Concrete Mixer Truck	No	40		78.8	580
Crane	No	16		80.6	580
Gradall	No	40		83.4	580
Gradall	No	40		83.4	580
Gradall	No	40		83.4	580
Generator	No	50		80.6	580
Paver	No	50		77.2	580
Pavement Scarafier	No	20		89.5	580
Pavement Scarafier	No	20		89.5	580
Roller	No	20		80	580
Roller	No	20		80	580
Tractor	No	40	84		580
Tractor	No	40	84		580
Tractor	No	40	84		580
Tractor	No	40	84		580
Welder / Torch	No	40		74	580

Equipment	Calculated (dBA)	
	*Lmax	Leq
Compressor (air)	56.4	52.4
Concrete Mixer Truck	57.5	53.5
Concrete Mixer Truck	57.5	53.5
Crane	59.3	51.3
Gradall	62.1	58.1
Gradall	62.1	58.1
Gradall	62.1	58.1
Generator	59.3	56.3
Paver	55.9	52.9
Pavement Scarafier	68.2	61.2
Pavement Scarafier	68.2	61.2
Roller	58.7	51.7
Roller	58.7	51.7
Tractor	62.7	58.7
Tractor	62.7	58.7

Tractor	62.7	58.7
Tractor	62.7	58.7
Welder / Torch	52.7	48.7
Total	68.2	69.7

*Calculated Lmax is the Loudest value.

SoundPLAN 3-D Noise Model Outputs - Onsite Noise Generation

SoundPLAN
Output Source Information

Number	Reciever Name	Floor	Level at Receiver
1	Holiday Inn Express	Ground Floor	50.6 dBA
2	Nearest Residence off Herzog Boulevard	Ground Floor	30.8 dBA
3	RV Park	Ground Floor	46.8 dBA
4	RV Park	Ground Floor	51.7 dBA
5	RV Park	Ground Floor	49.3 dBA
6	RV Park	Ground Floor	48.9 dBA

Number	Noise Source Information	Citation	Level at Source
1	Internal Truck Circulation	City of San Jose 2014 Midpoint at 237 Loading Dock Noise Study	74.0 dBA
2	Parking Lot Activity (Gas Station)	ECORP Noise Measurements	61.7 dBA
3	Parking Lot Activity (Hotel)	ECORP Noise Measurements	53.3 dBA

Technical Memorandum

December 21, 2022

To	Mike Martin, ECORP	Contact No.	916-245-4211
Copy to		Email	Makinzie.clark@ghd.com
From	Kamesh Vedula, GHD; Makinzie Clark, GHD; Zach Stinger, GHD	Project No.	12585210
Project Name	Yreka Refresh Travel Center		
Subject	Traffic Study & VMT Analysis Technical Memorandum		

1. Introduction

The City of Yreka has retained GHD to perform a traffic study for the proposed Yreka Travel Center and Hotel development project (referred to herein as the “Project”). The proposed travel center and hotel development are located in the east quadrant of the intersection of State Route (SR) 3 and Interstate 5 (I-5) NB off-ramp, adjacent to the existing Holiday Inn Express. Project access is proposed along an existing private roadway via Montague Road. The Project site plan is presented as Figure 1-1.

The term “Project” as used in this study refers to the proposed Yreka Travel Center and Hotel located in the east quadrant of the intersection of State Route (SR) 3 and I-5 NB off-ramp, adjacent to the existing Holiday Inn Express. The Project is proposed in two phases as follows:

- Phase I consists of a 3,180 square-foot gas station & convenience store with 20 fueling positions (i.e., gas pumps), a 547 square-foot retail store, and an 8,573 square-foot food hall.
- Phase II consists of a 70 room Inn & Suites.

Included in this technical memorandum is a discussion of the following:

- Technical analysis parameters and methodologies
- Study intersections, data collection, and existing conditions assumptions
- Project description including quantification of the trip generation and trip distribution
- Intersection operational analysis for the following scenarios:
 - Existing No Project
 - Existing Plus Project Phase I
 - Cumulative No Project
 - Cumulative Plus Project Phase I
 - Cumulative Plus Project Phase II
- Vehicle miles traveled (VMT) evaluation



2 VICINITY MAP

KEYED NOTES

- ☐ 4. TIA
☐ 5. Vaso-ETIC
☐ 6. ETUE
☐ 7. FRETIA - 1000
☐ 8. FRETIA - 1000
☐ 9. FRETIA - 1000
☐ 10. FRETIA - 1000
☐ 11. FRETIA - 1000
☐ 12. FRETIA - 1000

SITE | LEGEND

- | | |
|---------|----|
| Q 9.3 | 13 |
| Q 9.3.1 | 3 |

Center Loader

- | | |
|------------|-------|
| JOSE | BRUNO |
| DOUBT GATE | |
| KING CLING | |

Center Loaded-Guest Room Count Breakdown

	BRONX (%)	2ND FLOOR	3RD FLOOR	TOTAL
KNOW	3	0	0	3
DOUBLE GREEN	1	17	0	18
KING CITY L&D	0	0	0	0
ACCESSIBLE 2nd FLOOR	0	1	1	2
ACCESSIBLE 1st FLOOR	0	1	0	1
Other	13	20	31	70

Room Sizes

Product Name: _____



APPENDIX 7C.

FIRST PART WIDTH	:8.50	LOCK TO LOCK TIME	:6.0
TRAILER WITH	:8.00	STEERING ANGLE	:36.0
FIRST PART TRACK	:8.50	PITCHING ANGLE	:70.0

3 SITE LIGHTING

1 SITE PLAN

SITE PLAN

20171.0

Conditional Use Permit Package **A2**

2. Technical Analysis Parameters & Methodologies

The following section outlines the analysis parameters and methodologies that will be used in the transportation impact study to quantify potential project impacts for the analysis scenarios.

2.1 Vehicle Miles Travelled (VMT)

Senate Bill (SB) 743 was signed into law in 2013, with the intent to better align CEQA practices with statewide sustainability goals related to efficient land use, greater multimodal choices, and greenhouse gas reductions. The provisions of SB 743 became effective Statewide on July 1, 2020. Under SB 743, automobile delay, traditionally measured as the level of service (LOS), is no longer considered an environmental impact under CEQA. Instead, impacts are determined by changes to vehicle miles traveled (VMT). VMT measures the number and length of vehicle trips made on a daily basis. VMT is a useful indicator of overall land use and transportation efficiency, where the most efficient system is one that minimizes VMT by encouraging shorter vehicle trip lengths, more walking and biking, or increased carpooling and transit. In recognition that the character of communities, availability of travel modes options and geographic areas all differ throughout the State, each jurisdiction, from regional agency, to County, to City, has been given the opportunity to establish their own VMT thresholds consistent with the State's guidelines and regulatory framework. For this analysis, VMT will be analyzed to determine compliance under CEQA.

2.1.1 Approach to VMT Analysis

VMT analysis within the traffic study is informed by OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018). The project proposes retail and lodging (hotel) land use which is anticipated to attract both employee and customer vehicle trips. The proposed travel center and hotel development are in the east quadrant of the intersection of State Route (SR) 3 and Interstate 5 (I-5) NB off-ramp. The business model for the travel center and hotel is to attract people who are already traveling within the project vicinity.

The VMT analysis focused on VMT attributable to the project. Employees would generate new trips to the site and would therefore generate VMT attributable to the project. Customers, on the other hand, would consist of travelers already traveling within the project vicinity, without the project. Customers are not anticipated to generate new VMT attributable to the project since customer trips to/from the site would divert such trips from other locations adjacent to I-5 and SR-3, without generating a measurable net increase. In addition, due to the size and type of retail, the project is not considered to be "regionally serving" in that customer trips made to the project would not replace existing trips to retail land uses of shorter trip length.

Based on the anticipated customer behavior of the travel center and hotel, customer VMT is not considered to be attributable to the project and is not anticipated to result in a measurable net increase in VMT within the County. As such, employee VMT was used to determine if the project is anticipated to result in a significant impact based on the following threshold:

- Home-based work VMT per Employee exceeds 85 percent of the average rate of home-based work VMT per Employee for jobs located in Siskiyou County.

2.2 Level of Service Methodologies

In addition to VMT, traffic operations will be quantified through the determination of "Level of Service" (LOS). Level of Service is a qualitative measure of traffic operating conditions, whereby a letter grade "A" through "F" is assigned to an intersection, or roadway segment, representing progressively worsening traffic conditions. LOS "A" represents free-flow operating conditions and LOS "F" represents over-capacity conditions. Levels of Service will be calculated for all intersection control types using the methods documented in the Transportation Research Board publication Highway Capacity Manual, Sixth Edition, A Guide for Multimodal Mobility Analysis, 2016 (HCM 6).

2.2.1 Intersection Operations

The Synchro 10 (Trafficware) software program will be used to implement the HCM 6 analysis methodologies. Synchro 10 has the capability to produce results based on HCM 2000, HCM 2010, HCM 6, or Synchro methodologies, and takes into account intersection signal timing and queuing constraints when calculating delay, the corresponding delay, and queue lengths. Intersection Level of Service (LOS) will be calculated for all control types using the methods documented in HCM 6. For signalized or all-way stop-controlled (AWSC) intersections, a LOS determination is based on the calculated averaged delay for all approaches and movements. For two-way or side-street stop-controlled (TWSC) intersections, a LOS determination is based upon the calculated average delay for all movements of the worst performing approach. The vehicular-based LOS criteria for different types of intersection controls are presented in Table 2.1.

Table 1 *Level of Service (LOS) Criteria for Intersections*

Level of Service	Type of Flow	Delay	Maneuverability	Stopped Delay per Vehicle	
				Signalized	Un-signalized
A	Stable Flow	Very slight delay. Progression is very favorable, with most vehicles arriving during the green phase not stopping at all.	Turning movements are easily made, and nearly all drivers find freedom of operation.	≤10.0	≤10.0
B	Stable Flow	Good progression and/or short cycle lengths. More vehicles stop than for LOS A, causing higher levels of average delay.	Vehicle platoons are formed. Many drivers begin to feel somewhat restricted within groups of vehicles.	>10.0 and ≤20.0	>10.0 and ≤15.0
C	Stable Flow	Higher delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.	Back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted	>20.0 and ≤35.0	>15.0 and ≤25.0
D	Approaching Unstable Flow	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high volume-to-capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	Maneuverability is severely limited during short periods due to temporary back-ups.	>35.0 and ≤55.0	>25.0 and ≤35.0
E	Unstable Flow	Generally considered to be the limit of acceptable delay. Indicative of poor progression, long cycle lengths, and high volume-to-capacity ratios. Individual cycle failures are frequent occurrences.	There are typically long queues of vehicles waiting upstream of the intersection.	>55.0 and ≤80.0	>35.0 and ≤50.0
F	Forced Flow	Generally considered to be unacceptable to most drivers. Often occurs with over saturation. May also occur at high volume-to-capacity ratios. There are many individual cycle failures. Poor progression and long cycle lengths may also be major contributing factors.	Jammed conditions. Back-ups from other locations restrict or prevent movement. Volumes may vary widely, depending principally on the downstream back-up conditions.	>80.0	>50.0

2.2.2 Technical Analysis Parameters

This traffic study focuses on a “planning level” evaluation of traffic operating conditions. The planning level evaluation incorporates appropriate heavy vehicle adjustment factors, peak hour factors, and signal lost time factors and reports the resulting operational analysis as estimated using the HCM 6-based analysis methodologies. Assessments of “design level” parameters (including queuing on intersection lane groups, stacking length requirements, etc.) are not included in this study.

Table 2 presents the technical parameters that will be utilized for the evaluation of the study intersections and ramp segments for the analysis scenarios. All parameters not listed should be assumed as default values or calculated based on the parameters listed.

Table 2 *Technical Parameter Assumptions*

	Technical Parameter	Assumption
1	Intersection Peak Hour Factor	Based on counts, intersection overall
2	Intersection Heavy Vehicle Percent	Based on counts, intersection overall (minimum of 2%)
3	Intersection Peak Hour Factor	Existing scenarios: based on counts

2.2.3 Level of Service Policies

Caltrans

Caltrans' Guide for the Preparation of Traffic Impact Studies contains the following policy pertaining to the LOS standards within Caltrans jurisdiction:

Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS

Consistent with Caltrans practice, this study will consider LOS “D” as the standard threshold acceptable operations for any intersection under Caltrans jurisdiction

City of Yreka

The City of Yreka's General Plan Circulation Element contains the following policy pertaining to roadway LOS standards:

Goal CI.2. To maintain a functional performance of roadways throughout the community at a Level of Service C or better;

Goal CI.4. Ensure that circulation improvements are adequate to serve transportation demands of new development within Yreka.

Consistent with the City's policies, this study will consider LOS “C” as the standard threshold acceptable operations for any roadway under the City of Yreka jurisdiction.

3. Study Locations & Data Collection

For this study, five (5) existing intersections have been identified for study under AM and PM peak hour conditions. These locations will be evaluated for average weekday AM and PM peak hour operations under all analysis scenarios. The AM peak hour is defined as the one-hour of peak traffic flow (which is the highest total volume count over four consecutive 15-minute count periods) counted between 7:00 am and 9:00 am on a typical weekday. The PM peak hour is defined as the one hour of peak traffic flow counted between 4:00 pm

and 6:00 pm on a typical weekday. Existing geometry including lane usage and storage capacity at the study locations will be determined based on current aerial images.

3.1 Study Intersections

The study intersections are listed below. Peak hour turning movement counts were collected at these intersections on Tuesday, May 17, 2022.

1. Montague Road & Main Street
2. Montague Road & Deer Creek Way
3. Montague Road & I-5 SB On-Off Ramps
4. Montague Road & I-5 NB On-Off Ramps
5. Montague Road & Unnamed private road (Project Access)

4. Project Description

The term “Project” as used in this study refers to the proposed Yreka Travel Center and Hotel located in the east quadrant of the intersection of State Route (SR) 3 and I-5 NB off-ramp, adjacent to the existing Holiday Inn Express. The Project is proposed in two phases as follows:

- Phase I consists of a 3,180 square-foot gas station & convenience store with 20 fueling positions (i.e., gas pumps), a 547 square-foot retail store, and an 8,573 square-foot food hall.
- Phase II consists of a 70 room Inn & Suites.

The Phase I Travel Center facility will be open 24 hours a day, 7 days per week. There will be an estimated 40-50 employees overall with approximately 12-15 per shift. The Phase II Hampton Inn & Suites will be three stories with 70 rooms/suites and an indoor pool.

4.1 Project Site Plan & Site Access

Figure 1-1 presents the site plan for the proposed development. The gas station, retail store, and food hall will primarily be access via the existing unnamed private road along the eastern edge of the site, connecting to Montague Road. Guest parking spaces and a truck turnaround zone will be accessible from this entrance. Under Phase II, site access to the hotel will be located along the southern edge of the development, connecting to the existing roadway that is currently providing access to the Holiday Inn Express.

4.2 Project Trip Generation

Project site trip generation for Phase I has been estimated for the total number of vehicles fueling position (ITE Code 945), the food hall square footage (ITE Code 930), and the retail square footage (ITE Code 851). Project site trip generation for Phase II has been estimated for the total number of hotel rooms (ITE Code 310). These estimations were achieved by utilizing the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual (11th Ed.)*.

Gas stations and convenience stores generally serve drivers that are on the roadway system and need to stop for services. Due to the proximity of the project site to I-5, a portion of the project trips were assumed come from vehicle trips already on the adjacent roadway network (I-5) that stop at the proposed gas station and convenience store. These types of trips are documented as pass-by trips in the project trip generation table. In addition, internal capture reduction was applied to the retail store and food hall to account for trips between these two destinations within the project site. Table 3 presents the project trip generation for Plus Project conditions for both Phase I and Phase II.

Table 3 Project Trip Generation

Land Use Category (ITE Code)	Unit ¹	AM Peak Hour Trip Rate/Unit			PM Peak Hour Trip Rate/Unit		
		Total	In %	Out %	Total	In %	Out %
Convenience Store (851)	KSF	62.54	50%	50%	49.11	51%	49%
Convenience Store/Gas Station (945)	VFP	16.06	50%	50%	18.42	50%	50%
Fast Casual restaurant (930)	KSF	1.43	50%	50%	12.55	55%	45%
Hotel (310)	Rooms	0.40	56%	44%	0.34	51%	49%
Phase I	Quantity (Units)	AM Peak Hour Trips			PM Peak Hour Trips		
		Total	In	Out	Total	In	Out
Retail	0.55	34	17	17	27	14	13
Convenience Store/Fuel Center	20	321	160	161	368	184	184
Restaurant/Food Hall	8.57	12	6	6	108	59	49
Phase I Total New Project Trips		367	183	184	503	257	246
<i>Pass-By Reduction for Convenience Store/Gas Station</i>							
	AM	62%	-199	-99	-100	-	
	PM	56%		-		-206	-103
<i>Internal Capture (between Retail & Restaurant/Food Hall)</i>		-4	-2	-2	-20	-10	-10
Phase I Net New Project Trips		164	82	82	277	144	133
Phase II	Quantity (Units)	AM Peak Hour Trips			PM Peak Hour Trips		
		Total	In	Out	Total	In	Out
Hotel/Inn	70	28	16	12	24	12	12
<i>Additional Internal Capture with Hotel/Inn</i>		0	0	0	-10	-5	-5
Phase II Net New Project Trips		28	16	12	14	7	7
Total Phase I/Phase II Net New Project Trips		192	98	94	291	151	140

Notes:

- 1 ksf = 1,000 square feet VFP = Vehicle Fueling Positions
2. Trip rates based on ITE Trip Generation Manual 11th edition fitted-curve equations or average rates
3. Trip reductions based on ITE Trip Generation Handbook 3rd Edition (September 2017) for Code 945.
4. Internal Capture rates based on ITE Trip Generation Handbook, 3rd Edition

As presented in Table 3, Phase I is anticipated to generate an estimated 164 vehicle trips during the AM peak hour and 277 vehicle trips during the PM peak hour. The total vehicle trips for Phase I and Phase II are 192 vehicle trips during the AM peak hour and 291 vehicle trips during the PM peak hour.

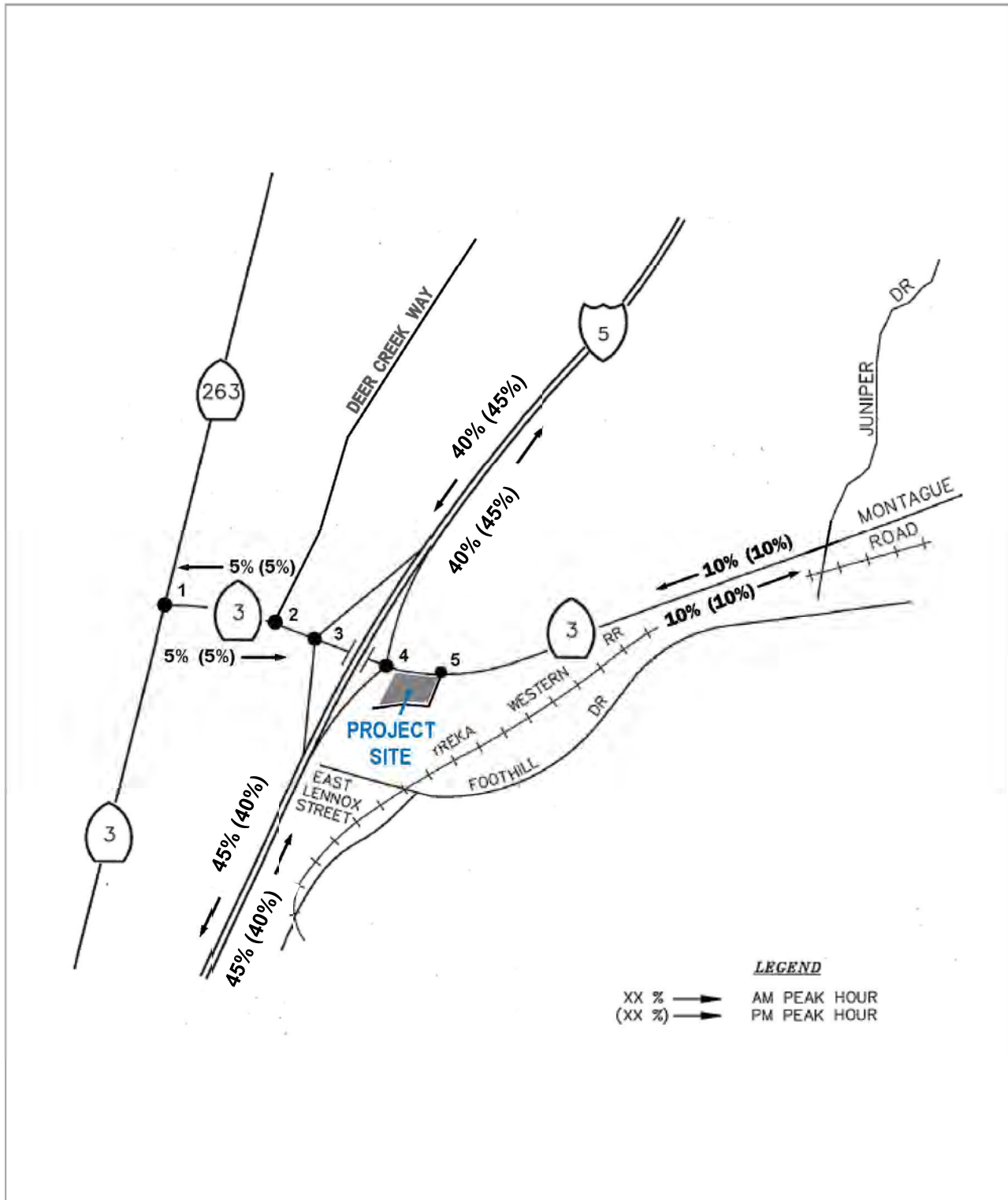
4.3 Project Trip Distribution and Assignment

Figure 4-1 presents the distribution of Project-generated vehicle trips under Plus Project conditions. The assignment of proposed project trips is consistent with previous traffic analyses conducted for the project site¹, which was informed by existing traffic conditions and the location of the proposed project site relative to I-5 and SR 3 (Montague Road) access.

During the AM peak hour, 35% of the site's traffic would come from northbound I-5 and 50% of the site's traffic would come from southbound I-5. During the PM peak hour, these directional splits would be reversed with 50% project trips from northbound I-5 and 35% from southbound I-5. The remaining 15% of proposed project trips would be to/from the east and west on Montague Road.

¹ GHD, LTD, Refresh Plaza Travel Center, City of Yreka, Technical Memo, June 21, 2020

Figure 4-1 Project Daily Trip Distribution



DIRECTIONAL DISTRIBUTION OF PROJECT TRIPS

FIGURE 4.1



5. Existing Conditions

The Existing conditions scenario represents existing transportation facilities serving the project site and establishes the traffic conditions which currently exist for those facilities. Existing conditions intersection operations are presented in the following tables. Existing intersection peak hour turning movement volumes are presented in Figure 5-1 in the Appendix.

5.1 Existing No Project Conditions

Existing conditions for weekday AM and PM peak hour intersection operations were quantified utilizing the existing traffic volumes and intersection lane geometrics and control. Table 4 provides the delay (in sec/veh) and resulting LOS for the five study intersections under Existing conditions. As shown in Table 4, all study intersections operate above the target LOS during the Existing conditions AM and PM peak hours.

Table 4 Intersection LOS – Existing No Project Conditions

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Montague Road/Main Street	AWSC	C	20.4	C	11.0	B
2	Montague Road/Deer Creek Way	TWSC	C	12.6	B	10.8	B
3	Montague Road/I-5 SB Ramps	TWSC	D	14.4	B	10.7	B
4	Montague Road/I-5 NB Ramps	TWSC	D	17.7	C	11.1	B
5	Montague Road/Project Access Drive	Signal	C	6.3	A	7.6	A

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control

2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal,

5.1.1 Roadway Classification

Montague Road (SR 3) is classified as an arterial street in the City's General Plan Circulation element with a designated capacity of 5,000 ADT (LOS C threshold). Based on traffic counts collected on Tuesday May 17, 2022 on Montague Road near the project site, the roadway has a daily traffic volume of 4,832 vehicles east of I-5 and 5,056 vehicles west of I-5.

5.2 Existing Plus Project Phase I Conditions

Existing Plus Phase I Project Conditions were simulated by superimposing traffic generated by the proposed project onto existing intersection traffic volumes. Existing plus Project Phase I intersection peak hour turning movement volumes are presented in Figure 5-2 in the Appendix.

Table 5 presents a summary of the intersection operations for the weekday AM and PM peak hour scenarios for the Existing Plus Phase I Project Conditions. As shown, the Montague Road/I-5 SB Ramp intersection would be operating at LOS F (61.8 seconds of delay in the southbound approach) during the AM peak hour under Existing plus Phase I Project conditions. All remaining study intersections operate at the acceptable target LOS during the Existing Plus Phase I Project AM and PM peak hours.

