PUBLIC REVIEW DRAFT

ENVIRONMENTAL IMPACT REPORT

FOR THE

MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PROJECT IMPROVEMENTS

Mammoth Lakes, CA

June 2021

Prepared for:

Town of Mammoth Lakes
437 Old Mammoth Road, Suite 230
Mammoth Lakes, CA 93546

Prepared by:

BaseCamp Environmental, Inc.
802 W. Lodi Avenue
Lodi, CA 95240
209-224-8213

BaseCamp Environmental, Inc.

NOTICE OF AVAILABILITY DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PROJECT

Date: June 11, 2021

To: Reviewing Agencies and Other Interested Parties

Subject: Notice of Availability of the Draft Environmental Impact Report (EIR) for the Mammoth Yosemite Airport Terminal Area Development Project

Project Applicant: Town of Mammoth Lakes

NOTICE IS HEREBY GIVEN that pursuant to Public Resources Code Sections 21092 and 21092.3 and Cal. Code of Regulations Title 14, Section 15087, the Town of Mammoth Lakes hereby gives notice that a Draft Environmental Impact Report for the Mammoth Yosemite Airport Terminal Area Development Project is available for review and comment.

PROJECT TITLE: Mammoth Yosemite Airport Terminal Area Development Project

PROJECT LOCATION: Mammoth Yosemite Airport is located at 1300 Airport Road Mammoth Lakes, CA 93546

PROJECT DESCRIPTION: The Town of Mammoth Lakes has completed the Draft Environmental Impact Report (DEIR) SCH #2019100384 for the Mammoth Yosemite Airport Terminal Area Development Project. The Town proposes to construct a new and larger passenger terminal building, an aircraft parking apron, aircraft de-icing facilities, maintenance building, connecting taxiways, and other supporting infrastructure including utilities, access roads, service roads and vehicle parking lots within an approximately 22-acre area immediately east and south of the existing terminal. The objective of the project is to improve MMH as required to accommodate existing and projected future aviation demand.

PROJECT IMPACTS: The Draft EIR describes potentially significant environmental effects in the following issue areas: Aesthetics; Biological Resources, and Cultural and Tribal Resources. The project would not involve any significant effects that cannot be reduced to a less than significant level with mitigation measures. The project sites do not appear on any of the lists of sites enumerated under Section 65962.5 of the Government Code. The Draft EIR will be available for review from June 14, 2021, to July 28, 2021.

PUBLIC REVIEW PERIOD: Begin: **June 14, 2021** End: **July 28, 2021**

The Draft EIR is being circulated for public review and comment for a period of 45 days. Any person may submit written comments to the Community and Economic Development Department before the end of the review period.

The Town of Mammoth Lakes will receive verbal comments on the EIR at the regular meeting of the Planning and Economic Development Commission to be held on July 14, 2021, at 2:00 PM. Please check the Town's webiste for electronic access to the meeting.

Written comments and responses to this notice must be received at the following mailing address or emailed to kcooke@townofmammothlakes.ca.gov no later than 5:00 PM on July 28, 2021. Please include your printed name, address and phone number where you may be contacted. For additional information, contact Kimberly Cooke via email or by phone at 760.965.3638.

Town of Mammoth Lakes
Community and Economic Development Department
ATTN: Kimberly Cooke
P.O. Box 1609
Mammoth Lakes, CA 93546

LOCATION WHERE DOCUMENT CAN BE REVIEWED: Copies of the Draft EIR are available during the 45-day public review period at the following locations:

1. Town of Mammoth Lakes, Community and Economic Development Department, 437 Old Mammoth Road, Suite 230, Mammoth Lakes, CA 93546;
2. Town of Mammoth Lakes website: https://www.townofmammothlakes.ca.gov/939 ; and
3. Mono County Library, 400 Sierra Park Road, Mammoth Lakes, CA 93546.

Date: **June 11, 2021**

Signature: Sandra Moberly

Title: Ms. Sandra Moberly, Community and Economic Development Director

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TABLE OF CONTENTS

			Page
INTRODUCTION, SUMMARY, AND PROJECT DESCRIPTION			
1.0	Introduction		
	1.1	Project and EIR Overview	1-1
	1.2	Project Background	1-1
	1.3	EIR Requirements and Intended Uses	1-3
	1.4	EIR Process	1-4
2.0	Summary		
	2.1	Project Description	2-1
	2.2	Environmental Impacts and Mitigation Measures	2-2
	2.3	Areas of Controversy	2-2
	2.4	Summary of Alternatives	2-3
	2.5	Summary of Other CEQA Issues	2-3
3.0	Project Description		
	3.1	Project Brief	3-1
	3.2	Project Location	3-1
	3.3	Project Objectives	3-1
	3.4	Project Details	3-2
	3.5	Permits and Approvals	3-7
ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES			
4.0	Aesthetics and Visual Resources		4-1
5.0	Air Quality		5-1
6.0	Biological Resources		6-1
7.0	Cultural Resources and Tribal Cultural Resources		7-1

8.0 Geology, Soils, and Mineral Resources 8-1
9.0 Greenhouse Gas Emissions 9-1
10.0 Hazards and Hazardous Materials 10-1
11.0 Hydrology and Water Quality 11-1
12.0 Land Use, Population, and Housing 12-1
13.0 Noise 13-1
14.0 Public Services and Recreation 14-1
15.0 Transportation 15-1
16.0 Utilities and Energy 16-1
CUMULATIVE IMPACTS, ALTERNATIVES, AND OTHER CEQA ISSUES
17.0 Cumulative Impacts
17.1 Introduction 17-1
17.2 Cumulative Impacts Setting 17-2
17.3 Cumulative Impacts of Project 17-3
18.0 Alternatives
18.1 Introduction 18-1
18.2 Selection of Alternatives 18-1
18.3 Alternatives Not Considered in Detail 18-2
18.4 Alternatives Considered in Detail 18-5
18.5 Environmentally Superior Alternative 18-7
19.0 Other CEQA Issues
19.1 Significant and Unavoidable Impacts 19-1
19.2 Irreversible Environmental Commitments 19-1
19.3 Growth-Inducing Impacts 19-2

SOURCES

20.0 Sources

20.1 References Cited 20-1

20.2 Persons Consulted 20-6

20.3 EIR Preparers 20-7

APPENDICES

A. Notice of Preparation and Comments

B. Air Quality Modeling Results

C. Biological Resource Assessments

D. Cultural Resource Report and AB 52 Letters

E. Groundwater Hydrology Technical Memorandum

LIST OF FIGURES

1-1.	Regional Map	1-7
1-2.	Street Map	1-8
1-3.	USGS Map	1-9
1-4.	Aerial Photo	1-10
1-5.	Assessor's Parcel Map	1-11
3-1.	Project Site Plan	3-9
3-2.	Terminal Floor Plan	3-10
3-3.	Conceptual Terminal Building Elevations	3-11
4-1.	Ground Level Visual Simulation A	4-10
4-2.	Ground Level Visual Simulation B	4-11
4-3.	Ground Level Visual Simulation C	4-12
6-1.	CNDDB Occurrences Map, Special-Status Plants	6-15
6-2.	CNDDB Occurrences Map, Special-Status Wildlife	6-16
7-1.	Area of Potential Effect	7-13
8-1.	Faults in Mammoth Lakes Area	8-11
13-1.	Airport Noise Contours, Projected 2015	13-7
18-1	Alternative Terminal Site	18-8

LIST OF TABLES

2-1.	Summary of Impacts and Mitigation Measures	2-5
3-1.	Existing and Proposed Terminal Buildings	3-3
3-2.	Required Permits and Approvals for Project	3-7
5-1.	Air Pollutant Emissions from MMH Operations (2005)	5-2
5-2.	National and California Ambient Air Quality Standards	5-6
5-3.	Great Basin Valleys Air Basin Attainment Status	5-7
5-4.	Regional Significance Thresholds and Project Air Pollutant Emissions	5-11
9-1.	Project GHG Emissions	9-5
12-1.	Population of Mammoth Lakes, Mono County, and California	12-3
12-2.	Town General Plan Policies and Project Consistency	12-8
13-1.	Subjective Reactions to Changes in Noise Levels	13-4
13-2.	Construction Equipment Noise	13-5

ACRONYMS AND ABBREVIATIONS USED IN THIS DOCUMENT

AB	Assembly Bill
AFFF	aqueous firefighting foam
APN	Assessor's Parcel Number
ARB	California Air Resources Board
ARFF	Aircraft Rescue and Fire Fighting
BMP	Best Management Practice
BTU	British Thermal Unit
CalEEMod	California Emissions Estimator Model
CalEnviroScreen	California Communities Environmental Health Screening Tool
Cal Fire	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
dB	decibel
dBA	A-weighted decibel
DTSC	California Department of Toxic Substances Control
EA	Environmental Assessment (NEPA)
EIR	Environmental Impact Report
EPA	U.S. Environmental Protection Agency
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
kWh	kilowatt-hour
LADWP	Los Angeles Department of Water and Power
L_{dn}	Day-Night Average Level
LOS	Level of Service
mgd	million gallons per day
MMH	Mammoth Yosemite Airport
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NO_x	nitrogen oxide

NPDES	National Pollutant Discharge Elimination System
PFAS	per- and polyfluoroalkyl substances
PM	particulate matter
$PM_{2.5}$	particulate matter less than 2.5 micrometers in diameter
PM_{10}	particulate matter less than 10 micrometers in diameter
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCE	Southern California Edison
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TADP	Terminal Area Development Project
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled

1.0 INTRODUCTION

1.1 PROJECT AND EIR OVERVIEW

This document is an Environmental Impact Report (EIR) addressing the potential environmental impacts of proposed improvements to Mammoth Yosemite Airport (MMH), approximately six miles east of the Town of Mammoth Lakes, California (Town). The proposed improvements are hereinafter referred to as the Terminal Area Development Project (the TADP or "project"). MMH is owned and operated by the Town, which is both the project proponent and the CEQA Lead Agency for the project. This EIR has been prepared in accordance with the requirements of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines (California Code of Regulations Title 14, Division 6, Chapter 3).

For the purposes of the EIR, the project consists of the improvements to the MMH passenger terminal area and other areas as described in the *Terminal Area Development Plan for the Mammoth Yosemite Airport* (Brandley 2017). The principal improvements associated with the project include a new maximum 38,688-square-foot passenger terminal building, a new aircraft parking apron, aircraft de-icing facilities, an 8,400-square-foot maintenance building with eight bays, connecting taxiways, and supporting infrastructure such as access and service roads, parking lots, and new potable water, wastewater disposal, and other utility facilities.

The project would require discretionary site plan and design review approval from the Town, along with permits from other federal, State, and local agencies such as Mono County and the State Water Resources Control Board, and clearance from the Federal Aviation Administration (FAA). The FAA, which is the principal federal authority for aviation and airport regulation and funding, has responsibility for environmental review of projects under the National Environmental Policy Act (NEPA). The Town is preparing an Environmental Assessment (EA) for FAA approval separate from, but concurrently with, preparation of this EIR.

1.2 PROJECT BACKGROUND

Existing Airport and History

Mammoth Yosemite Airport (MMH) is located approximately six miles east of the Town, adjacent to and immediately north of U.S. Highway 395 (US 395) between Hot Creek Hatchery Road and Benton Crossing Road (Figures 1-1 through 1-5). MMH is situated in the westerly portion of Long Valley at an elevation of approximately 7,128 feet above mean sea level. Topographically, the valley can be generally characterized as a relatively

broad plain which is confined by low hills and ridges to the north and lower slopes of the Sierra Nevada range to the south.

Originally constructed as a dirt auxiliary landing strip in the early 1940s for the U.S. Army Air Corps, MMH has undergone numerous improvements and ownership and name changes. Since its acquisition from Mono County in 1992, MMH has been owned and operated by the Town for the benefit of the Eastern Sierra region. MMH provides an important air service element for commercial, charter, military, helicopter, general aviation, life flight, and firefighting aircraft. It is one of three public-use airports in Mono County and the only California airport currently providing commercial air service in the Eastern Sierra region. MMH is a federally obligated commercial service airport that is part of the National Plan of Integrated Airport Systems (NPIAS).

MMH serves general aviation aircraft, commercial, and charter flights. It has a single runway that is 7,000 feet long and 100 feet wide, an existing 5,060 square foot temporary terminal building, a 2,250 square foot "tensile structure", an office building, aircraft hangars, parking areas, and landscaped areas. Commercial air passenger service began at MMH in 1973 after the construction of the original passenger terminal in 1972, which is now occupied by the Fixed Based Operator (FBO). Commercial air passenger service continued intermittently through 1997. After an 11-year hiatus, consistent commercial air service was negotiated with Alaska Airlines in 2008, and then in 2011 with United Airlines. An interim passenger terminal was constructed in a remodeled equipment maintenance facility in 2008. In 2011-2012, the two airlines provided up to seven daily flights, resulting in overcrowding of the interim passenger terminal. This led to construction of a temporary passenger holding facility, the tensile structure adjacent to the interim terminal building. Alaska Airlines ended its service at MMH in November 2018; all scheduled commercial passenger service is now provided by United Airlines. Scheduled passenger charter service is supplied by JetSuiteX.

Aviation Forecasts

Forecasts of aviation demand are used to identify future airport facility needs and are informed by the number of arrivals and departures, commercial airline destinations, aircraft fleet mix, based aircraft, air cargo volumes and the number of passengers (usually referred to as "enplanements" for commercial and charter flights). The MMH forecasts are described in the Town's 10-year *Mammoth Yosemite Airport Aviation Activity Forecasts* prepared in 2017 and the *2019 Addendum* to that forecast.

The greatest numbers of passengers visiting the Mammoth Lakes area arrive during the winter recreation season. Winter recreation passenger air service is typically scheduled during a portion of this season, from mid-December through mid-April. The aviation forecasts assume that passenger volumes outside of the winter recreation season will remain static. Based on the 2019 Forecast Addendum, the pattern of incremental passenger growth is predicted to continue, recovering to near 2018 levels in 2020 and followed by incremental growth through the end of the forecast period in 2028.

Need for Terminal Improvements

The need to improve passenger terminal facilities to accommodate historical and forecast growth is documented in the *Terminal Area Development Plan*, which finds that expansion of the existing temporary terminal is not economically or operationally feasible; instead, the plan recommends development of an entirely new terminal facility. Addressing these needs is the objective of the proposed project. The project, including the project objectives, is described in more detail in Chapter 3.0 of the EIR.

The TADP, as addressed in this EIR, reflects the Town's probable future actions to improve the terminal area. The precise location, size, appearance, and design of individual improvements will likely be modified over time as required to reflect changing circumstances. Prior to final approval and construction of these improvements, the Town would need to ensure that applicable CEQA requirements have been met; some or all those requirements may be met by this EIR.

1.3 EIR REQUIREMENTS AND INTENDED USES

CEQA, enacted in 1970, requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities and related activities that involve public agency approvals or funding. The proposed project - improvement of the MMH terminal area as described in the TADP - is a "project" as defined by CEQA and thus requires environmental review.

The Town of Mammoth Lakes has determined that the potential environmental effects of the project should be addressed in an EIR. This EIR has been prepared in accordance with the requirements of CEQA and the State CEQA Guidelines. The CEQA Guidelines contain advisory and mandatory requirements for the application of CEQA to development projects. CEQA requires the designation of a "lead agency" for a project. As defined in the CEQA Guidelines, the lead agency is the public agency that has the principal responsibility for carrying out or approving a project. Since the Town is the MMH owner and operator and therefore has the primary approval authority over the project, it is the lead agency for CEQA purposes.

An EIR is intended to inform decision-makers and the public about the potentially significant adverse environmental effects of a project and to describe mitigation measures that would reduce or avoid these effects. The EIR must also include consideration of cumulative impacts, growth-inducing impacts, irreversible environmental effects, and alternatives to the proposed project. Each of these subjects is addressed in this EIR.

Organization of EIR

As noted, this EIR generally follows the analysis sequence of the latest Environmental Checklist in CEQA Guidelines Appendix G. A revised Appendix G was formally adopted

and took effect at the beginning of 2019. The revised Appendix G includes two new areas of potential environmental concern – Energy and Wildfire – that must be considered in CEQA environmental documents. Potential project impacts in both these areas of concern are analyzed in this EIR. The areas of environmental concern addressed within this EIR are identified in the Significance Thresholds section of each of the technical chapters.

1.4 EIR PROCESS

CEQA defines a process for preparation and processing of an EIR. This process includes dissemination of a Notice of Preparation to Responsible and Trustee Agencies, preparation and publication of the EIR for agency and public review, the Lead Agency's consideration of and response to comments and concerns identified during the public review period, and compilation of related documentation in a Final EIR. The Lead Agency must consider, make specified findings, and then certify the Final EIR before action can be taken on the project.

A Lead Agency may also consult directly with any person or organization that may be concerned with the environmental effects of the project in a process generally known as "scoping." The CEQA Guidelines indicate that early consultation and communication with interested parties may help resolve potential environmental issues by identifying environmental sensitivities, project alternatives and mitigation measures. Where scoping is used, it should be combined to the extent possible with the Notice of Preparation process.

The Town circulated a Notice of Preparation (NOP) inviting comments from interested agencies and the public as to environmental concerns that should be considered in the EIR. Appendix A contains the Notice of Preparation and copies of the comments received by the Town during the NOP review period. The NOP was published in The Sheet on October 19, 2019 and mailed or emailed to agencies on the Town's distribution list.

At the same time of NOP publication, the Town also scheduled and provided notice of a public scoping meeting, which was held on October 24, 2019. The scoping meeting was not attended by any agency representatives or members of the public. A summary of environmental concerns raised in responses to the NOP and where those concerns are addressed in the EIR is provided below.

California Department of Transportation (Caltrans). Caltrans identified environmental concerns in the following issue areas:

- Aesthetics and Visual Resources. U.S. Highway 395 (US 395) designated Scenic Highway. US 395 scenic designation and potential project aesthetic effects are addressed in EIR Chapter 4.0, Aesthetics.

- Biological Resources. The EIR addresses animal movement patterns and reflects the referenced biological information in Chapter 6.0, Biological Resources.

- Transportation. Traffic impacts of the project are addressed in EIR Chapter 15.0, Transportation.

- Utilities and Service Systems. The project would not involve any known need for utility improvements within the US 395 right-of-way.

Mono County. EIR Chapter 15.0, Transportation, reflects consultation with the Mono County Public Works Department regarding planned road improvements.

California Department of Fish and Wildlife (CDFW). CDFW identified several generalized biological resource concerns that should be addressed in the EIR. The concerns as they apply to the project are addressed specifically in EIR Chapter 6.0, Biological Resources.

Department of Toxic Substances Control (DTSC). DTSC identifies generalized concerns related to existing or potential future environmental contamination and release of asbestos or lead-based paint during any required demolition. These concerns are addressed in EIR Chapter 10.0, Hazards and Hazardous Materials.

Lahontan Regional Water Quality Control Board (RWQCB). Lahontan RWQCB identifies a range of surface and groundwater quality concerns and requests the EIR utilize information resources beyond information contained in the Town's General Plan EIR. Specific water and sewage utility improvements associated with the project are described in EIR Chapter 3.0, Project Description. EIR Chapter 11.0, Hazards and Hazardous Materials, provides analysis of each of the concerns raised by the Lahontan RWQCB.

In accordance with CEQA Guidelines Section 15163(c), this EIR is available for public review and comment on the dates specified in the EIR Notice of Availability, located inside of the cover of this document. Any comments or questions regarding this EIR should be submitted to the Town at the following address before the close of the public review period:

Town of Mammoth Lakes
Community and Economic Development Department
Attention: Kim Cooke, Associate Planner
437 Old Mammoth Road, Suite 230
Mammoth Lakes, CA 93546
Telephone: 760-965-3638,
E-mail: kcooke@townofmammothlakes.ca.gov

With the release of this Public Review Draft EIR and accompanying Notice of Availability (NOA), agencies and members of the public are invited to comment on the adequacy of the environmental review during a 45-day review period as specified in the NOA. After the close of the public review period, the Town will prepare written responses to the comments received, and these responses, along with any changes to the EIR required to properly address those comments, will be published in a Final EIR for the project.

The Final EIR must be considered by Town decision-makers prior to a decision on the project. Before the Town can approve the project, it must first certify that the Final EIR was completed in compliance with the provisions of CEQA, that the Town has reviewed and considered the information in the Final EIR, and that the Final EIR reflects the independent judgment of the Town on the environmental impacts of the project. The Town is also required to make specific findings related to each of the significant effects identified in the EIR.

If the project involves any significant and unavoidable environmental effects, and the Town decides to proceed with the project, the reasons for this determination will need to be documented in a Statement of Overriding Considerations, which will be included in the CEQA findings. Mitigation measures described in the Final EIR will be included in a Mitigation Monitoring and Reporting Program, which will be adopted by the Town as a means of ensuring that mitigation measures are implemented in conjunction with the project.