Table 5 Intersection LOS – Existing Conditions Plus Project Phase I

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Montague Road/Main Street	AWSC	C	22.0	C	11.2	B
2	Montague Road/Deer Creek Way	TWSC	C	12.8	B	10.9	B
3	Montague Road/I-5 SB Ramps	TWSC	D	61.8	F	22.5	C
4	Montague Road/I-5 NB Ramps	TWSC	D	23.8	C	13.6	B
5	Montague Road/Project Access Drive	Signal	C	10.5	B	25.9	C

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC and Signal.
3. **Bold** = Unacceptable Conditions

5.2.1 Plus Project Roadway Volumes

Under Project Phase I, Montague Road (SR 3) would experience an increase of 164 AM and 277 PM peak hour trips. Under Project Phase II, Montague Road (SR 3) would experience an additional increase of 28 AM and 14 PM peak hour trips. Due to the lack of daily volume rates for internal capture reduction, daily volume increase on Montague Road cannot be estimated. However, the addition of project to the roadway is anticipated to result in total traffic volumes that exceed the daily roadway capacity of 5,000.

6. Cumulative Conditions

Cumulative conditions refer to the analysis scenarios which reflect future conditions represented by local and regional growth in approximately 20 years in the future. Cumulative No Project conditions analyses the scenario that considers the projected 20-Year development forecast, including the currently planned and approved developments, but without the proposed Yreka Travel Center and Hotel project. The Cumulative Plus Project condition is the analysis scenario in which traffic associated with the proposed Yreka Travel Center and Hotel development are compared to the Cumulative No Project conditions.

Given the varying rates of historical traffic growth found on the adjacent roadway segments and undeveloped approved projects; a conservative 20% growth rate was applied to Existing volumes in addition to the expected trip generation from the Yreka Travel Center to generate a forecast of Cumulative conditions without the proposed project. Cumulative intersection peak hour turning movement volumes are presented in Figure 5-3 in the Appendix.

6.1 Cumulative No Project Conditions

Table 6 provides the delay (in sec/veh) and resulting LOS for the five study intersections under Existing conditions. As shown, the intersection of Montague Road/Main Street is projected to operate unacceptably at LOS E during the AM peak hour.

Table 6 Intersection LOS – Cumulative No Project Conditions

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Montague Road/Main Street	AWSC	C	39.4	E	12.5	B
2	Montague Road/Deer Creek Way	TWSC	C	15.6	C	12.3	B
3	Montague Road/I-5 SB Ramps	TWSC	D	16.2	C	11.4	B
4	Montague Road/I-5 NB Ramps	TWSC	D	24.6	C	11.9	B
5	Montague Road/Project Access Drive	Signal	C	6.4	A	7.8	A

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC and Signal.
3. **Bold** = Unacceptable Conditions

6.2 Cumulative Plus Phase I Conditions

Cumulative Plus Project Phase I Conditions were simulated by superimposing traffic generated by the proposed project onto Cumulative No Project conditions traffic volumes. Cumulative plus Project Phase I intersection peak hour turning movement volumes are presented in Figure 5-4 in the Appendix.

Table 7 presents a summary of the intersection operations for the weekday AM and PM peak hour scenarios for the Cumulative Plus Phase I Project Conditions. With the addition of the project, the intersection of Montague Road/Main Street is anticipated to continue to operate at LOS E, and the I-5 ramp intersections on Montague Road are anticipated to operate unacceptably.

Table 7 Intersection LOS – Cumulative Conditions Plus Project Phase I

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Montague Road/Main Street	AWSC	C	41.5	E	12.7	B
2	Montague Road/Deer Creek Way	TWSC	C	14.1	B	11.2	B
3	Montague Road/I-5 SB Ramps	TWSC	D	89.0	F	25.2	D
4	Montague Road/I-5 NB Ramps	TWSC	D	41.0	E	14.7	B
5	Montague Road/Project Access Drive	Signal	C	10.2	B	28.3	C

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC and Signal.
3. **Bold** = Unacceptable Conditions

6.3 Cumulative Plus Project Phase II Conditions

Cumulative Plus Project Phase II Conditions were simulated by superimposing traffic generated by the proposed project onto Cumulative No Project conditions traffic volumes. Cumulative plus Project Phase II intersection peak hour turning movement volumes are presented in Figure 5-5 in the Appendix.

Table 8 presents a summary of the intersection operations for the weekday AM and PM peak hour scenarios for the Cumulative Plus Phase II Project Conditions with the hotel. With the addition of the project, the intersection of Montague Road/Main Street is anticipated to continue to operate at LOS E, and the I-5 ramp intersections on Montague Road are anticipated to operate unacceptably.

Table 8 Intersection LOS – Cumulative Conditions Plus Project Phase II

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
1	Montague Road/Main Street	AWSC	C	41.7	E	12.7	B
2	Montague Road/Deer Creek Way	TWSC	C	14.1	B	11.2	B
3	Montague Road/I-5 SB Ramps	TWSC	D	113.1	F	26.2	D
4	Montague Road/I-5 NB Ramps	TWSC	D	43.3	E	14.8	B
5	Montague Road/Project Access Drive	Signal	C	10.6	B	31.3	C

Notes:

1. AWSC = All Way Stop Control; TWSC = Two Way Stop Control
2. LOS = Delay based on worst minor street approach for TWSC intersections, average of all approaches for AWSC, Signal,
3. **Bold** = Unacceptable Conditions

7. Recommended Intersection Improvements

In an effort to maintain consistency with City of Yreka and Caltrans policies for transportation facilities, this section identifies the improvements to address the “Plus Project” intersection LOS deficiencies at the study locations. The following standards are used to determine if the Project causes an increase in traffic that is substantial and adverse in relation to the traffic load and capacity of the study facilities. This standard of significance relates to automobile traffic only and does not address the potential effects on other travel modes including transit, bicycle, and pedestrian facilities. The following standards are not utilized to determine the transportation impacts and mitigations associated with the Project per compliance with CEQA.

The project is considered to adversely affect the transportation network if it would:

- Result in an intersection that will operate at an acceptable LOS in the No Project condition to deteriorate to an unacceptable LOS in the Plus Project condition, or
- Increase the delay by more than 5.0 seconds at a signalized intersection that is already operating or will already operate at unacceptable LOS in the No Project condition.

7.1.1 Intersection Operational Improvements

The recommended intersection operational improvements per analysis scenario are listed below. (*Note: The Project is not considered to adversely affect operations at the intersection of Montague Road/Main Street due to the minimal increase in seconds of delay compared to “No Project” conditions.*)

Existing Plus Project Phase I

#3: Montague Road/ I-5 SB Ramps (LOS B to LOS F in the AM Peak Hour)

- Convert intersection to all-way stop-control (AWSC).

Cumulative Plus Project Phase I & Phase II

#3: Montague Road/ I-5 SB Ramps (LOS C to LOS F in the AM Peak Hour)

- Convert intersection to all-way stop-control (AWSC).

#4: Montague Road/I-5 NB Ramps (LOS C to LOS E in the AM Peak Hour)

- Convert intersection to all-way stop-control (AWSC) and add a westbound right-turn pocket.

Table 9 presents the intersection LOS under “Plus Project” conditions with the abovementioned improvement recommendations. As shown, the intersections can be improved to acceptable LOS D with conversion to all-way stop-control at intersections #3 and #4 and the addition of a westbound right-turn pocket at intersection #4.

Although the all-way stop would achieve acceptable operations, any improvements to Caltrans intersections would be subject to the Intersection Control Evaluation (ICE) process.

Table 9 Intersection LOS – Improved Plus Project Conditions

#	Intersection	Control Type ^{1,2}	Target LOS	AM Peak Hour		PM Peak Hour	
				Delay	LOS	Delay	LOS
Existing + Phase I							
3	Montague Road/I-5 SB Ramps	AWSC	D	21.2	C	12.3	B
Cumulative + Phase I							
3	Montague Road/I-5 SB Ramps	AWSC	D	31.7	D	13.5	B
4	Montague Road/I-5 NB Ramps	AWSC	D	32.0	D	15.3	C
Cumulative + Phase II							
3	Montague Road/I-5 SB Ramps	AWSC	D	32.8	D	13.6	B
4	Montague Road/I-5 NB Ramps	AWSC	D	34.2	D	15.5	C

Notes:

1. AWSC = All Way Stop Control

2. LOS = Delay based on average of all approaches for AWSC.

8. Vehicle Miles Travelled (VMT) Evaluation

VMT analysis within the traffic study is informed by OPR’s *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018). The project proposes retail and lodging (hotel) land use which is anticipated to attract both employee and customer vehicle trips. The proposed travel center and hotel development are in the east quadrant of the intersection of State Route (SR) 3 and Interstate 5 (I-5) NB off-ramp. The business model for the travel center and hotel is to attract people who are already traveling within the project vicinity.

The VMT analysis focused on VMT attributable to the project. Employees would generate new trips to the site and would therefore generate VMT attributable to the project. Customers, on the other hand, would consist of travelers already traveling within the project vicinity, without the project. Customers are not anticipated to generate new VMT attributable to the project since customer trips to/from the site would divert such trips from other locations adjacent to I-5 and SR-3, without generating a measurable net increase. In addition, due to the size and type of retail, the project is not considered to be “regionally serving” in that customer trips made to the project would not replace existing trips to retail land uses of shorter trip length.

Based on the anticipated customer behavior of the travel center and hotel, customer VMT is not considered to be attributable to the project and is not anticipated to result in a measurable net increase in VMT within the County. As such, employee VMT was used to determine if the project is anticipated to result in a significant impact based on the following threshold:

- Home-based work VMT per Employee exceeds 85 percent of the average rate of home-based work VMT per Employee for jobs located in Siskiyou County.

8.1 Project VMT

Existing vehicle miles travelled (VMT) attributable to the project was evaluated using the “big data” platform Replica. Replica provides automobile trip lengths for employee (work-based) trips based within the City of Yreka and Siskiyou County boundaries. Summary tables of this raw data are provided in the Appendix. Average trip lengths for work trips was calculated for both pre-COVID 19 (2019) and COVID 19 (2021) conditions for both the City of Yreka and Siskiyou County, as shown in Table 10. As shown, the average trip length per employee within the City of Yreka is approximately 67% (2019) and 64% (2021) of the County average.

Table 10 *City of Yreka & Siskiyou County Employee VMT Comparison*

Average Trip Length for Work Trips (miles)		% of County Average
Pre-COVID 19: Sept - Nov 2019		
City of Yreka	11.35	67%
Siskiyou County	16.89	-
COVID 19: March - May 2021		
City of Yreka	12.61	64%
Siskiyou County	19.56	-

Additional analysis was done to compare the average trip lengths for work trips within the smallest zone available on the Replica platform in which the project site is proposed to be located (Tract 7.02 within Siskiyou County), as shown in Table 11. As shown, the average trip length per employee within this zone is approximately 71% (2019) and 58% (2021) for total work trips, and 70% (2019) and 50% (2021) for retail work trips.

Table 11 *Tract 7.02 & Siskiyou County Employee VMT Comparison*

Average Trip Length for Work Trips* (miles)		% of County Average
Pre-COVID 19: Sept - Nov 2019		
Retail Only	11.82	70%
Total	11.92	71%
COVID 19: March - May 2021		
Retail Only	9.76	50%
Total	11.37	58%

**within Tract 7.02 (Siskiyou County)*

Due to the significantly lower average trip lengths for employees within both the City of Yreka and Tract 7.02 zone compared to Siskiyou County, employee trips generated by the proposed project are not anticipated to exceed the threshold of 85% of the average employee trip rate within Siskiyou County.

Appendix

1. Traffic Count Sheets
2. Synchro Reports
3. Traffic Volume Figures
4. Replica Summary Tables for VMT Evaluation

1. Traffic Count Sheets



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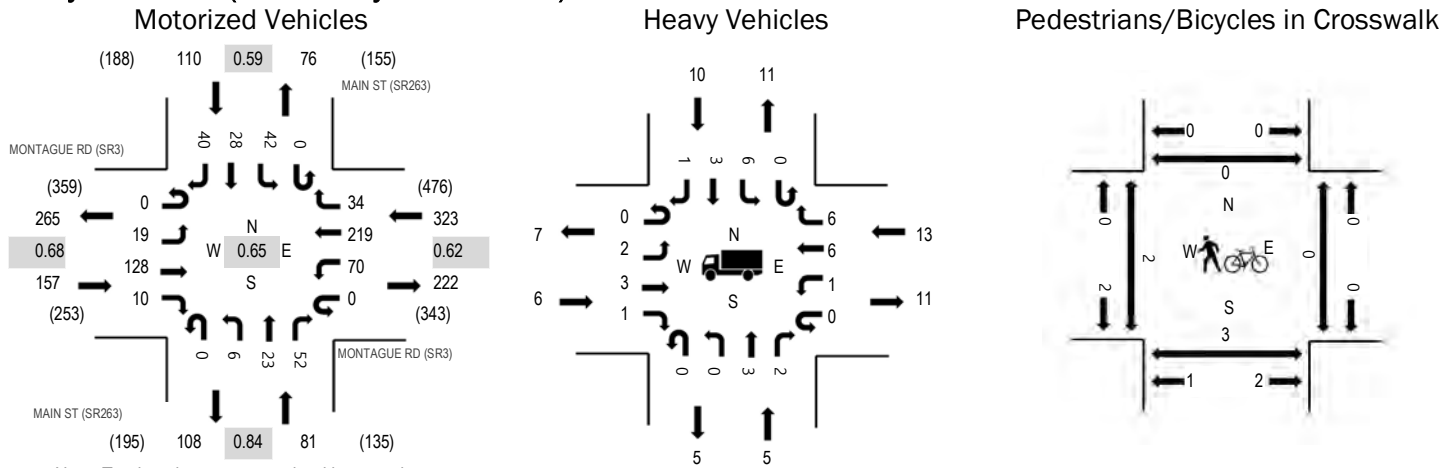
Location: 1 MAIN ST (SR263) & MONTAGUE RD (SR3) AM

Date: Tuesday, May 17, 2022

Study Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	3.8%	0.68
WB	4.0%	0.62
NB	6.2%	0.84
SB	9.1%	0.59
All	5.1%	0.65

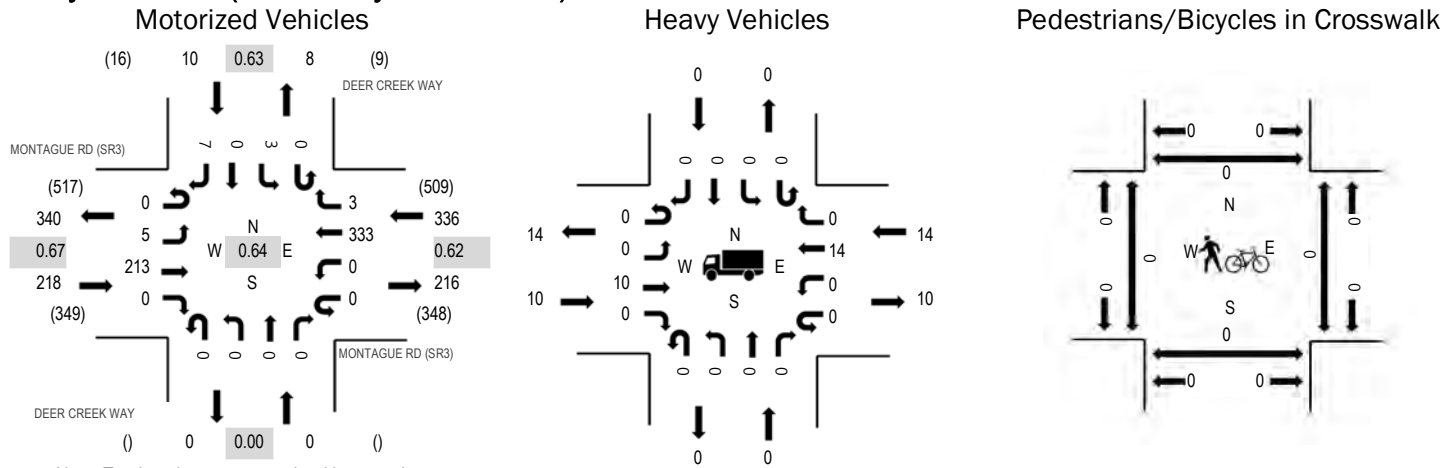
Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				MAIN ST (SR263) Northbound				MAIN ST (SR263) Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	4	14	2	0	9	11	6	0	1	5	3	0	4	12	3	74	585
7:15 AM	0	3	15	1	0	7	26	2	0	2	5	10	0	6	17	5	99	660
7:30 AM	0	1	25	3	0	20	63	4	0	0	3	12	0	9	5	8	153	671
7:45 AM	0	4	51	3	0	20	99	12	0	3	5	15	0	15	14	18	259	609
8:00 AM	0	7	33	2	0	17	38	14	0	2	6	11	0	7	5	7	149	467
8:15 AM	0	7	19	2	0	13	19	4	0	1	9	14	0	11	4	7	110	
8:30 AM	0	9	14	3	0	16	10	15	0	1	2	8	0	8	1	4	91	
8:45 AM	0	9	19	3	0	14	23	14	0	2	5	10	0	10	2	6	117	
Count Total	0	44	190	19	0	116	289	71	0	12	40	83	0	70	60	58	1,052	
Peak Hour	0	19	128	10	0	70	219	34	0	6	23	52	0	42	28	40	671	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	3	1	6	12	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	2	1	3	11	17	7:15 AM	0	0	0	0	0	7:15 AM	3	0	0	0	3
7:30 AM	2	3	4	3	12	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	1	0	3	2	6	7:45 AM	0	0	0	0	0	7:45 AM	1	1	0	0	2
8:00 AM	1	1	4	3	9	8:00 AM	0	0	0	0	0	8:00 AM	1	2	0	0	3
8:15 AM	2	1	2	2	7	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	0	2	4	2	8	8:30 AM	0	0	0	0	0	8:30 AM	1	0	0	0	1
8:45 AM	2	1	3	3	9	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	12	12	24	32	80	Count Total	0	0	0	0	0	Count Total	6	3	0	0	9
Peak Hour	6	5	13	10	34	Peak Hour	0	0	0	0	0	Peak Hour	2	3	0	0	5

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.6%	0.67
WB	4.2%	0.62
NB	0.0%	0.00
SB	0.0%	0.63
All	4.3%	0.64

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3)				MONTAGUE RD (SR3)				DEER CREEK WAY				DEER CREEK WAY				Total	Rolling Hour
	Eastbound				Westbound				Northbound				Southbound					
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	21	0	0	0	28	0	0	0	0	0	0	2	0	1	52	510
7:15 AM	1	1	37	0	0	0	54	0	0	0	0	0	0	0	0	0	93	571
7:30 AM	0	1	44	0	0	0	95	1	0	0	0	0	0	1	0	2	144	564
7:45 AM	0	0	81	0	0	0	135	1	0	0	0	0	0	1	0	3	221	492
8:00 AM	0	3	46	0	0	0	62	1	0	0	0	0	0	0	0	1	113	364
8:15 AM	0	1	42	0	0	0	41	0	0	0	0	0	0	1	0	1	86	
8:30 AM	0	0	29	0	0	0	42	0	0	0	0	0	0	0	0	1	72	
8:45 AM	0	0	42	0	0	0	49	0	0	0	0	0	0	1	0	1	93	
Count Total	1	6	342	0	0	0	506	3	0	0	0	0	0	6	0	10	874	
Peak Hour	0	5	213	0	0	0	333	3	0	0	0	0	0	3	0	7	564	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	0	1	0	3	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	4	0	5	0	9	7:15 AM	0	0	0	0	0	7:15 AM	0	1	0	0	1
7:30 AM	5	0	4	0	9	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	2	0	2	0	4	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	1	0	6	0	7	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	2	0	2	0	4	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	2	0	4	0	6	8:30 AM	0	0	0	0	0	8:30 AM	0	1	0	0	1
8:45 AM	5	0	4	0	9	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	23	0	28	0	51	Count Total	0	0	0	0	0	Count Total	0	2	0	0	2
Peak Hour	10	0	14	0	24	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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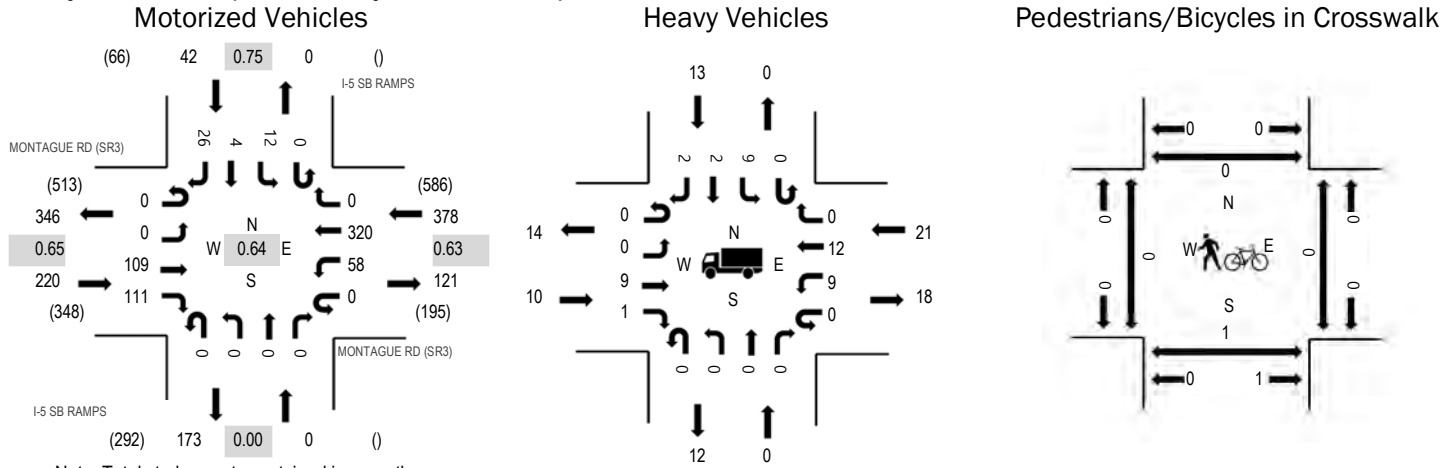
Location: 3 I-5 SB RAMPS & MONTAGUE RD (SR3) AM

Date: Tuesday, May 17, 2022

Study Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	4.5%	0.65
WB	5.6%	0.63
NB	0.0%	0.00
SB	31.0%	0.75
All	6.9%	0.64

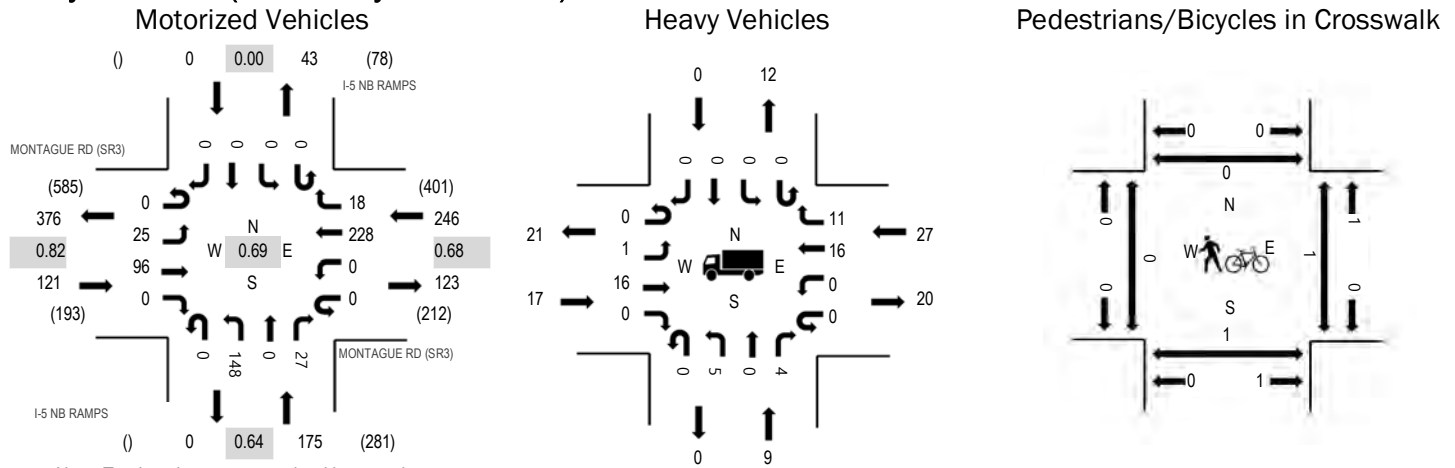
Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				I-5 SB RAMPS Northbound				I-5 SB RAMPS Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	12	13	0	12	28	0	0	0	0	0	0	3	0	0	68	571
7:15 AM	0	0	13	18	0	14	41	0	0	0	0	0	0	3	0	5	94	629
7:30 AM	0	0	27	20	0	14	86	0	0	0	0	0	0	3	0	10	160	640
7:45 AM	0	0	33	51	0	18	133	0	0	0	0	0	0	5	4	5	249	563
8:00 AM	0	0	20	23	0	14	65	0	0	0	0	0	0	0	0	4	126	429
8:15 AM	0	0	29	17	0	12	36	0	0	0	0	0	0	4	0	7	105	
8:30 AM	0	0	13	16	0	11	40	0	0	0	0	0	0	2	0	1	83	
8:45 AM	0	0	21	22	0	13	49	0	0	0	0	0	0	7	0	3	115	
Count Total	0	0	168	180	0	108	478	0	0	0	0	0	0	27	4	35	1,000	
Peak Hour	0	0	109	111	0	58	320	0	0	0	0	0	0	12	4	26	640	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	2	0	5	3	10	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	4	0	5	1	10	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	6	0	5	4	15	7:30 AM	0	0	0	0	0	7:30 AM	0	1	0	0	1
7:45 AM	1	0	3	4	8	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	1	0	9	0	10	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	2	0	4	5	11	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	2	0	5	2	9	8:30 AM	0	0	0	0	0	8:30 AM	0	1	0	0	1
8:45 AM	4	0	5	4	13	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	22	0	41	23	86	Count Total	0	0	0	0	0	Count Total	0	2	0	0	2
Peak Hour	10	0	21	13	44	Peak Hour	0	0	0	0	0	Peak Hour	0	1	0	0	1

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	14.0%	0.82
WB	11.0%	0.68
NB	5.1%	0.64
SB	0.0%	0.00
All	9.8%	0.69

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				I-5 NB RAMPS Northbound				I-5 NB RAMPS Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	2	13	0	0	0	30	2	0	10	0	2	0	0	0	0	59	480
7:15 AM	0	1	14	0	0	0	40	4	0	16	0	11	0	0	0	0	86	540
7:30 AM	0	7	23	0	0	0	64	2	0	38	0	6	0	0	0	0	140	542
7:45 AM	0	10	27	0	0	0	84	6	0	63	0	5	0	0	0	0	195	485
8:00 AM	0	3	18	0	0	0	50	7	0	29	0	12	0	0	0	0	119	395
8:15 AM	0	5	28	0	0	0	30	3	0	18	0	4	0	0	0	0	88	
8:30 AM	0	3	12	0	0	0	34	9	0	19	0	6	0	0	0	0	83	
8:45 AM	0	9	18	0	0	0	31	5	0	29	0	13	0	0	0	0	105	
Count Total	0	40	153	0	0	0	363	38	0	222	0	59	0	0	0	0	875	
Peak Hour	0	25	96	0	0	0	228	18	0	148	0	27	0	0	0	0	542	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	3	1	4	0	8	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	3	3	6	0	12	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	8	1	6	0	15	7:30 AM	0	0	0	0	0	7:30 AM	0	1	0	0	1
7:45 AM	1	1	5	0	7	7:45 AM	0	0	0	0	0	7:45 AM	0	0	1	0	1
8:00 AM	2	6	10	0	18	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	6	1	6	0	13	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	2	3	10	0	15	8:30 AM	0	0	0	0	0	8:30 AM	0	1	0	0	1
8:45 AM	6	6	4	0	16	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	31	22	51	0	104	Count Total	0	0	0	0	0	Count Total	0	2	1	0	3
Peak Hour	17	9	27	0	53	Peak Hour	0	0	0	0	0	Peak Hour	0	1	1	0	2



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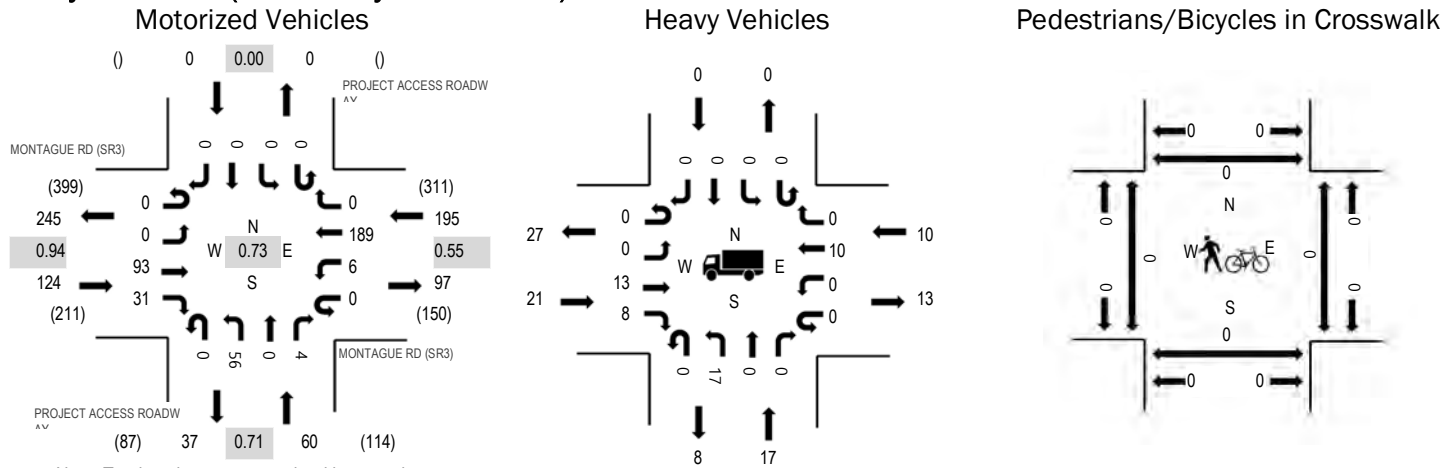
Location: 5 PROJECT ACCESS ROADWAY & MONTAGUE RD (SR3) AM

Date: Tuesday, May 17, 2022

Study Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes in Study Peak Hour: 07:45 AM - 08:00 AM

Study Peak Hour (for all study intersections)



	HV%	PHF
EB	16.9%	0.94
WB	5.1%	0.55
NB	28.3%	0.71
SB	0.0%	0.00
All	12.7%	0.73

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				PROJECT ACCESS ROADWAY Eastbound				PROJECT ACCESS ROADWAY Westbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
7:00 AM	0	0	13	2	0	5	18	0	0	14	0	0	0	0	0	0	52	351
7:15 AM	0	0	17	7	0	2	32	0	0	13	0	3	0	0	0	0	74	385
7:30 AM	0	0	21	8	0	3	46	0	0	16	0	1	0	0	0	0	95	379
7:45 AM	0	0	26	7	0	1	87	0	0	8	0	1	0	0	0	0	130	349
8:00 AM	0	0	20	9	0	2	34	0	0	21	0	0	0	0	0	0	86	285
8:15 AM	0	0	26	7	0	0	22	0	0	11	0	2	0	0	0	0	68	
8:30 AM	0	0	9	9	0	3	29	0	0	13	0	2	0	0	0	0	65	
8:45 AM	0	0	9	21	0	1	26	0	0	9	0	0	0	0	0	0	66	
Count Total	0	0	141	70	0	17	294	0	0	105	0	9	0	0	0	0	636	
Peak Hour	0	0	93	31	0	6	189	0	0	56	0	4	0	0	0	0	379	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
7:00 AM	3	4	0	0	7	7:00 AM	0	0	0	0	0	7:00 AM	0	0	0	0	0
7:15 AM	3	3	4	0	10	7:15 AM	0	0	0	0	0	7:15 AM	0	0	0	0	0
7:30 AM	8	4	2	0	14	7:30 AM	0	0	0	0	0	7:30 AM	0	0	0	0	0
7:45 AM	1	2	3	0	6	7:45 AM	0	0	0	0	0	7:45 AM	0	0	0	0	0
8:00 AM	4	8	3	0	15	8:00 AM	0	0	0	0	0	8:00 AM	0	0	0	0	0
8:15 AM	8	3	2	0	13	8:15 AM	0	0	0	0	0	8:15 AM	0	0	0	0	0
8:30 AM	4	5	4	0	13	8:30 AM	0	0	0	0	0	8:30 AM	0	0	0	0	0
8:45 AM	9	3	2	0	14	8:45 AM	0	0	0	0	0	8:45 AM	0	0	0	0	0
Count Total	40	32	20	0	92	Count Total	0	0	0	0	0	Count Total	0	0	0	0	0
Peak Hour	21	17	10	0	48	Peak Hour	0	0	0	0	0	Peak Hour	0	0	0	0	0



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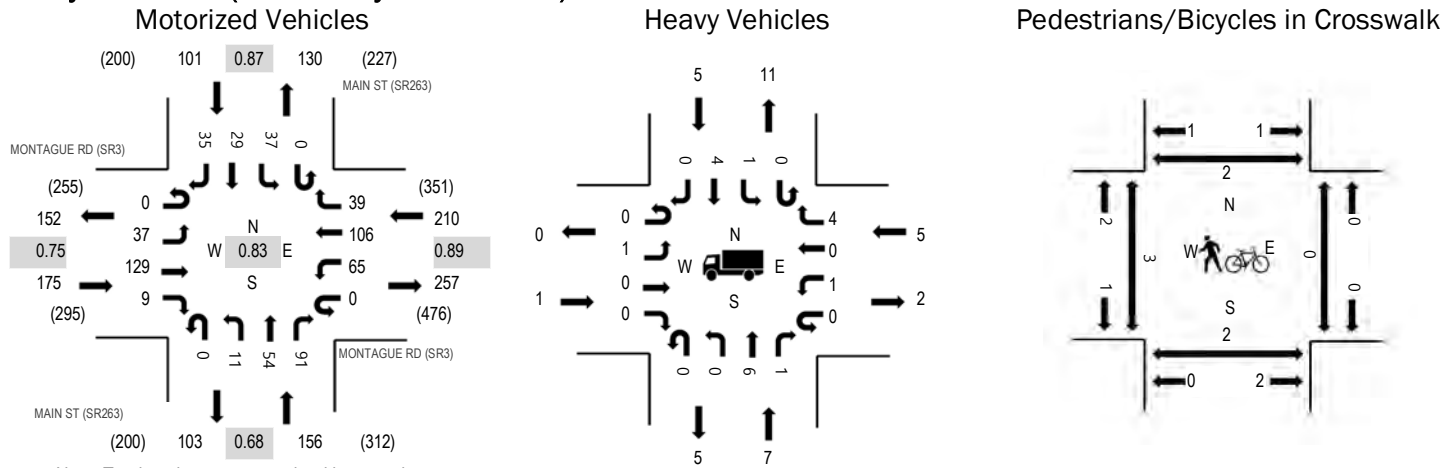
Location: 1 MAIN ST (SR263) & MONTAGUE RD (SR3) PM

Date: Tuesday, May 17, 2022

Study Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	0.6%	0.75
WB	2.4%	0.89
NB	4.5%	0.68
SB	5.0%	0.87
All	2.8%	0.83

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				MAIN ST (SR263) Northbound				MAIN ST (SR263) Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	3	32	3	0	14	10	7	0	4	8	23	0	7	5	8	124	573
4:15 PM	0	5	27	2	0	13	24	10	0	2	11	16	0	13	5	8	136	642
4:30 PM	0	9	30	3	0	18	31	6	0	3	11	23	0	14	7	8	163	652
4:45 PM	0	8	33	0	0	15	22	12	0	2	9	22	0	8	8	11	150	616
5:00 PM	0	15	39	4	0	19	29	11	0	4	23	30	0	2	9	8	193	585
5:15 PM	0	2	21	4	0	10	19	11	0	3	15	27	0	13	13	8	146	
5:30 PM	0	3	26	2	0	13	18	1	0	3	21	20	0	10	4	6	127	
5:45 PM	0	9	14	1	0	14	16	8	0	3	9	20	0	6	14	5	119	
Count Total	0	54	222	19	0	116	169	66	0	24	107	181	0	73	65	62	1,158	
Peak Hour	0	37	129	9	0	65	106	39	0	11	54	91	0	37	29	35	642	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	0	2	0	1	3	4:00 PM	0	0	0	0	0	4:00 PM	1	1	1	1	4
4:15 PM	0	1	0	1	2	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	1	1
4:30 PM	1	1	1	3	6	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	0	2	2	0	4	4:45 PM	0	0	0	0	0	4:45 PM	0	1	0	0	1
5:00 PM	0	3	2	1	6	5:00 PM	0	0	0	0	0	5:00 PM	3	1	0	1	5
5:15 PM	0	1	2	2	5	5:15 PM	0	0	0	0	0	5:15 PM	2	1	1	1	5
5:30 PM	0	4	0	1	5	5:30 PM	0	0	0	0	0	5:30 PM	1	0	1	1	3
5:45 PM	1	1	0	2	4	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	2	15	7	11	35	Count Total	0	0	0	0	0	Count Total	7	4	3	5	19
Peak Hour	1	7	5	5	18	Peak Hour	0	0	0	0	0	Peak Hour	3	2	0	2	7

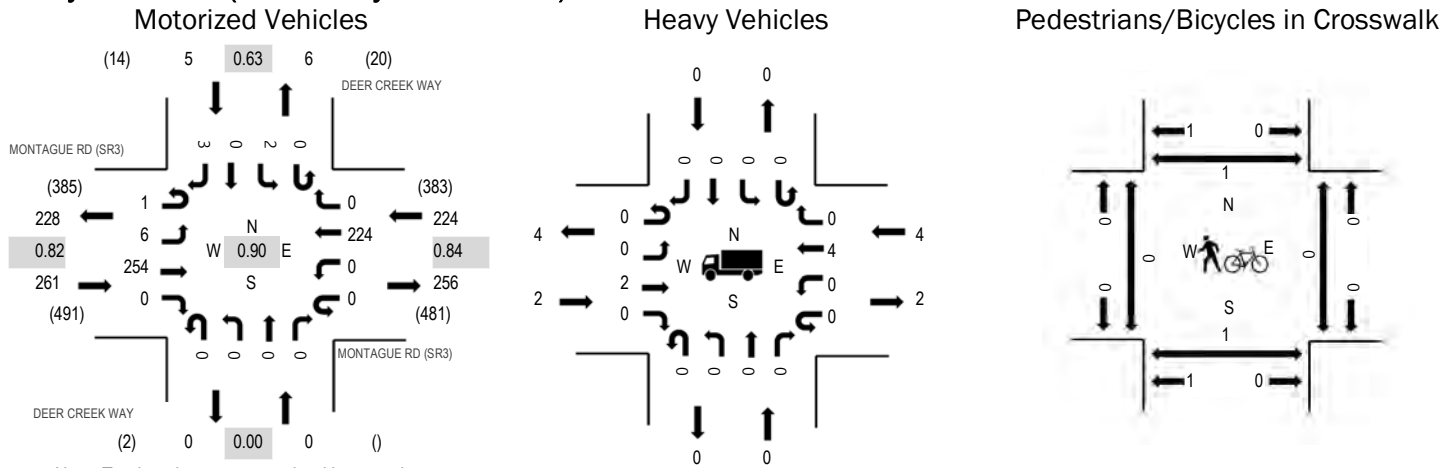
Location: 2 DEER CREEK WAY & MONTAGUE RD (SR3) PM

Date: Tuesday, May 17, 2022

Study Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes in Study Peak Hour: 04:30 PM - 04:45 PM

Study Peak Hour (for all study intersections)



	HV%	PHF
EB	0.8%	0.82
WB	1.8%	0.84
NB	0.0%	0.00
SB	0.0%	0.63
All	1.2%	0.90

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				DEER CREEK WAY Northbound				DEER CREEK WAY Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	1	63	0	0	1	38	0	0	0	0	0	0	1	0	1	105	466
4:15 PM	1	3	63	0	0	0	56	0	0	0	0	0	0	1	0	1	125	490
4:30 PM	0	0	80	0	0	0	54	0	0	0	0	0	0	1	0	1	136	473
4:45 PM	0	1	51	0	0	0	47	0	0	0	0	0	0	0	0	1	100	424
5:00 PM	0	2	60	0	0	0	67	0	0	0	0	0	0	0	0	0	129	422
5:15 PM	0	1	67	1	0	0	35	2	0	0	0	0	0	1	0	1	108	
5:30 PM	0	2	43	0	0	0	35	3	0	0	0	0	0	2	0	2	87	
5:45 PM	1	3	48	0	0	0	43	2	0	0	0	0	0	0	0	1	98	
Count Total	2	13	475	1	0	1	375	7	0	0	0	0	0	6	0	8	888	
Peak Hour	1	6	254	0	0	0	224	0	0	0	0	0	0	2	0	3	490	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	1	0	2	4:00 PM	0	0	0	1	1	4:00 PM	0	0	0	1	1
4:15 PM	1	0	0	0	1	4:15 PM	0	0	0	0	0	4:15 PM	0	1	0	0	1
4:30 PM	0	0	0	0	0	4:30 PM	2	0	0	0	2	4:30 PM	0	0	0	0	0
4:45 PM	1	0	2	0	3	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	0	2	0	2	5:00 PM	0	0	2	1	3	5:00 PM	0	0	0	1	1
5:15 PM	2	0	0	0	2	5:15 PM	0	0	0	0	0	5:15 PM	0	1	0	1	2
5:30 PM	0	0	1	0	1	5:30 PM	1	0	0	0	1	5:30 PM	0	0	0	0	0
5:45 PM	1	0	0	0	1	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	2	2
Count Total	6	0	6	0	12	Count Total	3	0	2	2	7	Count Total	0	2	0	5	7
Peak Hour	2	0	4	0	6	Peak Hour	2	0	2	1	5	Peak Hour	0	1	0	1	2

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	1	0	3	2	6	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	1	0	3	3	7	4:15 PM	0	0	0	0	0	4:15 PM	0	1	0	0	1
4:30 PM	0	0	1	3	4	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	1	0	7	5	13	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	0	0	4	5	9	5:00 PM	0	0	0	0	0	5:00 PM	0	0	0	0	0
5:15 PM	2	0	1	2	5	5:15 PM	0	0	0	0	0	5:15 PM	0	1	0	0	1
5:30 PM	0	0	4	1	5	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	1	0	1	8	10	5:45 PM	0	0	0	0	0	5:45 PM	0	2	0	1	3
Count Total	6	0	24	29	59	Count Total	0	0	0	0	0	Count Total	0	4	0	1	5
Peak Hour	2	0	15	16	33	Peak Hour	0	0	0	0	0	Peak Hour	0	1	0	0	1



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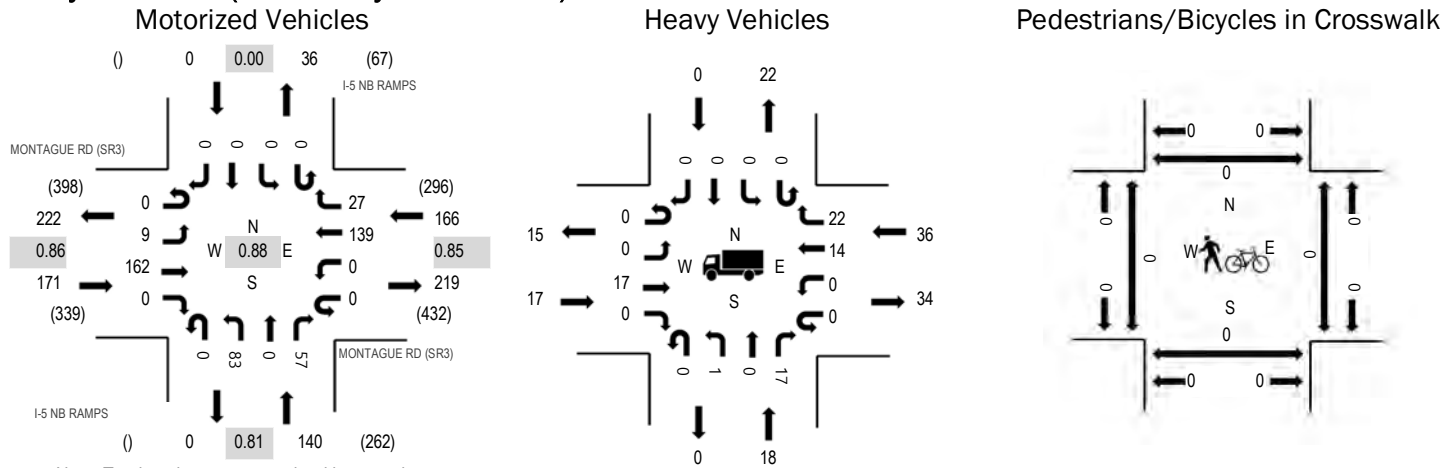
Location: 4 I-5 NB RAMPS & MONTAGUE RD (SR3) PM

Date: Tuesday, May 17, 2022

Study Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	9.9%	0.86
WB	21.7%	0.85
NB	12.9%	0.81
SB	0.0%	0.00
All	14.9%	0.88

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				I-5 NB RAMPS Northbound				I-5 NB RAMPS Southbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	3	37	0	0	0	26	4	0	14	1	12	0	0	0	0	97	438
4:15 PM	0	2	43	0	0	0	36	13	0	12	0	12	0	0	0	0	118	477
4:30 PM	0	3	47	0	0	0	34	4	0	20	0	14	0	0	0	0	122	476
4:45 PM	0	1	28	0	0	0	28	5	0	23	0	16	0	0	0	0	101	447
5:00 PM	0	3	44	0	0	0	41	5	0	28	0	15	0	0	0	0	136	459
5:15 PM	0	3	50	0	0	0	27	3	0	17	0	17	0	0	0	0	117	
5:30 PM	1	3	29	0	0	0	26	4	0	17	0	13	0	0	0	0	93	
5:45 PM	0	4	38	0	0	0	34	6	0	14	0	17	0	0	0	0	113	
Count Total	1	22	316	0	0	0	252	44	0	145	1	116	0	0	0	0	897	
Peak Hour	0	9	162	0	0	0	139	27	0	83	0	57	0	0	0	0	477	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	3	7	4	0	14	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	3	3	15	0	21	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	3	3	4	0	10	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	5	7	9	0	21	4:45 PM	0	0	0	0	0	4:45 PM	0	0	0	0	0
5:00 PM	6	5	8	0	19	5:00 PM	0	0	2	0	2	5:00 PM	0	0	0	0	0
5:15 PM	2	5	5	0	12	5:15 PM	0	0	0	0	0	5:15 PM	0	1	0	0	1
5:30 PM	1	8	6	0	15	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	8	7	6	0	21	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	1	1
Count Total	31	45	57	0	133	Count Total	0	0	2	0	2	Count Total	0	1	0	1	2
Peak Hour	17	18	36	0	71	Peak Hour	0	0	2	0	2	Peak Hour	0	0	0	0	0



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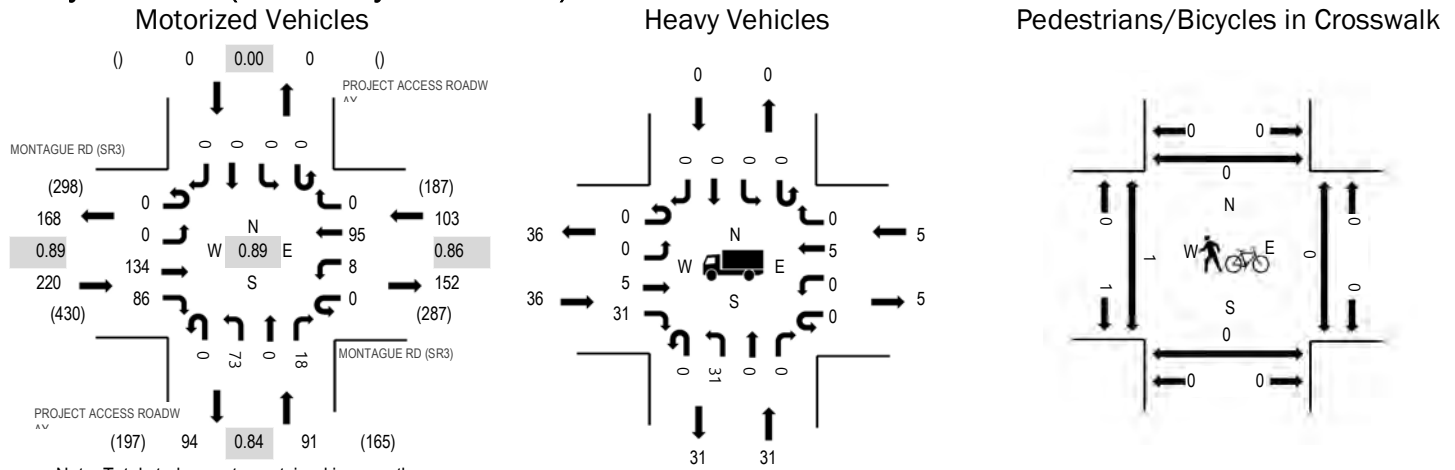
Location: 5 PROJECT ACCESS ROADWAY & MONTAGUE RD (SR3) PM

Date: Tuesday, May 17, 2022

Study Peak Hour: 04:15 PM - 05:15 PM

Peak 15-Minutes in Study Peak Hour: 05:00 PM - 05:15 PM

Study Peak Hour (for all study intersections)



Note: Total study counts contained in parentheses.