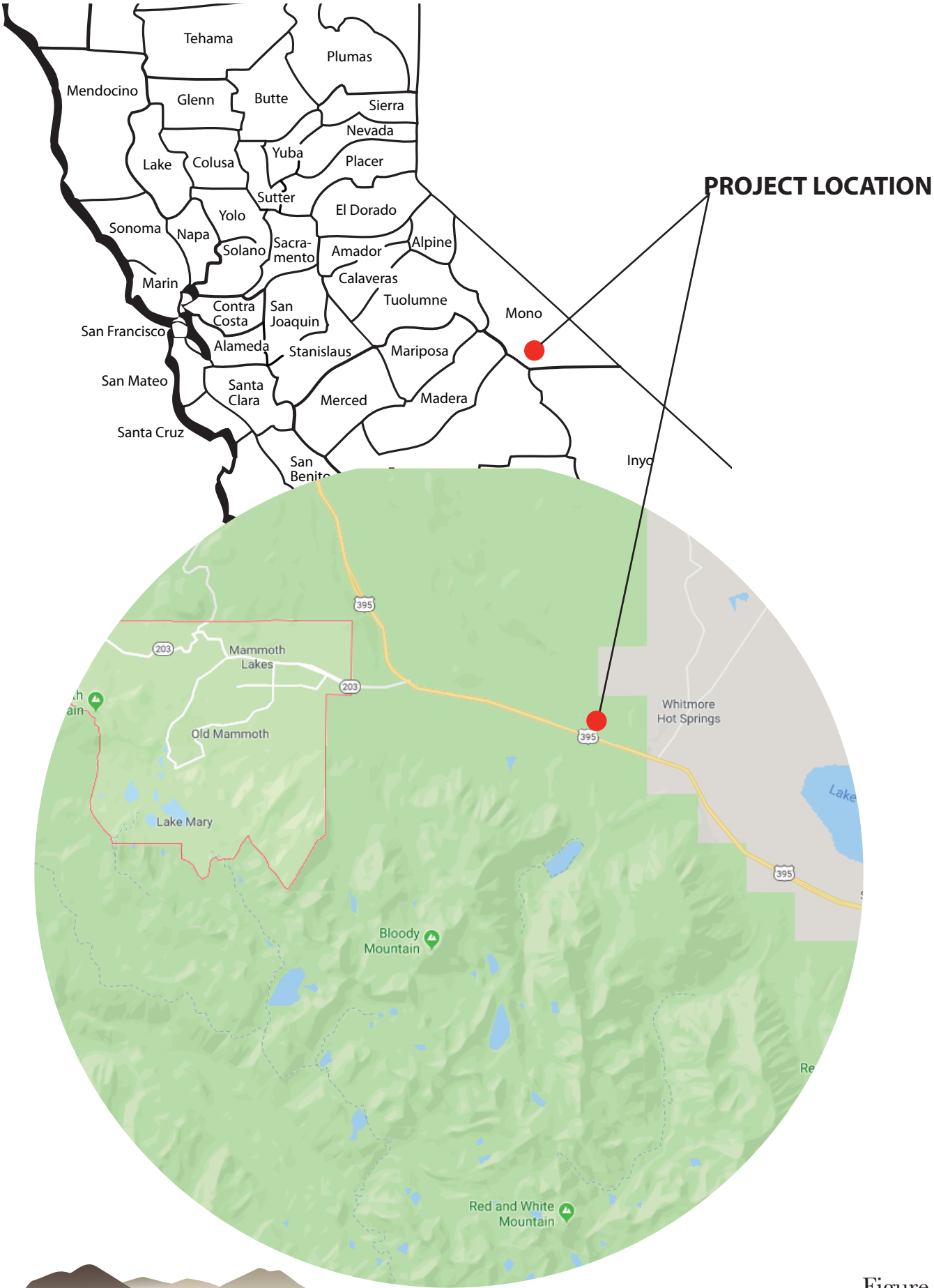

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Figure 1-1
REGIONAL LOCATION MAP



SOURCE: Bing Maps, 2020

Figure 1-2
STREET MAP

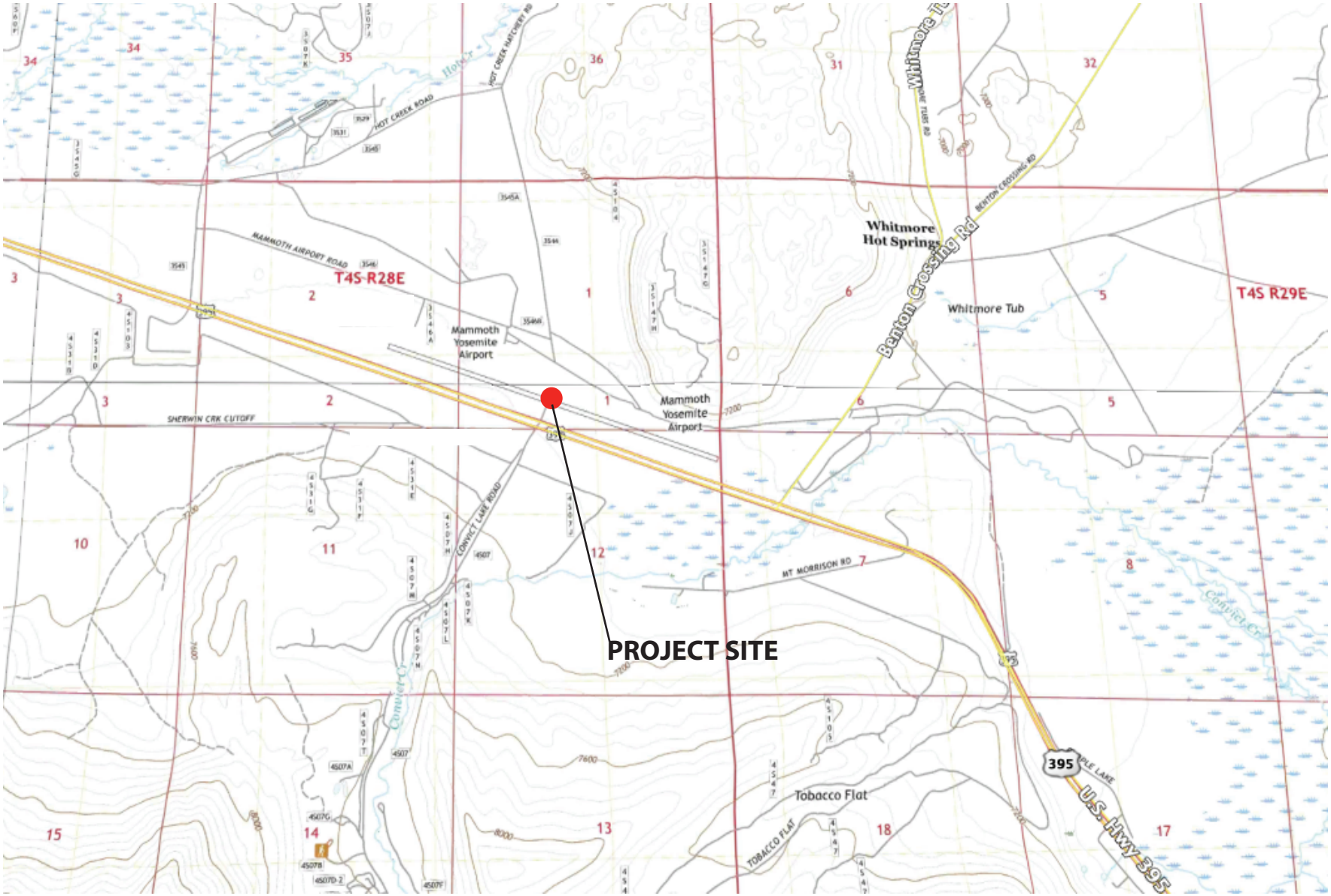

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Figure 1-3
USGS MAP



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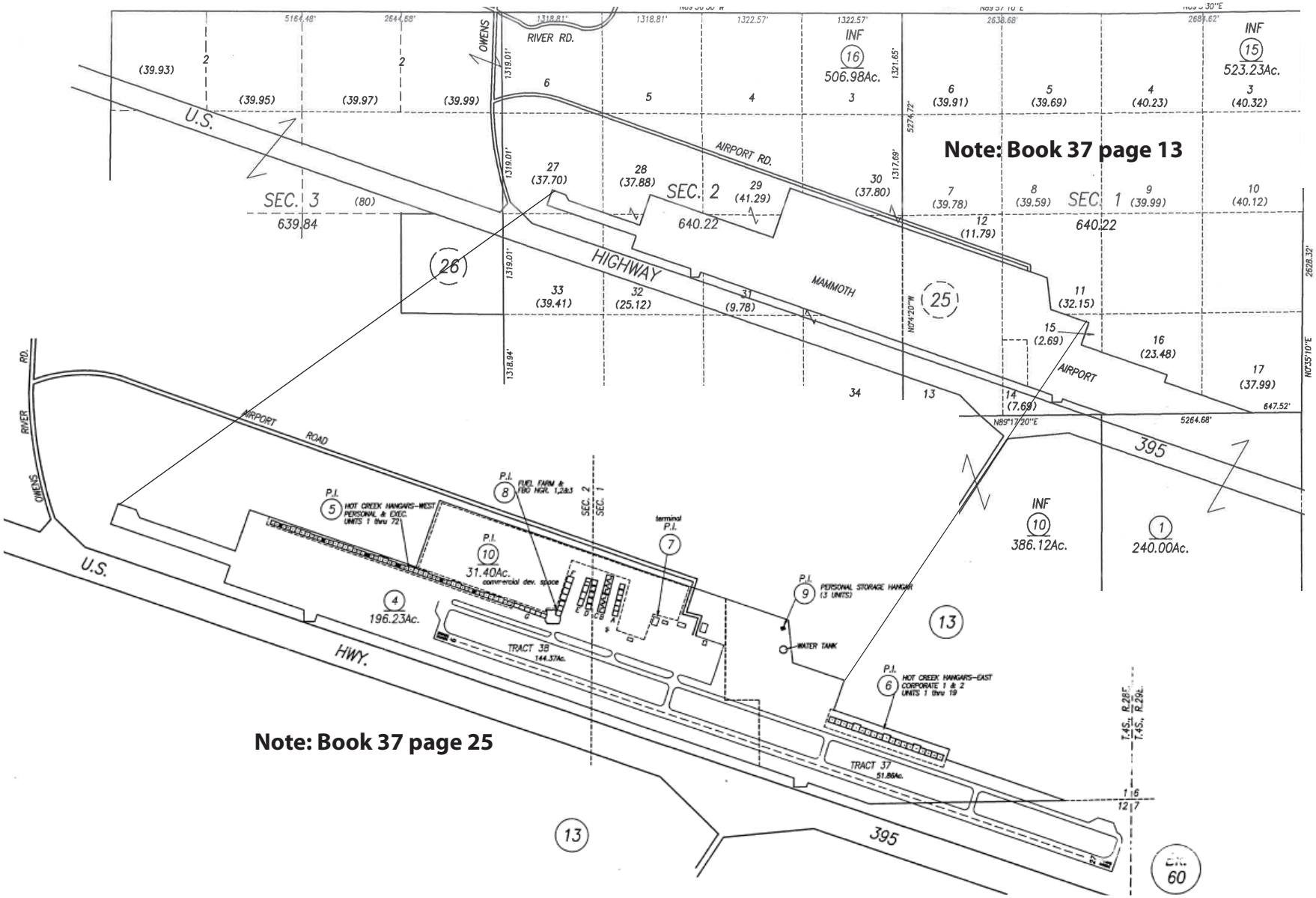
Figure 1-4
AERIAL PHOTO



SOURCE: Mono County Assessor's Office, Book 37, Page 25 and 13

BaseCamp Environmental

Figure 1-5
ASSESSOR PARCEL MAP

2.0 SUMMARY

2.1 PROJECT DESCRIPTION

The proposed project consists of improvements to the MMH passenger terminal area as described in the 2017 *Terminal Area Development Plan for the Mammoth Yosemite Airport*. The principal improvements described in the plan include construction of new and larger passenger terminal building, aircraft parking apron, aircraft de-icing facilities, maintenance building, connecting taxiways, and other supporting infrastructure including access roads, service roads and parking lots as well as potable water, wastewater disposal and other utility services. Proposed improvements would occur entirely within an approximately 22-acre portion of the Airport site that is immediately east and south of, the existing terminal area (Figures 1-1 through 1-5, and 3-1). The primary objective of the project is to improve MMH as required to accommodate existing and future commercial aviation demand and provide an acceptable level of customer service.

The project includes construction of a new passenger terminal of up to a maximum of 38,688 square feet in floor area. The terminal building would include lease space for airlines and restaurant/retail uses, public space, security, and office and utility areas. The proposed terminal building would have three gates, as opposed to the current one gate at the existing terminal building, and two more gates could be added as passenger traffic warrants.

The project would include a new aircraft parking apron, approximately 20,444 square yards in area, on the airside of the new terminal, adjacent to and east of the existing apron. The new apron would accommodate three Q400 turboprop aircraft or three CRJ700 regional jet aircraft in a taxi-in/taxi-out type operation.

A separate concrete de-icing apron is proposed adjacent to the aircraft parking apron to accommodate de-icing operations for commercial and business air traffic during winter operations. The apron would drain to a central inlet where runoff and de-icing fluid would be collected. A valve-controlled dual-pipe discharge would send de-icing fluid to a holding tank for storage until it is transported to a suitable disposal area; storm water would be directed to a leaching field north of the apron.

The project would include a new eight-bay maintenance building east of the de-icing apron, with a total floor area of 8,400 square feet. One of the bays would house Aircraft Rescue and Fire Fighting (ARFF) operations; the remaining bays would be used for storage of snow removal and other maintenance equipment. A new access road would connect this facility to Taxiway A.

Airport Road would be extended approximately 850 feet east from its current terminus to provide vehicle access to the new terminal, terminating at a new cul-de-sac. The

extension would consist of two eastbound travel lanes, a median, and two westbound travel lanes. Passenger loading/unloading at the landside of the terminal building would be provided by a 20-foot-wide concrete sidewalk and a 9-foot-wide parking lane adjacent to the extended Airport Road. The project proposes two new parking areas: one west of the terminal that would provide 130 automobile spaces primarily for rental car company vehicles; the other east of the terminal that would provide 60 automobile spaces for commercial passengers and other visitors. Mono County is separately pursuing resurfacing and addition of bike lanes to each side of the existing Airport Road; this project is discussed in Chapter 15.0 Transportation.

Wastewater generated by the new terminal and maintenance facilities would be transported in new collection lines to a new 2,500-gallon septic tank and leach field. Wastewater lines would be extended to the terminal and maintenance buildings. Water lines would be extended to these buildings from the existing water system.

2.2 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

The potential environmental impacts of the project are summarized in Table 2-1 at the end of this chapter, along with mitigation measures proposed to minimize these impacts when required. Table 2-1 provides an indication of the significance of impacts, both before and after application of mitigation measures. As documented herein, with proposed mitigation measures, all the potential environmental effects of the project would be reduced to a level that is less than significant. The project would not involve any significant and unavoidable environmental impacts.

2.3 AREAS OF CONTROVERSY

In October 2019, the Town circulated a Notice of Preparation (NOP) inviting comments from interested agencies and the public as to environmental concerns that should be considered in the EIR. In the same month, the Town held a public scoping meeting; the scoping meeting was not attended by any agency representatives or members of the public. A summary of environmental concerns raised in responses to the NOP is provided below:

- Impacts on designated Scenic Highway (US 395).
- Traffic impacts and relation to planned road improvements.
- Biological resources, including animal movement patterns.
- Existing or potential future environmental contamination and release of asbestos or lead-based paint during any required demolition.
- Impacts on surface and groundwater quality.

Appendix A of this EIR contains the NOP, the NOP distribution list, and copies of the comments received by the Town during the NOP review period.

2.4 SUMMARY OF ALTERNATIVES

Chapter 18.0, Alternatives, identifies and discusses reasonable alternatives to the project, including the "no project" alternative. The No Project Alternative is defined as no terminal area improvements as proposed by the project, including the terminal and maintenance buildings, the aprons, and supporting infrastructure. Existing structures would remain in place, and activities at MMH would be conducted under current conditions. Under this alternative, there would be no environmental impacts that are associated with the proposed project. Air pollutant emissions and noise associated with construction activities would be eliminated, and no mitigation for potential impacts on biological or cultural resources would be necessary. However, this alternative would meet none of the objectives of the proposed project, which include providing adequate levels of service for accommodating existing and future passenger demand. In addition, the ARFF and snow equipment would continue to be stored in existing facilities considered inadequate, and de-icing fluid would not be collected and stored in a separate holding tank, extending the existing risk of environmental contamination.

Other alternatives were considered, such as construction of a new airport, moving operations to an existing airport, and renovating the existing terminal building. However, all these alternatives were not considered for further evaluation, due to infeasibility and/or the potential for introducing new or more severe environmental impacts than the proposed project.

2.5 SUMMARY OF OTHER CEQA ISSUES

CEQA Guidelines Section 15126.2(b) states that an EIR shall discuss significant environmental effects that cannot be avoided if a proposed project is implemented. Table 2-1 of this EIR identifies all the potentially significant environmental effects of the project and the mitigation measures to address these effects. In all cases, the proposed mitigation measures would be effective in reducing potential environmental effects to levels that would be less than significant. No significant and unavoidable environmental impacts were identified.

The project would involve irreversible environmental commitments, including energy consumption for project construction and operations. The project would involve the irreversible commitment of construction materials to the construction of buildings and supporting infrastructure, along with apron and parking lot expansion. However, construction materials would not be used in highly significant or unusual quantities when compared to similar projects. Energy would be used during project construction and operations, but it was determined that the project would not consume energy in a wasteful, inefficient, or unnecessary manner, especially since the proposed buildings would comply with applicable energy codes.

Chapter 19.0 discusses the potential growth-inducing impacts of the project. Project impacts on population and housing would be less than significant, as the project is unlikely to induce population growth. The project could result in indirect incremental increases in demand for visitor accommodations, such as lodging, restaurants, and retail, as well as permanent residences, in the Town area. However, any progressive increases in passenger volume are assumed to occur independent of planned terminal improvements. Other than an incremental increase in employment opportunities associated with the new structures, growth of the Town and vicinity would be expected to occur with or without the project. Because of this, the project would not have any substantial growth-inducing impact.

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
4.0 AESTHETICS AND VISUAL RESOURCES			
Impact AES-1: Scenic Vistas. Impacts on scenic vistas would be limited, mainly to those of passengers arriving at or leaving MMH, and such viewers are less sensitive to view changes.	LS	None required.	-
Impact AES-2: Scenic Resources. There are no identified scenic resources on the property. The segment of US 395 adjacent to MMH is part of a State Scenic Highway, but the proposed new construction would not significantly intrude upon scenic views.	LS	None required.	-
Impact AES-3: Visual Character and Quality. The new terminal building, along with other project features such as the new maintenance building and expanded apron, would lead to a greater development footprint on the MMH property. However, the general visual character of MMH would remain the same, while there would be improvements to the existing character, mainly with the terminal building.	LS	None required.	-
Impact AES-4: Light and Glare. Project would be required to comply with FAA advisories regarding exterior lighting of runways and aprons. Interior lighting from the buildings could indirectly illuminate area, but mitigation would reduce potential impacts.	LS	None required	-
5.0 AIR QUALITY			
Impact AIR-1: Air Quality Plans and Standards – Construction Emissions. Project construction emissions would not exceed significance thresholds, thereby being consistent with adopted air quality plans.	LS	None required.	-
Impact AIR-2: Air Quality Plans and Standards – Operational Emissions. Project operational emissions would not exceed significance thresholds, thereby being consistent with adopted air quality plans.	LS	None required.	-
Impact AIR-3: Exposure of Sensitive Receptors to Criteria Pollutants. There are no sensitive receptors within one mile of the proposed construction site. No sensitive receptors are near	NI	None required.	-

Notes: PS = Potentially Significant, LS = Less than Significant, NI = No Impact

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
road intersections where CO concentrations may be elevated.			
Impact AIR-4: Odors and Other Emissions. Odors and TAC emissions from project construction would be localized and would dissipate rapidly. No operational odor emissions would occur.	LS	None required.	-
6.0 BIOLOGICAL RESOURCES			
Impact BIO-1: Special-Status Plant Species and Habitats.	PS	BIO-1: Floristic field surveys of the project site shall be conducted during the blooming period(s) for the potentially occurring special-status species prior to construction, including the Masonic rock cress. At a minimum, one survey shall be conducted during the month of May, and another shall be conducted during the month of July. If any special-status plants are identified within areas of potential construction disturbance, they shall be identified on construction plans with a 10-foot buffer and avoided to the extent feasible. If avoidance is not feasible, a special-status plant mitigation plan shall be prepared and implemented by a qualified biologist. The plan will include the identification of a nearby relocation site that can be secured by the airport, and the methodology to relocate perennial species and/or broadcast seed, prior to ground disturbance.	LS
Impact BIO-2: Special-Status Wildlife Species and Habitats.	PS	BIO-2: Prior to the start of construction work, the Town shall conduct a pre-construction survey on the project site between April and June to determine the presence of western white-tailed jackrabbit. If western white-tailed jackrabbit is found on the project site, the Town shall contact the California Department of Fish and Wildlife (CDFW) to develop and implement measures to conserve western white-tailed jackrabbit. Such measures may include, but are not limited to, removal of individual rabbits from the project site or implementation of a buffer zone around rabbit areas until rabbits can independently forage on their own. No construction work shall occur on the project site until consultation with CDFW is completed.	LS
Impact BIO-3: Riparian and Other Sensitive Habitats.	NI	None required.	-
Impact BIO-4: Waters of the U.S. and Wetlands.	NI	None required.	-

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact BIO-5: Fish and Wildlife Migration.	LS	None required.	-
Impact BIO-6: Local Biological Resource Requirements	NI	None required.	-
Impact BIO-7: Habitat Conservation Plans	LS	None required.	-
7.0 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES			
Impact CULT-1: Historical Resources. Potential historical resources identified on the project site were determined not eligible for NRHP listing and not significant for CEQA purposes.	LS	None required.	-
Impact CULT-2: Archaeological Resources. No archaeological resources have been found on the project site. However, several prehistoric scatters and isolates have been recorded in the vicinity, and it is possible that unknown cultural resources may be uncovered during project construction.	PS	CULT-1: If any subsurface archaeological resources are encountered during construction, all construction activities within a 50-foot radius of the encounter shall be immediately halted until a qualified archaeologist can examine these materials, initially evaluate their significance and, if potentially significant, recommend measures on the disposition of the resource before work near the discovery can resume. The Town shall be immediately notified in the event of a discovery, and if the resources may constitute tribal cultural resources, the Town shall notify the appropriate Native American representatives. The Town shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts. Prior to construction, construction personnel shall receive brief "tailgate" training by a qualified archaeologist in the identification of archaeological resources and the protocol for notification should such resources be discovered during construction work.	LS
Impact CULT-3: Tribal Cultural Resources. No tribal cultural resources have been recorded, and no tribes contacted for this project indicated the existence of any cultural resource of importance. However, several prehistoric scatters and isolates have been recorded in the vicinity, and it is possible that unknown tribal cultural resources may be uncovered during project construction.	PS	Mitigation Measure CULT-1.	LS
Impact CULT-4: Human Burials. Cultural resource investigations to date have not revealed the presence of	PS	CULT-2: If project construction encounters evidence of human burial or scattered human remains, work shall be halted in the	LS

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
human burials on or near the project site. Nevertheless, given the presence of other resources recorded in the vicinity, it is conceivable that previously unknown human remains could be encountered during project construction. CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. Additional mitigation is prescribed for treatment of Native American remains.		immediate area and the contractor shall immediately notify the Mono County Coroner and the Town. The Town shall notify other federal and State agencies as required. The Town will be responsible for compliance with the requirements of California Health and Safety Code Section 7050.5 Public Resources Code Section 5097.98, and the CEQA Guidelines Section 15064.5(e), with direction provided by the County Coroner. If the human remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which will notify and appoint a Most Likely Descendant. The Most Likely Descendant shall have 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the Most Likely Descendant does not make recommendations within 48 hours, the Airport shall, with appropriate dignity, re-inter the remains in an area of the property secure from further disturbance. Work shall not resume in the area of the encounter until the final disposition of the remains has occurred.	
8.0 GEOLOGY, SOILS, AND MINERAL RESOURCES			
Impact GEO-1: Fault Rupture. There are no faults on the MMH property.	NI	None required.	-
Impact GEO-2: Other Seismic Hazards. The proposed new buildings would be subject to potentially strong ground shaking. Compliance with the California Building Code and Section 15.24.020 would reduce the potential damage that may occur to these buildings during an earthquake. MMH is not within a liquefaction or a landslide area.	LS	None required.	-
Impact GEO-3: Volcanic Activity. The last known volcanic activity occurred 250 years ago in the Mono Lake area. The likelihood of such activity at any given time is considered low.	LS	None required.	-
Impact GEO-4: Soil Erosion. Project construction activities would loosen the soil, leaving it exposed to potential water and wind erosion. Project would be required to obtain a Construction General Permit, which has conditions that would reduce soil erosion impact, and with GBUAPCD Rule 401,	LS	None required.	-

Notes: PS = Potentially Significant, LS = Less than Significant, NI = No Impact

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
which would control fugitive dust.			
Impact GEO-5: Expansive Soils. Project site soils have low shrink-swell potential. Town General Plan has a policy requiring new development to submit soils reports that identify the potential for expansive soils during project design.	NI	None required.	-
Impact GEO-6: Paleontological Resources and Unique Geological Features. The project site and vicinity do not contain unique geological features or paleontological resources.	NI	None required.	-
Impact GEO-7: Access to Mineral Resources. Access to gravel pit north of project site would be maintained. No other mineral resources are in immediate area.	NI	None required.	-
9.0 GREENHOUSE GAS EMISSIONS			
Impact GHG-1: Project GHG Construction Emissions. Unmitigated construction GHG emissions would be below significance threshold. Implementation of rules that are designed to reduce air pollutant emissions is also expected to reduce incrementally GHG emissions.	LS	None required.	-
Impact GHG-2: Project GHG Operational Emissions and Consistency with Applicable Plans and Policies. Unmitigated and mitigated operational GHG emissions would be below significance thresholds. Project operational emissions would not conflict with State GHG emission reduction plans set forth in accordance with AB 32 and SB 32.	LS	None required.	-
10.0 HAZARDS AND HAZARDOUS MATERIALS			
Impact HAZ-1: Hazardous Material Transportation, Storage, and Disposal. Project site activities that would transport or store hazardous materials would be required to do so in compliance with applicable local, state, and federal regulations. De-icing fluid used at the proposed apron would drain to a central inlet, and in turn to a holding tank.	LS	None required.	-