	HV%	PHF
EB	16.4%	0.89
WB	4.9%	0.86
NB	34.1%	0.84
SB	0.0%	0.00
All	17.4%	0.89

Traffic Counts - Motorized Vehicles

Interval Start Time	MONTAGUE RD (SR3) Eastbound				MONTAGUE RD (SR3) Westbound				PROJECT ACCESS ROADWAY Southbound				PROJECT ACCESS ROADWAY Northbound				Total	Rolling Hour
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right		
4:00 PM	0	0	28	19	0	2	20	0	0	11	0	7	0	0	0	0	87	385
4:15 PM	0	0	37	19	0	0	28	0	0	21	0	1	0	0	0	0	106	414
4:30 PM	0	0	38	24	0	1	25	0	0	13	0	5	0	0	0	0	106	409
4:45 PM	0	0	22	21	0	3	16	0	0	18	0	6	0	0	0	0	86	379
5:00 PM	0	0	37	22	0	4	26	0	0	21	0	6	0	0	0	0	116	397
5:15 PM	0	0	47	22	0	1	17	0	0	10	0	4	0	0	0	0	101	
5:30 PM	0	0	18	20	0	4	13	0	0	18	0	3	0	0	0	0	76	
5:45 PM	0	0	28	28	0	7	20	0	0	21	0	0	0	0	0	0	104	
Count Total	0	0	255	175	0	22	165	0	0	133	0	32	0	0	0	0	782	
Peak Hour	0	0	134	86	0	8	95	0	0	73	0	18	0	0	0	0	414	

Traffic Counts - Heavy Vehicles, Bicycles on Road, and Pedestrians/Bicycles in Crosswalk

Interval Start Time	Heavy Vehicles					Interval Start Time	Bicycles on Roadway					Interval Start Time	Pedestrians/Bicycles on Crosswalk				
	EB	NB	WB	SB	Total		EB	NB	WB	SB	Total		EB	NB	WB	SB	Total
4:00 PM	7	5	0	0	12	4:00 PM	0	0	0	0	0	4:00 PM	0	0	0	0	0
4:15 PM	8	13	1	0	22	4:15 PM	0	0	0	0	0	4:15 PM	0	0	0	0	0
4:30 PM	6	4	0	0	10	4:30 PM	0	0	0	0	0	4:30 PM	0	0	0	0	0
4:45 PM	12	7	2	0	21	4:45 PM	0	0	0	0	0	4:45 PM	1	0	0	0	1
5:00 PM	10	7	2	0	19	5:00 PM	0	2	0	0	2	5:00 PM	0	0	0	0	0
5:15 PM	7	4	0	0	11	5:15 PM	0	0	0	0	0	5:15 PM	0	0	0	0	0
5:30 PM	7	6	0	0	13	5:30 PM	0	0	0	0	0	5:30 PM	0	0	0	0	0
5:45 PM	15	6	2	0	23	5:45 PM	0	0	0	0	0	5:45 PM	0	0	0	0	0
Count Total	72	52	7	0	131	Count Total	0	2	0	0	2	Count Total	1	0	0	0	1
Peak Hour	36	31	5	0	72	Peak Hour	0	2	0	0	2	Peak Hour	1	0	0	0	1



All Traffic Data Services

SITE 4_E - MONTAGUE RD (SR3) EAST OF I-5 NB RAMPS

Time	EB	WB	Total
5/17/2022	5	4	9
5/17/2022 12:15:00 AM	3	3	6
5/17/2022 12:30:00 AM	7	2	9
5/17/2022 12:45:00 AM	3	7	10
5/17/2022 1:00:00 AM	2	2	4
5/17/2022 1:15:00 AM	4	5	9
5/17/2022 1:30:00 AM	5	2	7
5/17/2022 1:45:00 AM	7	3	10
5/17/2022 2:00:00 AM	8	4	12
5/17/2022 2:15:00 AM	7	5	12
5/17/2022 2:30:00 AM	3	4	7
5/17/2022 2:45:00 AM	3	4	7
5/17/2022 3:00:00 AM	1	0	1
5/17/2022 3:15:00 AM	2	6	8
5/17/2022 3:30:00 AM	1	4	5
5/17/2022 3:45:00 AM	0	2	2
5/17/2022 4:00:00 AM	5	3	8
5/17/2022 4:15:00 AM	1	3	4
5/17/2022 4:30:00 AM	2	3	5
5/17/2022 4:45:00 AM	7	10	17
5/17/2022 5:00:00 AM	5	12	17
5/17/2022 5:15:00 AM	2	14	16
5/17/2022 5:30:00 AM	14	16	30
5/17/2022 5:45:00 AM	9	17	26
5/17/2022 6:00:00 AM	6	7	13
5/17/2022 6:15:00 AM	6	20	26
5/17/2022 6:30:00 AM	11	25	36
5/17/2022 6:45:00 AM	15	21	36
5/17/2022 7:00:00 AM	15	32	47
5/17/2022 7:15:00 AM	25	44	69
5/17/2022 7:30:00 AM	29	66	95
5/17/2022 7:45:00 AM	32	90	122
5/17/2022 8:00:00 AM	30	57	87
5/17/2022 8:15:00 AM	32	33	65
5/17/2022 8:30:00 AM	18	43	61
5/17/2022 8:45:00 AM	31	36	67
5/17/2022 9:00:00 AM	27	37	64
5/17/2022 9:15:00 AM	27	36	63
5/17/2022 9:30:00 AM	19	31	50
5/17/2022 9:45:00 AM	17	38	55
5/17/2022 10:00:00 AM	22	36	58
5/17/2022 10:15:00 AM	25	30	55
5/17/2022 10:30:00 AM	28	32	60
5/17/2022 10:45:00 AM	38	33	71
5/17/2022 11:00:00 AM	34	38	72
5/17/2022 11:15:00 AM	27	40	67
5/17/2022 11:30:00 AM	43	41	84
5/17/2022 11:45:00 AM	29	38	67
Total	692	1,039	1,731
Percentage	40.0%	60.0%	
Peak Hour	10:45 AM	7:15 AM	7:15 AM
Volume	142	257	373
PHF	0.826	0.714	0.764



All Traffic Data Services

SITE 4_E - MONTAGUE RD (SR3) EAST OF I-5 NB RAMPS

Time	EB	WB	Total
5/17/2022 12:00:00 PM	55	42	97
5/17/2022 12:15:00 PM	40	57	97
5/17/2022 12:30:00 PM	40	42	82
5/17/2022 12:45:00 PM	51	34	85
5/17/2022 1:00:00 PM	36	44	80
5/17/2022 1:15:00 PM	32	31	63
5/17/2022 1:30:00 PM	37	47	84
5/17/2022 1:45:00 PM	48	37	85
5/17/2022 2:00:00 PM	36	30	66
5/17/2022 2:15:00 PM	37	45	82
5/17/2022 2:30:00 PM	61	33	94
5/17/2022 2:45:00 PM	29	48	77
5/17/2022 3:00:00 PM	35	47	82
5/17/2022 3:15:00 PM	70	39	109
5/17/2022 3:30:00 PM	47	42	89
5/17/2022 3:45:00 PM	48	32	80
5/17/2022 4:00:00 PM	49	30	79
5/17/2022 4:15:00 PM	55	49	104
5/17/2022 4:30:00 PM	61	38	99
5/17/2022 4:45:00 PM	44	33	77
5/17/2022 5:00:00 PM	59	46	105
5/17/2022 5:15:00 PM	67	30	97
5/17/2022 5:30:00 PM	42	30	72
5/17/2022 5:45:00 PM	55	40	95
5/17/2022 6:00:00 PM	36	42	78
5/17/2022 6:15:00 PM	46	29	75
5/17/2022 6:30:00 PM	63	28	91
5/17/2022 6:45:00 PM	37	26	63
5/17/2022 7:00:00 PM	32	15	47
5/17/2022 7:15:00 PM	40	24	64
5/17/2022 7:30:00 PM	32	35	67
5/17/2022 7:45:00 PM	30	23	53
5/17/2022 8:00:00 PM	24	22	46
5/17/2022 8:15:00 PM	22	14	36
5/17/2022 8:30:00 PM	24	15	39
5/17/2022 8:45:00 PM	29	21	50
5/17/2022 9:00:00 PM	33	26	59
5/17/2022 9:15:00 PM	19	24	43
5/17/2022 9:30:00 PM	11	7	18
5/17/2022 9:45:00 PM	22	15	37
5/17/2022 10:00:00 PM	15	13	28
5/17/2022 10:15:00 PM	21	7	28
5/17/2022 10:30:00 PM	16	12	28
5/17/2022 10:45:00 PM	10	7	17
5/17/2022 11:00:00 PM	9	4	13
5/17/2022 11:15:00 PM	9	10	19
5/17/2022 11:30:00 PM	0	10	10
5/17/2022 11:45:00 PM	8	4	12
Total	1,722	1,379	3,101
Percentage	55.5%	44.5%	
Peak Hour	4:30 PM	12:15 PM	4:15 PM
Volume	231	177	387
PHF	0.862	0.776	0.921
Grand Total	2,414	2,418	4,832
Percentage	50.0%	50.0%	



All Traffic Data Services

SITE 4_W - MONTAGUE RD (SR3) WEST OF I-5 NB RAMPS

Time	EB	WB	Total
5/17/2022	3	5	8
5/17/2022 12:15:00 AM	1	2	3
5/17/2022 12:30:00 AM	5	2	7
5/17/2022 12:45:00 AM	2	5	7
5/17/2022 1:00:00 AM	2	4	6
5/17/2022 1:15:00 AM	3	5	8
5/17/2022 1:30:00 AM	4	2	6
5/17/2022 1:45:00 AM	6	3	9
5/17/2022 2:00:00 AM	3	4	7
5/17/2022 2:15:00 AM	2	4	6
5/17/2022 2:30:00 AM	4	4	8
5/17/2022 2:45:00 AM	4	3	7
5/17/2022 3:00:00 AM	1	1	2
5/17/2022 3:15:00 AM	1	5	6
5/17/2022 3:30:00 AM	1	3	4
5/17/2022 3:45:00 AM	0	2	2
5/17/2022 4:00:00 AM	4	2	6
5/17/2022 4:15:00 AM	0	2	2
5/17/2022 4:30:00 AM	1	3	4
5/17/2022 4:45:00 AM	6	11	17
5/17/2022 5:00:00 AM	8	8	16
5/17/2022 5:15:00 AM	4	18	22
5/17/2022 5:30:00 AM	13	16	29
5/17/2022 5:45:00 AM	8	21	29
5/17/2022 6:00:00 AM	6	12	18
5/17/2022 6:15:00 AM	6	16	22
5/17/2022 6:30:00 AM	7	31	38
5/17/2022 6:45:00 AM	17	32	49
5/17/2022 7:00:00 AM	15	40	55
5/17/2022 7:15:00 AM	15	56	71
5/17/2022 7:30:00 AM	30	102	132
5/17/2022 7:45:00 AM	37	147	184
5/17/2022 8:00:00 AM	21	79	100
5/17/2022 8:15:00 AM	33	48	81
5/17/2022 8:30:00 AM	15	53	68
5/17/2022 8:45:00 AM	27	60	87
5/17/2022 9:00:00 AM	21	43	64
5/17/2022 9:15:00 AM	26	42	68
5/17/2022 9:30:00 AM	21	35	56
5/17/2022 9:45:00 AM	17	53	70
5/17/2022 10:00:00 AM	23	40	63
5/17/2022 10:15:00 AM	16	45	61
5/17/2022 10:30:00 AM	24	38	62
5/17/2022 10:45:00 AM	27	42	69
5/17/2022 11:00:00 AM	30	54	84
5/17/2022 11:15:00 AM	22	45	67
5/17/2022 11:30:00 AM	40	56	96
5/17/2022 11:45:00 AM	27	49	76
Total	609	1,353	1,962
Percentage	31.0%	69.0%	
Peak Hour	7:30 AM	7:15 AM	7:30 AM
Volume	121	384	497
PHF	0.818	0.653	0.675



All Traffic Data Services

SITE 4_W - MONTAGUE RD (SR3) WEST OF I-5 NB RAMPS










Time	EB	WB	Total
5/17/2022 12:00:00 PM	44	63	107
5/17/2022 12:15:00 PM	37	73	110
5/17/2022 12:30:00 PM	40	48	88
5/17/2022 12:45:00 PM	32	54	86
5/17/2022 1:00:00 PM	33	50	83
5/17/2022 1:15:00 PM	30	34	64
5/17/2022 1:30:00 PM	27	56	83
5/17/2022 1:45:00 PM	42	51	93
5/17/2022 2:00:00 PM	32	42	74
5/17/2022 2:15:00 PM	25	45	70
5/17/2022 2:30:00 PM	53	41	94
5/17/2022 2:45:00 PM	27	63	90
5/17/2022 3:00:00 PM	31	62	93
5/17/2022 3:15:00 PM	62	49	111
5/17/2022 3:30:00 PM	36	60	96
5/17/2022 3:45:00 PM	36	41	77
5/17/2022 4:00:00 PM	40	40	80
5/17/2022 4:15:00 PM	45	48	93
5/17/2022 4:30:00 PM	50	54	104
5/17/2022 4:45:00 PM	29	51	80
5/17/2022 5:00:00 PM	47	69	116
5/17/2022 5:15:00 PM	53	44	97
5/17/2022 5:30:00 PM	33	44	77
5/17/2022 5:45:00 PM	42	48	90
5/17/2022 6:00:00 PM	28	49	77
5/17/2022 6:15:00 PM	37	35	72
5/17/2022 6:30:00 PM	49	30	79
5/17/2022 6:45:00 PM	31	35	66
5/17/2022 7:00:00 PM	23	20	43
5/17/2022 7:15:00 PM	32	34	66
5/17/2022 7:30:00 PM	19	40	59
5/17/2022 7:45:00 PM	23	27	50
5/17/2022 8:00:00 PM	16	25	41
5/17/2022 8:15:00 PM	14	17	31
5/17/2022 8:30:00 PM	16	22	38
5/17/2022 8:45:00 PM	24	24	48
5/17/2022 9:00:00 PM	19	28	47
5/17/2022 9:15:00 PM	12	25	37
5/17/2022 9:30:00 PM	9	10	19
5/17/2022 9:45:00 PM	12	16	28
5/17/2022 10:00:00 PM	13	12	25
5/17/2022 10:15:00 PM	13	10	23
5/17/2022 10:30:00 PM	12	10	22
5/17/2022 10:45:00 PM	8	9	17
5/17/2022 11:00:00 PM	7	4	11
5/17/2022 11:15:00 PM	6	12	18
5/17/2022 11:30:00 PM	0	9	9
5/17/2022 11:45:00 PM	7	5	12
Total	1,356	1,738	3,094
Percentage	43.8%	56.2%	
Peak Hour	4:30 PM	12:00 PM	4:30 PM
Volume	179	238	399
PHF	0.844	0.815	0.860
Grand Total	1,965	3,091	5,056
Percentage	38.9%	61.1%	

2. Synchro Reports

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	20.4
Intersection LOS	C






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	128	10	70	219	34	6	23	52	42	28	40
Future Vol, veh/h	19	128	10	70	219	34	6	23	52	42	28	40
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	29	197	15	108	337	52	9	35	80	65	43	62
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	15.8	28.1	11.1	11.4
HCM LOS	C	D	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	12%	24%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	82%	76%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	6%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	23	52	157	289	34	42	28	40
LT Vol	6	0	0	19	70	0	42	0	0
Through Vol	0	23	0	128	219	0	0	28	0
RT Vol	0	0	52	10	0	34	0	0	40
Lane Flow Rate	9	35	80	242	445	52	65	43	62
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.021	0.077	0.157	0.471	0.798	0.082	0.146	0.091	0.118
Departure Headway (Hd)	8.305	7.788	7.065	7.025	6.574	5.748	8.149	7.633	6.911
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	433	461	510	517	556	627	441	471	520
Service Time	6.026	5.509	4.786	4.725	4.274	3.448	5.87	5.354	4.632
HCM Lane V/C Ratio	0.021	0.076	0.157	0.468	0.8	0.083	0.147	0.091	0.119
HCM Control Delay	11.2	11.2	11.1	15.8	30.4	9	12.3	11.1	10.6
HCM Lane LOS	B	B	B	C	D	A	B	B	B
HCM 95th-tile Q	0.1	0.2	0.6	2.5	7.6	0.3	0.5	0.3	0.4

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	218	0	0	350	3	0	0	0	2	0	6
Future Vol, veh/h	5	218	0	0	350	3	0	0	0	2	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	335	0	0	538	5	0	0	0	3	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	543	0	0	335	0	0	620	894	335	892	892	272
Stage 1	-	-	-	-	-	-	351	351	-	541	541	-
Stage 2	-	-	-	-	-	-	269	543	-	351	351	-
Critical Hdwy	4.175	-	-	4.175	-	-	7.375	6.575	6.275	7.375	6.575	6.975
Critical Hdwy Stg 1	-	-	-	-	-	-	6.175	5.575	-	6.575	5.575	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.575	5.575	-	6.175	5.575	-
Follow-up Hdwy	2.2475	-	-	2.2475	-	-	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475
Pot Cap-1 Maneuver	1006	-	-	1204	-	-	381	276	698	245	276	719
Stage 1	-	-	-	-	-	-	657	625	-	487	514	-
Stage 2	-	-	-	-	-	-	707	513	-	657	625	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1006	-	-	1204	-	-	374	274	698	244	274	719
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	274	-	244	274	-
Stage 1	-	-	-	-	-	-	652	620	-	483	514	-
Stage 2	-	-	-	-	-	-	698	513	-	652	620	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	0	12.6
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1006	-	-	1204	-	-	484
HCM Lane V/C Ratio	-	0.008	-	-	-	-	-	0.025
HCM Control Delay (s)	0	8.6	-	-	0	-	-	12.6
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	109	111	59	327	0	0	0	0	12	4	26
Future Vol, veh/h	0	109	111	59	327	0	0	0	0	12	4	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	170	173	92	511	0	0	0	0	19	6	41
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	170	0	0				865	865	511
Stage 1	-	-	-	-	-	-				695	695	-
Stage 2	-	-	-	-	-	-				170	170	-
Critical Hdwy	-	-	-	4.17	-	-				6.47	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-				5.47	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.47	5.57	-
Follow-up Hdwy	-	-	-	2.263	-	-				3.563	4.063	3.363
Pot Cap-1 Maneuver	0	-	0	1378	-	0				318	286	553
Stage 1	0	-	0	-	-	0				486	436	-
Stage 2	0	-	0	-	-	0				848	749	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1378	-	-				297	0	553
Mov Cap-2 Maneuver	-	-	-	-	-	-				297	0	-
Stage 1	-	-	-	-	-	-				486	0	-
Stage 2	-	-	-	-	-	-				791	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			1.2			14.4					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1378	-	297	553						
HCM Lane V/C Ratio	-		0.067	-	0.084	0.073						
HCM Control Delay (s)	-		7.8	-	18.2	12						
HCM Lane LOS	-		A	-	C	B						
HCM 95th %tile Q(veh)	-		0.2	-	0.3	0.2						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	96	0	0	238	19	148	0	27	0	0	0
Future Vol, veh/h	25	96	0	0	238	19	148	0	27	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	36	139	0	0	345	28	214	0	39	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	345	0	-	-	-	0	556	556	139
Stage 1	-	-	-	-	-	-	211	211	-
Stage 2	-	-	-	-	-	-	345	345	-
Critical Hdwy	4.2	-	-	-	-	-	6.5	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.5	5.6	-
Follow-up Hdwy	2.29	-	-	-	-	-	3.59	4.09	3.39
Pot Cap-1 Maneuver	1171	-	0	0	-	-	479	428	888
Stage 1	-	-	0	0	-	-	806	713	-
Stage 2	-	-	0	0	-	-	700	622	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1171	-	-	-	-	-	464	0	888
Mov Cap-2 Maneuver	-	-	-	-	-	-	464	0	-
Stage 1	-	-	-	-	-	-	781	0	-
Stage 2	-	-	-	-	-	-	700	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.7	0	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	464	888	1171	-	-	-
HCM Lane V/C Ratio	0.462	0.044	0.031	-	-	-
HCM Control Delay (s)	19.3	9.2	8.2	-	-	-
HCM Lane LOS	C	A	A	-	-	-
HCM 95th %tile Q(veh)	2.4	0.1	0.1	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Drive & Montague Rd.













AM Peak Hour
Yreka Travel Center TIAM

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	90	33	8	199	58	5
Future Volume (veh/h)	90	33	8	199	58	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	122	45	11	269	78	7
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	12	12	12	12	12	12
Cap, veh/h	388	329	24	796	154	137
Arrive On Green	0.23	0.23	0.01	0.46	0.09	0.09
Sat Flow, veh/h	1722	1459	1640	1722	1640	1459
Grp Volume(v), veh/h	122	45	11	269	78	7
Grp Sat Flow(s),veh/h/ln	1722	1459	1640	1722	1640	1459
Q Serve(g_s), s	1.2	0.5	0.1	2.0	0.9	0.1
Cycle Q Clear(g_c), s	1.2	0.5	0.1	2.0	0.9	0.1
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	388	329	24	796	154	137
V/C Ratio(X)	0.31	0.14	0.45	0.34	0.51	0.05
Avail Cap(c_a), veh/h	1529	1296	405	2336	1497	1332
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.5	6.3	9.9	3.5	8.7	8.4
Incr Delay (d2), s/veh	0.5	0.2	12.6	0.2	2.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.1	0.1	0.1	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.0	6.5	22.5	3.7	11.3	8.5
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	167			280	85	
Approach Delay, s/veh	6.9			4.5	11.1	
Approach LOS	A			A	B	
Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		6.4	4.8	9.1		13.9
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.5	5.0	18.0		27.5
Max Q Clear Time (g_c+I1), s		2.9	2.1	3.2		4.0
Green Ext Time (p_c), s		0.2	0.0	0.6		1.6
Intersection Summary						
HCM 6th Ctrl Delay			6.3			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Capacity Analysis

5: YTC Drive & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

									
Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations									
Traffic Volume (veh/h)	90	33	8	199	58	5			
Future Volume (veh/h)	90	33	8	199	58	5			
Number	4	14	3	8	5	12			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No	No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722			
Adj Flow Rate, veh/h	122	45	11	269	78	7			
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74			
Percent Heavy Veh, %	12	12	12	12	12	12			
Opposing Right Turn Influence			Yes		Yes				
Cap, veh/h	388	329	24	796	154	137			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.23	0.23	0.01	0.46	0.09	0.09			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	7.0	6.5	22.5	3.7	11.3	8.5			
Ln Grp LOS	A	A	C	A	B	A			
Approach Vol, veh/h	167			280	85				
Approach Delay, s/veh	6.9			4.5	11.1				
Approach LOS	A			A	B				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2	3	4				8
Case No			9.0	2.0	7.0				4.0
Phs Duration (G+Y+Rc), s			6.4	4.8	9.1				13.9
Change Period (Y+Rc), s			4.5	4.5	4.5				4.5
Max Green (Gmax), s			18.5	5.0	18.0				27.5
Max Allow Headway (MAH), s			3.9	3.8	5.0				5.3
Max Q Clear (g_c+I1), s			2.9	2.1	3.2				4.0
Green Ext Time (g_e), s			0.2	0.0	0.6				1.6
Prob of Phs Call (p_c)			0.38	0.06	0.91				0.92
Prob of Max Out (p_x)			0.00	1.00	0.00				0.00
Left-Turn Movement Data									
Assigned Mvmt			5	3	7				
Mvmt Sat Flow, veh/h			1640	1640	0				
Through Movement Data									
Assigned Mvmt			2		4				8
Mvmt Sat Flow, veh/h			0		1722				1722
Right-Turn Movement Data									
Assigned Mvmt			12		14				18
Mvmt Sat Flow, veh/h			1459		1459				0
Left Lane Group Data									
Assigned Mvmt		0	5	3	7	0	0	0	0
Lane Assignment			L	L (Prot)					

Existing Conditions
Existing Conditions

Synchro 10 Report
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HCM 6th Signalized Intersection Capacity Analysis

5: YTC Drive & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	78	11	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1640	1640	0	0	0	0	0
Q Serve Time (g_s), s	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.9	0.1	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1640	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	4.6	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	154	24	0	0	0	0	0
V/C Ratio (X)	0.00	0.51	0.45	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1497	405	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.7	9.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.6	12.6	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	11.3	22.5	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Middle Lane Group Data

Assigned Mvmt	0	2	0	4	0	0	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	122	0	0	0	269
Grp Sat Flow (s), veh/h/ln	0	0	0	1722	0	0	0	1722
Q Serve Time (g_s), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	2.0
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.2	0.0	0.0	0.0	2.0
Lane Grp Cap (c), veh/h	0	0	0	388	0	0	0	796
V/C Ratio (X)	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.34
Avail Cap (c_a), veh/h	0	0	0	1529	0	0	0	2336
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	6.5	0.0	0.0	0.0	3.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.2
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	7.0	0.0	0.0	0.0	3.7
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

Existing Conditions
Existing Conditions

Synchro 10 Report
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HCM 6th Signalized Intersection Capacity Analysis 5: YTC Drive & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	0	0	18
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	7	0	45	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1459	0	1459	0	0	0	0
Q Serve Time (g_s), s	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.1	0.0	0.5	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	137	0	329	0	0	0	0
V/C Ratio (X)	0.00	0.05	0.00	0.14	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	1332	0	1296	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.4	0.0	6.3	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.5	0.0	6.5	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.02	0.00	0.01	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0










Intersection Summary

HCM 6th Ctrl Delay	6.3
HCM 6th LOS	A

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

PM Peak Hour
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Intersection	
Intersection Delay, s/veh	11
Intersection LOS	B






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	123	11	62	101	40	12	58	102	37	37	35
Future Vol, veh/h	34	123	11	62	101	40	12	58	102	37	37	35
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	40	146	13	74	120	48	14	69	121	44	44	42
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.3	11.6	9.9	9.8
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	20%	38%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	73%	62%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	7%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	58	102	168	163	40	37	37	35
LT Vol	12	0	0	34	62	0	37	0	0
Through Vol	0	58	0	123	101	0	0	37	0
RT Vol	0	0	102	11	0	40	0	0	35
Lane Flow Rate	14	69	121	200	194	48	44	44	42
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.027	0.123	0.192	0.347	0.34	0.072	0.087	0.08	0.068
Departure Headway (Hd)	6.918	6.409	5.697	6.238	6.31	5.417	7.075	6.566	5.853
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	517	558	628	576	569	660	505	544	610
Service Time	4.671	4.162	3.449	3.983	4.054	3.161	4.832	4.322	3.609
HCM Lane V/C Ratio	0.027	0.124	0.193	0.347	0.341	0.073	0.087	0.081	0.069
HCM Control Delay	9.9	10.1	9.8	12.3	12.3	8.6	10.5	9.9	9
HCM Lane LOS	A	B	A	B	B	A	B	A	A
HCM 95th-tile Q	0.1	0.4	0.7	1.5	1.5	0.2	0.3	0.3	0.2

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

PM Peak Hour
Yreka Travel Center TIAM

Intersection													
Int Delay, s/veh	0.2												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	6	254	0	0	230	0	0	0	0	2	0	3
Future Vol, veh/h	1	6	254	0	0	230	0	0	0	0	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	282	0	0	256	0	0	0	0	2	0	3
Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	256	256	0	0	282	0	0	424	554	282	552	554	128
Stage 1	-	-	-	-	-	-	-	296	298	-	256	256	-
Stage 2	-	-	-	-	-	-	-	128	256	-	296	298	-
Critical Hdwy	6.93	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	3.119	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	786	1307	-	-	1279	-	-	527	440	756	430	440	899
Stage 1	-	-	-	-	-	-	-	712	666	-	727	695	-
Stage 2	-	-	-	-	-	-	-	863	695	-	712	666	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	1193	1193	-	-	1279	-	-	522	437	756	428	437	899
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	522	437	-	428	437	-
Stage 1	-	-	-	-	-	-	-	707	661	-	722	695	-
Stage 2	-	-	-	-	-	-	-	860	695	-	707	661	-
Approach	EB			WB			NB			SB			
HCM Control Delay, s	0.2			0			0			10.8			
HCM LOS							A			B			
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1					
Capacity (veh/h)	-	1193	-	-	1279	-	-	624					
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.009					
HCM Control Delay (s)	0	8	-	-	0	-	-	10.8					
HCM Lane LOS	A	A	-	-	A	-	-	B					
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0					






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖	↗
Traffic Vol, veh/h	0	147	109	31	194	0	0	0	0	24	1	36
Future Vol, veh/h	0	147	109	31	194	0	0	0	0	24	1	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	169	125	36	223	0	0	0	0	28	1	41
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	169	0	0				464	464	223
Stage 1	-	-	-	-	-	-				295	295	-
Stage 2	-	-	-	-	-	-				169	169	-
Critical Hdwy	-	-	-	4.16	-	-				6.46	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-				5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.46	5.56	-
Follow-up Hdwy	-	-	-	2.254	-	-				3.554	4.054	3.354
Pot Cap-1 Maneuver	0	-	0	1385	-	0				549	489	807
Stage 1	0	-	0	-	-	0				746	662	-
Stage 2	0	-	0	-	-	0				851	751	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1385	-	-				535	0	807
Mov Cap-2 Maneuver	-	-	-	-	-	-				535	0	-
Stage 1	-	-	-	-	-	-				746	0	-
Stage 2	-	-	-	-	-	-				829	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			1.1			10.7					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1385	-	535	807						
HCM Lane V/C Ratio	-		0.026	-	0.054	0.051						
HCM Control Delay (s)	-		7.7	-	12.1	9.7						
HCM Lane LOS	-		A	-	B	A						
HCM 95th %tile Q(veh)	-		0.1	-	0.2	0.2						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	3.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	162	0	0	141	27	84	0	58	0	0	0
Future Vol, veh/h	9	162	0	0	141	27	84	0	58	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	10	184	0	0	160	31	95	0	66	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	160	0	-	-	-	0	364	364	184
Stage 1	-	-	-	-	-	-	204	204	-
Stage 2	-	-	-	-	-	-	160	160	-
Critical Hdwy	4.25	-	-	-	-	-	6.55	6.65	6.35
Critical Hdwy Stg 1	-	-	-	-	-	-	5.55	5.65	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.55	5.65	-
Follow-up Hdwy	2.335	-	-	-	-	-	3.635	4.135	3.435
Pot Cap-1 Maneuver	1344	-	0	0	-	-	610	544	826
Stage 1	-	-	0	0	-	-	800	709	-
Stage 2	-	-	0	0	-	-	838	741	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1344	-	-	-	-	-	606	0	826
Mov Cap-2 Maneuver	-	-	-	-	-	-	606	0	-
Stage 1	-	-	-	-	-	-	794	0	-
Stage 2	-	-	-	-	-	-	838	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	11.1
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	606	826	1344	-	-	-
HCM Lane V/C Ratio	0.158	0.08	0.008	-	-	-
HCM Control Delay (s)	12	9.7	7.7	-	-	-
HCM Lane LOS	B	A	A	-	-	-
HCM 95th %tile Q(veh)	0.6	0.3	0	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Dr. & Montague Rd.













PM Peak Hour
Yreka Travel Center TIAM

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Traffic Volume (veh/h)	134	86	8	95	73	18
Future Volume (veh/h)	134	86	8	95	73	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1648	1648	1648
Adj Flow Rate, veh/h	151	97	9	107	82	20
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	17	17	17	17	17	17
Cap, veh/h	352	298	19	738	169	151
Arrive On Green	0.21	0.21	0.01	0.45	0.11	0.11
Sat Flow, veh/h	1648	1397	1570	1648	1570	1397
Grp Volume(v), veh/h	151	97	9	107	82	20
Grp Sat Flow(s),veh/h/ln	1648	1397	1570	1648	1570	1397
Q Serve(g_s), s	1.6	1.2	0.1	0.8	1.0	0.3
Cycle Q Clear(g_c), s	1.6	1.2	0.1	0.8	1.0	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	352	298	19	738	169	151
V/C Ratio(X)	0.43	0.33	0.47	0.14	0.48	0.13
Avail Cap(c_a), veh/h	1587	1345	388	2360	543	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.9	6.7	9.9	3.3	8.5	8.2
Incr Delay (d2), s/veh	0.8	0.6	16.9	0.1	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.2	0.1	0.0	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.7	7.4	26.8	3.4	10.6	8.6
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	248			116	102	
Approach Delay, s/veh	7.6			5.2	10.2	
Approach LOS	A			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	6.7		4.7	8.8	13.6	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	7.0		5.0	19.5	29.0	
Max Q Clear Time (g_c+I1), s	3.0		2.1	3.6	2.8	
Green Ext Time (p_c), s	0.1		0.0	1.0	0.5	
Intersection Summary						
HCM 6th Ctrl Delay			7.6			
HCM 6th LOS			A			

HCM 6th Signalized Intersection Capacity Analysis

5: YTC Dr. & Montague Rd.

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Movement	EBT	EBR	WBL	WBT	NBL	NBR			
Lane Configurations									
Traffic Volume (veh/h)	134	86	8	95	73	18			
Future Volume (veh/h)	134	86	8	95	73	18			
Number	4	14	3	8	5	12			
Initial Q, veh	0	0	0	0	0	0			
Ped-Bike Adj (A_pbT)		1.00	1.00		1.00	1.00			
Parking Bus Adj	1.00	1.00	1.00	1.00	1.00	1.00			
Work Zone On Approach	No			No	No				
Lanes Open During Work Zone									
Adj Sat Flow, veh/h/ln	1648	1648	1648	1648	1648	1648			
Adj Flow Rate, veh/h	151	97	9	107	82	20			
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89			
Percent Heavy Veh, %	17	17	17	17	17	17			
Opposing Right Turn Influence			Yes		Yes				
Cap, veh/h	352	298	19	738	169	151			
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00			
Prop Arrive On Green	0.21	0.21	0.01	0.45	0.11	0.11			
Unsig. Movement Delay									
Ln Grp Delay, s/veh	7.7	7.4	26.8	3.4	10.6	8.6			
Ln Grp LOS	A	A	C	A	B	A			
Approach Vol, veh/h	248			116	102				
Approach Delay, s/veh	7.6			5.2	10.2				
Approach LOS	A			A	B				
Timer:		1	2	3	4	5	6	7	8
Assigned Phs			2	3	4				8
Case No			9.0	2.0	7.0				4.0
Phs Duration (G+Y+Rc), s			6.7	4.7	8.8				13.6
Change Period (Y+Rc), s			4.5	4.5	4.5				4.5
Max Green (Gmax), s			7.0	5.0	19.5				29.0
Max Allow Headway (MAH), s			3.9	3.9	4.8				5.3
Max Q Clear (g_c+I1), s			3.0	2.1	3.6				2.8
Green Ext Time (g_e), s			0.1	0.0	1.0				0.5
Prob of Phs Call (p_c)			0.44	0.05	0.86				0.87
Prob of Max Out (p_x)			0.91	1.00	0.00				0.00
Left-Turn Movement Data									
Assigned Mvmt			5	3	7				
Mvmt Sat Flow, veh/h			1570	1570	0				
Through Movement Data									
Assigned Mvmt			2		4				8
Mvmt Sat Flow, veh/h			0		1648				1648
Right-Turn Movement Data									
Assigned Mvmt			12		14				18
Mvmt Sat Flow, veh/h			1397		1397				0
Left Lane Group Data									
Assigned Mvmt		0	5	3	7	0	0	0	0
Lane Assignment			L	L (Prot)					

HCM 6th Signalized Intersection Capacity Analysis

5: YTC Dr. & Montague Rd.

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Lanes in Grp	0	1	1	0	0	0	0	0
Grp Vol (v), veh/h	0	82	9	0	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1570	1570	0	0	0	0	0
Q Serve Time (g_s), s	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	1.0	0.1	0.0	0.0	0.0	0.0	0.0
Perm LT Sat Flow (s_l), veh/h/ln	0	1570	0	0	0	0	0	0
Shared LT Sat Flow (s_sh), veh/h/ln	0	0	0	0	0	0	0	0
Perm LT Eff Green (g_p), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Serve Time (g_u), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perm LT Q Serve Time (g_ps), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time to First Blk (g_f), s	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0
Serve Time pre Blk (g_fs), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop LT Inside Lane (P_L)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	169	19	0	0	0	0	0
V/C Ratio (X)	0.00	0.48	0.47	0.00	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	543	388	0	0	0	0	0
Upstream Filter (I)	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.5	9.9	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	2.1	16.9	0.0	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	10.6	26.8	0.0	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00
%ile Back of Q (50%), veh/ln	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle Lane Group Data								
Assigned Mvmt	0	2	0	4	0	0	0	8
Lane Assignment				T				T
Lanes in Grp	0	0	0	1	0	0	0	1
Grp Vol (v), veh/h	0	0	0	151	0	0	0	107
Grp Sat Flow (s), veh/h/ln	0	0	0	1648	0	0	0	1648
Q Serve Time (g_s), s	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.8
Cycle Q Clear Time (g_c), s	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.8
Lane Grp Cap (c), veh/h	0	0	0	352	0	0	0	738
V/C Ratio (X)	0.00	0.00	0.00	0.43	0.00	0.00	0.00	0.14
Avail Cap (c_a), veh/h	0	0	0	1587	0	0	0	2360
Upstream Filter (I)	0.00	0.00	0.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d1), s/veh	0.0	0.0	0.0	6.9	0.0	0.0	0.0	3.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.1
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	0.0	0.0	7.7	0.0	0.0	0.0	3.4
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0

HCM 6th Signalized Intersection Capacity Analysis 5: YTC Dr. & Montague Rd.

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3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Right Lane Group Data

Assigned Mvmt	0	12	0	14	0	0	0	18
Lane Assignment	R		R					
Lanes in Grp	0	1	0	1	0	0	0	0
Grp Vol (v), veh/h	0	20	0	97	0	0	0	0
Grp Sat Flow (s), veh/h/ln	0	1397	0	1397	0	0	0	0
Q Serve Time (g_s), s	0.0	0.3	0.0	1.2	0.0	0.0	0.0	0.0
Cycle Q Clear Time (g_c), s	0.0	0.3	0.0	1.2	0.0	0.0	0.0	0.0
Prot RT Sat Flow (s_R), veh/h/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prot RT Eff Green (g_R), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop RT Outside Lane (P_R)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Lane Grp Cap (c), veh/h	0	151	0	298	0	0	0	0
V/C Ratio (X)	0.00	0.13	0.00	0.33	0.00	0.00	0.00	0.00
Avail Cap (c_a), veh/h	0	483	0	1345	0	0	0	0
Upstream Filter (I)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	0.00
Uniform Delay (d1), s/veh	0.0	8.2	0.0	6.7	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.0	0.6	0.0	0.0	0.0	0.0
Initial Q Delay (d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (d), s/veh	0.0	8.6	0.0	7.4	0.0	0.0	0.0	0.0
1st-Term Q (Q1), veh/ln	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
2nd-Term Q (Q2), veh/ln	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
3rd-Term Q (Q3), veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile Back of Q Factor (f_B%)	0.00	1.00	0.00	1.00	0.00	0.00	0.00	1.00
%ile Back of Q (50%), veh/ln	0.0	0.1	0.0	0.2	0.0	0.0	0.0	0.0
%ile Storage Ratio (RQ%)	0.00	0.07	0.00	0.01	0.00	0.00	0.00	0.00
Initial Q (Qb), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final (Residual) Q (Qe), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Delay (ds), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Q (Qs), veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sat Cap (cs), veh/h	0	0	0	0	0	0	0	0
Initial Q Clear Time (tc), h	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0










Intersection Summary

HCM 6th Ctrl Delay	7.6
HCM 6th LOS	A

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

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Intersection	
Intersection Delay, s/veh	22
Intersection LOS	C






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	129	10	73	220	35	6	23	54	43	28	40
Future Vol, veh/h	19	129	10	73	220	35	6	23	54	43	28	40
Peak Hour Factor	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65	0.65
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	29	198	15	112	338	54	9	35	83	66	43	62
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	16.1	31	11.3	11.5
HCM LOS	C	D	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	12%	25%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	82%	75%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	6%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	23	54	158	293	35	43	28	40
LT Vol	6	0	0	19	73	0	43	0	0
Through Vol	0	23	0	129	220	0	0	28	0
RT Vol	0	0	54	10	0	35	0	0	40
Lane Flow Rate	9	35	83	243	451	54	66	43	62
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.021	0.077	0.164	0.477	0.828	0.086	0.151	0.092	0.119
Departure Headway (Hd)	8.361	7.844	7.12	7.061	6.613	5.783	8.206	7.69	6.968
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	428	457	503	510	550	624	437	466	514
Service Time	6.109	5.592	4.868	4.798	4.313	3.483	5.953	5.436	4.713
HCM Lane V/C Ratio	0.021	0.077	0.165	0.476	0.82	0.087	0.151	0.092	0.121
HCM Control Delay	11.3	11.2	11.3	16.1	33.6	9	12.4	11.2	10.7
HCM Lane LOS	B	B	B	C	D	A	B	B	B
HCM 95th-tile Q	0.1	0.2	0.6	2.5	8.4	0.3	0.5	0.3	0.4

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

AM Peak Hour
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Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	222	0	0	355	3	0	0	0	2	0	6
Future Vol, veh/h	5	222	0	0	355	3	0	0	0	2	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	65	65	65	65	65	65	65	65	65	65	65	65
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	8	342	0	0	546	5	0	0	0	3	0	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	551	0	0	342	0	0	631	909	342	907	907	276
Stage 1	-	-	-	-	-	-	358	358	-	549	549	-
Stage 2	-	-	-	-	-	-	273	551	-	358	358	-
Critical Hdwy	4.175	-	-	4.175	-	-	7.375	6.575	6.275	7.375	6.575	6.975
Critical Hdwy Stg 1	-	-	-	-	-	-	6.175	5.575	-	6.575	5.575	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.575	5.575	-	6.175	5.575	-
Follow-up Hdwy	2.2475	-	-	2.2475	-	-	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475
Pot Cap-1 Maneuver	999	-	-	1196	-	-	374	270	692	239	271	714
Stage 1	-	-	-	-	-	-	652	621	-	482	509	-
Stage 2	-	-	-	-	-	-	703	508	-	652	621	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	999	-	-	1196	-	-	367	268	692	238	269	714
Mov Cap-2 Maneuver	-	-	-	-	-	-	367	268	-	238	269	-
Stage 1	-	-	-	-	-	-	647	616	-	478	509	-
Stage 2	-	-	-	-	-	-	694	508	-	647	616	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	0	12.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	999	-	-	1196	-	-	476
HCM Lane V/C Ratio	-	0.008	-	-	-	-	-	0.026
HCM Control Delay (s)	0	8.6	-	-	0	-	-	12.8
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	12.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	113	111	141	332	0	0	0	0	90	4	26
Future Vol, veh/h	0	113	111	141	332	0	0	0	0	90	4	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	177	173	220	519	0	0	0	0	141	6	41
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	177	0	0				1136	1136	519
Stage 1	-	-	-	-	-	-				959	959	-
Stage 2	-	-	-	-	-	-				177	177	-
Critical Hdwy	-	-	-	4.17	-	-				6.47	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-				5.47	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.47	5.57	-
Follow-up Hdwy	-	-	-	2.263	-	-				3.563	4.063	3.363
Pot Cap-1 Maneuver	0	-	0	1369	-	0				218	198	547
Stage 1	0	-	0	-	-	0				364	329	-
Stage 2	0	-	0	-	-	0				842	743	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1369	-	-				183	0	547
Mov Cap-2 Maneuver	-	-	-	-	-	-				183	0	-
Stage 1	-	-	-	-	-	-				364	0	-
Stage 2	-	-	-	-	-	-				706	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			2.4			61.8					
HCM LOS							F					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1369	-	183	547						
HCM Lane V/C Ratio	-		0.161	-	0.803	0.074						
HCM Control Delay (s)	-		8.1	-	75.5	12.1						
HCM Lane LOS	-		A	-	F	B						
HCM 95th %tile Q(veh)	-		0.6	-	5.5	0.2						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	7.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	178	0	0	325	106	148	0	118	0	0	0
Future Vol, veh/h	25	178	0	0	325	106	148	0	118	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	69	69	69	69	69	69	69	69	69	69	69	69
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	36	258	0	0	471	154	214	0	171	0	0	0













Major/Minor	Major1		Major2		Minor1					
Conflicting Flow All	471	0	-	-	-	0	801	801	258	
Stage 1	-	-	-	-	-	-	330	330	-	
Stage 2	-	-	-	-	-	-	471	471	-	
Critical Hdwy	4.2	-	-	-	-	-	6.5	6.6	6.3	
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.6	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	5.5	5.6	-	
Follow-up Hdwy	2.29	-	-	-	-	-	3.59	4.09	3.39	
Pot Cap-1 Maneuver	1050	-	0	0	-	-	343	309	762	
Stage 1	-	-	0	0	-	-	711	632	-	
Stage 2	-	-	0	0	-	-	612	546	-	
Platoon blocked, %		-			-	-				
Mov Cap-1 Maneuver	1050	-	-	-	-	-	331	0	762	
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	0	-	
Stage 1	-	-	-	-	-	-	687	0	-	
Stage 2	-	-	-	-	-	-	612	0	-	

Approach	EB	WB	NB
HCM Control Delay, s	1.1	0	23.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	331	762	1050	-	-	-
HCM Lane V/C Ratio	0.648	0.224	0.035	-	-	-
HCM Control Delay (s)	33.9	11.1	8.6	-	-	-
HCM Lane LOS	D	B	A	-	-	-
HCM 95th %tile Q(veh)	4.3	0.9	0.1	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Drive & Montague Rd.










AM Peak Hour
Yreka Travel Center TIAM

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	90	206	16	199	232	13
Future Volume (veh/h)	90	206	16	199	232	13
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	122	278	22	269	314	18
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74
Percent Heavy Veh, %	12	12	12	12	12	12
Cap, veh/h	476	404	46	779	414	369
Arrive On Green	0.28	0.28	0.03	0.45	0.25	0.25
Sat Flow, veh/h	1722	1459	1640	1722	1640	1459
Grp Volume(v), veh/h	122	278	22	269	314	18
Grp Sat Flow(s),veh/h/ln	1722	1459	1640	1722	1640	1459
Q Serve(g_s), s	1.7	5.2	0.4	3.1	5.4	0.3
Cycle Q Clear(g_c), s	1.7	5.2	0.4	3.1	5.4	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	476	404	46	779	414	369
V/C Ratio(X)	0.26	0.69	0.48	0.35	0.76	0.05
Avail Cap(c_a), veh/h	1017	862	269	1554	996	886
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	9.9	14.6	5.4	10.5	8.6
Incr Delay (d2), s/veh	0.3	2.1	7.6	0.3	2.9	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.3	0.2	0.6	1.7	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.9	12.0	22.2	5.7	13.4	8.7
LnGrp LOS	A	B	C	A	B	A
Approach Vol, veh/h	400			291	332	
Approach Delay, s/veh	11.0			6.9	13.1	
Approach LOS	B			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	12.2		5.3	12.9	18.3	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	18.5		5.0	18.0	27.5	
Max Q Clear Time (g_c+I1), s	7.4		2.4	7.2	5.1	
Green Ext Time (p_c), s	0.8		0.0	1.3	1.6	
Intersection Summary						
HCM 6th Ctrl Delay			10.5			
HCM 6th LOS			B			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	34	125	11	66	103	41	12	58	106	38	37	35
Future Vol, veh/h	34	125	11	66	103	41	12	58	106	38	37	35
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	40	149	13	79	123	49	14	69	126	45	44	42
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	12.4	11.8	10	9.9
HCM LOS	B	B	A	A

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	20%	39%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	74%	61%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	6%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	12	58	106	170	169	41	38	37	35
LT Vol	12	0	0	34	66	0	38	0	0
Through Vol	0	58	0	125	103	0	0	37	0
RT Vol	0	0	106	11	0	41	0	0	35
Lane Flow Rate	14	69	126	202	201	49	45	44	42
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.028	0.124	0.201	0.353	0.355	0.074	0.09	0.081	0.068
Departure Headway (Hd)	6.97	6.461	5.748	6.285	6.349	5.451	7.136	6.626	5.912
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	513	554	622	571	565	656	501	539	604
Service Time	4.721	4.212	3.499	4.033	4.095	3.196	4.893	4.383	3.669
HCM Lane V/C Ratio	0.027	0.125	0.203	0.354	0.356	0.075	0.09	0.082	0.07
HCM Control Delay	9.9	10.1	10	12.4	12.6	8.6	10.6	10	9.1
HCM Lane LOS	A	B	A	B	B	A	B	A	A
HCM 95th-tile Q	0.1	0.4	0.7	1.6	1.6	0.2	0.3	0.3	0.2

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

PM Peak Hour
Yreka Travel Center TIAM

Intersection													
Int Delay, s/veh	0.2												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	6	261	0	0	237	0	0	0	0	2	0	3
Future Vol, veh/h	1	6	261	0	0	237	0	0	0	0	2	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	290	0	0	263	0	0	0	0	2	0	3

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	263	263	0	0	290	0	0	436	569	290	567	569	132
Stage 1	-	-	-	-	-	-	-	304	306	-	263	263	-
Stage 2	-	-	-	-	-	-	-	132	263	-	304	306	-
Critical Hdwy	6.93	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	3.119	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	778	1300	-	-	1270	-	-	517	431	748	420	431	894
Stage 1	-	-	-	-	-	-	-	705	661	-	720	690	-
Stage 2	-	-	-	-	-	-	-	858	690	-	705	661	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	1185	1185	-	-	1270	-	-	512	428	748	418	428	894
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	512	428	-	418	428	-
Stage 1	-	-	-	-	-	-	-	700	656	-	715	690	-
Stage 2	-	-	-	-	-	-	-	855	690	-	700	656	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	0	10.9
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1185	-	-	1270	-	-	614
HCM Lane V/C Ratio	-	0.007	-	-	-	-	-	0.009
HCM Control Delay (s)	0	8.1	-	-	0	-	-	10.9
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	7.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↑						↗	↖
Traffic Vol, veh/h	0	154	109	140	201	0	0	0	0	145	1	36
Future Vol, veh/h	0	154	109	140	201	0	0	0	0	145	1	36
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	177	125	161	231	0	0	0	0	167	1	41
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	177	0	0				730	730	231
Stage 1	-	-	-	-	-	-				553	553	-
Stage 2	-	-	-	-	-	-				177	177	-
Critical Hdwy	-	-	-	4.16	-	-				6.46	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-				5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.46	5.56	-
Follow-up Hdwy	-	-	-	2.254	-	-				3.554	4.054	3.354
Pot Cap-1 Maneuver	0	-	0	1375	-	0				384	344	798
Stage 1	0	-	0	-	-	0				568	508	-
Stage 2	0	-	0	-	-	0				844	745	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1375	-	-				339	0	798
Mov Cap-2 Maneuver	-	-	-	-	-	-				339	0	-
Stage 1	-	-	-	-	-	-				568	0	-
Stage 2	-	-	-	-	-	-				745	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			3.3			22.5					
HCM LOS							C					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1375	-	339	798						
HCM Lane V/C Ratio	-		0.117	-	0.495	0.052						
HCM Control Delay (s)	-		8	-	25.6	9.8						
HCM Lane LOS	-		A	-	D	A						
HCM 95th %tile Q(veh)	-		0.4	-	2.6	0.2						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	3.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	290	0	0	257	134	84	0	163	0	0	0
Future Vol, veh/h	9	290	0	0	257	134	84	0	163	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	10	330	0	0	292	152	95	0	185	0	0	0













Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	292	0	-	-	-	0	642	642	330
Stage 1	-	-	-	-	-	-	350	350	-
Stage 2	-	-	-	-	-	-	292	292	-
Critical Hdwy	4.25	-	-	-	-	-	6.55	6.65	6.35
Critical Hdwy Stg 1	-	-	-	-	-	-	5.55	5.65	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.55	5.65	-
Follow-up Hdwy	2.335	-	-	-	-	-	3.635	4.135	3.435
Pot Cap-1 Maneuver	1199	-	0	0	-	-	418	376	683
Stage 1	-	-	0	0	-	-	685	610	-
Stage 2	-	-	0	0	-	-	729	648	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1199	-	-	-	-	-	415	0	683
Mov Cap-2 Maneuver	-	-	-	-	-	-	415	0	-
Stage 1	-	-	-	-	-	-	680	0	-
Stage 2	-	-	-	-	-	-	729	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0	13.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	415	683	1199	-	-	-
HCM Lane V/C Ratio	0.23	0.271	0.009	-	-	-
HCM Control Delay (s)	16.2	12.2	8	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	0.9	1.1	0	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Dr. & Montague Rd.