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact HAZ-2: Hazardous Material Releases. Potential hazardous materials spills during construction would be addressed in the SWPPP required under the Construction General Permit. Compliance with applicable local, state, and federal regulations would minimize operational impacts. No schools are located within one-quarter mile of the project site.	LS	None required.	-
Impact HAZ-3: Hazardous Material Sites. No active hazardous material sites were identified on or adjacent to project site.	LS	None required.	.
Impact HAZ-4: Airport Hazards. Project does not propose any development on or near the project site that would generate a significant concentration of residents or employees within a flight safety zone.	LS	None required.	-
Impact HAZ-5: Interference with Emergency Vehicle Access and Evacuations. Project would not affect designated evacuation routes within the Town. Airport Road could remain open to traffic during the construction period, after which there would be no obstruction of roadways.	LS	None required.	-
Impact HAZ-6: Wildfire Hazards. The project site is not within a State Responsibility Area, and the entire MMH property is not within a High or Very High Fire Hazard Safety Zone as designated by Cal Fire.	LS	None required.	-
Impact HAZ-7: Snow Hazards. The project buildings would be constructed in accordance with Town Municipal Code requirements that would reduce hazards associated with snow. Also, the project would provide a new maintenance building where snow plows and blowers could be stored and maintained, thus increasing their availability in the event of major snowstorms.	LS	None required.	-
Impact HAZ-8: Radon and CO Hazards. Radon and CO risks are only incidentally related to airport facilities or operations.	LS	None Required.	-

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
11.0 HYDROLOGY AND WATER QUALITY			
Impact HYDRO-1: Surface Water Resources and Quality. The project would not involve any direct effect on an existing surface water resource. Project construction work would not be near any streams or bodies of water such that activities would lead to a discharge of sediments or other contaminants in waters. Compliance with the Construction General Permit and its conditions would further minimize the potential impact.	LS	None required.	-
Impact HYDRO-2: Groundwater Resources and Quality. The project would not have a direct impact on groundwater use. The main source of increased water usage would be increased passenger volume at MMH, generally independent of the project and capable of being supplied by existing water system.	LS	None required.	-
Impact HYDRO-3: Drainage Patterns and Runoff. Project would alter existing drainage patterns and runoff volumes, but added runoff can be accommodated by existing soils and ditches. No erosion or flooding would occur.	LS	None required.	-
Impact HYDRO-4: Polluted Runoff and Release of Pollutants. Substances that are potential water pollutants include petroleum products, de-icing fluid, PFAS, and wastewater discharges. Pollutants from project improvements would not likely be carried to surface waters or groundwater.	LS	None required.	-
Impact HYDRO-5: Exposure to Flood Hazard. The project site is not within a flood hazard area designated by FEMA, and it is not within an area identified as one at risk from dam failure.	NI	None required.	-
Impact HYDRO-6: Consistency with Water Quality and Groundwater Management Plans. No long-term water quality plans or groundwater management plans apply to MMH.	LS	None required.	-

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TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
12.0 LAND USE, POPULATION, AND HOUSING			
Impact LUP-1: Division of Communities. The MMH is separated from the Town by approximately six miles of mostly open space. The nearest residential properties are along Hot Creek Hatchery Road northwest of MMH.	NI	None required.	-
Impact LUP-2: Conflict with Applicable Plans, Policies, and Regulations. The project is consistent with Town zoning and General Plan designations. The project would be consistent with General Plan policies that would avoid or mitigate environmental effects, or such General Plan policies would not apply due to circumstances associated with the project or its location. The project would not interfere with grazing activity designated on adjacent Inyo National Forest land.	LS	None required.	-
Impact LUP-3: Agricultural Resources. None of the soils on the MMH property are considered prime farmland or other important farmland. No agricultural activities occur on the MMH property, and no zoning for agriculture has been placed there.	NI	None required.	-
Impact LUP-4: Forest Resources. Although partially on Inyo National Forest land, the project site has no forests. The MMH property is not zoned for forest land or for timber production.	NI	None required.	-
Impact LUP-5: Indirect Conversion of Agricultural or Forest Lands. There are no agricultural or forest resources on or near the project site.	NI	None required.	-
Impact LUP-6: Inducement of Population Growth. Project development may provide employment opportunities; however, these opportunities would be minimal. Project may indirectly affect employment through visitor increases, but such increases would generally occur independent of the project.	LS	None required.	-
Impact LUP-7: Displacement of Housing and People. The project site has no housing or residents. An incremental increase in employment resulting from the project could lead to a temporary demand on existing residential units, but	LS	None required.	-

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
nothing beyond what was anticipated in the Town General Plan.			
13.0 NOISE			
Impact NOISE-1: Increase in Noise Levels in Excess of Standards - Construction. Construction activities, including truck traffic, would be temporary in nature and are anticipated to occur during normal daytime working hours. There are no land uses sensitive to noise on or near the project site. Project construction would be required to comply with noise provisions of the Town Municipal Code.	LS	None required.	-
Impact NOISE-2: Increase in Noise Levels in Excess of Standards - Operations. Aircraft operations are the main source of noise. The number and type of future aircraft operations are independent of the project. Activities that may generate noise at the maintenance building would be mostly inside, and there are no nearby land uses that would be affected by maintenance noise.	LS	None required.	-
Impact NOISE-3: Groundborne Vibrations. Groundborne vibrations from construction equipment would not adversely affect existing MMH structures or any off-site structures. No groundborne vibrations would be generated by the project after construction work is completed.	LS	None required.	-
14.0 PUBLIC SERVICES AND RECREATION			
Impact PSR-1: Fire Protection Services. The project is not expected to require new or expanded facilities for the Long Valley Fire Protection District.	LS	None required.	-
Impact PSR-2: Police Protection Services. The Mammoth Lakes Police Department has indicated that the project would not require new or expanded facilities to provide service.	LS	None required.	-
Impact PSR-3: Schools. The project involves airport development, which does not generate a demand for school services or facilities.	LS	None required.	-

Notes: PS = Potentially Significant, LS = Less than Significant, NI = No Impact

TABLE 2-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
Impact PSR-4: Parks and Recreational Services. The project would not involve any direct effects on parks or recreational facilities, nor would it generate a demand for new or expanded recreational facilities or services.	LS	None required.	-
Impact PSR-5: Other Public Facilities. The project would not generate additional demand for library, public hospital, and courthouse services, and therefore would not require new or expanded facilities.	LS	None required.	-
15.0 TRANSPORTATION			
Impact TRANS-1: Vehicular Transportation Plans. The project would involve a major improvement to the existing MMH passenger terminal and related facilities, the importance and need of which are recognized in transportation planning documents applicable to the Mammoth Lakes area. The project would implement elements of the various applicable transportation plans and would involve no inconsistency with these plans.	LS	None required.	-
Impact TRANS-2: Conflicts with Non-Motor Vehicle Transportation Plans. The General Plan does not identify existing non-vehicular facilities or services at MMH, and no such facilities or services are currently available. The project would not conflict with any known non-motor vehicle transportation plans or projects, including the installation of bicycle lanes as part of the Airport Road and Hot Creek Hatchery Road improvements to be done separately from the proposed project.	LS	None required.	-
Impact TRANS-3: Consistency with CEQA Guidelines Section 15064.3(b). The project is a transportation project and therefore is not expected to significantly influence VMT in the area. Project improvements would likely encourage greater use of shuttles, which would reduce VMT.	LS	None required.	-
Impact TRANS-4: Safety Hazards. Airport improvements, including new aprons and taxiways, would be subject to FAA approval and associated airport design and transportation security standards. The project would not physically affect Airport Road or other public roads in the MMH vicinity such	LS	None required.	-

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Potential Impact	Significance Before Mitigation	Mitigation Measures	Significance After Mitigation
that safety hazards might result. No new vehicle types incompatible with existing traffic composition are expected to be introduced.			
Impact TRANS-5: Emergency Access. Existing emergency access would continue to be provided.	LS	None required.	-
16.0 UTILITIES AND ENERGY			
Impact UTIL-1: Wastewater Services and Facilities. New wastewater disposal facilities would be installed. The MMH property can accommodate greater wastewater generation without adverse impacts on the underlying aquifer.	LS	None required.	-
Impact UTIL-2: Water Services and Facilities. Water lines would be extended to new development. MMH has adequate water supplies for project.	LS	None required.	-
Impact UTIL-3: Stormwater Services and Facilities. New storm drainage facilities would be installed. Additional drainage can be accommodated with no adverse environmental impacts.	LS	None required.	-
Impact UTIL-4: Solid Waste. The project would generate demand for solid waste services. The project would comply with applicable state and local laws and regulations related to solid waste, including long-term disposal solutions and recycling.	LS	None required.	-
Impact UTIL-5: Energy and Telecommunications Facilities. Existing energy and communications facilities are available near the project site. Additional propane tanks would be subject to federal, State, and local regulations regarding hazardous material transport and storage.	LS	None required.	-
Impact UTIL-6: Project Energy Consumption. The project would not consume energy in a manner that is wasteful, inefficient, or unnecessary. Project would comply with applicable energy codes.	LS	None required.	-

Notes: PS = Potentially Significant, LS = Less than Significant, NI = No Impact

3.0 PROJECT DESCRIPTION

3.1 PROJECT BRIEF

The proposed project involves improvements to the MMH passenger terminal area as described in the *Terminal Area Development Plan for the Mammoth Yosemite Airport* (Brandley 2017). The principal proposed improvements involve construction of a new passenger terminal building, aircraft parking apron, aircraft de-icing facilities, maintenance building, connecting taxiways, and other supporting infrastructure such as access roads, service roads and parking lots as well as potable water, wastewater disposal and other utility services. These facilities are described in more detail below.

3.2 PROJECT LOCATION

MMH is within a non-contiguous portion of the Town located approximately six miles east of the Town proper and surrounded by Mono County unincorporated area. It is adjacent to and north of US 395 between Hot Creek Hatchery Road on the west and Benton Crossing Road on the east, approximately four miles east of the US 395/State Route (SR) 203 interchange that provides principal access to the Town (Figures 1-1 through 1-5). MMH is situated in the western portion of Long Valley at an elevation of approximately 7,128 feet above mean sea level.

MMH comprises approximately 246 acres consisting of Mono County Assessor's Parcels 037-250-004-000, 037-130-001-000, and 037-130-016-000. Of the total acreage, 196 acres are owned by the Town, 33 acres are leased from the LADWP, and 17 acres are Inyo National Forest lands pursuant to a Special Use Permit from the Forest. The site is shown on the Whitmore Hot Springs U.S. Geological Survey (USGS) 7.5-minute quadrangle map within Sections 1, 2, and 12 of Township 4 South, Range 28 East, Mt. Diablo Baseline and Meridian. The approximate latitude of the project site is 37° 37′ 34″ North, and the approximate longitude is 118° 50′ 11″ West.

Proposed improvements would occur entirely within an approximately 22-acre portion of the MMH site that is immediately east and south of, the existing terminal area (Figures 1-4 and 3-1). This area is largely undeveloped except for existing airport-related access roads and storage tank facilities.

3.3 PROJECT OBJECTIVES

The primary objective of the project is to improve MMH as required to accommodate existing and future commercial aviation demand and provide an acceptable level of customer service. MMH plays a key role in providing visitor access to the eastern Sierra

region, including major ski resort and visitor accommodations in the Town of Mammoth Lakes and the surrounding area. The U.S. Forest Service (Inyo National Forest) has designated the Town of Mammoth Lakes as a "gateway" community for recreational activities within the National Forest and for Yosemite National Park.

The proposed terminal area improvements will allow MMH to function more efficiently and effectively to meet existing and projected demand. Additional terminal capacity is required to accommodate the peak travel demands of both arriving and departing passengers. Future aviation demand is described in the 2017 aviation forecast and the 2019 addendum, which indicate that MMH will experience incremental increases in passenger enplanements and charter flights from destinations throughout the western United States over the 10-year forecast period. The greatest demand will be in the winter when visitors take advantage of the winter sports recreational opportunities in the eastern Sierra region.

Another objective of the project is to ensure the safe and efficient use of navigable airspace in the U.S, in accordance with the statutory mission of the Federal Aviation Administration. Moreover, it is the policy of the FAA under 49 U.S.C. Section 47101 (a)(6) that airport development projects provide for the protection and enhancement of natural resources and the quality of the environment of the United States. The project is intended to be consistent with FAA objectives and policies. In addition, the project is intended to be consistent with the mission of Caltrans Division of Aeronautics, which is to provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.

3.4 PROJECT DETAILS

Proposed terminal area improvements would occur within an approximately 22-acre area generally east of the existing passenger terminal building and south of the proposed Airport Road extension (Figure 3-1). The new passenger terminal, vehicle parking lots and new aircraft aprons will occupy approximately 8.7-acres of undeveloped land within the 22-acre area.

3.4.1 New Passenger Terminal

The project includes construction of a new passenger terminal with a maximum floor area of approximately 38,688 square feet. Figure 3-2 depicts the proposed floor plan of the terminal, and Figure 3-3 shows the conceptual terminal building elevations. The building height would be a maximum of 35 feet.

The terminal building would include lease space for airlines and restaurant/retail uses, public space, and office and utility areas. Table 3-1 shows an approximate square footage of uses in the proposed terminal building and compares them to square footage of uses in the existing terminal building. The total square footage in Table 3-1 is based on a conceptual terminal design set forth in the 2017 Terminal Area Development Plan and therefore does not equal 38,688, which is the correct square footage.

TABLE 3-1
EXISTING AND PROPOSED TERMINAL BUILDINGS

Use	Existing Terminal (sq. ft.)	Proposed Terminal (sq. ft.)
LEASE SPACE		
Airlines		
Passenger hold rooms	940	3,600
Emergency exit concourse	-	314
Ticket counter area	420	872
ATO	120	332
Baggage sort/on-loading	285	3,185
Curbside baggage	-	1,563
Baggage sort/off-loading	-	3,874
Baggage claim	120	1,600
Baggage conveyors	-	511
Ski/oversized baggage	-	182
Subtotal	1,885	16,033
Other Lease Space		
Rental car	150	1,202
Restaurant	-	1,822
Retail	22	324
Vending	-	23
News/Gifts	-	340
Lease/display	-	315
Subtotal	172	4,026
PUBLIC SPACE		
Ticket lobby	504	1,360
Public seating areas	-	600
Restrooms, non-secure	285	429
Restrooms, secure	76	539
Security checkpoint	835	2,294
Circulation	1,215	11,112
Subtotal	2,915	16,334
OTHER AREAS		
Ground transportation	-	344
Airport administration	-	897
Multi-purpose/support (conference)	-	473
Mechanical/electrical/utility	24	1,098
Support/storage	64	83
Subtotal	88	2,895
TOTAL	**5,060**	**39,288**

The proposed terminal building would have three gates, as opposed to the current one gate at the existing terminal building, and future gates could be added as passenger traffic warrants. The building would include security monitoring systems, fire alarm and detection linked directly to the Mammoth Lakes Fire Protection District, and sprinkler systems for all required areas. Other facilities would include phone, wireless network, and public address and Flight Information Display systems.

An architectural concept for the terminal building and elevations are shown on Figure 3-2. Design themes reflected in these illustrations include a linear building layout parallel to the runway, prominent gable entry, and extensive use of wood columns and siding, glass, and decorative rock accents. It is anticipated that the final design of the terminal building will be the result of substantial additional planning that integrates necessary terminal functions and future expansion needs; detailed consideration of Town design goals, objectives, and guidelines; and dialogue between the Town Council, Planning and Economic Development Commission, airport planners, airport engineers, and the general public.

The entire building design and layout would not preclude future expansion of all major areas of the building, as the need arises, with minimal interruption to the operations. Because of the type of service forecast for MMH, it is not possible at this time to forecast if, when, or how much expansion may be necessary. Such expansion, should it be pursued, would be subject to CEQA review.

3.4.2 Road Extension and Parking

Airport Road would be extended approximately 850 feet east from its current terminus to provide vehicle access to the new terminal, terminating at a cul-de-sac. The extension would consist of two 12-foot-wide eastbound travel lanes, a 10-foot-wide median, and two 12-foot-wide westbound travel lanes. Passenger loading/unloading at the landside of the terminal building would be provided with a 20-foot-wide concrete sidewalk and a 9-foot-wide space for automobile parallel parking adjacent to the extended Airport Road.

The project proposes two new parking areas: 1) an approximately one-acre parking area west of the terminal that would provide 130 automobile spaces primarily for rental car company vehicles; 2) an approximately 0.46-acre parking lot east of the terminal that would provide 60 automobile spaces for commercial passengers and other visitors. Floodlighting will be provided on the access road in front of the terminal building and in the parking lots to provide light for all loading and unloading operations.

3.4.3 Aircraft Parking Apron

The project would include a new aircraft parking apron, approximately 20,440 square yards (183,996 square feet) in area, on the airside of the new terminal, adjacent to and east of the existing apron. The new apron would accommodate three Q400 turboprop aircraft or three CRJ700 regional jet aircraft in a taxi-in/taxi-out type operation. The apron would be a rigid pavement design using a 16-inch-thick Portland cement concrete surfacing material. A continuous grated slot drain would be installed at the north edge of

the apron to capture all runoff from the apron and terminal. The commercial apron would be lighted with floodlights that will be provided with cut-off features.

3.4.4 Aircraft De-icing Apron

A separate concrete de-icing apron is proposed adjacent to the aircraft parking apron to accommodate de-icing operations for commercial and business air traffic during winter operations (see Figure 3-1). Like the terminal apron, the de-icing apron would be constructed of a rigid pavement section with a 16-inch-thick Portland cement concrete slab. Runoff and de-icing fluid from the de-icing apron would drain to a central inlet. A valve-controlled dual-pipe discharge would send de-icing fluid to a holding tank for storage until it is pumped out and transported to a suitable disposal area. Storm water would be directed to a leaching field north of the apron, adjacent to the holding tank. The valves would be controlled so that, when deicing operations are taking place, the valve to the storm water leaching field would be closed and the valve to the holding tank would be open.

3.4.5 Connecting Taxiways

Two taxiways, approximately 230 and 280 feet long and both approximately 75 feet wide, would connect the new aircraft parking apron and de-icing apron to the existing Taxiway A. These taxiways would be surfaced with asphalt concrete.

3.4.6 Maintenance Building

The project would include a new eight-bay maintenance building east of the de-icing apron with a total floor area of approximately 8,400 square feet. One of the bays would house Aircraft Rescue and Fire Fighting (ARFF) operations; the remaining bays would be used for storage of snow removal and other maintenance equipment. A parking area that would accommodate approximately 22 vehicles would be installed in front of the maintenance building to the north, and a paved operations area will be provided to the south. A new access road, approximately 800 feet in length and 25 feet in paved width, would connect this facility to Taxiway A.

3.4.7 Infrastructure

Infrastructure to support the new terminal building and other improvements would include the following:

Wastewater Disposal. Wastewater generated by the new terminal and maintenance facilities would be transported in new collection lines to a new 2,500-gallon septic tank and leach field, to be located generally west of the proposed terminal building. The leach field would consist of a layer of drain rock approximately 22 inches deep covered by a layer of topsoil approximately 16 inches deep; the layers would be separated by a filter fabric. Three perforated PVC lines, each 4 inches in diameter and ranging in length from 78 to 90 feet, would run from the septic tank through the top portion of the rock layer.

The septic tank and leach field would be installed in accordance with Mono County on-site wastewater disposal standards.

A new PVC sanitary sewer line approximately four inches in diameter would be installed to carry wastewater from the new terminal to the septic tank. The new line would be designed such that wastewater would be conveyed to the plant by gravity flow. Other lines would carry wastewater from the new maintenance building and existing facilities to the septic tank.

Potable Water. Potable water supply for the Airport is currently obtained from two wells on the MMH site. An existing 428,000-gallon storage tank is located east of the existing terminal facilities, along with an adjacent pump house with an emergency generator. The project would include extension of new potable water lines to the new terminal and maintenance building. The lines would be adequately sized to provide required consumption and fire protection pressures and volumes, as determined by the Airport Engineer. The existing storage tank and pump house would be retained.

Other Utilities. Electricity is provided to the airport by Southern California Edison (SCE). Electrical service would be extended to proposed new facilities.

There are no natural gas lines around MMH; gas service is provided to existing facilities by local propane suppliers. The proposed new facilities can also be served by propane if necessary.

Telephone service to MMH is provided by Verizon. MMH is also served by the Digital 395 fiber optic cable that can provide high-speed communications and internet service. Services would be extended to new facilities from the existing vault.

The project would include new security features, including alarmed doors, security cameras, security fencing. Although not a part of the proposed project, the existing barbed wire fence around the entire airport would be replaced with a new 8-foot chain link fence, with coded gates as required. The fence project has undergone separate environmental analysis and is under final review by the Inyo National Forest and Caltrans. Security cameras would be installed at all entrance gates and at critical points on the aircraft parking apron.

As noted, the aircraft parking apron, automobile parking lots, and access road to the new terminal would be lighted with floodlights. These floodlights would be provided with cut-off features such that full light is available on the apron and parking lots but not visible from the runway, US 395, or other surrounding areas. Lighting for the building will be provided based on National Electrical Code standards and include the use of energy-efficient fixtures throughout the facility. Light levels will meet the illumination standards for the areas and their associated tasks. Public area light fixtures will be designed to complement the aesthetic values of the terminal area improvements. Lighting for the apron area would be included, as designed by the airport engineer.

3.5 PERMITS AND APPROVALS

Table 3-2 provides a summary of permits and approvals that would be required for the project from State and local agencies. Proposed terminal area improvements would require discretionary approvals from the Town, along with permits from other federal, State, and local agencies, including Mono County, the State Water Resources Control Board, and the Federal Aviation Administration (FAA).

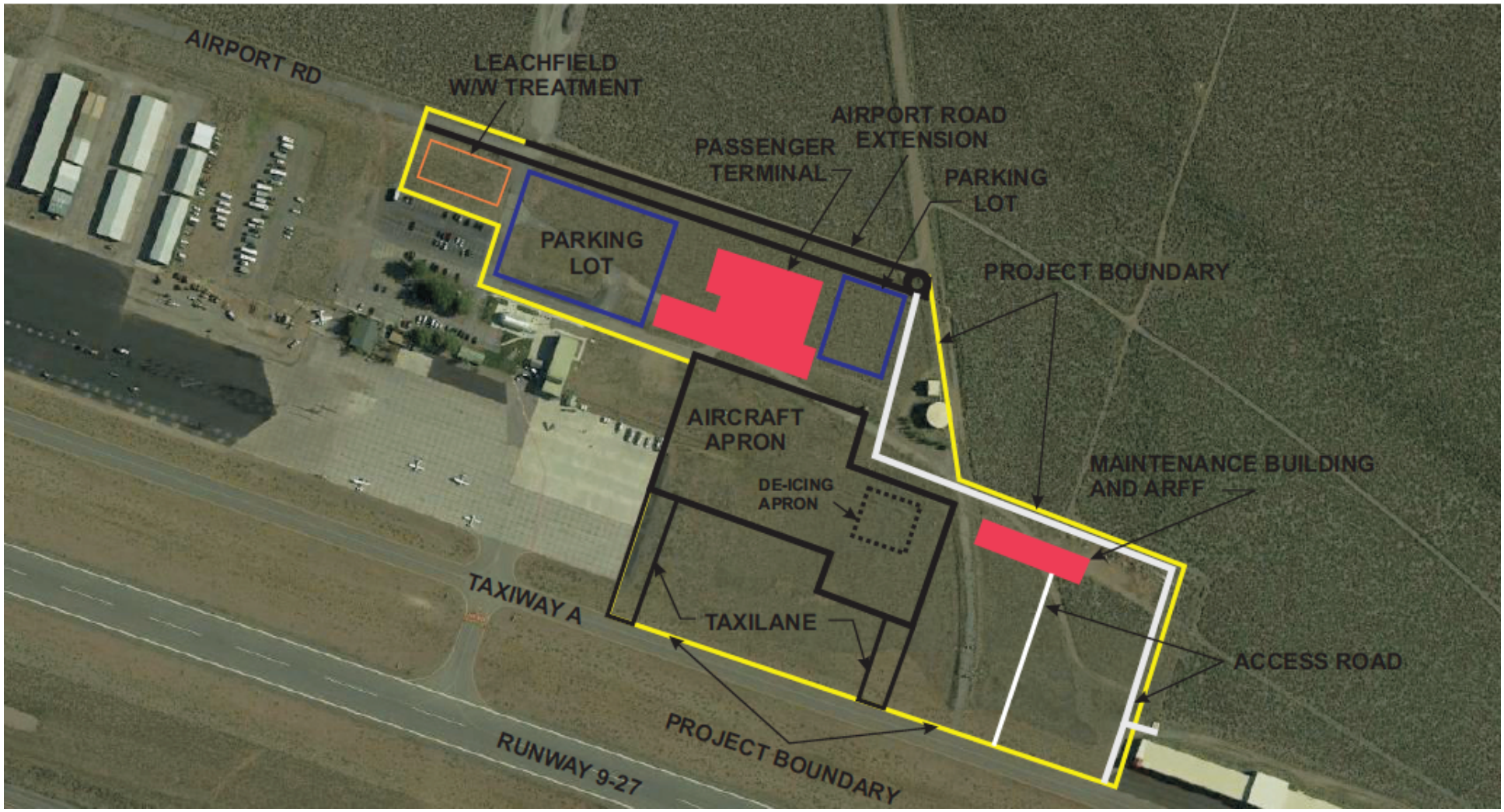
The FAA, which is the principal federal authority for aviation and airport regulation and funding, has responsibility for environmental review and approval of airport improvement projects under the National Environmental Policy Act (NEPA). The Town is preparing a NEPA Environmental Assessment (EA) for FAA approval concurrently with preparation of this EIR. The FAA would need to approve the EA prior to its decisions on the project, including funding recommendations.