PM Peak Hour
Yreka Travel Center TIAM

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	134	319	22	95	296	31
Future Volume (veh/h)	134	319	22	95	296	31
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1648	1648	1648
Adj Flow Rate, veh/h	151	358	25	107	333	35
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	17	17	17	17	17	17
Cap, veh/h	558	473	49	837	338	301
Arrive On Green	0.34	0.34	0.03	0.51	0.22	0.22
Sat Flow, veh/h	1648	1397	1570	1648	1570	1397
Grp Volume(v), veh/h	151	358	25	107	333	35
Grp Sat Flow(s),veh/h/ln	1648	1397	1570	1648	1570	1397
Q Serve(g_s), s	2.2	7.4	0.5	1.1	6.9	0.7
Cycle Q Clear(g_c), s	2.2	7.4	0.5	1.1	6.9	0.7
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	558	473	49	837	338	301
V/C Ratio(X)	0.27	0.76	0.51	0.13	0.99	0.12
Avail Cap(c_a), veh/h	988	837	241	1469	338	301
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	9.6	15.5	4.2	12.7	10.3
Incr Delay (d2), s/veh	0.3	2.5	8.1	0.1	45.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.8	0.3	0.2	6.0	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	12.1	23.6	4.3	57.7	10.4
LnGrp LOS	A	B	C	A	E	B
Approach Vol, veh/h	509			132	368	
Approach Delay, s/veh	10.9			7.9	53.2	
Approach LOS	B			A	D	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	11.5		5.5	15.5	21.0	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	7.0		5.0	19.5	29.0	
Max Q Clear Time (g_c+I1), s	8.9		2.5	9.4	3.1	
Green Ext Time (p_c), s	0.0		0.0	1.6	0.5	
Intersection Summary						
HCM 6th Ctrl Delay			25.9			
HCM 6th LOS			C			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	39.4
Intersection LOS	E






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	155	15	85	265	45	10	30	65	55	35	50
Future Vol, veh/h	25	155	15	85	265	45	10	30	65	55	35	50
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	37	228	22	125	390	66	15	44	96	81	51	74
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	21.9	64.6	12.6	12.8
HCM LOS	C	F	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	13%	24%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	79%	76%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	8%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	30	65	195	350	45	55	35	50
LT Vol	10	0	0	25	85	0	55	0	0
Through Vol	0	30	0	155	265	0	0	35	0
RT Vol	0	0	65	15	0	45	0	0	50
Lane Flow Rate	15	44	96	287	515	66	81	51	74
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.036	0.103	0.205	0.612	1.019	0.116	0.196	0.118	0.154
Departure Headway (Hd)	9.209	8.687	7.957	7.685	7.124	6.294	9.008	8.487	7.758
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	391	415	454	470	510	570	401	425	465
Service Time	6.909	6.387	5.657	5.423	4.852	4.022	6.708	6.187	5.458
HCM Lane V/C Ratio	0.038	0.106	0.211	0.611	1.01	0.116	0.202	0.12	0.159
HCM Control Delay	12.3	12.4	12.7	21.9	71.6	9.8	13.9	12.3	11.9
HCM Lane LOS	B	B	B	C	F	A	B	B	B
HCM 95th-tile Q	0.1	0.3	0.8	4	14.5	0.4	0.7	0.4	0.5

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	10	265	0	0	425	5	0	0	0	5	0	10
Future Vol, veh/h	10	265	0	0	425	5	0	0	0	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	15	390	0	0	625	7	0	0	0	7	0	15






Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	632	0	0	390	0	0	733	1052	390	1049	1049	316
Stage 1	-	-	-	-	-	-	420	420	-	629	629	-
Stage 2	-	-	-	-	-	-	313	632	-	420	420	-
Critical Hdwy	4.175	-	-	4.175	-	-	7.375	6.575	6.275	7.375	6.575	6.975
Critical Hdwy Stg 1	-	-	-	-	-	-	6.175	5.575	-	6.575	5.575	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.575	5.575	-	6.175	5.575	-
Follow-up Hdwy	2.2475	-	-	2.2475	-	-	3.5475	4.0475	3.3475	3.5475	4.0475	3.3475
Pot Cap-1 Maneuver	931	-	-	1148	-	-	317	222	650	190	223	673
Stage 1	-	-	-	-	-	-	603	582	-	432	468	-
Stage 2	-	-	-	-	-	-	666	467	-	603	582	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	931	-	-	1148	-	-	306	218	650	188	219	673
Mov Cap-2 Maneuver	-	-	-	-	-	-	306	218	-	188	219	-
Stage 1	-	-	-	-	-	-	593	573	-	425	468	-
Stage 2	-	-	-	-	-	-	651	467	-	593	573	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	0	15.6
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	931	-	-	1148	-	-	362
HCM Lane V/C Ratio	-	0.016	-	-	-	-	-	0.061
HCM Control Delay (s)	0	8.9	-	-	0	-	-	15.6
HCM Lane LOS	A	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	135	135	75	395	0	0	0	0	15	5	35
Future Vol, veh/h	0	135	135	75	395	0	0	0	0	15	5	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	199	199	110	581	0	0	0	0	22	7	51
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	199	0	0				1000	1000	581
Stage 1	-	-	-	-	-	-				801	801	-
Stage 2	-	-	-	-	-	-				199	199	-
Critical Hdwy	-	-	-	4.17	-	-				6.47	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-				5.47	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.47	5.57	-
Follow-up Hdwy	-	-	-	2.263	-	-				3.563	4.063	3.363
Pot Cap-1 Maneuver	0	-	0	1344	-	0				264	238	504
Stage 1	0	-	0	-	-	0				433	390	-
Stage 2	0	-	0	-	-	0				823	727	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1344	-	-				242	0	504
Mov Cap-2 Maneuver	-	-	-	-	-	-				242	0	-
Stage 1	-	-	-	-	-	-				433	0	-
Stage 2	-	-	-	-	-	-				756	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			1.3			16.2					
HCM LOS	C											
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1344	-	242	504						
HCM Lane V/C Ratio	-		0.082	-	0.122	0.102						
HCM Control Delay (s)	-		7.9	-	21.9	13						
HCM Lane LOS	-		A	-	C	B						
HCM 95th %tile Q(veh)	-		0.3	-	0.4	0.3						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	8.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	120	0	0	290	25	180	0	35	0	0	0
Future Vol, veh/h	30	120	0	0	290	25	180	0	35	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	42	167	0	0	403	35	250	0	49	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	403	0	-	-	-	0	654	654	167
Stage 1	-	-	-	-	-	-	251	251	-
Stage 2	-	-	-	-	-	-	403	403	-
Critical Hdwy	4.2	-	-	-	-	-	6.5	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.5	5.6	-
Follow-up Hdwy	2.29	-	-	-	-	-	3.59	4.09	3.39
Pot Cap-1 Maneuver	1114	-	0	0	-	-	419	376	857
Stage 1	-	-	0	0	-	-	772	685	-
Stage 2	-	-	0	0	-	-	658	586	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1114	-	-	-	-	-	403	0	857
Mov Cap-2 Maneuver	-	-	-	-	-	-	403	0	-
Stage 1	-	-	-	-	-	-	743	0	-
Stage 2	-	-	-	-	-	-	658	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.7	0	24.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	403	857	1114	-	-	-
HCM Lane V/C Ratio	0.62	0.057	0.037	-	-	-
HCM Control Delay (s)	27.5	9.5	8.4	-	-	-
HCM Lane LOS	D	A	A	-	-	-
HCM 95th %tile Q(veh)	4	0.2	0.1	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Drive & Montague Rd.










AM Peak Hour
Yreka Travel Center TIAM

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Traffic Volume (veh/h)	115	40	10	245	70	10
Future Volume (veh/h)	115	40	10	245	70	10
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	144	50	12	306	88	12
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	12	12	12	12	12	12
Cap, veh/h	392	332	26	793	173	154
Arrive On Green	0.23	0.23	0.02	0.46	0.11	0.11
Sat Flow, veh/h	1722	1459	1640	1722	1640	1459
Grp Volume(v), veh/h	144	50	12	306	88	12
Grp Sat Flow(s),veh/h/ln	1722	1459	1640	1722	1640	1459
Q Serve(g_s), s	1.5	0.6	0.2	2.4	1.1	0.2
Cycle Q Clear(g_c), s	1.5	0.6	0.2	2.4	1.1	0.2
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	392	332	26	793	173	154
V/C Ratio(X)	0.37	0.15	0.45	0.39	0.51	0.08
Avail Cap(c_a), veh/h	1494	1266	395	2283	1463	1302
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	6.8	6.4	10.1	3.7	8.8	8.4
Incr Delay (d2), s/veh	0.6	0.2	11.7	0.3	2.3	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.1	0.1	0.1	0.3	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	7.3	6.6	21.8	4.0	11.1	8.6
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	194			318	100	
Approach Delay, s/veh	7.1			4.7	10.8	
Approach LOS	A			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	6.7		4.8	9.2	14.1	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	18.5		5.0	18.0	27.5	
Max Q Clear Time (g_c+I1), s	3.1		2.2	3.5	4.4	
Green Ext Time (p_c), s	0.2		0.0	0.8	1.8	
Intersection Summary						
HCM 6th Ctrl Delay			6.4			
HCM 6th LOS			A			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	12.5
Intersection LOS	B






Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	150	15	75	125	50	15	70	125	45	45	45
Future Vol, veh/h	45	150	15	75	125	50	15	70	125	45	45	45
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	51	170	17	85	142	57	17	80	142	51	51	51
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.5	13.3	10.8	10.5
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	21%	38%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	71%	62%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	7%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	70	125	210	200	50	45	45	45
LT Vol	15	0	0	45	75	0	45	0	0
Through Vol	0	70	0	150	125	0	0	45	0
RT Vol	0	0	125	15	0	50	0	0	45
Lane Flow Rate	17	80	142	239	227	57	51	51	51
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.035	0.151	0.242	0.438	0.421	0.091	0.107	0.1	0.09
Departure Headway (Hd)	7.348	6.837	6.121	6.603	6.676	5.784	7.539	7.027	6.31
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	485	522	582	542	536	615	472	506	563
Service Time	5.131	4.62	3.903	4.379	4.454	3.561	5.331	4.819	4.101
HCM Lane V/C Ratio	0.035	0.153	0.244	0.441	0.424	0.093	0.108	0.101	0.091
HCM Control Delay	10.4	10.8	10.9	14.5	14.3	9.1	11.2	10.6	9.7
HCM Lane LOS	B	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.1	0.5	0.9	2.2	2.1	0.3	0.4	0.3	0.3

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

PM Peak Hour
Yreka Travel Center TIAM

Intersection													
Int Delay, s/veh	0.4												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	10	310	0	0	280	0	0	0	0	5	0	5
Future Vol, veh/h	1	10	310	0	0	280	0	0	0	0	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	0	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	11	337	0	0	304	0	0	0	0	5	0	5

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	304	304	0	0	337	0	0	511	665	337	663	665	152
Stage 1	-	-	-	-	-	-	-	359	361	-	304	304	-
Stage 2	-	-	-	-	-	-	-	152	304	-	359	361	-
Critical Hdwy	6.93	4.13	-	-	4.13	-	-	7.33	6.53	6.23	7.33	6.53	6.93
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.13	5.53	-	6.53	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.53	5.53	-	6.13	5.53	-
Follow-up Hdwy	3.119	2.219	-	-	2.219	-	-	3.519	4.019	3.319	3.519	4.019	3.319
Pot Cap-1 Maneuver	731	1255	-	-	1221	-	-	459	380	704	360	380	868
Stage 1	-	-	-	-	-	-	-	658	625	-	681	662	-
Stage 2	-	-	-	-	-	-	-	836	662	-	658	625	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	1177	1177	-	-	1221	-	-	453	376	704	357	376	868
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	453	376	-	357	376	-
Stage 1	-	-	-	-	-	-	-	651	619	-	674	662	-
Stage 2	-	-	-	-	-	-	-	831	662	-	651	619	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	0	0	12.3
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1177	-	-	1221	-	-	506
HCM Lane V/C Ratio	-	0.01	-	-	-	-	-	0.021
HCM Control Delay (s)	0	8.1	-	-	0	-	-	12.3
HCM Lane LOS	A	A	-	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖	↗
Traffic Vol, veh/h	0	180	135	40	235	0	0	0	0	30	5	45
Future Vol, veh/h	0	180	135	40	235	0	0	0	0	30	5	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	196	147	43	255	0	0	0	0	33	5	49
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	196	0	0				537	537	255
Stage 1	-	-	-	-	-	-				341	341	-
Stage 2	-	-	-	-	-	-				196	196	-
Critical Hdwy	-	-	-	4.16	-	-				6.46	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-				5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.46	5.56	-
Follow-up Hdwy	-	-	-	2.254	-	-				3.554	4.054	3.354
Pot Cap-1 Maneuver	0	-	0	1353	-	0				498	445	774
Stage 1	0	-	0	-	-	0				711	632	-
Stage 2	0	-	0	-	-	0				828	731	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1353	-	-				482	0	774
Mov Cap-2 Maneuver	-	-	-	-	-	-				482	0	-
Stage 1	-	-	-	-	-	-				711	0	-
Stage 2	-	-	-	-	-	-				802	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			1.1			11.4					
HCM LOS							B					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)			- 1353	-	482	774						
HCM Lane V/C Ratio			- 0.032	-	0.079	0.063						
HCM Control Delay (s)			- 7.7	-	13.1	10						
HCM Lane LOS			- A	-	B	B						
HCM 95th %tile Q(veh)			- 0.1	-	0.3	0.2						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	3.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	195	0	0	170	35	105	0	70	0	0	0
Future Vol, veh/h	15	195	0	0	170	35	105	0	70	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	-	-	25	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	16	212	0	0	185	38	114	0	76	0	0	0













Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	185	0	-	-	-	0	429	429	212
Stage 1	-	-	-	-	-	-	244	244	-
Stage 2	-	-	-	-	-	-	185	185	-
Critical Hdwy	4.25	-	-	-	-	-	6.55	6.65	6.35
Critical Hdwy Stg 1	-	-	-	-	-	-	5.55	5.65	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.55	5.65	-
Follow-up Hdwy	2.335	-	-	-	-	-	3.635	4.135	3.435
Pot Cap-1 Maneuver	1315	-	0	0	-	-	559	499	796
Stage 1	-	-	0	0	-	-	767	681	-
Stage 2	-	-	0	0	-	-	816	723	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1315	-	-	-	-	-	552	0	796
Mov Cap-2 Maneuver	-	-	-	-	-	-	552	0	-
Stage 1	-	-	-	-	-	-	758	0	-
Stage 2	-	-	-	-	-	-	816	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.6	0	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	552	796	1315	-	-	-
HCM Lane V/C Ratio	0.207	0.096	0.012	-	-	-
HCM Control Delay (s)	13.2	10	7.8	-	-	-
HCM Lane LOS	B	B	A	-	-	-
HCM 95th %tile Q(veh)	0.8	0.3	0	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Dr. & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	160	105	10	115	90	25
Future Volume (veh/h)	160	105	10	115	90	25
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1648	1648	1648
Adj Flow Rate, veh/h	174	114	11	125	98	27
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	17	17	17	17	17	17
Cap, veh/h	365	309	23	741	193	172
Arrive On Green	0.22	0.22	0.01	0.45	0.12	0.12
Sat Flow, veh/h	1648	1397	1570	1648	1570	1397
Grp Volume(v), veh/h	174	114	11	125	98	27
Grp Sat Flow(s),veh/h/ln	1648	1397	1570	1648	1570	1397
Q Serve(g_s), s	1.9	1.5	0.1	1.0	1.2	0.4
Cycle Q Clear(g_c), s	1.9	1.5	0.1	1.0	1.2	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	365	309	23	741	193	172
V/C Ratio(X)	0.48	0.37	0.47	0.17	0.51	0.16
Avail Cap(c_a), veh/h	1525	1293	372	2268	521	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.1	7.0	10.3	3.5	8.6	8.3
Incr Delay (d2), s/veh	1.0	0.7	14.2	0.1	2.1	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.3	0.1	0.1	0.3	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	7.7	24.5	3.6	10.7	8.7
LnGrp LOS	A	A	C	A	B	A
Approach Vol, veh/h	288			136	125	
Approach Delay, s/veh	7.9			5.3	10.3	
Approach LOS	A			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	7.1		4.8	9.2	14.0	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	7.0		5.0	19.5	29.0	
Max Q Clear Time (g_c+I1), s	3.2		2.1	3.9	3.0	
Green Ext Time (p_c), s	0.1		0.0	1.2	0.7	
Intersection Summary						
HCM 6th Ctrl Delay			7.8			
HCM 6th LOS			A			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	41.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	25	156	15	88	266	46	10	30	67	56	35	50
Future Vol, veh/h	25	156	15	88	266	46	10	30	67	56	35	50
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	37	229	22	129	391	68	15	44	99	82	51	74
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	22.1	68.8	12.6	12.9
HCM LOS	C	F	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	13%	25%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	80%	75%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	8%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	30	67	196	354	46	56	35	50
LT Vol	10	0	0	25	88	0	56	0	0
Through Vol	0	30	0	156	266	0	0	35	0
RT Vol	0	0	67	15	0	46	0	0	50
Lane Flow Rate	15	44	99	288	521	68	82	51	74
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.037	0.104	0.211	0.615	1.036	0.119	0.201	0.118	0.154
Departure Headway (Hd)	9.257	8.734	8.003	7.679	7.166	6.333	9.06	8.539	7.809
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	413	451	467	510	568	399	423	462
Service Time	6.957	6.434	5.703	5.473	4.883	4.05	6.76	6.239	5.509
HCM Lane V/C Ratio	0.039	0.107	0.22	0.617	1.022	0.12	0.206	0.121	0.16
HCM Control Delay	12.3	12.4	12.8	22.1	76.4	9.9	14	12.4	11.9
HCM Lane LOS	B	B	B	C	F	A	B	B	B
HCM 95th-tile Q	0.1	0.3	0.8	4.1	15.1	0.4	0.7	0.4	0.5

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕			↕	
Traffic Vol, veh/h	10	269	0	0	430	5	0	0	0	5	0	10
Future Vol, veh/h	10	269	0	0	430	5	0	0	0	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	15	396	0	0	632	7	0	0	0	7	0	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	639	0	0	396	0	0	742	1065	198	864	1062	320
Stage 1	-	-	-	-	-	-	426	426	-	636	636	-
Stage 2	-	-	-	-	-	-	316	639	-	228	426	-
Critical Hdwy	4.2	-	-	4.2	-	-	7.6	6.6	7	7.6	6.6	7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.6	-	6.6	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.6	-	6.6	5.6	-
Follow-up Hdwy	2.25	-	-	2.25	-	-	3.55	4.05	3.35	3.55	4.05	3.35
Pot Cap-1 Maneuver	921	-	-	1138	-	-	299	216	801	243	217	667
Stage 1	-	-	-	-	-	-	569	577	-	425	463	-
Stage 2	-	-	-	-	-	-	661	461	-	745	577	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	921	-	-	1138	-	-	288	211	801	239	212	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	288	211	-	239	212	-
Stage 1	-	-	-	-	-	-	557	565	-	416	463	-
Stage 2	-	-	-	-	-	-	646	461	-	729	565	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0			0			14.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	921	-	-	1138	-	-	418				
HCM Lane V/C Ratio	-	0.016	-	-	-	-	-	0.053				
HCM Control Delay (s)	0	9	0.1	-	0	-	-	14.1				
HCM Lane LOS	A	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2				

HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	15.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↗						↖	↗
Traffic Vol, veh/h	0	139	135	157	400	0	0	0	0	93	5	35
Future Vol, veh/h	0	139	135	157	400	0	0	0	0	93	5	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	204	199	231	588	0	0	0	0	137	7	51






Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	-	204	0	0	1254	1254	588
Stage 1	-	-	-	-	-	-	1050	1050	-
Stage 2	-	-	-	-	-	-	204	204	-
Critical Hdwy	-	-	-	4.17	-	-	6.47	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	5.47	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.47	5.57	-
Follow-up Hdwy	-	-	-	2.263	-	-	3.563	4.063	3.363
Pot Cap-1 Maneuver	0	-	0	1338	-	0	185	168	500
Stage 1	0	-	0	-	-	0	330	298	-
Stage 2	0	-	0	-	-	0	818	723	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1338	-	-	153	0	500
Mov Cap-2 Maneuver	-	-	-	-	-	-	153	0	-
Stage 1	-	-	-	-	-	-	330	0	-
Stage 2	-	-	-	-	-	-	676	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.3	89
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	1338	-	153	500
HCM Lane V/C Ratio	-	0.173	-	0.942	0.103
HCM Control Delay (s)	-	8.3	-	116.2	13
HCM Lane LOS	-	A	-	F	B
HCM 95th %tile Q(veh)	-	0.6	-	6.8	0.3

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	12.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	202	0	0	377	112	180	0	126	0	0	0
Future Vol, veh/h	30	202	0	0	377	112	180	0	126	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	42	281	0	0	524	156	250	0	175	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	524	0	-	-	-	0	889	889	281
Stage 1	-	-	-	-	-	-	365	365	-
Stage 2	-	-	-	-	-	-	524	524	-
Critical Hdwy	4.2	-	-	-	-	-	6.5	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.5	5.6	-
Follow-up Hdwy	2.29	-	-	-	-	-	3.59	4.09	3.39
Pot Cap-1 Maneuver	1003	-	0	0	-	-	304	274	739
Stage 1	-	-	0	0	-	-	685	609	-
Stage 2	-	-	0	0	-	-	578	517	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1003	-	-	-	-	-	291	0	739
Mov Cap-2 Maneuver	-	-	-	-	-	-	291	0	-
Stage 1	-	-	-	-	-	-	656	0	-
Stage 2	-	-	-	-	-	-	578	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.1	0	41
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	291	739	1003	-	-	-
HCM Lane V/C Ratio	0.859	0.237	0.042	-	-	-
HCM Control Delay (s)	61.7	11.4	8.7	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	7.5	0.9	0.1	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Drive & Montague Rd.