As discussed in Chapter 1.0, Introduction, the improvements described in the TADP and addressed in this EIR reflect the Town's probable future undertakings to improve the terminal area. The precise location, size, appearance, and design of individual improvements will likely be modified over time as required to reflect changing circumstances. Prior to final design, approval, and construction of these improvements, the Town will need to ensure that current applicable CEQA requirements have been met; some or all those requirements may be met by this EIR.

TABLE 3-2
REQUIRED PERMITS AND APPROVALS FOR PROJECT

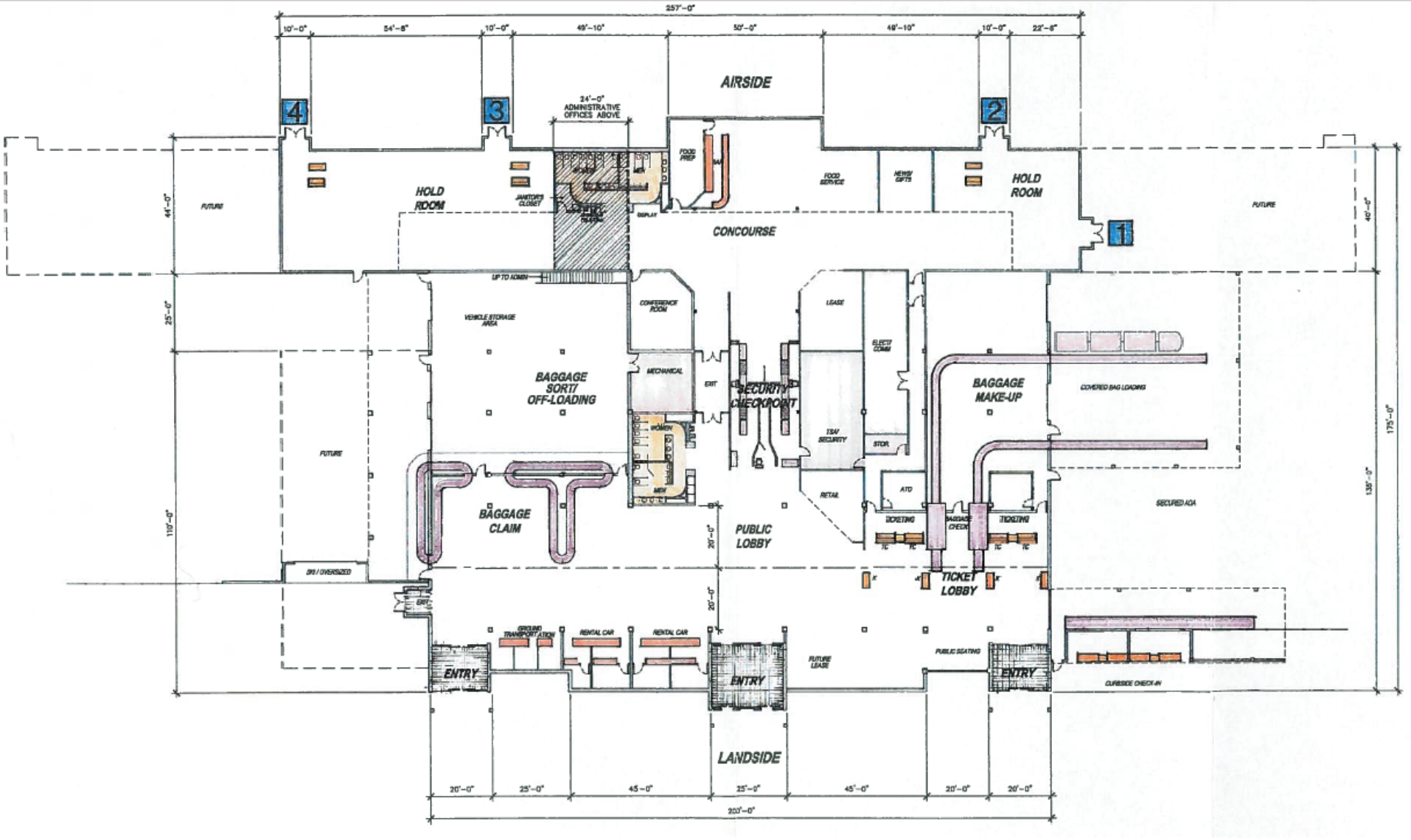
Agency	Permit/Approval
Town of Mammoth Lakes, Town Council	Certification of Final Environmental Impact Report, adoption of CEQA findings and mitigation monitoring program Approval of project development
Town of Mammoth Lakes, Planning and Economic Development Commission	Recommendations to the Town Council on all land use and development actions Design review
Town of Mammoth Lakes, Public Works Department	Approval of site improvement plans Approval of storm drainage facilities
Mono County Environmental Health Department	Permits for wastewater treatment facility, wastewater disposal and groundwater well modification, if required.
State Water Resources Control Board	Construction General Permit

Agency	Permit/Approval
Regional Water Quality Control Board, Lahontan Region	Waste Discharge Requirements for sewer and storm water systems
Federal Aviation Administration	Adoption of Environmental Assessment Approval of project development



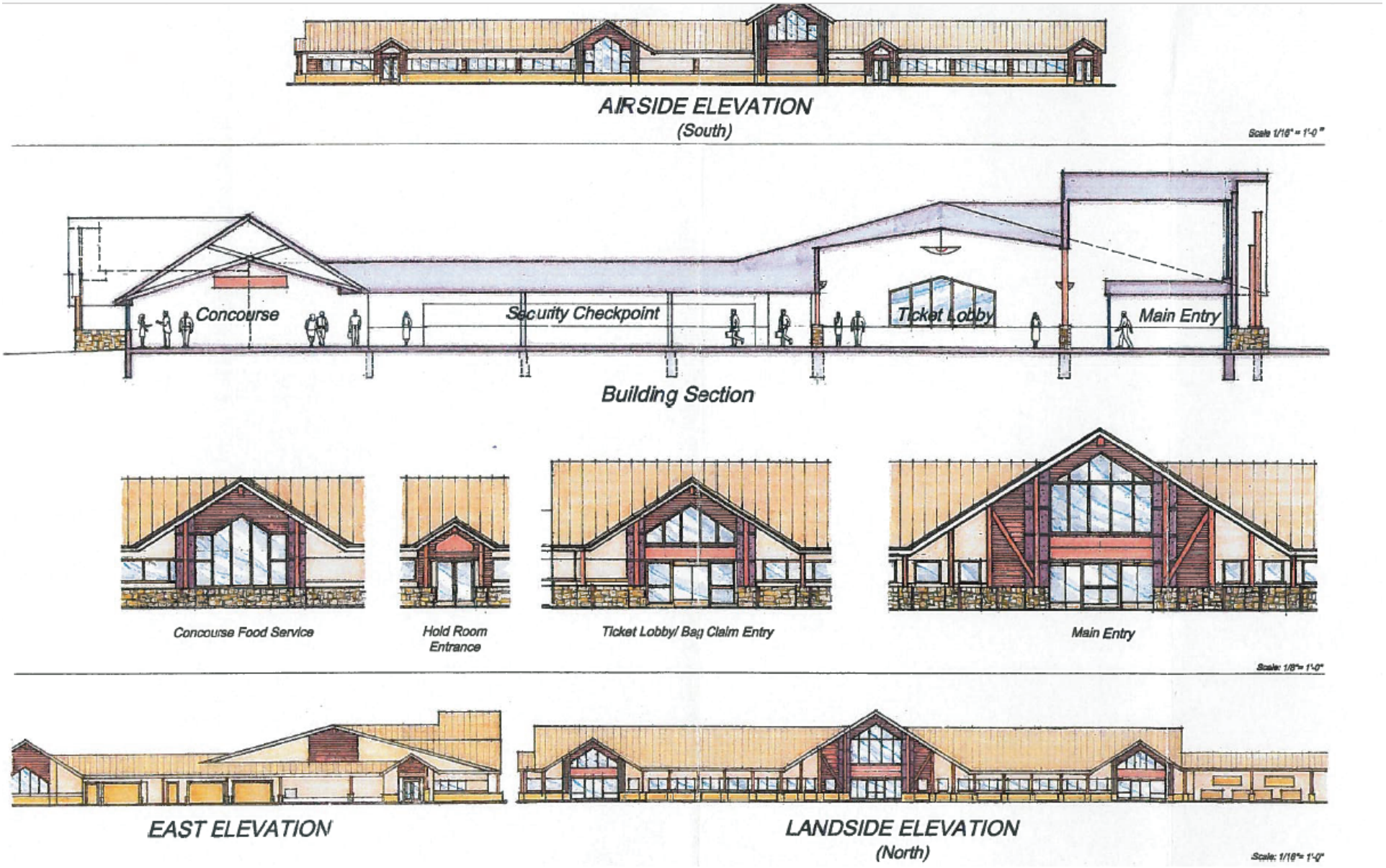
SOURCE: Reinard W. Brandley, Consulting Airport Engineer

Figure 3-1
PROJECT SITE PLAN



SOURCE: Van Sant Group

Figure 3-2
TERMINAL FLOOR PLAN



SOURCE: Van Sant Group

BaseCamp Environmental

Figure 3-3
CONCEPTUAL TERMINAL BUILDING ELEVATIONS

4.0 AESTHETICS AND VISUAL RESOURCES

ENVIRONMENTAL SETTING

Aesthetics/Visual Resource Background

The aesthetic value assigned to a resource varies significantly from person to person, depending on that person's ideas and perceptions. This makes aesthetic and visual resource impacts among the more complex environmental impacts to assess. Despite the inherent difficulties, quantitative methods for assessing aesthetic values have been developed. Although this analysis will not attempt a quantitative measurement of aesthetic values, it will provide an assessment of the key criteria associated with aesthetics and visual resources.

In general, the value of visual resources of a geographic area is a function of the following:

1) Landscape character, or in the case of "built" environments, site development and architectural character

2) Distance between the affected landscape and viewer

3) Number and sensitivity of viewers

Landscape character may be defined as distinctive, common, or minimal. "Distinctive" landscapes include those with unusual topography or vegetation, or for urban landscapes unique or aesthetically pleasing building and site design, and landscaping, elements. "Common" landscapes, both natural and urban, have elements that are prevalent and relatively uniform in the analysis area. "Minimal" landscapes include extensive areas of very repetitive or uninteresting elements, as well as areas highly disturbed by development activities.

Systems for assessing aesthetic values have been defined primarily with respect to public resource lands, but these systems are adaptable to urbanized environments. In these terms, aesthetic values are a function of 1) landscape character, including the "built environment," 2) distance between the affected landscape and viewer, and 3) the number and sensitivity of viewers. In urban areas, the elements of the "landscape" are human-designed or altered.

The sensitivity of potential viewer areas may range from low to high, depending on the nature and expectations of users and the duration of use of the area. Areas of high sensitivity typically include recreation sites, scenic routes, and special-purpose urban areas. Areas of moderate sensitivity include residential areas of common character but

involving long viewer exposure times. Areas of low sensitivity include high-volume and/or high-speed travel corridors through urbanized areas.

Aesthetic/Visual Resources on Project Site and in Vicinity

MMH and the core of the Town of Mammoth Lakes are separated by approximately six miles and have distinctly different aesthetic settings. The Town is an alpine Sierra Nevada resort community located at the foot of Mammoth Mountain, a major ski resort, at an elevation of around 8,000 feet above mean sea level. The overall Town setting is a mountain valley surrounded by mountain peaks that reach 11,000 feet in elevation above mean sea level. Native vegetation is a mosaic of pine forest, meadow, and sage. The surrounding forest weaves through the Town, creating a forested, rustic environment that defines the Town character. Barren rock outcrops and talus slopes, chaparral, and sagebrush add texture and color. Existing development in the Town consists of low-rise residential, commercial, and public structures, along with roads and utility poles. Visual contrasts of this development with the natural landscape is somewhat reduced in residential areas, particularly in older established neighborhoods, because of the use of natural materials and colors and the screening afforded by trees and vegetation (Town of Mammoth Lakes 2007b).

MMH is located six miles east of Town in the southwestern portion of Long Valley. The aesthetic setting is characterized by expansive distance views of the Sierra Nevada and the volcanic landforms. The area adjacent to US 395 in the immediate vicinity of MMH is characterized by sagebrush and bitterbrush with virtually no trees to obstruct views from the highway. An aesthetic overview of the airport and surrounding landform is provided in the "Existing view" photo on Figure 4-3.

Drivers on US 395 approaching on the northbound lanes first view MMH from approximately one mile east of the eastern end of the runway. The primary views along the US 395 approach to MMH from the east are due west to rocky and forested slopes of Mammoth Mountain, the Minarets, and Mounts Ritter and Banner. Mount Morrison and Laurel Mountain are on the left (south). MMH parallels US 395 on the north for approximately two miles. Beyond MMH to the north are low, sparsely forested hills, with the more distant Glass Mountains and Bald Mountain forming the distant horizon.

Approaching MMH on the southbound lanes of US 395, MMH buildings are visible from as far away as the descending portions west of the SR 203 interchange near the Town. Landscape features intermittently block visibility of MMH until approximately one-half mile west of Hot Creek Hatchery Road. The primary views from this direction are the Sierra Nevada on the right, the White Mountains in the distance to the east/northeast, and the Glass Mountains to the north, with low hills in the middle ground. Existing airport structures are relatively unimportant elements of the perpendicular views from US 395. These existing views are shown on Figures 4-1 and 4-2. The only structures readily visible from the segment of US 395 paralleling MMH are the hangar structures and other buildings at MMH. Other buildings visible from US 395 include the Green Church at Benton Crossing Road, the Sierra Nevada Aquatic Research Labs, power lines paralleling the south side of the Highway, and the Sierra Quarry (Town of Mammoth Lakes 2002).

From most public road viewpoints, including US 395, SR 203, Convict Lake Road, and Hot Creek Hatchery Road, MMH appears as a lengthy series of single-story hangars and other structures with a gap in the middle. Views of the asphalt runway and taxiway facilities are available from higher-elevation vantage points. In all cases, MMH occupies a relatively low profile in the context of the broader background topography, especially when set against the Sierra Nevada to the west and south.

From US 395, the public view corridor with the most traffic, immediate foreground views toward the airport are of roadside and on-airport sagebrush vegetation. The runway, taxiways, hangars, and other airport buildings are plainly visible in the near-middleground at a distance of 400-800 feet over a distance of approximately two miles along the highway. These views are set against a backdrop of low forested hills as close as one-quarter mile to the highway and the more distant Glass Mountains in the far background.

At a typical highway speed of 65 mph, airport facilities are in plain view of motorists for approximately 1.8 minutes. Average annual daily traffic along US 395 is about 9,650 vehicles per day (see Chapter 15.0, Transportation). Approximately 15% of US 395 traffic consists of trucks, and an additional portion of the traffic is commercial in nature. It can also be assumed that a large proportion of motorists are oriented to outdoor recreation and scenery along the highway.

Expansive views that include MMH are available along US 395 from Hot Creek Hatchery Road west of MMH up to about two miles east of MMH, and from the lower 1.1 miles of Convict Lake Road to US 395. Viewing distance to MMH from both these roads varies between 400 feet and 1.5 miles. At most of these distances, MMH as a whole is visible but airport building details are indistinct. Glimpses of MMH are available from portions of SR 203 east of the Town, but at a distance of five to six miles.

Light and Glare

Lighting effects are those associated with the use of artificial light during the evening and nighttime hours. There are primarily two sources of light intrusion within developed areas of the Town: 1) light emanating from structural interiors and passing through windows; and 2) light from exterior sources, such as street lighting, building illumination, security lighting, event lighting in the resort areas, vehicle headlights, slope grooming, and landscape lighting. Uses such as residences, hospitals, and hotels are considered light sensitive since they are typically occupied by persons who have expectations for privacy during evening hours and who are subject to disturbance by bright light sources. At night, lights from the Town illuminate the developed areas, particularly roadways, providing contrast with the generally uninterrupted darkness of the surrounding mountains and forested lands (Town of Mammoth Lakes 2016a).

Glare results mainly from sunlight reflection off flat building surfaces, with glass and reflective metal surfaces typically contributing to the highest degree of reflectivity. Glare also can be produced during evening and nighttime hours by the reflection of artificial

light sources, such as automobile headlights. Glare-sensitive uses generally include residences and transportation corridors (Town of Mammoth Lakes 2016a).

Lighting at MMH is limited, varying with aircraft takeoff and landing activity. Primary existing sources of light include the airport identifier beacon, the Precision Approach Path Indicators, runway end lighting, medium-intensity edge lighting, apron lighting, parking area lighting, and general lighting in and around the existing terminal and other buildings. Runway lighting systems are pilot-activated. Obstruction lights are in place at the top of the power and telephone poles located south of the runway. Lighting at the MMH buildings is mainly interior lighting.

REGULATORY FRAMEWORK

FAA Lighting Requirements

The FAA has issued two Advisory Circulars related to lighting at airports. Advisory Circulars typically are guides only; their provisions are not mandatory. However, provisions are mandatory for all projects funded with federal grant monies through the Airport Improvement Program or with revenue from the Passenger Facility Charges Program.

Most Advisory Circulars focus on the use of lighting as airport visual aids for aircraft pilots. However, two Advisory Circulars are of relevance to the project. Advisory Circular 70/7460-1L, Obstruction Marking and Lighting, states that any temporary or permanent structure, including all appurtenances, that exceeds an overall height of 200 feet above ground level should be marked and/or lighted. Advisory Circular 150/5360-13A, Airport Terminal Planning, contains a section on apron lighting. Mounted floodlights are the preferred method of lighting the apron area. Floodlights should be sited, aimed, and shielded to avoid glint and glare to pilots and air traffic controllers without reducing the level of illumination in critical areas.

Scenic Highways

California's Scenic Highway Program was created by the Legislature in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The laws governing the Scenic Highway Program are found in the California Streets and Highways Code, Section 260 *et seq*. A highway may be designated Scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

The State Scenic Highway System lists both designated highways and highways eligible for designation. The nearest officially designated State Scenic Highway is US 395 from the Inyo County line to the junction with State Route (SR) 120, which includes the segment passing through the Mammoth Lakes area and adjacent to the Airport. SR 203

from US 395 through the Town is eligible to become a State Scenic Highway but has not been officially designated (Caltrans 2017).

In addition to the State Scenic Highways, Mono County has designated several local scenic highways. One of these is Benton Crossing Road from its junction with U.S. Highway 395 immediately east of the Airport to its junction with SR 120 (Mono County 2010).

Mammoth Lakes Municipal Code

The Mammoth Lakes Municipal Code is the primary implementation measure of the Town General Plan policies on development by regulating development type and intensity. Provisions of the Town Municipal Code regulate building heights, setbacks, lot coverage, parking, landscaping, and design review, among other issues.

Town Municipal Code Section 17.36.030 regulates outdoor lighting within the Town. Under this section, all outdoor lighting fixtures shall be designed, located, installed, aimed downward or toward structures, retrofitted if necessary, and maintained to prevent glare, light trespass, and light pollution. All new outdoor lighting shall use full cut-off luminaries with the light source downcast and fully shielded with no light emitted above the horizontal plane, with limited exceptions. Examples of acceptable and unacceptable lighting fixtures are provided in this section. No outdoor lighting fixtures shall be installed, aimed, or directed to produce light that spills over into neighboring properties or the public right-of-way ("light trespass").

The Town's Design Review Ordinance (Municipal Code Chapter 17.88, Design Review) was adopted to implement the goals, policies, and objectives of the General Plan related to community design and character. Other objectives of the Design Review Ordinance are to regulate the design, coloration, materials, illumination, and landscaping of new construction and renovations within the Town ensure that the architectural design of structures and their materials and colors are appropriate to the function of the project and the high-elevation climate of Mammoth Lakes and are visually harmonious with surrounding development and natural landforms.

Mammoth Lakes Design Guidelines

The Design Guidelines provide a greater level of detail regarding the type of development that promotes the Town's Vision Statement, General Plan, and Municipal Code. All new structures and all structures that are being renovated, other than single-family homes below 8,250 feet elevation, are subject to compliance with the Design Guidelines. The Design Guidelines apply to commercial, multifamily residential, and civic land uses. The project would be subject to design review, based upon criteria in the Town's Design Guidelines.

Town of Mammoth Lakes General Plan

The Town of Mammoth Lakes General Plan, updated in 2019, provides guidance to land use development in the Town. The Community Design Element of the Town General Plan contains policies related to aesthetics. The following Town General Plan policies related to aesthetics are relevant to this project (Town of Mammoth Lakes 2019):

- Policy C.2.J. Be stewards in preserving public views of surrounding mountains, ridgelines, and knolls.
- Policy C.2.L. Create a visually interesting and aesthetically pleasing built environment by requiring all development to incorporate the highest quality of architecture and thoughtful site design and planning.
- Policy C.2.V. Building height, massing, and scale shall complement neighboring land uses and preserve views to the surrounding mountains.
- Policy C.5.A. Require outdoor light fixtures to be shielded and down-directed so as to minimize glare and light trespass.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Have a substantial adverse effect on a scenic vista,
- Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway,
- In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings; or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality, or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Regarding the third bullet point, "public views" are views that are experienced from publicly accessible vantage points. Although not specifically defined, "publicly accessible vantage points" are assumed to include, though not necessarily limited to, public roads, parks, trails, and vista turnouts.

Visual and aesthetic changes associated with the project have been modeled in a series of visual simulations shown in Figures 4-1 through 4-3. The simulations provide reference points for the following discussion of aesthetic impacts.

As a result of a recent change to State law, some projects do not require an analysis of their aesthetic impacts. Public Resources Code Section 21099 states that the aesthetic and parking impacts of residential, mixed-use residential, or employment center projects on an infill site within a transit priority area shall not be considered significant. The recently revised Appendix G of the CEQA Guidelines, which contains the Environmental Checklist, notes this new law. The project analyzed in this EIR is not one of the projects defined in Public Resources Code Section 21099; therefore, the aesthetic impacts of the project are analyzed in this EIR.

Impact AES-1: Scenic Vistas

The project proposes the construction of a terminal building approximately 35 feet in height. This would make the new terminal one of the taller structures on MMH. The new maintenance building would become one of the larger buildings on the site. Both buildings could have a potential impact related to scenic vistas.

Scenic vistas available from the project site include the Sierra Nevada to the west and ridges and hills in other directions. Most of the existing structures on the project site, and the most visually prominent, are the western and eastern hangar buildings, approximately 20 feet in height and 1,200 and 2,500 feet in length, respectively. Nonetheless, as illustrated by the visual simulations in Figures 4-1 and 4-2, these and other MMH buildings have a relatively low profile in the landscape and do not substantially obstruct distance views. The addition of the terminal and maintenance buildings would be noticeable to some viewers; however, they would not intrude on scenic vistas as viewed from outside MMH. Views of the Sierra Nevada to the south and west would not be affected by the project. Views of other topographic features in the project would not be affected other than views of Doe Ridge northeast of MMH. While the terminal building may intrude slightly upon existing views of Doe Ridge from US 395, it would not fully obstruct this vista. The TADP takes note of the largely horizontal appearance of the terminal building, consistent with the other existing structures on the airport, as opposed to a more vertically oriented design that could be substantially more visually intrusive (Brandley 2017).

In general, scenic vistas from the MMH property would not be substantially affected by the project. The terminal building would affect only the views of passengers arriving at or leaving MMH; such viewers are expected to be oriented to immediate travel concerns and would be less sensitive to view changes. Beyond the terminal building, views of scenic vistas would remain essentially unchanged with the project. Project impacts on scenic vistas would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AES-2: Scenic Resources

As noted, the MMH property consists primarily of flat land with sagebrush and other low-growing vegetation; developed portions of the airport include landscaping plantings of trees and shrubs in the vicinity of airport buildings and other improvements. These existing views are illustrated in Figures 4-1, 4-2 and 4-3. There are no identified scenic resources on the property. The main scenic resources in the vicinity of MMH are the scenic vistas described above. The impacts of the project on these scenic vistas were analyzed, and it was concluded that the project would have an impact that would be less than significant.

As noted, the segment of US 395 adjacent to MMH is part of a State Scenic Highway. As discussed under Impact AES-1 and as illustrated in Figures 4-1 and 4-2, the proposed new construction would not significantly intrude upon scenic views from this corridor. Views of the Sierra Nevada from US 395 would remain unobstructed, as the project would be developed north of the highway. While the new development would be noticeable from US 395, the impacts would be localized to the MMH property. Project impacts on scenic resources would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AES-3: Visual Character and Quality

As discussed under Impacts AES-1 and AES-2, project-related changes to the visual landscape on and near the MMH property would be noticeable but not substantial. The terminal building would be the most noticeable to some viewers, but it is unlikely to involve a substantial contrast with existing airport improvements and would not substantially intrude upon the background landscape or affect scenic vistas, as viewed from both on and outside the MMH property. Proposed structures would be consistent with the size and scale of existing airport improvements. As further described under Impact AES-2, impacts on views from US 395 would be limited to portions of the highway adjacent to MMH. Landscape views from Hot Creek Hatchery Road and Convict Lake Road would not be substantially affected by the project. Views of the proposed terminal from Benton Crossing Road are generally obstructed by intervening terrain, and the project would not change this condition. Views of MMH from the SR 203 interchange are distant and would not be substantially affected by the project.

Views from Airport Road, which provides access to MMH from Hot Creek Hatchery Road, would remain unaltered until at its eastern end, where the existing terminal and parking areas are located. Airport Road would be extended easterly about 800 feet to approach the new terminal and parking areas. The existing developed landscape at the end of Airport Road would be replaced by the modified landscape associated with the new terminal; while the landscape in this area would be modified, the extension of Airport Road would not result in a significant adverse aesthetic effect.

Figure 3-2 shows the conceptual architecture of the new terminal building. As described in the TADP, the architectural character of the terminal building would be in keeping with the alpine resort themes embodied in the Design Guidelines, which emphasize the use of natural materials in building construction (Town of Mammoth Lakes undated). With the understanding that terminal building design would likely undergo change in the future as a result of dialogue among Town decisionmakers and the public, it can be assumed that the new terminal building would be consistent with Town goals of community design. Also, the project would include removal of an existing tensile structure, which would improve the visual character of the terminal area.

The new terminal building, along with other project features such as the new maintenance building and expanded apron, would lead to a greater development footprint on the MMH property. However, the general visual character of MMH would remain the same, while there would be improvements to the existing character, mainly with the terminal building. The appearance after project completion would be consistent with the TADP and dedicated air transportation use of the site. Project impacts related to visual character and quality would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AES-4: Light and Glare

As noted, the main sources of lighting at MMH include runway lights, airfield lights, and lighting from the terminal building, other buildings, and the parking lot. Runway lights would not be affected by the project. However, the expanded apron may require additional lighting, and the new terminal and parking areas would have additional lighting. Also, the new maintenance building would be a new source of lighting.

As described above, the FAA has issued several Advisory Circulars related to lighting associated with the project. The project does not propose the construction of structures 200 feet high or more, so no obstruction lighting would need to be installed. Apron lighting would be installed in accordance with the provisions of Advisory Circular 150/5360-13A, which states that mounted floodlights should be sited, aimed, and shielded. Compliance with Advisory Circular 150/5360-13A would reduce impacts of apron lighting on both pilots and the surrounding area, including US 395 and the travelers on the highway.

Section 17.36.030 of the Town Municipal Code regulates exterior lighting, with the intent of eliminating light trespass. Compliance with Municipal Code Section 17.36.030 would minimize the amount of exterior lighting that reaches areas outside MMH, including US 395. It also would minimize the amount of lighting that would be visible from areas outside the MMH, thereby reducing lighting impacts on the general landscape.

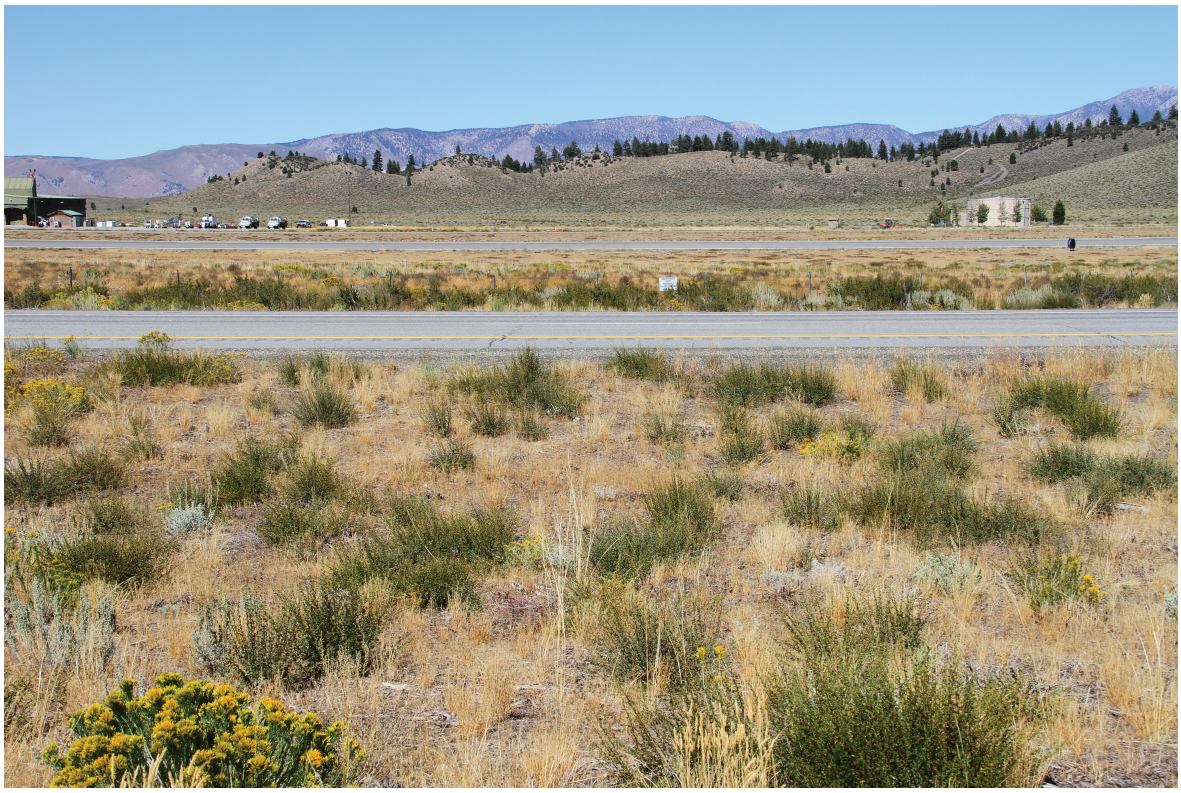
The terminal building and maintenance building would have interior lighting. Such lighting is generally confined within the building. Interior lights, mainly from the new terminal building, would be visible from the outside. However, the lighting would not

disturb viewers, especially motor vehicle drivers. The amount of lighting from the building would not substantially illuminate areas outside the buildings. Tinting of windows as required by the California Building Code and the California Green Building Standards Code would further reduce the amount of interior light that would be visible from outside. As a result, lighting effects from interior lighting would be less than significant.

As noted, glare results mainly from sunlight reflection off flat building surfaces, primarily from glass and reflective metal surfaces. The exterior of the new terminal, the most prominent visual feature of the project, would not use reflective metal surfaces. Some windows would be installed, but the surface area of the windows would be limited and would not reflect glare in substantial amounts. Overall, project impacts related to light and glare would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required



Existing view NNE across US 395, existing MMH terminal to left, water tank to right, and low hills, Glass Mountains and Bald Mouintain in background.



Same view NNE across US 395 with addition of proposed terminal.

SOURCE: Salix, Inc.



Existing view NNE across US 395, existing water tank in cwnter of photo, existing hangers to right and low hills, Glass Mountains and Bald Mountain in background.



Same view NNE across US 395 with addition of proposed terminal.

SOURCE: Salix, Inc.



Existing view WNW along runway and US 395 with Mammoth Mountain, The Minarets and Sierra Nevada Crest in background.



Same view WNW along runway and US 395 with addition of proposed new terminal, aprons, ARFF and other related improvements.

SOURCE: Salix, Inc.

5.0. AIR QUALITY

This chapter analyzes impacts of the project on air quality, specifically as they relate to pollutants regulated by Federal and California Clean Air Acts. Greenhouse gases (GHGs), gases that trap heat generated by the sun, are regulated separately from other air pollutants. Chapter 9.0, Greenhouse Gas Emissions, discusses the potential environmental impacts of the project as they relate to GHG emissions.

ENVIRONMENTAL SETTING

Great Basin Valleys Air Basin

The Town is in the Great Basin Valleys Air Basin (Air Basin), which is bounded by the Sierra Nevada mountain range to the west, Mono Lake to the north, Little Lake to the south, and the White, Inyo, and Coso mountain ranges to the east. The Air Basin includes Mono County, where the project site is located, along with Alpine and Inyo Counties.

The extent and severity of the air pollution problem in the Air Basin are a function of the area's natural physical characteristics and man-made influences such as development patterns and lifestyle. Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and/or dispersion of air pollutants throughout the Basin.

Climate

The climate of the area consists of variable daily temperatures, clear skies, warm summers, cold winters, and low humidity. The Town is located at an average elevation of 8,000 feet above mean sea level. The Town receives an average snowfall of over 200 inches per year. Most of the precipitation takes place between the winter months of December and February with an annual average of 43 inches of water (equivalent to approximately 29 feet of snowpack) recorded at Mammoth Pass (Town of Mammoth Lakes 2016b). Snowfall rates at MMH are less than those in the Town proper. Snow accumulations of 1.5 to 2 feet may occur (Maniaci, pers. comm.).

The mean high and low temperatures at MMH in January are 47 degrees and 21 degrees Fahrenheit, respectively; the mean high and low temperatures in July are 78 and 51 degrees Fahrenheit, respectively (Maniaci pers. comm.). January is usually the coldest month, while July and August are usually the warmest months. The average annual wind speed in the area is less than 10 miles per hour (mph), the strongest beginning in the spring months. Average annual relative humidity is approximately 50 percent, and skies are mostly clear. Spring is the windiest season with fast-moving northerly weather fronts. Due to the increased elevation of the Town relative to some of the lower-lying areas in

the Air Basin, winds are primarily light and variable. Occasionally, a westerly "zephyr" wind blows in the early afternoon to the early evening during summer months.

Local Ambient Air Quality

The Great Basin Unified Air Pollution Control District (GBUAPCD) monitors air quality in terms of six criteria pollutants: ozone, particulate matter, carbon monoxide (CO), nitrogen dioxide, sulfur dioxide, and lead. Air quality monitoring occurs at 20 monitoring stations throughout the Air Basin. A monitoring station is located within the Town at the Rite Aid shopping center; this station measures particulate matter emissions only. The nearest monitoring station to the Town that measures other pollutants is the Bishop-Line Monitoring Station, approximately 36 miles southeast of the project site. The Bishop-Line station monitors particulate matter, fine particulate matter, and ozone.

Air Pollutants

Sources of air pollutant emissions associated with airports include aircraft, ground support equipment, ground access vehicles, and auxiliary power units. They also include stationary and area sources such as boilers, heaters, de-icing operations, and fuel storage tanks, among others, as well as construction activities (FAA 2015). Motor vehicle traffic associated with airport operations, including passenger arrivals and departures, also generates emissions. Table 3-1 below illustrates emissions from operations at MMH in 2005, the most recent data available.

TABLE 5-1
AIR POLLUTANT EMISSIONS FROM MMH OPERATIONS (2005)

Source	**CO**	**VOC**	**NO_x**	**SO_x**	**$PM_{10}/PM_{2.5}$**
Aircraft[1]	57.01	1.45	1.38	0.20	0.58
Ground Support Equipment	0.07	0.02	0.29	0.06	0.01
Motor Vehicles	2.16	0.10	0.38	0.00	0.01
Fuel Storage and De-icing	NA	2.80	NA	NA	NA
Annual Total (tons per year)	**59.24**	**4.25**	**2.05**	**0.26**	**0.60**
(pounds per day)	**324.60**	**23.04**	**11.23**	**1.42**	**3.29**

Notes:

CO – Carbon monoxide; VOC – volatile organic compounds; NO_x – nitrogen oxides; SO_x – sulfur oxides; PM_{10} – particulate matter 10 micrometers in diameter or less; $PM_{2.5}$ – particulate matter 2.5 micrometers in diameter or less.

NA – not applicable, source does not emit this pollutant.

[1] Based on 12,800 annual aircraft operations and estimated taxi time of 5.8 minutes.

Source: Town of Mammoth Lakes 2008.

It should be noted that emissions in Table 5-1 were estimated based upon mainly aircraft operations. As noted in Table 5-1, the estimated aircraft operations in 2005 were 12,800. In 2013, the most recent year for which such data were available, there were 8,050 aircraft operations (Brandley 2015). This was before Alaska Airlines ended its service; therefore, emission estimates in Table 5-1 are likely greater than current conditions and may be used as conservative assumptions for existing MMH operational emissions.

Pollutants of concern typically include ozone, particulate matter, and carbon monoxide, along with what are called "toxic air contaminants." The nature, health effects, and pollution levels of each are described in more detail below.

Ozone

Ozone is not directly produced; rather, it is a secondary pollutant that is formed when volatile organic compounds (VOC) and nitrogen oxides (NO_x) react in the presence of sunlight. Automobile emissions represent the principal source of VOC and NO_x, referred to as "ozone precursors." High concentrations of ground-level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments. More specifically, ground-level ozone may:

- Make it more difficult to breathe deeply and vigorously.
- Cause shortness of breath, and pain when taking a deep breath.
- Cause coughing and sore or scratchy throat.
- Inflame and damage the airways.
- Aggravate lung diseases such as asthma, emphysema, and chronic bronchitis.
- Increase the frequency of asthma attacks.
- Make the lungs more susceptible to infection.
- Continue to damage the lungs even when the symptoms have disappeared.
- Cause chronic obstructive pulmonary disease.

People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers. In addition, people with certain genetic characteristics, and people with reduced intake of certain nutrients, such as vitamins C and E, are at greater risk from ozone exposure (EPA 2018a). Ozone also damages natural ecosystems such as forests and foothill communities, agricultural crops, and some man-made materials such as rubber, paint, and plastics.

No ozone measurements have been taken recently in the Mammoth Lakes area. Mono County, including the project area, is in nonattainment status for state ozone standards. However, no ozone implementation plan for attainment has been prepared, nor is one required under state law. A 2001 ARB ozone transport review determined that transport from the central portion of the San Joaquin Valley is responsible for ozone violations in

Mammoth Lakes. Local sources were not considered to have a considerable impact on ambient ozone levels due to the climatic patterns of the eastern slope of the Sierra Nevada (Town of Mammoth Lakes 2016a).

Particulate Matter

Particulate matter includes any solid matter suspended in air. Standards are applied to particulates 10 micrometers in diameter or less (PM_{10}), because these particles, when inhaled, are not filtered out prior to reaching the lungs, where they can aggravate respiratory diseases. Particulates originate from automobile traffic, urban construction, grading, farm tilling, and other activities that expose soil and dust. Dry summer conditions and daily winds can increase particulate concentrations. Numerous scientific studies have linked particle pollution exposure 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
- increased respiratory symptoms, such as irritation of the airways, coughing or difficulty breathing.

People with heart or lung diseases, children, and older adults are the most likely to be affected by particle pollution exposure (EPA 2018b).

Separate standards have been established for particulate matter that is 2.5 micrometers or less in size ($PM_{2.5}$), sometimes referred to as "fine particulate matter." The $PM_{2.5}$ standards reflect health concerns related to respiration of smaller particles. Fine particulates include sulfates, nitrates, organics, ammonium, and lead compounds originating from activities in urban areas.

No particulate matter measurements have been taken recently in the Mammoth Lakes area. Local particulate matter is generated primarily by smoke from wood stoves and fireplaces, traffic-related dust, and volcanic cinders used on roadways for traction control during the winter. High particulate matter levels are usually associated with calm winter days with little wind. In recent years, wildfires have resulted in infrequent but high levels of particulate matter during the summer and early fall (GBUAPCD 2017). In May 2014, the GBUAPCD adopted the Air Quality Maintenance Plan and PM_{10} Redesignation Request for the Town of Mammoth Lakes, the implementation of which would enable the Town to achieve attainment of federal PM_{10} standards (see below).

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels. The main source of CO is on-road motor vehicles. Because of its ability to readily combine with hemoglobin and displace oxygen in the human body, high levels of CO can produce hazardous conditions, especially for elderly people or individuals with respiratory ailments, including fatigue, headache, confusion, and dizziness.

No CO measurements have been taken recently in the Mammoth Lakes area. The Air Basin, including the project site, is in attainment status for both federal and state CO standards. However, CO hotspots may exist. A CO "hotspot" is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. CO hotspots have the potential to expose receptors to emissions that violate state and/or federal CO standards, even if the broader air basin is in attainment for federal and state levels.

Toxic Air Contaminants

Toxic air contaminants (TACs) are pollutants that cause or may cause cancer or other serious health effects such as chronic eye, lung or skin irritation, birth defects, or neurological and reproductive disorders. TACs also may cause adverse environmental and ecological effects. The State's Air Toxics Inventory includes more than 250 substances considered TACs (ARB 2008a). They include such substances as volatile organic compounds, chlorinated hydrocarbons, asbestos, dioxin, toluene, gasoline engine exhaust, particulate matter emitted by diesel engines, and metals such as cadmium, mercury, chromium, and lead compounds, among many others. Most TACs are emitted as a result of specialized industrial processes.

Diesel particulate matter (diesel PM) is designated by the State of California as a TAC. A primary source of diesel PM emissions is combustion from diesel engines, such as those in trucks and other motor vehicles. Diesel PM is of concern because it is a potential source of both cancer and non-cancer health effects, and because it is present at some concentration in all developed areas of the state. The ARB has identified diesel PM as a major contributor to ambient cancer risk levels; while diesel PM accounts for only about 4% of air toxic emissions in the state, it accounted for more than 70% of the 2000 cancer risk associated with outdoor ambient levels of all TACs (ARB 2005). The ARB has estimated that cancer risks from diesel particulate average 500 cancer cases per million population statewide. These general risks can be elevated with proximity to the source.

No significant sources of TACs or other hazardous materials were identified in the Town (Town of Mammoth Lakes 2016a). A 2008 Initial Study/Mitigated Negative Declaration for proposed regional air service did not identify any TACs or potential hazardous material emissions at MMH (Town of Mammoth Lakes 2008). The most likely source of TACs in the area would be highways and streets used by diesel-fuel vehicles, and these emissions are sporadic and likely not in concentrations that would affect human health.

Federal

Federal air quality regulation stems from the Clean Air Act, as amended. The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to establish the air quality standards for criteria pollutants, known as the National Ambient Air Quality Standards, as shown in Table 5-2.

TABLE 5-2
NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Air Pollutant	Averaging Time	California Standards	Primary National Standards[1]	Secondary National Standards[2]
Ozone	1 Hour	0.090 ppm	--	--
	8 Hour	0.070 ppm	0.070 ppm	0.070 ppm
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	--
	Annual Mean	20 µg/m^3	--	--
$PM_{2.5}$	24 Hour	--	35 µg/m^3	35 µg/m^3
	Annual Mean	12 µg/m^3	12 µg/m^3	12 µg/m^3
Carbon Monoxide	1 Hour	20 ppm	35 ppm	--
	8 Hour	9 ppm	9 ppm	--
Nitrogen Dioxide	1 Hour	0.18 ppm	100 ppb	--
	Annual Mean	0.030 ppm	0.053 ppm	0.053 ppm
Sulfur Dioxide	1 Hour	0.25 ppm	75 ppb	--
	3 Hour	--	--	0.5 ppm
	24 Hour	0.04 ppm	0.14 ppm*	--
	Annual Mean	--	0.030 ppm*	--
Lead	30 Day Avg.	1.5 µg/m^3	--	--
	Calendar Qtr.	--	1.5 µg/m^3	1.5 µg/m^3
	3 Month Average	--	0.15 µg/m^3	0.15 µg/m^3
Sulfates	24 Hour	25 µg/m^3	N/A	N/A
Hydrogen Sulfide	1 Hour	0.03 ppm	N/A	N/A
Vinyl Chloride	24 Hour	0.01 ppm	N/A	N/A
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per kilometer.[3]	N/A	N/A

Notes: ppm – parts per million; ppb – parts per billion; µg/m^3– micrograms per cubic meter; N/A – not applicable
[1] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
[3] The "extinction coefficient" is a measure of the diminishing of light through scattering and absorption.
* For certain areas.
Source: ARB 2016.

There are six criteria pollutants: ozone, carbon monoxide, particulate matter, nitrogen dioxide and sulfur dioxide. Two types of standards are established: primary standards to protect human health, based on EPA medical research and specific concentration thresholds derived therefrom; and secondary standards to protect the public welfare from effects such as visibility reduction, soiling, nuisance, and other forms of damage.

Regions of the country are classified with respect to their attainment of National Ambient Air Quality Standards. Areas where these standards are exceeded are considered "nonattainment" areas and are subject to more intensive air quality management and more stringent regulation. Table 5-3 shows the attainment status of the Air Basin for federal standards. The Air Basin is designated Nonattainment/Extreme for ozone and Nonattainment for $PM_{2.5}$. The Air Basin meets all other federal standards. The Clean Air Act requires the states to submit a State Implementation Plan for nonattainment areas. The State Implementation Plans are reviewed and approved by the EPA, subject to a determination of their adequacy in demonstrating how the federal standards will be achieved.

TABLE 5-3
GREAT BASIN VALLEYS AIR BASIN ATTAINMENT STATUS

	Designation/Classification	
Pollutant	**Federal Standards**	**State Standards**
Ozone - One hour	No Federal Standard[a]	Nonattainment[2]
Ozone - Eight hour	Unclassified/Attainment	Nonattainment[2]
PM_{10}	Attainment (Mammoth Lakes)	Nonattainment
$PM_{2.5}$	Unclassified/Attainment	Attainment
Carbon Monoxide	Unclassified/Attainment	Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified/Attainment	Attainment
Lead (Particulate)	Unclassified/Attainment	Attainment
Hydrogen Sulfide	No Federal Standard	Attainment
Sulfates	No Federal Standard	Attainment
Visibility Reducing Particles	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Not available

[a] Effective June 15, 2005, EPA revoked the federal 1-hour ozone standard, including associated designations and classifications. EPA had previously classified the Air Basin as extreme nonattainment for this standard. EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010 (effective April 7, 2010). Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the Air Basin.