AM Peak Hour
Yreka Travel Center TIAM

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↘	↑	↘	↗
Traffic Volume (veh/h)	115	213	18	245	244	18
Future Volume (veh/h)	115	213	18	245	244	18
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	144	266	22	306	305	22
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	12	12	12	12	12	12
Cap, veh/h	471	399	46	778	406	361
Arrive On Green	0.27	0.27	0.03	0.45	0.25	0.25
Sat Flow, veh/h	1722	1459	1640	1722	1640	1459
Grp Volume(v), veh/h	144	266	22	306	305	22
Grp Sat Flow(s),veh/h/ln	1722	1459	1640	1722	1640	1459
Q Serve(g_s), s	2.0	4.8	0.4	3.5	5.1	0.3
Cycle Q Clear(g_c), s	2.0	4.8	0.4	3.5	5.1	0.3
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	471	399	46	778	406	361
V/C Ratio(X)	0.31	0.67	0.48	0.39	0.75	0.06
Avail Cap(c_a), veh/h	1036	878	274	1583	1014	902
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.6	9.7	14.3	5.5	10.4	8.6
Incr Delay (d2), s/veh	0.4	1.9	7.6	0.3	2.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.2	0.2	0.7	1.6	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.0	11.6	21.9	5.8	13.2	8.7
LnGrp LOS	A	B	C	A	B	A
Approach Vol, veh/h	410			328	327	
Approach Delay, s/veh	10.7			6.9	12.9	
Approach LOS	B			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	11.9		5.3	12.7	18.0	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	18.5		5.0	18.0	27.5	
Max Q Clear Time (g_c+I1), s	7.1		2.4	6.8	5.5	
Green Ext Time (p_c), s	0.8		0.0	1.4	1.8	
Intersection Summary						
HCM 6th Ctrl Delay			10.2			
HCM 6th LOS			B			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	152	15	79	127	51	15	70	129	46	45	45
Future Vol, veh/h	45	152	15	79	127	51	15	70	129	46	45	45
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	51	173	17	90	144	58	17	80	147	52	51	51
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.7	13.6	10.9	10.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	21%	38%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	72%	62%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	7%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	70	129	212	206	51	46	45	45
LT Vol	15	0	0	45	79	0	46	0	0
Through Vol	0	70	0	152	127	0	0	45	0
RT Vol	0	0	129	15	0	51	0	0	45
Lane Flow Rate	17	80	147	241	234	58	52	51	51
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.035	0.152	0.251	0.445	0.437	0.094	0.11	0.101	0.09
Departure Headway (Hd)	7.394	6.883	6.167	6.649	6.715	5.818	7.597	7.085	6.368
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	481	517	578	540	534	611	468	502	557
Service Time	5.186	4.674	3.957	4.43	4.494	3.596	5.396	4.883	4.165
HCM Lane V/C Ratio	0.035	0.155	0.254	0.446	0.438	0.095	0.111	0.102	0.092
HCM Control Delay	10.5	10.9	11	14.7	14.7	9.2	11.3	10.7	9.8
HCM Lane LOS	B	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.1	0.5	1	2.3	2.2	0.3	0.4	0.3	0.3

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

PM Peak Hour
Yreka Travel Center TIAM

Intersection													
Int Delay, s/veh	0.4												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations			↔			↔			↔			↔	
Traffic Vol, veh/h	1	10	317	0	0	287	0	0	0	0	5	0	5
Future Vol, veh/h	1	10	317	0	0	287	0	0	0	0	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	1	11	345	0	0	312	0	0	0	0	5	0	5

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	312	312	0	0	345	0	0	525	681	173	509	681	156
Stage 1	-	-	-	-	-	-	-	369	369	-	312	312	-
Stage 2	-	-	-	-	-	-	-	156	312	-	197	369	-
Critical Hdwy	6.44	4.12	-	-	4.12	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.52	2.21	-	-	2.21	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	910	1252	-	-	1218	-	-	438	373	844	449	373	865
Stage 1	-	-	-	-	-	-	-	626	622	-	676	659	-
Stage 2	-	-	-	-	-	-	-	833	659	-	789	622	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	1210	1210	-	-	1218	-	-	431	369	844	445	369	865
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	431	369	-	445	369	-
Stage 1	-	-	-	-	-	-	-	618	615	-	668	659	-
Stage 2	-	-	-	-	-	-	-	828	659	-	780	615	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	0	11.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1210	-	-	1218	-	-	588
HCM Lane V/C Ratio	-	0.009	-	-	-	-	-	0.018
HCM Control Delay (s)	0	8	0.1	-	0	-	-	11.2
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1

HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	8.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	187	135	149	242	0	0	0	0	151	5	45
Future Vol, veh/h	0	187	135	149	242	0	0	0	0	151	5	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	203	147	162	263	0	0	0	0	164	5	49






Major/Minor	Major1		Major2		Minor2		
Conflicting Flow All	-	0	-	203	0	0	790 790 263
Stage 1	-	-	-	-	-	-	587 587 -
Stage 2	-	-	-	-	-	-	203 203 -
Critical Hdwy	-	-	-	4.16	-	-	6.46 6.56 6.26
Critical Hdwy Stg 1	-	-	-	-	-	-	5.46 5.56 -
Critical Hdwy Stg 2	-	-	-	-	-	-	5.46 5.56 -
Follow-up Hdwy	-	-	-	2.254	-	-	3.554 4.054 3.354
Pot Cap-1 Maneuver	0	-	0	1345	-	0	353 318 766
Stage 1	0	-	0	-	-	0	548 490 -
Stage 2	0	-	0	-	-	0	822 726 -
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1345	-	-	311 0 766
Mov Cap-2 Maneuver	-	-	-	-	-	-	311 0 -
Stage 1	-	-	-	-	-	-	548 0 -
Stage 2	-	-	-	-	-	-	723 0 -

Approach	EB	WB	SB
HCM Control Delay, s	0	3.1	25.2
HCM LOS			D

Minor Lane/Major Mvmt	EBT	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	1345	-	311	766
HCM Lane V/C Ratio	-	0.12	-	0.545	0.064
HCM Control Delay (s)	-	8	-	29.6	10
HCM Lane LOS	-	A	-	D	B
HCM 95th %tile Q(veh)	-	0.4	-	3.1	0.2

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	323	0	0	286	142	105	0	175	0	0	0
Future Vol, veh/h	15	323	0	0	286	142	105	0	175	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	16	351	0	0	311	154	114	0	190	0	0	0













Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	311	0	-	-	-	0	694 694 351
Stage 1	-	-	-	-	-	-	383 383 -
Stage 2	-	-	-	-	-	-	311 311 -
Critical Hdwy	4.25	-	-	-	-	-	6.55 6.65 6.35
Critical Hdwy Stg 1	-	-	-	-	-	-	5.55 5.65 -
Critical Hdwy Stg 2	-	-	-	-	-	-	5.55 5.65 -
Follow-up Hdwy	2.335	-	-	-	-	-	3.635 4.135 3.435
Pot Cap-1 Maneuver	1179	-	0	0	-	-	390 351 664
Stage 1	-	-	0	0	-	-	662 590 -
Stage 2	-	-	0	0	-	-	714 635 -
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1179	-	-	-	-	-	385 0 664
Mov Cap-2 Maneuver	-	-	-	-	-	-	385 0 -
Stage 1	-	-	-	-	-	-	653 0 -
Stage 2	-	-	-	-	-	-	714 0 -

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	14.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	385	664	1179	-	-	-
HCM Lane V/C Ratio	0.296	0.286	0.014	-	-	-
HCM Control Delay (s)	18.2	12.6	8.1	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	1.2	1.2	0	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Dr. & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	160	338	24	115	313	38
Future Volume (veh/h)	160	338	24	115	313	38
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1648	1648	1648
Adj Flow Rate, veh/h	174	367	26	125	340	41
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	17	17	17	17	17	17
Cap, veh/h	571	484	50	848	333	296
Arrive On Green	0.35	0.35	0.03	0.51	0.21	0.21
Sat Flow, veh/h	1648	1397	1570	1648	1570	1397
Grp Volume(v), veh/h	174	367	26	125	340	41
Grp Sat Flow(s),veh/h/ln	1648	1397	1570	1648	1570	1397
Q Serve(g_s), s	2.5	7.7	0.5	1.3	7.0	0.8
Cycle Q Clear(g_c), s	2.5	7.7	0.5	1.3	7.0	0.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	571	484	50	848	333	296
V/C Ratio(X)	0.30	0.76	0.52	0.15	1.02	0.14
Avail Cap(c_a), veh/h	975	826	238	1449	333	296
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	9.6	15.7	4.2	13.0	10.5
Incr Delay (d2), s/veh	0.3	2.5	7.9	0.1	54.6	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.9	0.3	0.2	6.9	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.2	12.0	23.6	4.3	67.6	10.8
LnGrp LOS	A	B	C	A	F	B
Approach Vol, veh/h	541			151	381	
Approach Delay, s/veh	10.8			7.6	61.5	
Approach LOS	B			A	E	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	11.5		5.6	15.9	21.5	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	7.0		5.0	19.5	29.0	
Max Q Clear Time (g_c+I1), s	9.0		2.5	9.7	3.3	
Green Ext Time (p_c), s	0.0		0.0	1.8	0.6	
Intersection Summary						
HCM 6th Ctrl Delay			28.3			
HCM 6th LOS			C			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	41.7
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	25	156	15	88	266	46	10	30	68	56	35	50
Future Vol, veh/h	25	156	15	88	266	46	10	30	68	56	35	50
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	37	229	22	129	391	68	15	44	100	82	51	74
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	22.1	69.3	12.7	12.9
HCM LOS	C	F	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	13%	25%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	80%	75%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	8%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	30	68	196	354	46	56	35	50
LT Vol	10	0	0	25	88	0	56	0	0
Through Vol	0	30	0	156	266	0	0	35	0
RT Vol	0	0	68	15	0	46	0	0	50
Lane Flow Rate	15	44	100	288	521	68	82	51	74
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.037	0.104	0.215	0.615	1.038	0.119	0.201	0.118	0.154
Departure Headway (Hd)	9.26	8.738	8.007	7.686	7.175	6.342	9.071	8.55	7.82
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	389	412	451	467	510	568	398	422	462
Service Time	6.96	6.438	5.707	5.484	4.89	4.057	6.771	6.25	5.52
HCM Lane V/C Ratio	0.039	0.107	0.222	0.617	1.022	0.12	0.206	0.121	0.16
HCM Control Delay	12.3	12.4	12.9	22.1	77	9.9	14	12.4	11.9
HCM Lane LOS	B	B	B	C	F	A	B	B	B
HCM 95th-tile Q	0.1	0.3	0.8	4.1	15.2	0.4	0.7	0.4	0.5

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Vol, veh/h	10	270	0	0	430	5	0	0	0	5	0	10
Future Vol, veh/h	10	270	0	0	430	5	0	0	0	5	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	5	5	5	5	5	5	5	5	5	5	5	5
Mvmt Flow	15	397	0	0	632	7	0	0	0	7	0	15
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	639	0	0	397	0	0	743	1066	199	865	1063	320
Stage 1	-	-	-	-	-	-	427	427	-	636	636	-
Stage 2	-	-	-	-	-	-	316	639	-	229	427	-
Critical Hdwy	4.2	-	-	4.2	-	-	7.6	6.6	7	7.6	6.6	7
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.6	-	6.6	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.6	-	6.6	5.6	-
Follow-up Hdwy	2.25	-	-	2.25	-	-	3.55	4.05	3.35	3.55	4.05	3.35
Pot Cap-1 Maneuver	921	-	-	1137	-	-	298	216	799	243	217	667
Stage 1	-	-	-	-	-	-	568	576	-	425	463	-
Stage 2	-	-	-	-	-	-	661	461	-	744	576	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	921	-	-	1137	-	-	287	211	799	239	212	667
Mov Cap-2 Maneuver	-	-	-	-	-	-	287	211	-	239	212	-
Stage 1	-	-	-	-	-	-	556	564	-	416	463	-
Stage 2	-	-	-	-	-	-	646	461	-	728	564	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0			0			14.1		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	-	921	-	-	1137	-	-	418				
HCM Lane V/C Ratio	-	0.016	-	-	-	-	-	0.053				
HCM Control Delay (s)	0	9	0.1	-	0	-	-	14.1				
HCM Lane LOS	A	A	A	-	A	-	-	B				
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.2				

HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	20.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	140	135	163	400	0	0	0	0	100	5	35
Future Vol, veh/h	0	140	135	163	400	0	0	0	0	100	5	35
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	68	68	68	68	68	68	68	68	68	68	68	68
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	206	199	240	588	0	0	0	0	147	7	51






Major/Minor	Major1			Major2			Minor2		
Conflicting Flow All	-	0	-	206	0	0	1274	1274	588
Stage 1	-	-	-	-	-	-	1068	1068	-
Stage 2	-	-	-	-	-	-	206	206	-
Critical Hdwy	-	-	-	4.17	-	-	6.47	6.57	6.27
Critical Hdwy Stg 1	-	-	-	-	-	-	5.47	5.57	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.47	5.57	-
Follow-up Hdwy	-	-	-	2.263	-	-	3.563	4.063	3.363
Pot Cap-1 Maneuver	0	-	0	1336	-	0	180	163	500
Stage 1	0	-	0	-	-	0	323	292	-
Stage 2	0	-	0	-	-	0	817	722	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	1336	-	-	148	0	500
Mov Cap-2 Maneuver	-	-	-	-	-	-	148	0	-
Stage 1	-	-	-	-	-	-	323	0	-
Stage 2	-	-	-	-	-	-	670	0	-

Approach	EB	WB	SB
HCM Control Delay, s	0	2.4	113.1
HCM LOS			F

Minor Lane/Major Mvmt	EBT	WBL	WBT	SBLn1	SBLn2
Capacity (veh/h)	-	1336	-	148	500
HCM Lane V/C Ratio	-	0.179	-	1.043	0.103
HCM Control Delay (s)	-	8.3	-	146.4	13
HCM Lane LOS	-	A	-	F	B
HCM 95th %tile Q(veh)	-	0.7	-	8	0.3

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	13.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	210	0	0	383	117	180	0	132	0	0	0
Future Vol, veh/h	30	210	0	0	383	117	180	0	132	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	72	72	72	72	72	72	72	72	72	72	72	72
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	42	292	0	0	532	163	250	0	183	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	532	0	-	-	-	0	908	908	292
Stage 1	-	-	-	-	-	-	376	376	-
Stage 2	-	-	-	-	-	-	532	532	-
Critical Hdwy	4.2	-	-	-	-	-	6.5	6.6	6.3
Critical Hdwy Stg 1	-	-	-	-	-	-	5.5	5.6	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.5	5.6	-
Follow-up Hdwy	2.29	-	-	-	-	-	3.59	4.09	3.39
Pot Cap-1 Maneuver	996	-	0	0	-	-	296	267	729
Stage 1	-	-	0	0	-	-	677	603	-
Stage 2	-	-	0	0	-	-	573	513	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	996	-	-	-	-	-	284	0	729
Mov Cap-2 Maneuver	-	-	-	-	-	-	284	0	-
Stage 1	-	-	-	-	-	-	649	0	-
Stage 2	-	-	-	-	-	-	573	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.1	0	43.3
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	284	729	996	-	-	-
HCM Lane V/C Ratio	0.88	0.251	0.042	-	-	-
HCM Control Delay (s)	66.5	11.6	8.8	-	-	-
HCM Lane LOS	F	B	A	-	-	-
HCM 95th %tile Q(veh)	7.8	1	0.1	-	-	-

HCM 6th Signalized Intersection Summary 5: YTC Drive & Montague Rd.










AM Peak Hour
Yreka Travel Center TIAM

	→	↘	↙	←	↖	↗
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↗	↙	↑	↙	↗
Traffic Volume (veh/h)	115	227	20	245	255	19
Future Volume (veh/h)	115	227	20	245	255	19
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1722	1722	1722	1722	1722	1722
Adj Flow Rate, veh/h	144	284	25	306	319	24
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	12	12	12	12	12	12
Cap, veh/h	484	410	51	786	420	374
Arrive On Green	0.28	0.28	0.03	0.46	0.26	0.26
Sat Flow, veh/h	1722	1459	1640	1722	1640	1459
Grp Volume(v), veh/h	144	284	25	306	319	24
Grp Sat Flow(s),veh/h/ln	1722	1459	1640	1722	1640	1459
Q Serve(g_s), s	2.1	5.4	0.5	3.7	5.6	0.4
Cycle Q Clear(g_c), s	2.1	5.4	0.5	3.7	5.6	0.4
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	484	410	51	786	420	374
V/C Ratio(X)	0.30	0.69	0.49	0.39	0.76	0.06
Avail Cap(c_a), veh/h	991	840	262	1514	970	863
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.8	10.0	14.9	5.6	10.7	8.8
Incr Delay (d2), s/veh	0.3	2.1	7.0	0.3	2.8	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	1.4	0.2	0.8	1.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	9.2	12.1	21.9	5.9	13.6	8.9
LnGrp LOS	A	B	C	A	B	A
Approach Vol, veh/h	428			331	343	
Approach Delay, s/veh	11.1			7.1	13.3	
Approach LOS	B			A	B	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	12.5		5.5	13.3	18.8	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	18.5		5.0	18.0	27.5	
Max Q Clear Time (g_c+I1), s	7.6		2.5	7.4	5.7	
Green Ext Time (p_c), s	0.8		0.0	1.4	1.8	
Intersection Summary						
HCM 6th Ctrl Delay			10.6			
HCM 6th LOS			B			

HCM 6th AWSC
1: N. Main St. & Tebbe St./Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	12.7
Intersection LOS	B





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	45	152	15	79	127	51	15	70	130	46	45	45
Future Vol, veh/h	45	152	15	79	127	51	15	70	130	46	45	45
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	3	3	3	3	3	3	3	3	3	3	3	3
Mvmt Flow	51	173	17	90	144	58	17	80	148	52	51	51
Number of Lanes	0	1	0	0	1	1	1	1	1	1	1	1

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	2	1	3	3
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	3	3	1	2
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	3	3	2	1
HCM Control Delay	14.7	13.6	11	10.6
HCM LOS	B	B	B	B

Lane	NBLn1	NBLn2	NBLn3	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2	SBLn3
Vol Left, %	100%	0%	0%	21%	38%	0%	100%	0%	0%
Vol Thru, %	0%	100%	0%	72%	62%	0%	0%	100%	0%
Vol Right, %	0%	0%	100%	7%	0%	100%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	15	70	130	212	206	51	46	45	45
LT Vol	15	0	0	45	79	0	46	0	0
Through Vol	0	70	0	152	127	0	0	45	0
RT Vol	0	0	130	15	0	51	0	0	45
Lane Flow Rate	17	80	148	241	234	58	52	51	51
Geometry Grp	8	8	8	8	8	8	8	8	8
Degree of Util (X)	0.035	0.152	0.253	0.445	0.437	0.094	0.11	0.101	0.091
Departure Headway (Hd)	7.4	6.888	6.172	6.654	6.72	5.823	7.603	7.09	6.373
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cap	481	517	578	537	534	611	468	502	557
Service Time	5.187	4.675	3.959	4.435	4.499	3.601	5.399	4.886	4.168
HCM Lane V/C Ratio	0.035	0.155	0.256	0.449	0.438	0.095	0.111	0.102	0.092
HCM Control Delay	10.5	10.9	11.1	14.7	14.7	9.2	11.3	10.7	9.8
HCM Lane LOS	B	B	B	B	B	A	B	B	A
HCM 95th-tile Q	0.1	0.5	1	2.3	2.2	0.3	0.4	0.3	0.3

HCM 6th TWSC
2: Montague Rd. & Deer Creek Wy.

PM Peak Hour
Yreka Travel Center TIAM

Intersection													
Int Delay, s/veh	0.4												
Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations													
Traffic Vol, veh/h	1	10	318	0	0	287	0	0	0	0	5	0	5
Future Vol, veh/h	1	10	318	0	0	287	0	0	0	0	5	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	1	1	1	1	1	1	1	1	1	1	1	1
Mvmt Flow	1	11	346	0	0	312	0	0	0	0	5	0	5

Major/Minor	Major1			Major2			Minor1			Minor2			
Conflicting Flow All	312	312	0	0	346	0	0	526	682	173	509	682	156
Stage 1	-	-	-	-	-	-	-	370	370	-	312	312	-
Stage 2	-	-	-	-	-	-	-	156	312	-	197	370	-
Critical Hdwy	6.44	4.12	-	-	4.12	-	-	7.52	6.52	6.92	7.52	6.52	6.92
Critical Hdwy Stg 1	-	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.52	5.52	-	6.52	5.52	-
Follow-up Hdwy	2.52	2.21	-	-	2.21	-	-	3.51	4.01	3.31	3.51	4.01	3.31
Pot Cap-1 Maneuver	910	1252	-	-	1217	-	-	437	373	844	449	373	865
Stage 1	-	-	-	-	-	-	-	625	621	-	676	659	-
Stage 2	-	-	-	-	-	-	-	833	659	-	789	621	-
Platoon blocked, %			-	-		-	-						
Mov Cap-1 Maneuver	1210	1210	-	-	1217	-	-	430	369	844	445	369	865
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	430	369	-	445	369	-
Stage 1	-	-	-	-	-	-	-	618	614	-	668	659	-
Stage 2	-	-	-	-	-	-	-	828	659	-	780	614	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0	0	11.2
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	1210	-	-	1217	-	-	588
HCM Lane V/C Ratio	-	0.009	-	-	-	-	-	0.018
HCM Control Delay (s)	0	8	0.1	-	0	-	-	11.2
HCM Lane LOS	A	A	A	-	A	-	-	B
HCM 95th %tile Q(veh)	-	0	-	-	0	-	-	0.1






HCM 6th TWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	8.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	188	135	152	242	0	0	0	0	154	5	45
Future Vol, veh/h	0	188	135	152	242	0	0	0	0	154	5	45
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	230	-	-	-	-	-	-	-	260
Veh in Median Storage, #	-	0	-	-	0	-	-	16974	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	204	147	165	263	0	0	0	0	167	5	49
Major/Minor	Major1			Major2			Minor2					
Conflicting Flow All	-	0	-	204	0	0				797	797	263
Stage 1	-	-	-	-	-	-				593	593	-
Stage 2	-	-	-	-	-	-				204	204	-
Critical Hdwy	-	-	-	4.16	-	-				6.46	6.56	6.26
Critical Hdwy Stg 1	-	-	-	-	-	-				5.46	5.56	-
Critical Hdwy Stg 2	-	-	-	-	-	-				5.46	5.56	-
Follow-up Hdwy	-	-	-	2.254	-	-				3.554	4.054	3.354
Pot Cap-1 Maneuver	0	-	0	1344	-	0				350	315	766
Stage 1	0	-	0	-	-	0				544	487	-
Stage 2	0	-	0	-	-	0				821	725	-
Platoon blocked, %		-			-							
Mov Cap-1 Maneuver	-	-	-	1344	-	-				307	0	766
Mov Cap-2 Maneuver	-	-	-	-	-	-				307	0	-
Stage 1	-	-	-	-	-	-				544	0	-
Stage 2	-	-	-	-	-	-				720	0	-
Approach	EB			WB			SB					
HCM Control Delay, s	0			3.1			26.2					
HCM LOS							D					
Minor Lane/Major Mvmt	EBT		WBL	WBT	SBLn1	SBLn2						
Capacity (veh/h)	-		1344	-	307	766						
HCM Lane V/C Ratio	-		0.123	-	0.563	0.064						
HCM Control Delay (s)	-		8.1	-	30.8	10						
HCM Lane LOS	-		A	-	D	B						
HCM 95th %tile Q(veh)	-		0.4	-	3.2	0.2						

HCM 6th TWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection												
Int Delay, s/veh	4.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	327	0	0	289	145	105	0	177	0	0	0
Future Vol, veh/h	15	327	0	0	289	145	105	0	177	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	None
Storage Length	180	-	-	-	-	-	50	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	16	355	0	0	314	158	114	0	192	0	0	0













Major/Minor	Major1		Major2		Minor1		
Conflicting Flow All	314	0	-	-	-	0	701
Stage 1	-	-	-	-	-	-	387
Stage 2	-	-	-	-	-	-	314
Critical Hdwy	4.25	-	-	-	-	-	6.55
Critical Hdwy Stg 1	-	-	-	-	-	-	5.55
Critical Hdwy Stg 2	-	-	-	-	-	-	5.55
Follow-up Hdwy	2.335	-	-	-	-	-	3.635
Pot Cap-1 Maneuver	1176	-	0	0	-	-	386
Stage 1	-	-	0	0	-	-	659
Stage 2	-	-	0	0	-	-	712
Platoon blocked, %	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1176	-	-	-	-	-	381
Mov Cap-2 Maneuver	-	-	-	-	-	-	381
Stage 1	-	-	-	-	-	-	650
Stage 2	-	-	-	-	-	-	712

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	WBT	WBR
Capacity (veh/h)	381	661	1176	-	-	-
HCM Lane V/C Ratio	0.3	0.291	0.014	-	-	-
HCM Control Delay (s)	18.4	12.7	8.1	-	-	-
HCM Lane LOS	C	B	A	-	-	-
HCM 95th %tile Q(veh)	1.2	1.2	0	-	-	-

HCM 6th Signalized Intersection Summary
5: YTC Dr. & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	160	344	25	115	319	39
Future Volume (veh/h)	160	344	25	115	319	39
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1648	1648	1648	1648	1648	1648
Adj Flow Rate, veh/h	174	374	27	125	347	42
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	17	17	17	17	17	17
Cap, veh/h	577	489	52	855	331	294
Arrive On Green	0.35	0.35	0.03	0.52	0.21	0.21
Sat Flow, veh/h	1648	1397	1570	1648	1570	1397
Grp Volume(v), veh/h	174	374	27	125	347	42
Grp Sat Flow(s),veh/h/ln	1648	1397	1570	1648	1570	1397
Q Serve(g_s), s	2.6	7.9	0.6	1.3	7.0	0.8
Cycle Q Clear(g_c), s	2.6	7.9	0.6	1.3	7.0	0.8
Prop In Lane		1.00	1.00		1.00	1.00
Lane Grp Cap(c), veh/h	577	489	52	855	331	294
V/C Ratio(X)	0.30	0.76	0.52	0.15	1.05	0.14
Avail Cap(c_a), veh/h	967	819	236	1438	331	294
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	9.6	15.8	4.2	13.1	10.7
Incr Delay (d2), s/veh	0.3	2.5	7.8	0.1	63.2	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.9	0.3	0.2	7.6	0.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.1	12.1	23.6	4.2	76.3	10.9
LnGrp LOS	A	B	C	A	F	B
Approach Vol, veh/h	548			152	389	
Approach Delay, s/veh	10.9			7.7	69.2	
Approach LOS	B			A	E	
Timer - Assigned Phs	2		3	4	8	
Phs Duration (G+Y+Rc), s	11.5		5.6	16.1	21.7	
Change Period (Y+Rc), s	4.5		4.5	4.5	4.5	
Max Green Setting (Gmax), s	7.0		5.0	19.5	29.0	
Max Q Clear Time (g_c+I1), s	9.0		2.6	9.9	3.3	
Green Ext Time (p_c), s	0.0		0.0	1.8	0.6	
Intersection Summary						
HCM 6th Ctrl Delay			31.3			
HCM 6th LOS			C			

HCM 6th AWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	21.2
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	113	111	141	332	0	0	0	0	90	4	26
Future Vol, veh/h	0	113	111	141	332	0	0	0	0	90	4	26
Peak Hour Factor	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	177	173	220	519	0	0	0	0	141	6	41
Number of Lanes	0	1	0	1	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	16.6	25.5	13.1
HCM LOS	C	D	B