[2] Primary cause of ozone nonattainment was determined to be transport of ozone from the San Joaquin Valley (Town of Mammoth Lakes (2016a).

Source: ARB 2018.

State

California Clean Air Act

The California Clean Air Act provides the planning framework for California air quality. It establishes the State's own set of ambient air quality standards for criteria pollutants, known as the California Ambient Air Quality Standards (see Table 5-2). The state standards cover other pollutants besides the six criteria pollutants designated by the federal Clean Air Act; additionally, the state standards are generally more stringent than the corresponding federal standards.

Table 5-3 shows the attainment status of the Air Basin for California Ambient Air Quality Standards. For ozone, the Air Basin is designated Nonattainment/Severe by the State. The State also classifies the Air Basin as Nonattainment for PM_{10} and $PM_{2.5}$. The Air Basin is in attainment of, or unclassified for, all other State standards.

Responsibility for implementation of the California Clean Air Act requirements and for preparation of the State Implementation Plan rests with the ARB; the local air pollution or air quality management districts are responsible for preparation of Air Quality Attainment Plans, which become part of the State Implementation Plan. The California Clean Air Act requires areas that are designated nonattainment to achieve a 5% annual reduction in emissions until the standards are met.

Toxic Air Contaminants

The State regulates TACs primarily through the Tanner Air Toxics Act and the Air Toxics Hot Spots Information and Assessment Act of 1987. Under these programs, the State is responsible for an inventory of TACs, for analysis of exposure and health risk and for planning to reduce risk. Like other federal and state air quality requirements, the various elements of the state air toxics program are implemented by the local air districts.

Potential health risks associated with projects are prevented in part through development review procedures by local agencies and rules and regulations by the GBUAPCD. These measures are discussed later in the following subsections.

Great Basin Unified Air Pollution Control District

Air Quality Plans

In 1990, the GBUAPCD prepared the Air Quality Management Plan for the Town of Mammoth Lakes (1990 AQMP) to address PM_{10} pollution in the region. In May 2014, the GBUAPCD prepared the Air Quality Maintenance Plan and PM_{10} Redesignation Request for the Town of Mammoth Lakes (2014 AQMP), as an update to the 1990 AQMP. The 2014 AQMP reviews the background of the 1990 AQMP, the measures implemented as a result of that plan and their effectiveness, and changes to clean air regulations since the adoption of the 1990 AQMP. The 2014 AQMP recommends maintenance measures and requests that the Town of Mammoth Lakes be redesignated as

attainment for the federal PM_{10} standard. The request was based on monitoring data, a modeling analysis, and a maintenance plan that contains requirements to ensure the federal PM_{10} standard would not be violated in the future. As indicated in Table 5-2, the redesignation request was accepted.

In 1991, the GBUAPCD adopted the Mono County Ozone Attainment Plan. The plan states that, to control ozone and ozone precursors, the GBUAPCD plans to adopt a New Source Review Rule requiring Best Available Control Technology for emissions more than 25 tons. The rule would be drafted after EPA has issued policy guidance to conform with the amended federal Clean Air Act. In accordance with the Mono County Ozone Attainment Plan, the GBUAPCD in 1993 adopted Rule 217 - Additional Procedures for Issuing Permits to Operate for Sources Subject to Title V of the Federal Clean Air Act Amendments of 1990.

Rules and Regulations

The GBUAPCD has adopted several regulations that are applicable to the project. These regulations are summarized below.

Rule 401 – Fugitive Dust

A person shall take reasonable precautions to prevent visible particulate matter from being airborne, under normal wind conditions, beyond the property from which the emission originates. Reasonable precautions may include, but are not limited to, use of water or chemicals for dust control during construction or demolition; application of asphalt, water, or suitable chemicals on dirt roads and material stockpiles; and use of water, chemicals, chuting, venting, or other precautions to prevent particulate matter from becoming airborne in handling dusty materials to open stockpiles and mobile equipment.

Rule 402 – Nuisance

A person shall not discharge from any source whatsoever, such quantities of air contaminants or other materials 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.

Rule 431 – Particulate Emissions

This rule contains provisions specific to the Town of Mammoth Lakes. These include restricting solid fuel burning appliances to those certified as meeting the emission requirements of the U.S. Environmental Protection Agency (EPA) for Phase II certification, requiring all new and replacement solid fuel burning appliances to obtain a building permit prior to installation, and prohibiting the installation of solid fuel burning appliances in any new commercial or lodging development or in any new multi-unit residential development. It also limits the

types of fuels that may be burned, and it creates an Air Quality Manager position with the authority to curtail solid fuel burning appliance use during adverse air quality conditions.

Town of Mammoth Lakes

Town Municipal Code

The Town Municipal Code has incorporated several provisions of the 2014 AQMP as Chapter 8.30, Particulate Emissions Regulations. One of the major control measures that was amended by the 2014 AQMP was the following:

> *Section 8.30.100 B*. Proposed development projects and other Town approved activities which affect vehicle trips are evaluated against the vehicle miles traveled (VMT) limit of 179,708. [See Chapter 15.0, Transportation, for further discussion of VMT.]

Town of Mammoth Lakes General Plan

Town policies regarding air quality are contained in the Resource Management and Conservation Element of the General Plan. Applicable air quality-related policies include, but are not limited to, the following:

- Mitigate impacts on air quality resulting from development through design, participation in Town air pollution reduction programs, and/or other measures that address compliance with adopted air quality standards (R.10.D).
- The Town will continue to require project level environmental reviews (EIR's and Negative Declarations) to address the incremental increase in PM10 levels from the project(s) (R.10.E.2).
- In the event that the project level reviews show that the Town is likely to exceed the NAAQS, permits will not be issued until mitigation is developed that demonstrate compliance with the NAAQS (R.10.E.3).
- Reduce air pollutants during construction through implementation of Best Management Practices (BMPs) (R.10.G).

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Conflict with or obstruct implementation of an applicable air quality plan,

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard [see Chapter 17.0, Cumulative Impacts, for an analysis of potential cumulative air quality impacts],
- Expose sensitive receptors to substantial pollutant concentrations, or
- Result in other emissions, such as those leading to odors, adversely affecting a substantial number of people.

CEQA Guidelines Appendix G states that, where available, significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make significance determinations. Based on guidance from the GBUAPCD on other projects, project-related emissions were quantified and compared to the Mojave Desert Air Quality Management District (MDAQMD) numerical thresholds. The MDAQMD thresholds have been used in recent CEQA analyses of projects in the Town (e.g., the *Mammoth Creek Park West New Community Multi-Use Facilities EIR*, certified in 2017). Table 5-4, Regional Thresholds of Significance, presents the MDAQMD numerical thresholds that would be utilized for analysis of the proposed project.

TABLE 5-4
REGIONAL SIGNIFICANCE THRESHOLDS AND
PROJECT AIR POLLUTANT EMISSIONS

	VOC[3]	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Significance Thresholds (pounds per day)[1]	**137**	**137**	**548**	**137**	**82**	**82**
Construction Emissions[2]	3.42	6.60	6.38	<0.01	0.46	0.32
Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*
Operational Emissions	1.63	2.11	3.81	<0.01	0.93	0.27
Above Threshold?	*No*	*No*	*No*	*No*	*No*	*No*

[1] Applicable to both construction and operational emissions.
[2] Maximum emissions in a calendar year.
[3] In CalEEMod, emissions are calculated for reactive organic gases (ROG), which are equivalent to VOC.
Notes: VOC – volatile organic compounds; NO_x – nitrogen oxide; CO – carbon monoxide; SO_x – sulfur oxide; PM_{10} – particulate matter 10 microns in diameter; $PM_{2.5}$ – particulate matter 2.5 microns in diameter.
Sources: CalEEMod Version 2016.3.2, SJVAPCD 2015a.

The project's construction and operational emissions were estimated using the California Emissions Estimator Model (CalEEMod) computer program, a modeling program used for projects in most air districts. The CalEEMod results are shown in Appendix B of this EIR and are summarized in Table 5-4. Construction emissions are the maximum estimated for a calendar year during the anticipated construction period, which was assumed to be ten months. Operational emissions are estimates of ongoing annual emissions generated as a result of the proposed development.

Airport land uses are not included in CalEEMod. Therefore, similar land uses were selected to represent the proposed facilities. These selections were based in part upon those made in an EIR for the Monterey Regional Airport Master Plan (Monterey Regional Airport 2018). This project proposed construction of similar facilities, such as a terminal and ARFF building. For the proposed terminal, it was assumed that approximately 16% of the square footage was represented by light industrial space and the remaining square footage by office park space. Both land uses were considered equivalent to the proposed terminal in activities. For the proposed maintenance building, a light industrial use was selected.

Impact AIR-1: Air Quality Plans and Standards – Construction Emissions

Project construction emissions were estimated using CalEEMod, based upon the assumptions described above. The results of the CalEEMod run, converted from tons per year to pounds per day, are available in Appendix B and are summarized in Table 5-4 above. All the pollutant emissions generated by project construction are substantially below the significance thresholds used for this analysis. Construction emissions are temporary and would cease once construction work is completed. Project impacts related to air pollutant emissions from project construction would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AIR-2: Air Quality Plans and Standards – Operational Emissions

Operational emissions generated by the proposed project improvements were estimated using CalEEMod, based upon the assumptions described above. The results of the CalEEMod run, again converted from tons per year to pounds per day, are available in Appendix B and are summarized in Table 5-4 above. All the pollutant emissions generated by operations related to the project improvements are substantially below the significance thresholds used for this analysis. When added to the total MMH emissions described in Table 5-1, total emissions would remain substantially below significance thresholds. Again, emission totals in Table 5-1 are considered conservative, as they are based upon airport operations at a greater volume than current conditions. Project impacts related to air pollutant emissions from project construction would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact AIR-3: Exposure of Sensitive Receptors to Criteria Pollutants

"Sensitive receptors" refer to segments of the population more susceptible to the effects of poor air quality than the general population. As defined by the ARB, these include children under 14 years of age, elderly over 65 years of age, and people with cardiovascular and chronic respiratory diseases. Locations that may contain a high

concentration of these sensitive population groups are also referred to as sensitive receptors. These land uses include residential areas, hospitals, day-care facilities, elder-care facilities, elementary schools, and parks. Long-term exposure of sensitive receptors to pollutants would have significant health impacts.

Development near MMH is very limited; most development in the area is on the MMH site. There are no land uses containing sensitive populations such as those described above within one mile of the project construction site. No sensitive receptors would be exposed to the estimated increase in pollutant emissions resulting from the project.

CO in high concentrations would have adverse health impacts, as previously described. Elevated CO concentrations may occur at CO hotspots, typically at heavily traveled intersections. The only areas where there could be increased CO concentrations would be airport operations and at the intersections of Hot Creek Hatchery Road/Airport Road and Hot Creek Hatchery Road/US 395. As indicated in Table 5-1, MMH operations in 2005 generated approximately 59.01 tons of CO per year, which is approximately 323 pounds per day, while the proposed project would add 9.28 pounds per day of CO (see Table 5-4). The total CO emissions would be substantially below the 548 pounds per day significance threshold for CO. The nearest sensitive receptors to the Hot Creek Hatchery Road/Airport Road intersection, which are residences to north, are more than one-quarter mile away, while the same receptors are more distant from the Hot Creek Hatchery Road/US 395 intersection. Any increase in CO emissions at these intersections are unlikely to affect these residences.

In summary, there are no sensitive receptors that would be exposed to emissions potentially generated by the proposed project. The project would have no impact on sensitive receptors.

Level of Significance: No impact

Mitigation Measures: None required

Impact AIR-4: Odors and Other Emissions

Odors are more of a nuisance than an environmental hazard. Nevertheless, the Environmental Checklist in CEQA Guidelines Appendix G regards objectionable odors as a potentially significant environmental impact. Proposed project development is not expected to generate significant odors, other than from construction emissions. These emissions would be localized and would dissipate rapidly outside the project site, and these emissions would cease once construction work is completed.

Project construction would likely use equipment that would emit diesel PM, which is classified as a TAC. The CalEEMod run estimated that project construction would generate a maximum of approximately 0.35 pounds per day of exhaust PM_{10} emissions, which include diesel PM (see Appendix B). Diesel PM emissions would have adverse effects only for people that experience long-term exposure. Diesel PM emissions would cease once construction work is completed, so potential exposure would be limited. After construction work is completed, the only diesel PM emissions would be from motor

vehicles entering and leaving MMH and maintenance equipment. Such emissions would be localized and would dissipate rapidly. In summary, project impacts related to odors and other emissions would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

6.0 BIOLOGICAL RESOURCES

ENVIRONMENTAL SETTING

Information for this chapter is drawn primarily from two Biological Resources Assessments of the project site prepared by Salix Consulting, Inc. (Appendix D). The first assessment was prepared in January 2020 and included analysis of impacts on species listed under both federal and California Endangered Species Acts (see below). The second assessment was a revision of the first and was prepared in April 2021. The revised assessment focused on impacts on federally-listed species.

In preparing the assessment, Salix biologists reviewed aerial photographs, USGS maps, engineering and architectural drawings of the proposed TADP, and previous biological studies conducted for the area surrounding the airport. The California Natural Diversity Data Base (CNDDB), the California Native Plant Society Inventory, and the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation database were queried for reported occurrences of special-status fish, wildlife, and plant species in the region. Field assessments of the project site were conducted by Salix biologists on September 16 and 17, 2019 to characterize existing conditions, to assess the potential for sensitive plant and wildlife resources to occur, and to determine if Waters of the U.S. were present on the site.

Supplemental information for this chapter is provided by a Biological Assessment for the Mammoth Yosemite Airport Wildlife Hazard Management Plan prepared by Wallace Environmental Consulting, Inc. in 2015, a Wildlife Hazard Assessment at MMH conducted by Advantage Consulting in January 2015, and from an Inyo National Forest Assessment from 2013.

Existing Conditions

MMH property consists of approximately 246 acres in the Long Valley caldera along the eastern edge of the central Sierra Nevada mountain range. US 395 is located along the entire south side of MMH and Doe Ridge is located on the northeast side. The MMH property is relatively flat, with elevations ranging from approximately 7,119 feet along the northwestern edge to approximately 7,093 along the southeastern edge.

Precipitation in Mono County varies greatly on a seasonal, annual, and geographic basis, ranging from five inches per year in the eastern part of the Mono County to 30 inches near the Sierra crest. From 65% to 75% of the precipitation falls as snow during winter months. Cold winters with below-freezing temperatures and hot, dry summers are typical of the region (Wallace Environmental Consulting 2015).

Mono County straddles the boundary of two bio-geographic provinces: the Great Basin and the Sierra Nevada. The two most dominant land-cover types - sagebrush and conifer forest/woodland - constitute about 80% of Mono County's land-cover. Other significant land-cover types include barren rock, meadows, grasslands, and open water (Wallace Environmental Consulting 2015).

Vegetation

One primary biological community is present within the project site - sagebrush scrub, which covers approximately 19 acres and is found in unpaved areas surrounding the various airport facilities. Sagebrush scrub is characterized by low, generally sparse shrubs and native and weedy herbaceous species. Common species include sagebrush, antelope bush, rubber rabbitbrush, Parry's rabbitbrush, desert peach, tumbleweed, and cheatgrass. Vegetative cover over most of this habitat type is less than 50%. The project site also contains three other distinct areas: pavement, disturbed areas, and structures. There is no vegetation in these areas, other than planted trees on the runway side of the water tank, mostly aspen.

Much of the sagebrush community has been previously disturbed by grazing and by construction and maintenance of MMH facilities and nearby roads and highways. Areas adjacent to the runway and taxiway have been mowed seasonally to control vegetation height and density (Advantage Consulting 2015). A dry meadow is located between the east end of the airport runway and Benton Crossing Road (Wallace Environmental Consulting 2015). As defined by the USFS, the dry meadows are only wet for several weeks following snowmelt and are populated predominantly by grasses. On Inyo National Forest lands on and near MMH, the predominant vegetation community is sagebrush. North of MMH, on Doe Ridge, Jeffrey pine and pinyon-juniper vegetation communities have been identified (Inyo National Forest 2013).

Wildlife

The project site includes the existing airport facility, and most of the ground is influenced by airport operations, including infrastructure and vegetation management. Wildlife species occur throughout the area but are generally transient foragers that do not linger. Sign of mule deer (tracks) was present, although none were observed during the site visits. Other mammal tracks were observed but not identified. Bird utilization was low during the two-day site visit. Species observed included Brewer's blackbird, northern flicker, spotted towhee, California scrub-jay, common raven, dark-eyed junco, house sparrow, red-tailed hawk, turkey vulture, house finch, green-tailed towhee, northern mockingbird, and mourning dove. Rodent burrows were observed, but other than golden mantled ground squirrel, few live animals were observed.

Great Basin mixed scrub and big sagebrush scrub habitat in the area surrounding MMH provide important forage for populations of mule deer belonging to the Round Valley herd. The migration route of the Round Valley herd passes through an area south of MMH and US 395, and MMH is part of a "holding area" where deer may linger for up to 6-10 weeks. The mule deer is considered a species of least concern by the International

Union for Conservation of Nature; however, the Round Valley herd has experienced decline and fluctuation in population numbers. The biggest "hot-spot" for deer/vehicle collisions along US 395 is located between Benton Crossing Road and Mt. Morrison Road, east of MMH.

Previous surveys conducted on MMH property identified mule deer, coyote, rabbit, and owl coming on the property to forage. Several small mammal species were found to be common at MMH: deer mouse, Panamint chipmunk, and mountain cottontail. Numerous bird species have been observed at MMH, the most frequently observed being American coot, California gull, common raven, mallard duck, and ruddy duck. Ravens were found to be common around MMH, while black-billed magpies were found in the nearby rangeland. Raptors such as red-tailed hawk, northern harrier, and American kestrel were frequently observed hunting for small birds and mammals (Advantage Consulting 2015).

The waters in the area attract migratory birds such as geese and ducks; however, few waterfowl were observed at Convict Lake to the south. Northeast of MMH, the Alkali Lakes complex lies along the Pacific Flyway migratory bird route. This area was observed to attract hundreds of waterfowl, most of which were migratory (Advantage Consulting 2015).

Special-Status Species

Special-status species are plants and animals that are legally protected under the ESA and California Endangered Species Act (CESA) or other regulations (see below). Special-status species also include other species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. Special-status plants are those which are designated rare, threatened, or endangered and candidate species for listing by the USFWS, along with species considered rare or endangered under the conditions of CEQA Guidelines Section 15380, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California, managed by the California Native Plant Society.

Database searches mentioned above provided a list of regionally occurring species and were used to determine which species have some potential to occur within or near the study area. Appendix B of the 2020 Biological Resources Assessment lists potentially occurring special-status plant species, and Appendix C lists special-status wildlife species compiled from these database queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the species occurrence tables in Appendices B and C.

Figure 6-1 shows the approximate locations of reported occurrences of CNDDB special-status plants within a five-mile radius of the project site, and Figure 6-2 shows the same for reported occurrences of sensitive and special-status wildlife. Of the 42 potentially occurring plant species identified in the CNDDB query for the 2020 assessment (Appendix B), 21 were identified as occurring within or near a five-mile radius of the

project site. The 2021 assessment added whitebark pine, a candidate species for federal listing. This species was not identified as potentially occurring within a five-mile radius of the project site.

Of the 22 sensitive and special-status wildlife species identified in the CNDDB and USFWS queries for the 2020 assessment (Appendix C), 12 were identified as occurring within or near a five-mile radius of the project site. The 2021 assessment added monarch butterfly, southwestern willow flycatcher, and yellow-billed cuckoo. None of these three species were identified as potentially occurring within a five-mile radius of the project site.

Six special-status plant species were determined to have some potential to occur within the project site: naked-stemmed phacelia, Masonic rock cress, Long Valley milkvetch, Booth's hairy evening-primrose, Suksdorf's broom-rape, and golden violet. All but one of the six were considered unlikely to occur on the project site due to marginal habitat. Masonic rock cress (a CNPS List 2 species) was observed within the project site in 2003 and 2010, but habitat for this species was also considered marginal. However, the Salix field survey was conducted outside the blooming period for this species, and an additional in-season survey was recommended.

Masonic rock cress (*Boechera cobrensis*) is a perennial herb of the Brassicaceae (mustard) family, and has no federal or state status, but is ranked 2B.3 by CNPS. It is native to the western United States from eastern California to Wyoming, where it is found in sandy habitat, especially sagebrush in Great Basin scrub and pinon and juniper woodland. This is a perennial herb growing several erect, slender stems to heights near half a meter from a branching caudex. The plant forms a narrow clump with a base of narrow, linear, densely hairy leaves up to 5 centimeters long. The top of each stem is occupied by an inflorescence of small, nodding flowers with dull yellowish sepals and white petals. Masonic rock cress blooms in June and July. While habitat within the study area is marginal, Masonic rock cress has been observed within the study area, on the north side of the airport and the west side of Benton Crossing Road, in 2003 and 2010, according to the CNDDB.

The Salix 2020 assessment identified 22 potentially occurring wildlife species in its searches, 12 of which occur within or near a five-mile radius of the project site. In addition, the gray-headed pika, identified in the CNDDB as a sensitive species, was included in the special-status wildlife species analysis. The 2020 assessment determined that 21 of the species found in the queries had no potential to occur due to the absence of suitable habitats; these species included all fish, amphibian, and bird species, and six of the seven mammal species.

Among the bird species found not to have suitable habitat was the greater sage grouse, the Bi-State Distinct Population Segment of which occupies the Mono Basin in Mono, Alpine and Inyo counties. The Bi-State Distinct Population Segment of greater sage grouse currently has a federal status of proposed threatened and is considered a species of special concern by the CDFW. The Biological Resources Assessment concluded that there was no suitable habitat on the project site for the greater sage grouse, because of the

proximity to human and airport activity. No greater sage grouse were observed during the field survey.

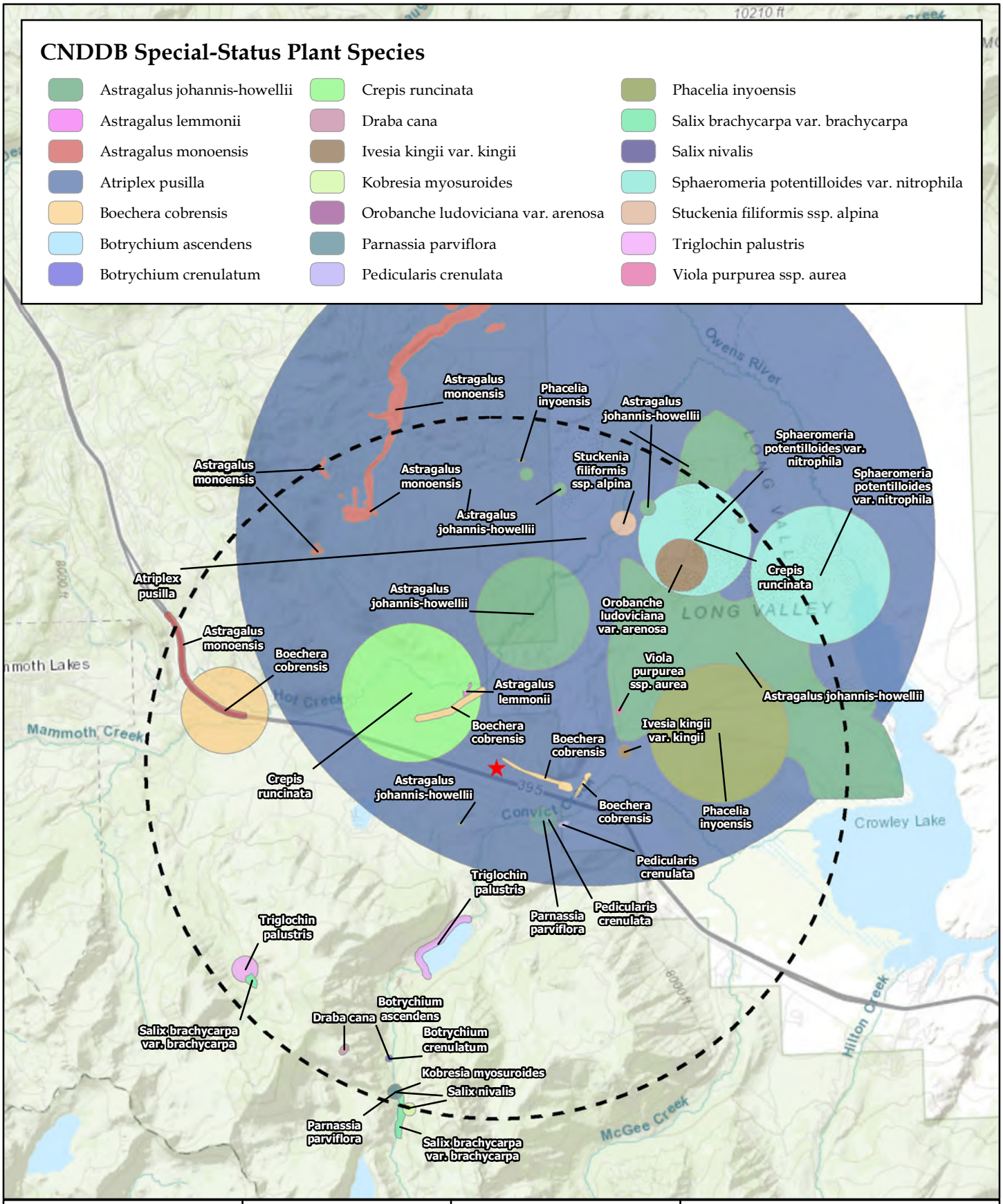
It was also determined that no suitable habitat for gray-headed pika occurs within the project site. The pika was not observed during the Salix survey. However, the western while-tailed jackrabbit has the potential to occur on the project. This State Species of Special Concern is an uncommon to rare year-round resident of the crest and upper eastern slope of the Sierra Nevada and Cascade Range from the Oregon border south to Tulare and Inyo Counties. The CNDDB documents the nearest occurrence of the western white-tailed jackrabbit as a 1955 observation in Long Valley three miles west of the project site. It is unlikely that white-tailed jackrabbit would occur within the project site because there is no nearby water, and cover on the site is minimal. The species was not observed during the Salix field survey. Nevertheless, the project site provides marginal habitat for the species; the Salix assessment recommends additional springtime observation to determine if the species is present.

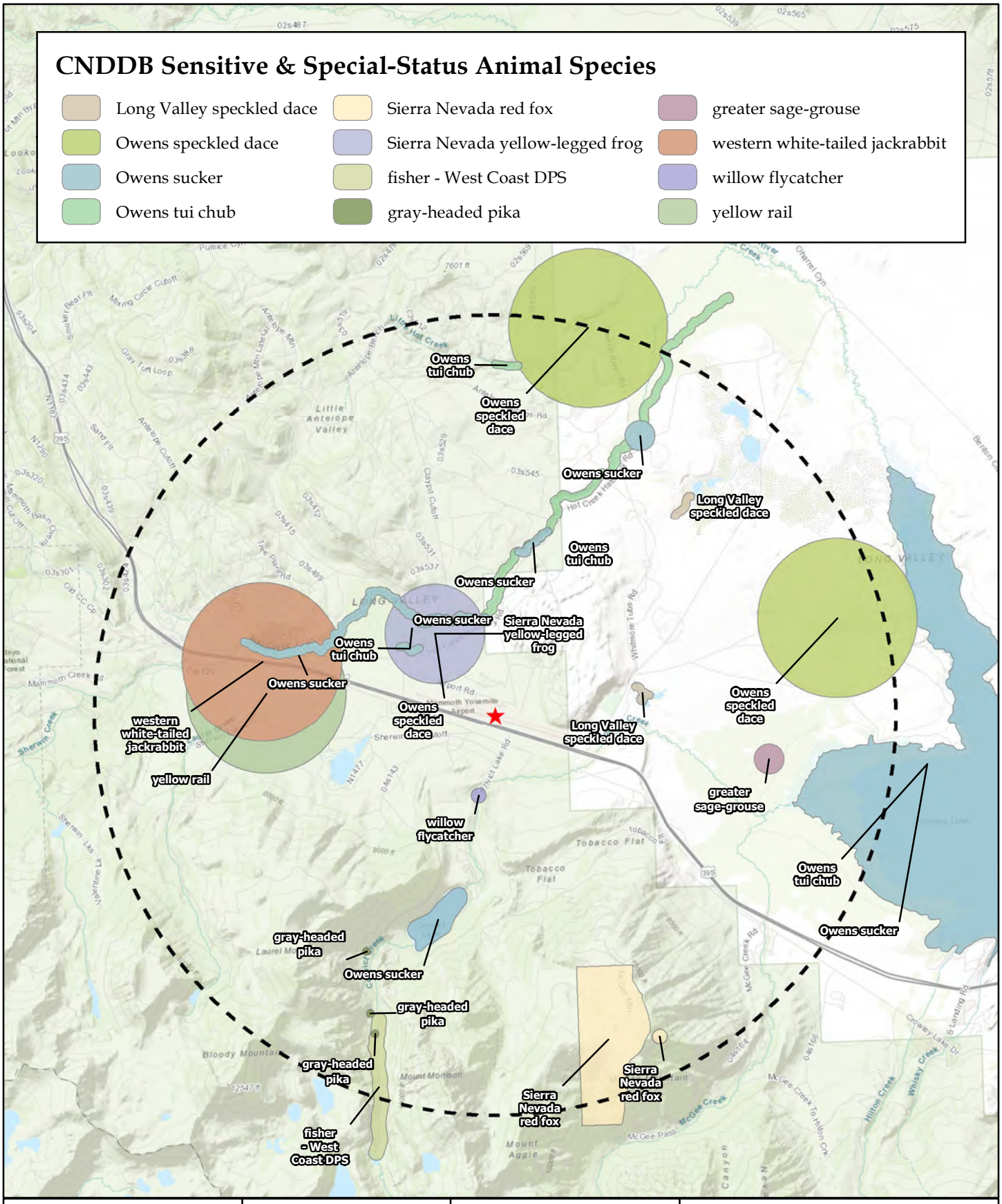
Waters of the U.S. and Wetlands

Waters of the U.S. include navigable waterways, their tributaries, and adjacent wetlands. More specifically, Waters of the U.S. encompass territorial seas, tidal waters, and non-tidal waters. Other jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages; lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Recently, changes have been proposed to the definition of Waters of the U.S. These changes are described later in this chapter.

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The United States Army Corps of Engineers (Corps) Regulatory Branch regulates discharge of dredge or fill materials into "waters of the United States" pursuant to Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. Of the State agencies, the California Department of Fish and Wildlife (CDFW) regulates alterations to streambed and bank under Fish and Wildlife Code Sections 1600 *et seq.*, and the Regional Board regulates discharges into surface waters pursuant to Clean Water Act Section 401 of the and the California Porter-Cologne Water Quality Control Act.

Both the 2020 and 2021 Biological Resource Assessments assessed the project site for Waters of the U.S. through review of aerial photography and a ground assessment. The project site was found to contain no depressions that hold water for an extended period, groundwater discharge areas, or surface drainages. There are no Waters of the U.S. on the project site, including wetlands.


CNDDB Special-Status Plant Species
Astragalus johannis-howellii
Astragalus lemmonii
Astragalus monoensis
Atriplex pusilla
Boechera cobrensis
Botrychium ascendens
Botrychium crenulatum
Crepis runcinata
Draba cana
Ivesia kingii var. kingii
Kobresia myosuroides
Orobanche ludoviciana var. arenosa
Parnassia parviflora
Pedicularis crenulata
Phacelia inyoensis
Salix brachycarpa var. brachycarpa
Salix nivalis
Sphaeromeria potentilloides var. nitrophila
Stuckenia filiformis ssp. alpina
Triglochin palustris
Viola purpurea ssp. aurea
Owens River
LONG VALLEY
Mammoth Lakes
Mammoth Creek
Hot Creek
Crowley Lake
Hilton Creek
McGee Creek
395
10210 ft
8000 ft
6000 ft
Astragalus monoensis
Phacelia inyoensis
Astragalus johannis-howellii
Sphaeromeria potentilloides var. nitrophila
Stuckenia filiformis ssp. alpina
Sphaeromeria potentilloides var. nitrophila
Crepis runcinata
Orobanche ludoviciana var. arenosa
Viola purpurea ssp. aurea
Ivesia kingii var. kingii
Phacelia inyoensis
Pedicularis crenulata
Triglochin palustris
Parnassia parviflora
Pedicularis crenulata
Triglochin palustris
Botrychium ascendens
Draba cana
Botrychium crenulatum
Salix brachycarpa var. brachycarpa
Kobresia myosuroides
Salix nivalis
Parnassia parviflora
Salix brachycarpa var. brachycarpa
Atriplex pusilla
Astragalus monoensis
Boechera cobrensis
Astragalus lemmonii
Boechera cobrensis
Boechera cobrensis
Crepis runcinata
Astragalus johannis-howellii
Astragalus johannis-howellii
Astragalus monoensis
Astragalus johannis-howellii
Astragalus johannis-howellii
Salix brachycarpa var. brachycarpa
Botrychium ascendens
Draba cana
Botrychium crenulatum
Kobresia myosuroides
Salix nivalis
Parnassia parviflora
Salix brachycarpa var. brachycarpa
Salix consulting, inc.
N
0
5,000
10,000
Feet
5-Mile Radius
Project Site
Figure 6-1
CNDDB OCCURRENCES MAP
Mammoth Yosemite Airport
Town of Mammoth Lakes, Mono County, CA



Salix consulting, inc.

N

0 4,400 8,800

Feet

5-Mile Radius

Project Site

Figure 6-2

CNDDB OCCURRENCES MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

REGULATORY FRAMEWORK

Federal

Federal Endangered Species Act (ESA)

The ESA of 1973 is intended to protect plants and animals that have been identified as being at risk of extinction and classified as either threatened or endangered. ESA also regulates the "taking" of any endangered fish or wildlife species, per Section 9 of the Act. A responsible agency or individual landowners are required to submit to a formal consultation with the USFWS to assess potential impacts to listed species as the result of a development project, pursuant to ESA Sections 7 and 10. The USFWS is required to make a determination as to the extent of impact to a particular species a project would have. If it is determined that potential impacts to a species would likely occur, measures to avoid or reduce such impacts must be identified.

Under the ESA, "critical habitat" is designated at the time of listing of a species or within one year of listing. Critical habitat refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. If a project may result in take or in adverse effects to a species' designated critical habitat, the project proponent may be required to engage in suitable mitigation. However, consultation for impacts to critical habitat is only required when a project has a federal nexus (i.e., occurs on federal land, is issued federal permits, or receives any other federal oversight or funding). If a project does not have a federal nexus, consultation with the USFWS is not required for loss or adverse modification to critical habitat.

Sensitive Species

The USFS designates "sensitive" plant and animal species. These species, identified by the Regional Forester are not listed or proposed for listing under ESA, but their population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or in habitat capability that would reduce the species' existing distribution. Although these species generally have no special legal status, they are given special consideration under CEQA during project review.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements various treaties for the protection of migratory birds. Under the MBTA, taking, killing, or possessing migratory birds is unlawful. Unless permitted by regulations, the MBTA provides that it is unlawful to pursue, hunt, take, capture or kill; attempt to take, capture or kill; possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not.

Bald and Golden Eagle Protection Act

The Bald Eagle Protection Act (16 U.S.C. 668) was passed in 1940 to protect bald eagles and was later amended to include golden eagles. Under the act, it is unlawful to import, export, take, sell, purchase, or barter any bald eagle or golden eagle, their parts, products, nests, or eggs. "Take" includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing eagles.

Clean Water Act

The federal Clean Water Act is the primary federal law regulating water quality of "waters of the United States." Waters of the U.S. are broadly defined in 33 Code of Federal Regulations Part 328.3(a) to include navigable waterways, their tributaries, and adjacent wetlands. Implementing the Clean Water Act is the responsibility of the U.S. Environmental Protection Agency (EPA), but the EPA depends on other agencies, such as individual state governments and the U.S. Army Corps of Engineers (Corps), to assist in implementation.

Sections 401 and 404 of the Clean Water Act apply to activities that would impact Waters of the U.S. For waters subject to federal jurisdiction, a permit under Section 404 of the Clean Water Act, issued by the Corps, must be secured prior to the discharge of dredged or fill materials into these waters. Projects requiring a Section 404 permit also must obtain a Water Quality Certification from the Regional Water Quality Control Board in accordance with Section 401 of the Clean Water Act.

On January 23, 2020, the EPA and the Corps finalized a new definition of "Waters of the United States" that is intended to clarify the limits of jurisdiction under the Clean Water Act. The Final Rule states that Waters of the U.S. subject to Clean Water Act jurisdictional include traditional navigable waters and territorial seas; tributaries with perennial or intermittent flow in a typical year; lakes, ponds, and impoundments of traditional navigable waters; and wetlands adjacent to jurisdictional waters. Water features not in these categories, such as isolated wetlands, are excluded from jurisdiction. Also specifically excluded from jurisdiction are most ditches not constructed in jurisdictional wetlands, artificial lakes and ponds constructed in upland or non-jurisdictional areas, ephemeral channels that flow only when precipitation occurs, and stormwater control features, among other exclusions. Although the Final Rule has been announced, legal action is anticipated.

State

California Endangered Species Act (CESA)

CESA establishes State policy to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would affect a species that is on the federal and State lists, compliance

with the ESA satisfies CESA if the CDFW determines that the federal incidental take authorization is consistent with CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a State-listed species only, the project proponent must apply for a take permit under Fish and Game Code Section 2081(b).

California Fish and Game Code

Within the State of California, fish, wildlife, and native plant resources are protected and managed by the CDFW. The Fish and Game Commission and/or the CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the Fish and Game Code address protected species: Section 3511 (birds); Section 4700 (mammals); Section 5050 (reptiles and amphibians); and Section 5515 (fish).

Waters of the State

Under the Porter-Cologne Water Quality Control Act, "Waters of the State" fall under the jurisdiction of the SWRCB and the RWQCB with jurisdiction over the affected water. The RWQCBs are required to prepare and periodically update water quality control basin plans, which set forth water quality standards for surface water and groundwater, as well as actions to control non-point and point sources of pollution to achieve and maintain these standards. Projects that affect Waters of the State may also be required to meet Waste Discharge Requirements (WDRs) set by the RWQCB.

SWRCB's Resolution 2008-0026 identified a need to protect Waters of the State that are not subject to Section 404 permitting and associated Section 401 Water Quality Certification. In April 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Materials to Waters of the State.* When the program is implemented, the Central Valley RWQCB is expected to require issuance of WDRs that authorize the impacts of filling isolated wetlands that are not subject to Section 404 permitting, or in some cases granting a WDR waiver.

Local

Mammoth Lakes Municipal Code

Chapter 17.36.140, Tree Removal and Protection contains provisions to protect and to regulate the removal of certain trees, with exceptions outlined in Chapter 17.36.140(C). No trees would be removed as a result of the project, so this provision of the Municipal Code would not apply to the project.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS,
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS,
- Have a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means,
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites,
- Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Impact BIO-1: Special-Status Plant Species and Habitats

The 2020 Biological Resources Assessment found 42 potentially occurring plant species in its CNDDB query, of which 21 were identified as occurring within or near a five-mile radius of the project site. The assessment determined that 36 species had no potential to occur due to the absence of suitable habitats or substrates. The remaining six species were determined to have some potential to occur within the project site: naked-stemmed phacelia, Masonic rock cress, Long Valley milkvetch, Booth's hairy evening-primrose, Suksdorf's broom-rape, and golden violet. As noted, the 2021 assessment added the whitebark pine, which was determined to not be potentially occurring in the project vicinity.

All but one of the six species were considered unlikely to occur on the project site due to marginal habitat. Masonic rock cress, a CNPS Rank 2 species, was observed within the project site in 2003 and 2010, but habitat for this species was also considered marginal. The Salix field survey was conducted outside the blooming period for most of these species; therefore, the possibility exists that Masonic rock cress and other special-status

species may occur on the site and could be subject to disturbance in conjunction with the proposed project. However, with proper care potential impacts on the Masonic rock cress or other special-status plant species could be reduced to a less than significant level by relocation to or seed broadcast in suitable habitat areas, as provided in the following mitigation measure.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-1: One or more floristic field surveys of the project site shall be conducted during the blooming period(s) for the potentially-occurring special-status species prior to construction, including the Masonic rock cress, shall be conducted during the respective blooming periods prior to construction. If any special-status plants are identified within areas of potential construction disturbance, they shall be located on construction plans with a 10-foot buffer and avoided to the extent feasible. If avoidance is not feasible, a special-status plant mitigation plan shall be prepared and implemented by a qualified biologist. The plan will include the identification of a nearby relocation site that can be secured by the airport, and the methodology to relocate perennial species and/or broadcast seed, prior to ground disturbance.

Impact BIO-2: Special-Status Wildlife Species and Habitats

The 2020 Biological Resources Assessment found 22 potentially occurring wildlife species in its CNDDB and USFWS queries, of which 12 were identified as occurring within or near a five-mile radius of the project site. In addition, the gray-headed pika was included in the special-status wildlife species analysis. The gray-headed pika is not a species listed under ESA or CESA, but the CNDDB database considers it a sensitive species. This species has been recorded as occurring within a five-mile radius of the project site.

The assessment determined that 21 of the species found in the queries had no potential to occur due to the absence of suitable habitats. These included all fish, amphibian, and bird species, and six of the seven mammal species. Bird species considered absent included the greater sage grouse; the 2020 assessment found no suitable habitat on the project site for the greater sage grouse, because of the proximity to human and airport activity. The assessment also determined that no suitable habitat for gray-headed pika exists within the project site. As noted, the 2021 assessment included three federally-listed species, none of which were determined to potentially occur in the project vicinity.

The western while-tailed jackrabbit has the potential to occur on the site, although there is no nearby water source, and cover on the site is minimal. As a result, the project has the potential for impacts on this special-status species. The 2020 assessment recommends additional springtime observation to determine if the jackrabbit is present, and the following mitigation incorporates this recommendation. With implementation of this mitigation measure, project impacts on special-status wildlife species would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

BIO-2: Prior to the start of construction work, the Town shall conduct a pre-construction survey on the project site between April and June to determine the presence of western while-tailed jackrabbit. If western white-tailed jackrabbit is found on the project site, the Town shall contact the California Department of Fish and Wildlife (CDFW) to develop and implement measures to conserve western while-tailed jackrabbit. Such measures may include, but are not limited to, removal of individual rabbits from the project site or implementation of a buffer zone around rabbit areas until rabbits can independently forage on their own. No construction work shall occur on the project site until consultation with CDFW is completed.

Significance After Mitigation: Less than significant

Impact BIO-3: Riparian and Other Sensitive Habitats

As noted, the project site is not on or near any streams, as is the MMH property. No riparian habitat occurs on the project site, and no sensitive habitats were identified by the Biological Resources Assessments as occurring on the project site. The project would have no impact on riparian or other sensitive habitats.

Level of Significance: No impact

Mitigation Measures: None required

Impact BIO-4: Waters of the U.S. and Wetlands

As noted, the Biological Resource Assessments assessed the project site for Waters of the U.S. and found none, including wetlands. There were no features identified on the project site, including depressions that could hold water, that could be under the jurisdiction of the State as a protected wetland. The project would have no impact on wetlands or Waters of the U.S.

Level of Significance: No impact

Mitigation Measures: None required

Impact BIO-5: Fish and Wildlife Migration

As noted, the project site is not on or near a stream. Project work would not affect any stream corridors that may be used by fish. There are trees along the water tank that could conceivably be used by migratory birds as nesting habitat. However, the 2020 Biological Resources Assessment concluded that the project site does not provide suitable nesting habitat for any common raptors known from the region, nor for other birds protected by the Migratory Bird Treaty Act.

As discussed in more detail in Chapter 10.0, Hazards and Hazardous Materials, birds and wildlife may present a hazard to aircraft and vehicle traffic in the vicinity through strikes and collisions. However, the proposed project would not increase the existing risk of such strikes and collisions; this risk would occur independently of the project. The MMH has sought to install perimeter fencing around the airport to keep wildlife out of the operations area. Installation of this fencing would reduce potential collisions. Project impacts related to fish and wildlife migration would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact BIO-6: Local Biological Resource Requirements

As noted, Mammoth Lakes Municipal Code Chapter 17.36.140 regulates the removal of certain trees. There are trees along the water tank, but none are proposed for removal, so this chapter would not apply. No other local biological resource requirements apply to the project. The project would have no impact related to local biological resource requirements.

Level of Significance: No impact

Mitigation Measures: None required

Impact BIO-7: Habitat Conservation Plans

The project site and surrounding vicinity are not located within an area covered by a Habitat Conservation Plan or Natural Community Conservation Plan. The project site is within the boundaries of a greater sage grouse population that is the subject of a conservation plan (BLM 2015). However, the 2020 Biological Resources Assessment concluded that the project would not affect greater sage grouse. In addition, neither Biological Resource Assessment found the project site to be within designated critical habitat for any federally-listed species. Project impacts on habitat conservation plans would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

7.0 CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

ENVIRONMENTAL SETTING

Information for this chapter is drawn primarily from a Cultural Resources Inventory and Effects Assessment (Assessment) prepared for the project EA by Natural Investigations Company, Inc. (2019). The Assessment was prepared in compliance with Section 106 of the National Historic Preservation Act (see below). Activities conducted for the Assessment included literature review, a Sacred Lands File search, Native American outreach, and an intensive-level survey of the proposed Area of Potential Effect (APE), which encompassed a 17.91-acre portion of MMH where the proposed improvements would occur (Figure 7-1). The Town has also provided notice of the project to tribes requesting notice under California Assembly Bill 52 (AB 52). Appendix D contains the Natural Investigations Company Assessment and AB 52 compliance information.

Prehistoric Setting

The prehistoric cultural chronology for the western Great Basin along the east slope of the Sierra Nevada encompasses four major cultural periods: Paleo-Indian (13,000-10,000 years before present), Early Archaic (10,000-6,000 years before present), Middle Archaic (6,000-2,500 years before present), and Late Archaic (2,500 years before present to historic era).

In the greater Inyo-Mono area, archaeological evidence of sparse occupation during the Paleo-Indian period includes Great Basin stemmed or fluted/concave-based projectile points, some Pinto-series points, formalized flake tools (scrapers, gravers), and bifaces. The archaeology suggests these highly nomadic peoples were practicing a broad-spectrum subsistence strategy that exploited a wide range of habitats and resources. Archaeological evidence of Early Archaic human occupation of the greater Inyo-Mono area is scarce. While tool assemblages are similar to the Paleo-Indian period, there was an increase in milling equipment, indicating an increase in the use of plant resources. During the Middle Archaic period, vegetation communities that supported large game animals became more limited and water sources changed. Archaeological sites in the Inyo-Mono area include structures and domestic features. Also, the trans-Sierran exchange of obsidian reached its peak.

The Late Archaic tool assemblage included the introduction of the bow and arrow. There was an increase in the use of milling equipment, coupled with a decreased diversity of flaked stone material. Evidence for resource intensification is prevalent, complementing a pattern of increased settlement centralization, with high-cost extractive and storage strategies for pine nuts, ricegrass, and other seeds, and selective hunting of certain small

mammals and birds. New settlement types were established based on the expanded procurement practices, such as piñon camps, alpine villages, and lowland occupation areas that before were used minimally. Evidence suggests increasingly complex intra- and inter-regional interaction; however, there is a notable decrease in obsidian production. Later in this period, an increased emphasis was placed on local subsistence resources, coupled with the establishment of larger, more sedentary populations.