Lane	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	96%	0%
Vol Thru, %	50%	0%	100%	4%	0%
Vol Right, %	50%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	224	141	332	94	26
LT Vol	0	141	0	90	0
Through Vol	113	0	332	4	0
RT Vol	111	0	0	0	26
Lane Flow Rate	350	220	519	147	41
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.574	0.385	0.833	0.316	0.074
Departure Headway (Hd)	5.901	6.29	5.784	7.737	6.533
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	613	573	628	466	548
Service Time	3.935	4.023	3.517	5.481	4.277
HCM Lane V/C Ratio	0.571	0.384	0.826	0.315	0.075
HCM Control Delay	16.6	12.9	30.9	14	9.8
HCM Lane LOS	C	B	D	B	A
HCM 95th-tile Q	3.6	1.8	8.9	1.3	0.2

HCM 6th AWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	12.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	154	109	140	201	0	0	0	0	145	1	36
Future Vol, veh/h	0	154	109	140	201	0	0	0	0	145	1	36
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	177	125	161	231	0	0	0	0	167	1	41
Number of Lanes	0	1	0	1	1	0	0	0	0	0	1	1






Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	13.5	11.5	12.1
HCM LOS	B	B	B

Lane	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	99%	0%
Vol Thru, %	59%	0%	100%	1%	0%
Vol Right, %	41%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	263	140	201	146	36
LT Vol	0	140	0	145	0
Through Vol	154	0	201	1	0
RT Vol	109	0	0	0	36
Lane Flow Rate	302	161	231	168	41
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.47	0.277	0.365	0.323	0.066
Departure Headway (Hd)	5.592	6.199	5.693	6.927	5.715
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	647	581	633	520	628
Service Time	3.615	3.923	3.417	4.655	3.442
HCM Lane V/C Ratio	0.467	0.277	0.365	0.323	0.065
HCM Control Delay	13.5	11.3	11.7	12.9	8.8
HCM Lane LOS	B	B	B	B	A
HCM 95th-tile Q	2.5	1.1	1.7	1.4	0.2

HCM 6th AWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	31.7
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	139	135	157	400	0	0	0	0	93	5	35
Future Vol, veh/h	0	139	135	157	400	0	0	0	0	93	5	35
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	204	199	231	588	0	0	0	0	137	7	51
Number of Lanes	0	1	0	1	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	20.7	41.5	13.4
HCM LOS	C	E	B

Lane	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	95%	0%
Vol Thru, %	51%	0%	100%	5%	0%
Vol Right, %	49%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	274	157	400	98	35
LT Vol	0	157	0	93	0
Through Vol	139	0	400	5	0
RT Vol	135	0	0	0	35
Lane Flow Rate	403	231	588	144	51
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.675	0.412	0.966	0.32	0.097
Departure Headway (Hd)	6.027	6.418	5.911	8.001	6.798
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	600	561	612	450	527
Service Time	4.066	4.156	3.649	5.753	4.55
HCM Lane V/C Ratio	0.672	0.412	0.961	0.32	0.097
HCM Control Delay	20.7	13.6	52.4	14.5	10.3
HCM Lane LOS	C	B	F	B	B
HCM 95th-tile Q	5.1	2	13.6	1.4	0.3







HCM 6th AWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM

Intersection

Intersection Delay, s/veh 32

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	202	0	0	377	112	180	0	126	0	0	0
Future Vol, veh/h	30	202	0	0	377	112	180	0	126	0	0	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	42	281	0	0	524	156	250	0	175	0	0	0
Number of Lanes	1	1	0	0	1	1	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	17.9	48	17
HCM LOS	C	E	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	0%	0%	100%	100%	0%
Vol Right, %	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	126	30	202	377	112
LT Vol	180	0	30	0	0	0
Through Vol	0	0	0	202	377	0
RT Vol	0	126	0	0	0	112
Lane Flow Rate	250	175	42	281	524	156
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.549	0.325	0.089	0.561	0.976	0.259
Departure Headway (Hd)	7.907	6.683	7.711	7.198	6.71	5.996
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	455	534	462	497	539	594
Service Time	5.693	4.468	5.511	4.997	4.493	3.778
HCM Lane V/C Ratio	0.549	0.328	0.091	0.565	0.972	0.263
HCM Control Delay	20	12.7	11.3	18.9	59	10.9
HCM Lane LOS	C	B	B	C	F	B
HCM 95th-tile Q	3.2	1.4	0.3	3.4	13.2	1

HCM 6th AWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	13.5
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	187	135	149	242	0	0	0	0	151	5	45
Future Vol, veh/h	0	187	135	149	242	0	0	0	0	151	5	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	203	147	162	263	0	0	0	0	164	5	49
Number of Lanes	0	1	0	1	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	15.5	12.3	12.5
HCM LOS	C	B	B

Lane	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	97%	0%
Vol Thru, %	58%	0%	100%	3%	0%
Vol Right, %	42%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	322	149	242	156	45
LT Vol	0	149	0	151	0
Through Vol	187	0	242	5	0
RT Vol	135	0	0	0	45
Lane Flow Rate	350	162	263	170	49
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.552	0.284	0.424	0.335	0.08
Departure Headway (Hd)	5.677	6.313	5.807	7.118	5.916
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	637	570	621	505	606
Service Time	3.705	4.041	3.535	4.853	3.65
HCM Lane V/C Ratio	0.549	0.284	0.424	0.337	0.081
HCM Control Delay	15.5	11.5	12.8	13.4	9.2
HCM Lane LOS	C	B	B	B	A
HCM 95th-tile Q	3.4	1.2	2.1	1.5	0.3







HCM 6th AWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection

Intersection Delay, s/veh 15.3

Intersection LOS C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	323	0	0	286	142	105	0	175	0	0	0
Future Vol, veh/h	15	323	0	0	286	142	105	0	175	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	16	351	0	0	311	154	114	0	190	0	0	0
Number of Lanes	1	1	0	0	1	1	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	18.9	14.3	12.3
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	0%	0%	100%	100%	0%
Vol Right, %	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	175	15	323	286	142
LT Vol	105	0	15	0	0	0
Through Vol	0	0	0	323	286	0
RT Vol	0	175	0	0	0	142
Lane Flow Rate	114	190	16	351	311	154
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.238	0.332	0.031	0.624	0.544	0.24
Departure Headway (Hd)	7.495	6.276	6.909	6.401	6.3	5.589
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	478	573	518	562	572	641
Service Time	5.249	4.029	4.66	4.151	4.048	3.337
HCM Lane V/C Ratio	0.238	0.332	0.031	0.625	0.544	0.24
HCM Control Delay	12.6	12.1	9.9	19.3	16.4	10.1
HCM Lane LOS	B	B	A	C	C	B
HCM 95th-tile Q	0.9	1.4	0.1	4.3	3.3	0.9

HCM 6th AWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM -IMPROVED

Intersection	
Intersection Delay, s/veh	32.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	140	135	163	400	0	0	0	0	100	5	35
Future Vol, veh/h	0	140	135	163	400	0	0	0	0	100	5	35
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	7	7	7	7	7	7	7	7	7	7	7	7
Mvmt Flow	0	206	199	240	588	0	0	0	0	147	7	51
Number of Lanes	0	1	0	1	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	21.3	43.2	13.8
HCM LOS	C	E	B

Lane	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	95%	0%
Vol Thru, %	51%	0%	100%	5%	0%
Vol Right, %	49%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	275	163	400	105	35
LT Vol	0	163	0	100	0
Through Vol	140	0	400	5	0
RT Vol	135	0	0	0	35
Lane Flow Rate	404	240	588	154	51
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.684	0.431	0.976	0.344	0.098
Departure Headway (Hd)	6.086	6.478	5.971	8.029	6.824
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	594	556	606	448	524
Service Time	4.127	4.22	3.713	5.784	4.578
HCM Lane V/C Ratio	0.68	0.432	0.97	0.344	0.097
HCM Control Delay	21.3	14.1	55	15	10.3
HCM Lane LOS	C	B	F	B	B
HCM 95th-tile Q	5.3	2.2	13.9	1.5	0.3







HCM 6th AWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

AM Peak Hour
Yreka Travel Center TIAM -IMPROVED

Intersection

Intersection Delay, s/veh34.2

Intersection LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	30	210	0	0	383	117	180	0	132	0	0	0
Future Vol, veh/h	30	210	0	0	383	117	180	0	132	0	0	0
Peak Hour Factor	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72	0.72
Heavy Vehicles, %	10	10	10	10	10	10	10	10	10	10	10	10
Mvmt Flow	42	292	0	0	532	163	250	0	183	0	0	0
Number of Lanes	1	1	0	0	1	1	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	18.6	52.5	17
HCM LOS	C	F	C

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	0%	0%	100%	100%	0%
Vol Right, %	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	180	132	30	210	383	117
LT Vol	180	0	30	0	0	0
Through Vol	0	0	0	210	383	0
RT Vol	0	132	0	0	0	117
Lane Flow Rate	250	183	42	292	532	162
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.553	0.344	0.09	0.588	1	0.273
Departure Headway (Hd)	7.97	6.746	7.77	7.257	6.765	6.05
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	458	537	466	502	532	590
Service Time	5.643	4.445	5.437	4.937	4.552	3.836
HCM Lane V/C Ratio	0.546	0.341	0.09	0.582	1	0.275
HCM Control Delay	20	12.9	11.2	19.7	65.1	11.1
HCM Lane LOS	C	B	B	C	F	B
HCM 95th-tile Q	3.3	1.5	0.3	3.7	14	1.1

HCM 6th AWSC
3: I-5 SB On/I-5 SB Off & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection	
Intersection Delay, s/veh	13.6
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↱		↱	↱						↱	↱
Traffic Vol, veh/h	0	188	135	152	242	0	0	0	0	154	5	45
Future Vol, veh/h	0	188	135	152	242	0	0	0	0	154	5	45
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	6	6	6	6	6	6	6	6	6	6	6	6
Mvmt Flow	0	204	147	165	263	0	0	0	0	167	5	49
Number of Lanes	0	1	0	1	1	0	0	0	0	0	1	1

Approach	EB	WB	SB
Opposing Approach	WB	EB	
Opposing Lanes	2	1	0
Conflicting Approach Left	SB		WB
Conflicting Lanes Left	2	0	2
Conflicting Approach Right		SB	EB
Conflicting Lanes Right	0	2	1
HCM Control Delay	15.7	12.4	12.6
HCM LOS	C	B	B

Lane	EBLn1	WBLn1	WBLn2	SBLn1	SBLn2
Vol Left, %	0%	100%	0%	97%	0%
Vol Thru, %	58%	0%	100%	3%	0%
Vol Right, %	42%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	323	152	242	159	45
LT Vol	0	152	0	154	0
Through Vol	188	0	242	5	0
RT Vol	135	0	0	0	45
Lane Flow Rate	351	165	263	173	49
Geometry Grp	6	7	7	7	7
Degree of Util (X)	0.556	0.291	0.426	0.342	0.081
Departure Headway (Hd)	5.697	6.331	5.825	7.132	5.929
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes
Cap	635	568	618	505	604
Service Time	3.727	4.062	3.555	4.87	3.667
HCM Lane V/C Ratio	0.553	0.29	0.426	0.343	0.081
HCM Control Delay	15.7	11.7	12.8	13.6	9.2
HCM Lane LOS	C	B	B	B	A
HCM 95th-tile Q	3.4	1.2	2.1	1.5	0.3







HCM 6th AWSC
4: I-5 NB Off/I-5 NB On & Montague Rd.

PM Peak Hour
Yreka Travel Center TIAM

Intersection

Intersection Delay, s/veh 15.5

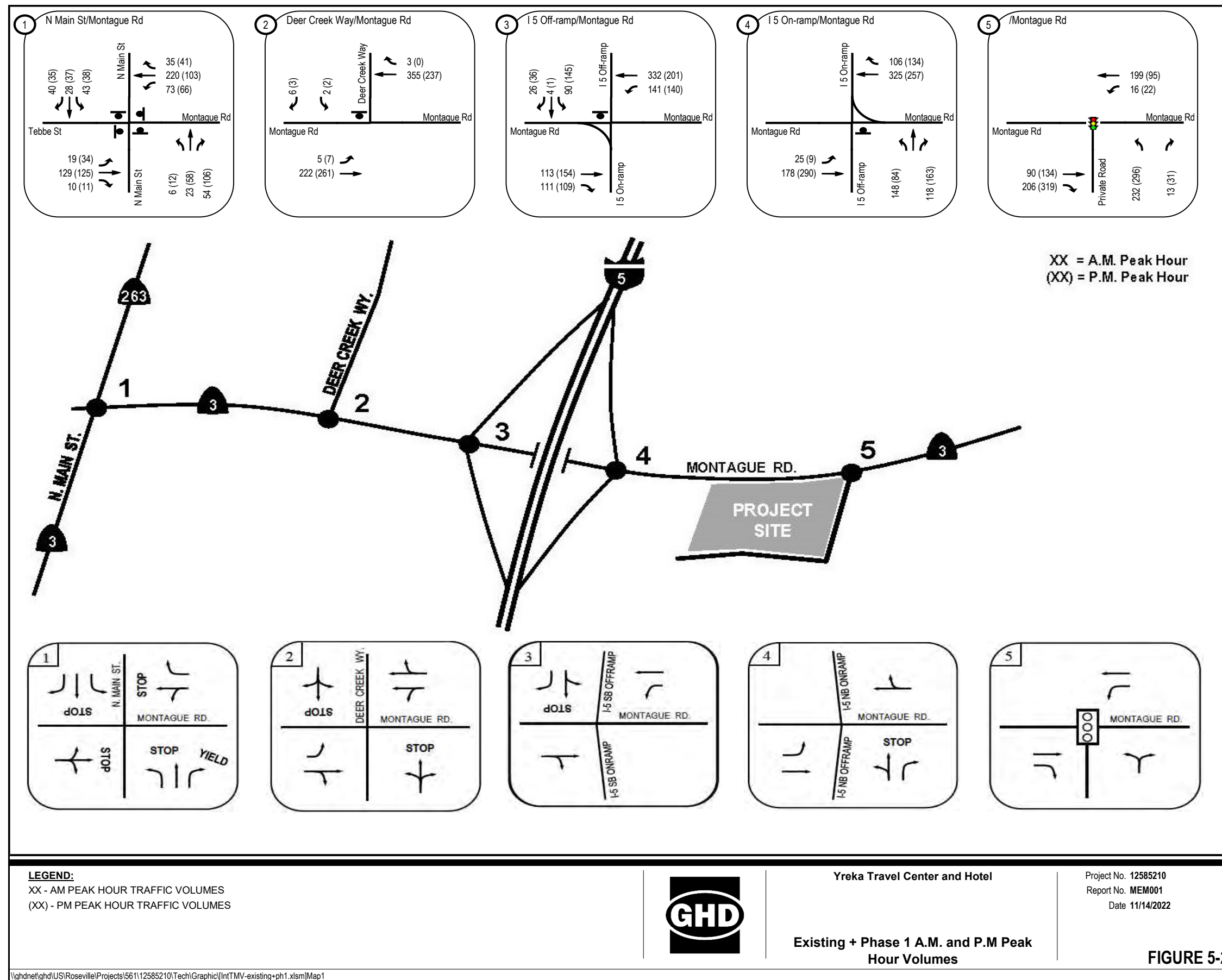
Intersection LOS C

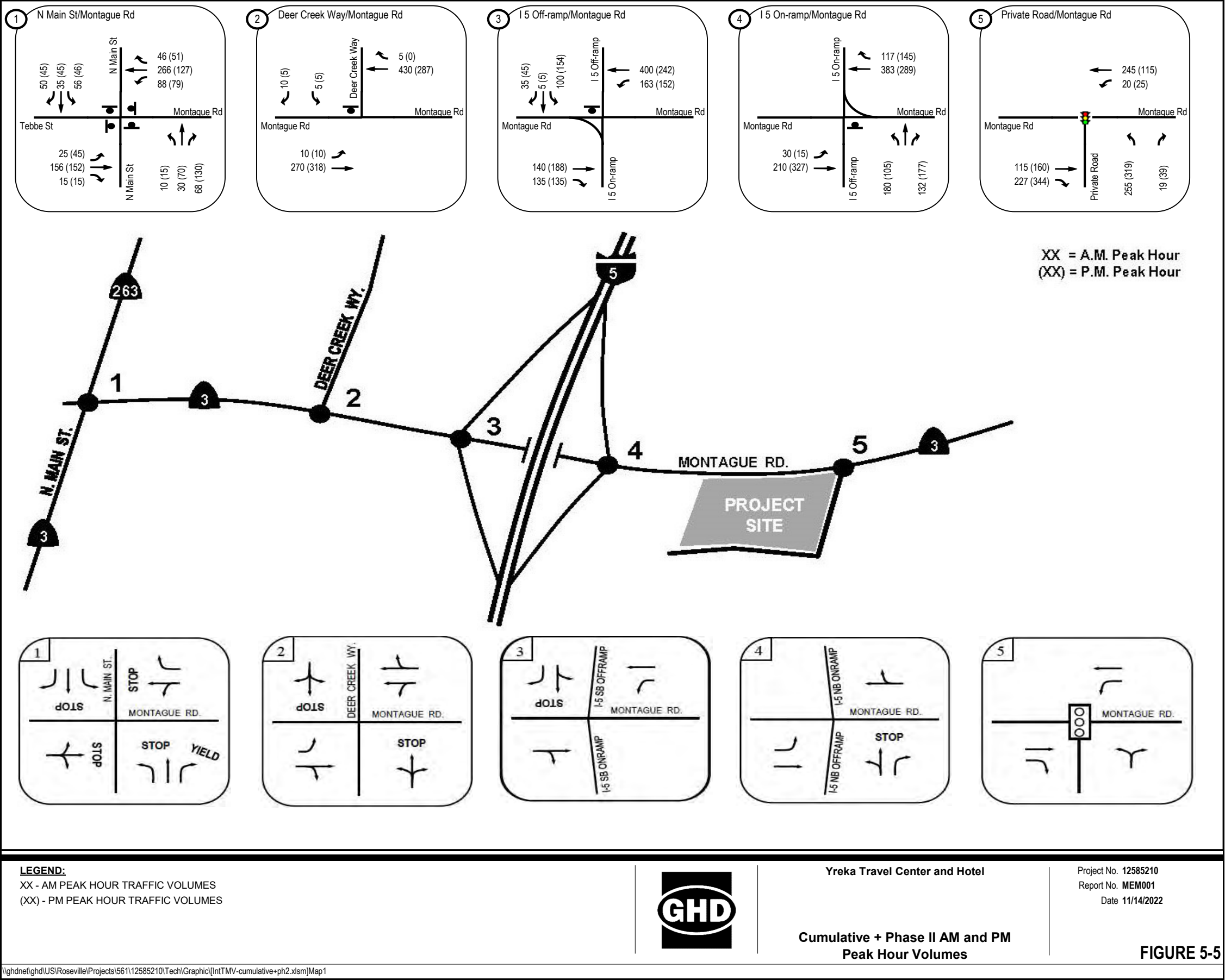
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	327	0	0	289	145	105	0	177	0	0	0
Future Vol, veh/h	15	327	0	0	289	145	105	0	177	0	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles, %	15	15	15	15	15	15	15	15	15	15	15	15
Mvmt Flow	16	355	0	0	314	158	114	0	192	0	0	0
Number of Lanes	1	1	0	0	1	1	1	1	0	0	0	0

Approach	EB	WB	NB
Opposing Approach	WB	EB	
Opposing Lanes	2	2	0
Conflicting Approach Left		NB	EB
Conflicting Lanes Left	0	2	2
Conflicting Approach Right	NB		WB
Conflicting Lanes Right	2	0	2
HCM Control Delay	19.3	14.5	12.4
HCM LOS	C	B	B

Lane	NBLn1	NBLn2	EBLn1	EBLn2	WBLn1	WBLn2
Vol Left, %	100%	0%	100%	0%	0%	0%
Vol Thru, %	0%	0%	0%	100%	100%	0%
Vol Right, %	0%	100%	0%	0%	0%	100%
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop
Traffic Vol by Lane	105	177	15	327	289	145
LT Vol	105	0	15	0	0	0
Through Vol	0	0	0	327	289	0
RT Vol	0	177	0	0	0	145
Lane Flow Rate	114	192	16	355	314	158
Geometry Grp	7	7	7	7	7	7
Degree of Util (X)	0.239	0.337	0.031	0.634	0.551	0.246
Departure Headway (Hd)	7.524	6.305	6.931	6.423	6.32	5.609
Convergence, Y/N	Yes	Yes	Yes	Yes	Yes	Yes
Cap	477	569	516	562	569	638
Service Time	5.277	4.058	4.682	4.173	4.069	3.357
HCM Lane V/C Ratio	0.239	0.337	0.031	0.632	0.552	0.248
HCM Control Delay	12.6	12.3	9.9	19.7	16.6	10.2
HCM Lane LOS	B	B	A	C	C	B
HCM 95th-tile Q	0.9	1.5	0.1	4.4	3.3	1

3. Traffic Volume Figures





4. Replica Summary Tables for VMT Evaluation

City of Yreka, 2019

Row Labels	Column Labels		Total Average of trip_distance_miles	Total Count of activity_id
	work			
	Average of trip_distance_miles	Count of activity_id		
Siskiyou County, CA	11.2	4333.0	11.2	4333.0
biking	2.2	40.0	2.2	40.0
carpool	17.0	430.0	17.0	430.0
on_demand_auto	13.0	23.0	13.0	23.0
other_travel_mode	19.8	9.0	19.8	9.0
private_auto	11.35	3563.0	11.4	3563.0
walking	0.4	268.0	0.4	268.0
Grand Total	11.2	4333.0	11.2	4333.0

Siskiyou County, 2019

Average of trip_distance_miles	Column Labels	
Row Labels	work	Grand Total
Siskiyou County, CA	18.3	18.3
biking	2.9	2.9
carpool	23.7	23.7
on_demand_auto	18.9	18.9
other_travel_mode	167.7	167.7
private_auto	16.89	16.9
walking	0.3	0.3
Grand Total	18.3	18.3

City of Yreka, 2021

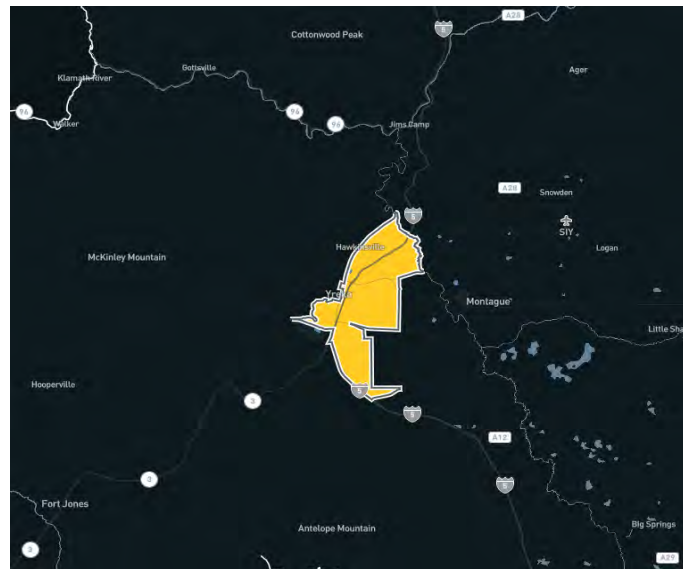
Average of trip_distance_miles	Column Labels	
Row Labels	work	Grand Total
Siskiyou County, CA	13.7	13.7
biking	1.9	1.9
carpool	24.4	24.4
on_demand_auto	2.8	2.8
other_travel_mode	115.6	115.6
private_auto	12.61	12.6
walking	0.3	0.3
Grand Total	13.7	13.7

Siskiyou County, 2021

Average of trip_distance_mile: Column Labels		
Row Labels	work	Grand Total
Siskiyou County, CA	21.0	21.0
biking	3.1	3.1
carpool	26.8	26.8
on_demand_auto	1.4	1.4
other_travel_mode	159.9	159.9
private_auto	19.56	19.6
walking	0.2	0.2
Grand Total	21.0	21.0

Tract 7.02, 2019

Average of trip_distance_miles	Column Labels								
Row Labels	civic_institutional	education	non_retail_attraction	office	retail	single_family	transportation_utilities	unknown	Grand Total
7.02 (Siskiyou, CA)	10.58	5.23	4.87	11.46	11.24	11.36	2.65	11.81	11.49
biking	1.60				1.95			2.79	2.64
carpool	6.20	4.15		27.60	13.54	9.93		15.83	15.08
on_demand_auto	23.00				21.95			3.00	17.48
other_travel_mode					45.47			7.87	26.67
private_auto	11.98	5.60	4.87	12.73	11.82	12.07	2.65	12.18	11.92
walking	0.40	0.30		0.32	0.42			0.77	0.61
Grand Total	10.58	5.23	4.87	11.46	11.24	11.36	2.65	11.81	11.49



Tract 7.02, 2021

Average of trip_distance_miles	Column Labels										
Row Labels	agriculture	civic_institutional	education	healthcare	industrial	non_retail_attraction	office	other	retail	single_family	Grand Total
7.02 (Siskiyou, CA)	2.70	13.87	7.52	16.15	11.09	16.80	10.70	12.19	12.87	21.00	12.31
biking					4.25			4.55	1.78		3.09
carpool		15.73	19.70	71.80	10.10	42.30	31.38	12.13	19.10		17.54
other_travel_mode								35.20	174.58		146.70
private_auto	2.70	14.51	6.49	11.87	12.90	15.06	8.30	12.82	9.76	26.93	11.37
walking		0.00	0.60		1.07	0.00	0.10	0.47	0.25	3.20	0.46
Grand Total	2.70	13.87	7.52	16.15	11.09	16.80	10.70	12.19	12.87	21.00	12.31