Ethnography

The project site is located at the northern extent of lands historically occupied by the Owens Valley Paiute, the southernmost branch of the Northern Paiute. The territory of the Owens Valley Paiute extended from the Sierra Nevada eastward to the Inyo Mountains, and from the Benton Range and Long Valley southward to the southern shore of Owens Lake. In contrast to the neighboring Northern Paiute in the Mono Lake basin and Western Shoshone groups to the east and south, the Owens Valley Paiute can be characterized as more sedentary and logistically organized. Each band had a chief, whose duties were to direct seasonal movements into the mountains for pine nut harvesting, animal drives, irrigation, fall festivals, and mourning ceremonies. Population density of the Owens Valley Paiute was also higher than neighboring Great Basin groups, with population estimates before contact ranging between 1,000 and 2,000 people.

As with most Native California groups, the Owens Valley Paiute settlement system was intricately tied to seasonal subsistence. Families traveled during the fall to gather and process the seeds in areas rich in pine nut in the Inyo and White mountains. When available, acorns were preferred over pine nuts, and acorns were also part of the regional trade network. In addition to pine nuts, acorns, and other seeds, the Owens Valley Paiute consumed numerous species of fruits, berries, bulbs, and edible roots. Each band practiced individual and communal hunting, but large game was of relatively minor importance to the diet, considering the scarcity of large animal herds. As with neighboring Great Basin groups, rabbits were the most common game, taken with bow and arrow, snares on game trails, or communal drives. Deer, antelope, and mountain sheep were also hunted.

The Owens Valley Paiute processed and cooked food resources with a variety of tools, including baskets, grinding slabs and handstones, bedrock mortars, and pottery. Pottery was used for cooking and boiling foods, and ceramic items may have served as storage vessels. In addition to acorns, the Owens Valley Paiute traded rabbit-skin blankets, tobacco, baskets, buckskins, salt, pine nuts and other seeds, and obsidian for shells, acorns, baskets, and manzanita berries. This regional trade network across the Sierra Nevada developed between Owens Valley Paiute, Western Mono, Miwok, and the inhabitants of Mono Lake.

The earliest contact between Owens Valley Paiute and European Americans dated to the early 1800s, with the passing of fur trappers through the valley. With permanent European American settlement by cattle ranchers in Round Valley and Owens Valley in 1861, the disturbance of piñon groves and meadowlands resulted in several skirmishes. By 1863, more than 900 Paiute were marched to a reservation near Fort Tejon. The

Paiute soon returned to Owens Valley and mainly worked as laborers in the newly formed towns, mining camps, and ranches.

After 1900, small tracts were reserved for the purpose of establishing reservations near Lone Pine, Independence, Bishop, and Big Pine. By the early 1930s, most of the land within Owens Valley had been purchased by the City of Los Angeles, and the Paiute found themselves without work as the ranches and farms were abandoned. In 1937, Congress approved an agreement between the U.S. Department of the Interior and Los Angeles involving a series of land exchanges for relocating the Bishop, Lone Pine, and Big Pine reservations. The exchanges were approved by the majority of the native people. The Fort Independence Reservation established in 1915-1916 remains today.

As part of its Assessment, Natural Investigations Company contacted Native American tribes on a list provided by the Native American Heritage Commission (NAHC) requesting any information regarding sacred lands or other heritage sites that might be impacted by the proposed project. Attempts were made to contact the following tribes:

- Big Pine Paiute Tribe of the Owens Valley
- Bishop Paiute Tribe
- Bridgeport Paiute Indian Colony
- Mono Lake Indian Community
- Southern Sierra Miwuk Nation
- Utu Utu Gwaitu Tribe of the Benton Paiute Reservation

To date, only one tribe – the Bishop Paiute Tribe – has responded to the attempted contacts. No tribes have indicated the existence of sacred lands, heritage sites, or other resources of cultural importance on the project site.

Historic Setting

Mammoth Lakes Area

The first American trapper to enter California, Jedediah Smith, explored along the Sierra Nevada in 1826. It remains uncertain, but he may have crossed at Sonora Pass where present-day Mono County meets Alpine and Tuolumne Counties. The California Gold Rush sparked exploration of the Mammoth Lakes region, which increased conflicts with Native peoples. In 1852, Lieutenant Tredwell Moore pursued Chief Tenaya and a band of Yosemite Miwok through Yosemite, over Mono Pass, and down Bloody Canyon to Mono Basin. Moore failed to find Chief Tenaya, but he did find gold. Back in Mariposa County, after Moore showed off the gold, prospectors crossed the Sierra Nevada and begin mining in the Mono Basin. In 1859, the next discovery of gold at Monoville led to intensive exploitation of minerals, soils, and rangeland in the Mono Basin that lasted nearly to the end of the 19th century.

By 1861, the population of miners in the region had grown large enough that the new County of Mono was established from territory removed from Calaveras and Fresno Counties. In 1863, the Mono County seat was moved to Bridgeport, where it remains today. In 1864, Alpine and Inyo Counties received portions of the County.

Gold was discovered at Mammoth in 1877. By the following year, the mining camp of Mammoth City at Mineral Hill had a population of 1,500. The greatest amount of mining activity occurred in 1879 and 1880. A mill was built, and a 54-mile trail was constructed from Fresno Flats (now Oakhurst in Madera County), but little was produced, and the place closed by early 1881. Mill City and the Old Mammoth Mine are southwest of the Town of Mammoth Lakes off Old Mammoth Road.

At the foot of Mammoth Mountain, Mammoth Lakes is the only incorporated town in Mono County. The community was informally established in the early 1900s near Mammoth Creek, with an economy based on logging and tourism. Tourism grew in the Mammoth Lakes, June Lake, and Mono Lake region during the 1920s, when summer camping gained in popularity and El Camino Sierra (now US 395) first linked southern California to Lake Tahoe. The first post office was established at Mammoth Lakes in 1923. The Town was incorporated in 1984. Recreation and tourism have continued to gain importance in the local economy, particularly downhill skiing. In 2015, Mammoth Mountain Ski Area, which began with one rope tow in 1938, was the largest single employer in Mono County.

Mammoth Yosemite Airport

Chapter 1.0, Introduction, provides an overview of the history of MMH. MMH was originally constructed by the U.S. Army Air Corps during World War II for use as an auxiliary landing strip. The original dimensions of the landing strip were less than 4,000 feet long by 30 feet wide. Mono County acquired part of the airfield from the U.S. Army after the war and renamed it Long Valley Field. The runway was an unpaved dirt strip, and the airport was a seasonal facility closed by winter snows until it was paved in 1959.

In 1965, to accommodate the future widening of US 395, the runway was relocated 300 feet to the north on USFS land, extended to 5,000 feet, and widened to 100 feet. Renamed Mammoth Lakes Airport, private interests operated the airfield. In 1971, Mammoth Sky Lodge Corporation, then the airport operator, extended the runway to 6,500 feet. A terminal building and an airport office, currently used as an FBO office and pilots' lounge, were constructed in 1972, and the airport became formally known as Mammoth-June Lakes Airport. In 1973, Sierra Pacific Airlines initiated service and served Mammoth Lakes until 1980.

In 1978, Mono County entered into an agreement with Mammoth Sky Lodge Corporation to acquire all airport property from the USFS. The acquisition was completed in 1980, and the County reestablished public operation of the airport. In 1983, the County began an airfield improvement program. Using funds received under the FAA's Airport Improvement Program, a 7,000-foot by 100-foot runway was constructed. This runway is the one currently in use.

In September 1992, the Town of Mammoth Lakes acquired the airport from Mono County. Commercial air service was provided by United Express and Trans World Express until 1995. Royal West Airlines provided service in 1987 and United Express in 1992 and 1993. Under a new airport development plan proposed in 1997, 94 private and public use hangars and a water system were constructed. In 2000, the Town changed the airport's name to Mammoth Yosemite Airport.

In 2008, the entire runway/taxiway complex at MMH was reconstructed, and the existing maintenance garage was remodeled to provide the interim terminal building presently in use. That same year, Alaska Airlines and Horizon Air initiated commercial air service to MMH. Regular air service by United Airlines was added in 2010. As noted in Chapter 1.0, Alaska Airlines recently discontinued its service, leaving United Airlines as the only commercial air service provider to MMH.

Cultural Resources in Project Area

As noted, Natural Investigations Company conducted a Cultural Resources Inventory and Effects Assessment for the project. The Assessment included literature review, a Sacred Lands File search, Native American outreach, and an intensive-level survey of the proposed APE.

The literature search was completed by the Eastern Information Center of the California Historical Resources Information System at the University of California, Riverside. The records search was conducted to determine if prehistoric or historic cultural resources were previously recorded within the APE, the extent to which the APE had been previously surveyed, and the number and type of cultural resources within a 0.5-mile radius of the APE.

Prior cultural work entailed 30 prior studies within a 1.5-mile search radius, four of which overlapped portions of the APE. No cultural resources have been previously recorded within the APE; however, 15 resources (11 prehistoric, 2 historic-era, 2 multi-component) are mapped within a 0.5-mile radius. The recorded resources outside the APE within 0.5 miles include four prehistoric lithic scatters, one of which also includes milling features, seven isolated lithics, one historic-era debris scatter, one road, and two multi-component sites with prehistoric lithic scatters and historic debris.

The records search also indicates that, within 0.5 to one mile of the APE, there are an additional five prehistoric lithic scatters, one lithic isolate, and one water conveyance system. A further prehistoric lithic scatter is mapped within 1.5 miles of the APE. Additionally, although not on file at the Eastern Information Center, extant MMH buildings and structures near but outside the APE were previously determined ineligible for inclusion on the National Register of Historic Places, as part of an Environmental Assessment completed in 2000 for a proposed expansion project (Town of Mammoth Lakes 2000).

The field survey of the APE conducted by Natural Investigations Company identified a 0.18-mile segment of historic-era Convict Lake Road, which formerly extended north from its current end at US 395. The road segment had been previously recorded (P-26-

007973, CA-MNO-5763). The resource was determined to be ineligible for National Register listing, as it did not meet the criteria for inclusion. No archaeological or other built-environment resources were newly identified or documented during the survey of the APE.

Natural Investigations Company contacted the NAHC, requesting a search of their Sacred Lands File for traditional cultural resources within or near the project area. In response, the NAHC stated that its search did not identify any sacred sites in the project vicinity.

REGULATORY FRAMEWORK

National Historic Preservation Act Section 106

The National Historic Preservation Act of 1966, as amended (16 United States Code 470 *et seq.*), is the primary federal legislation that outlines the federal government's responsibility to consider the effects of its actions on historic properties. Section 106 of the Act requires federal agencies to consider the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Since the FAA has jurisdiction over MMH, a Section 106 analysis was conducted as part of the EA prepared for the project pursuant to NEPA.

Under Section 106, the significance of any adversely affected cultural resource is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. The quality of significance in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:

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

CEQA Guidelines Section 15064.5

Criteria specified in CEQA Guidelines Section 15064.5 suggest that an "important historical or archaeological resource" is one which generally meets the criteria for listing in the California Register of Historical Resources, including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage,
- Is associated with the lives of persons important in California's past,
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value, or
- Has yielded, or may be likely to yield, information important in prehistory or history.

That a resource does not meet any of the above criteria does not preclude a lead agency from determining that a resource may be historical as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

AB 52

In 2014, the California Legislature enacted AB 52, which requires CEQA consultation with Native American tribes on projects that could potentially affect resources of value to the tribes. The intent of this consultation is to avoid or mitigate potential impacts on "tribal cultural resources," which are defined as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

- Included or determined to be eligible for inclusion in the California Register of Historical Resources, or
- Included in a local register of historical resources as defined in subdivision (k) of Public Resources Code Section 5020.1.

The tribal cultural resource must be a tangible resource for CEQA purposes, but the meaning or value attributed to that resource may be intangible. Only tribes that request to be on a CEQA lead agency's notice list shall be consulted on a project. The project must be within the geographic area that is traditionally and culturally affiliated with the tribes.

Under AB 52, consultation with tribes on a notice list shall be initiated prior to the release of the CEQA document for public review. When a tribe requests consultation, the lead agency must provide the tribe with notice of a proposed project within 14 days either of a project application being deemed complete or when the lead agency decides to undertake the project if it is the agency's own project. The tribe has 30 days from receipt of the notification letter to respond in writing. In the response, if consultation is requested, the

tribe must designate a lead contact person. If the tribe requests consultation, then the lead agency has up to 30 days after receiving the tribe's request to initiate formal consultation.

Matters which may be subjects of AB 52 consultation include the type of CEQA environmental review necessary, the significance of tribal cultural resources, and project alternatives or appropriate measures for preservation or mitigation of the tribal cultural resource that the tribe may recommend to the lead agency. The consultation process ends either (1) the resource in question is not considered significant, (2) when the parties agree to mitigate or avoid a significant effect on a tribal cultural resource, or (3) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. Regardless of the outcome, a lead agency is still obligated under CEQA to mitigate for any significant environmental effects, as explicitly noted in AB 52.

Under California Government Code Sections 6254(r) and 6254.10, and under 14 California Code of Regulations 15120(d), any information on tribal cultural resources that is submitted by the tribe during the environmental review process shall not be included in the CEQA environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe. A confidential appendix to the CEQA document containing such information may be prepared by the lead agency, which can be made available to qualified reviewers. The Town, as lead agency for this project, shall determine who would be a qualified reviewer.

In accordance with AB 52, the Town sent letters to potentially interested tribes, asking if they wished to consult on the project. Along with the tribes previously contacted by Natural Investigations Company, the following tribes were also contacted:

- North Fork Rancheria of Mono Indians
- Torres Martinez Desert Cahuilla Indians
- Walker River Reservation

To date, the Town has not been contacted by any of the tribes for AB 52 consultation on the project.

Town of Mammoth Lakes General Plan

The following Town General Plan policies related to cultural resources and tribal cultural resources are relevant to this project (Town of Mammoth Lakes 2019):

- Policy A.3.D. Be stewards of the cultural, historical and archaeological resources in and adjacent to town.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5,
- Cause a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5,
- Disturb any human remains, including those interred outside of formal cemeteries.

Also, a project may have a significant impact on the environment if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in California Public Resources Code Section 21074 as a site, feature, place, sacred place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, or object with cultural value to a California Native American tribe, and that is:

- 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
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in Public Resources Code Section 5024.1(c). In applying the Section 5024.1(c) criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

Impact CULT-1: Historical Resources

As noted, a literature search conducted as part of the Cultural Resources Inventory and Effects Assessment did not identify any historical resources within the APE, where project construction work would occur. Additional information indicated that the MMH buildings and structures near the APE were considered ineligible for listing on the National Register of Historic Places. A segment of road in Eastern Information Center records was found within the APE, but it was also determined to be ineligible for listing on the National Register.

While the Section 106 analysis was conducted in compliance with NEPA procedures, information in the analysis is also applicable to cultural resources that are addressed by CEQA (Arrington, pers. comm.) Since no historical resources were identified or considered significant in the Section 106 analysis, there would be no historical resources affected pursuant to CEQA. Based upon this, the project would not involve any effects on

historical resources, and therefore its impacts on historical resources would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact CULT-2: Archaeological Resources

The literature search and the field survey did not identify any archaeological resources within the APE. The Assessment determined that sensitivity is very low for discovery of archaeological deposits in the previously disturbed APE. This determination was made on the basis of site-specific variables – presence of a paleolake and likely burial of any older sites by volcanic activities, age of underlying Pleistocene alluvium, weakly developed soil, prior disturbance, lack of evidence for prehistoric or historic-era archaeological sites, and the relatively shallow depth of excavation projected for the majority work associated with the project.

However, several prehistoric scatters and isolates have been recorded within a 1.5-mile radius of the APE. While considered unlikely, it is conceivable that previously unknown archaeological resources could be encountered during project construction. Disturbance of such resources would be a potentially significant impact. Mitigation presented below sets forth a procedure that would be implemented should an archaeological resource be encountered. This procedure would ensure that the integrity of the resource would be maintained to the extent feasible, thereby reducing potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-1: If any subsurface archaeological resources are encountered during construction, all construction activities within a 50-foot radius of the encounter shall be immediately halted until a qualified archaeologist can examine these materials, initially evaluate their significance and, if potentially significant, recommend measures on the disposition of the resource before work near the discovery can resume. The Town shall be immediately notified in the event of a discovery, and if the resources may constitute tribal cultural resources, the Town shall notify the appropriate Native American representatives. The Town shall be responsible for retaining qualified professionals, implementing recommended mitigation measures, and documenting mitigation efforts.

Prior to construction, construction personnel shall receive brief "tailgate" training by a qualified archaeologist in the identification of archaeological resources and the protocol for notification should such resources be discovered during construction work.

Significance After Mitigation: Less than significant

Impact CULT-3: Tribal Cultural Resources

As noted, Natural Investigations Company and the Town attempted to contact several tribes that were identified by the NAHC as having potential interest in the project. None of the tribes contacted has requested consultation on the project, and none has indicated the potential existence of any tribal cultural resource of importance. As noted, the NAHC reported that a search of their records did not indicate the presence of any sacred lands on the project site.

Literature review by the Eastern Information Center did not find any recorded archaeological sites specifically tied to any tribes. However, prehistoric scatters and isolates have been recorded within a 1.5-mile radius of the APE. It is conceivable that previously unknown tribal cultural resources could be encountered during project construction. Disturbance of such resources would be a potentially significant impact. Mitigation Measure CULT-1, described above, sets forth a procedure that would be implemented should an archaeological resource be encountered, which may also include a tribal cultural resource. This procedure would ensure that the integrity of the resource would be maintained or mitigated to the extent feasible, thereby reducing potential impacts to a level that would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures: Implementation of Mitigation Measure CULT-1.

Significance After Mitigation: Less than significant

Impact CULT-4: Human Burials

Cultural resource investigations to date have not revealed the presence of human burials on or near the project site. Nevertheless, given the presence of other resources recorded in the vicinity, it is conceivable that previously unknown human remains could be encountered during project construction. Disturbance of human remains, especially those of Native American origin, would be a potentially significant impact.

CEQA Guidelines Section 15064.5(e) describes the procedure to be followed when human remains are uncovered in a location outside a dedicated cemetery. All work in the vicinity of the find shall be halted and the County Coroner shall be notified to determine if an investigation of the death is required. If the County Coroner determines that the remains are Native American in origin, then the County Coroner must contact the NAHC within 24 hours. The NAHC shall identify the Most Likely Descendants of the deceased Native American, and the Most Likely Descendants may make recommendations on the disposition of the remains and any associated grave goods with appropriate dignity. If a Most Likely Descendant cannot be identified or fails to make a recommendation, or the landowner rejects the recommendations of the Most Likely Descendant, then the

landowner shall rebury the remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.

Mitigation described below would require the project to comply with the procedures specified in CEQA Guidelines Section 15064.5(e). Implementation of this mitigation measure would ensure that impacts on any human remains encountered during project construction associated with the project would be less than significant.

Level of Significance: Potentially significant

Mitigation Measures:

CULT-2: If project construction encounters evidence of human burial or scattered human remains, work shall be halted in the immediate area and the contractor shall immediately notify the Mono County Coroner and the Town. The Town shall notify other federal and State agencies as required. The Town will be responsible for compliance with the requirements of California Health and Safety Code Section 7050.5 Public Resources Code Section 5097.98, and the CEQA Guidelines Section 15064.5(e), with direction provided by the County Coroner.

If the human remains are determined to be Native American, the County Coroner shall notify the Native American Heritage Commission (NAHC), which will notify and appoint a Most Likely Descendant. The Most Likely Descendant shall have 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the Most Likely Descendant does not make recommendations within 48 hours, the Airport shall, with appropriate dignity, re-inter the remains in an area of the property secure from further disturbance. Work shall not resume in the area of the encounter until the final disposition of the remains has occurred.

Significance After Mitigation: Less than significant

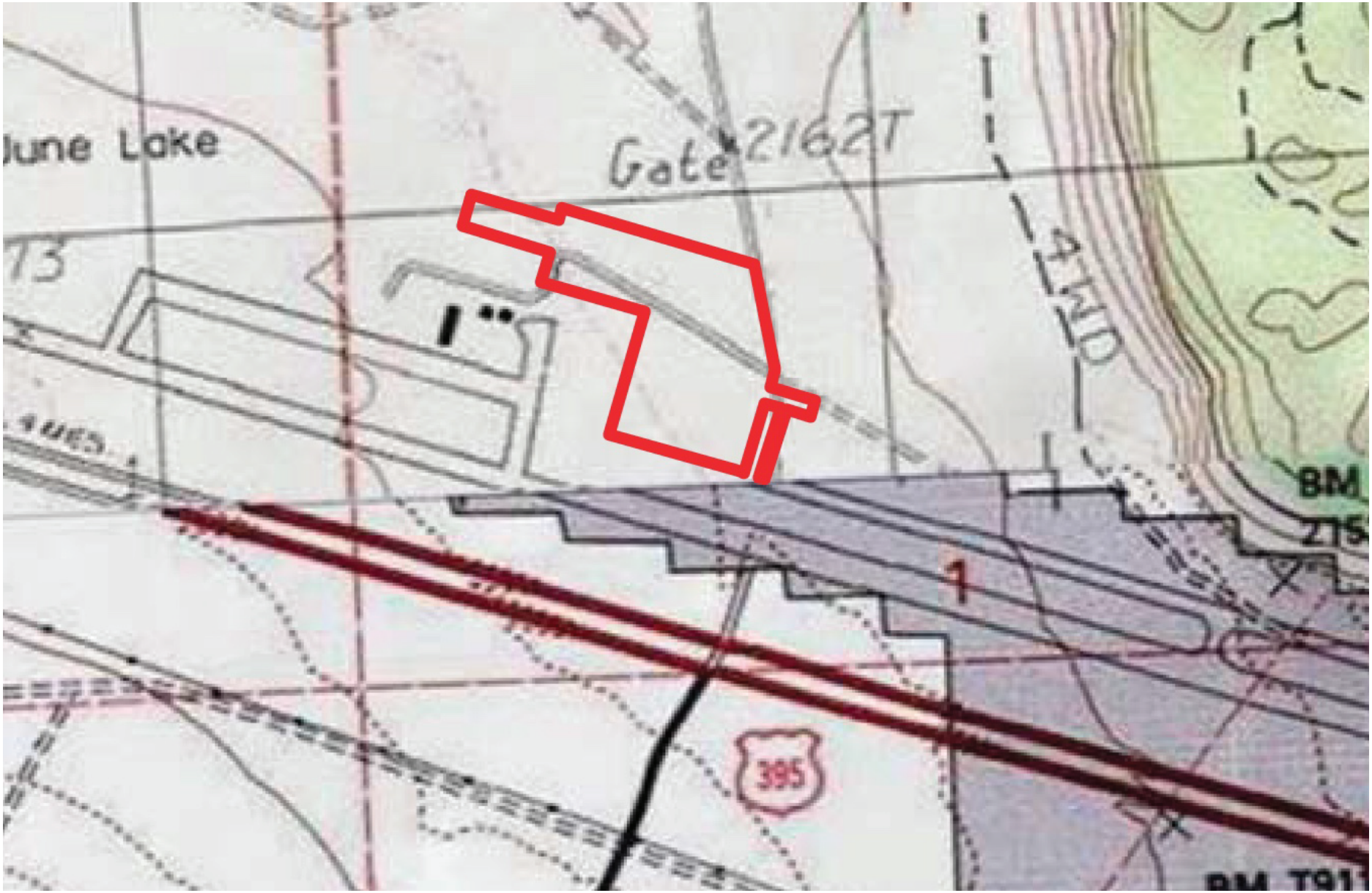


Figure 7-1
AREA OF POTENTIAL EFFECT, CULTURAL RESOURCES

8.0 GEOLOGY, SOILS, AND MINERAL RESOURCES

ENVIRONMENTAL SETTING

Regional Geology

The MMH and much of Mono County, lie on the border of two major physiographic provinces - the Sierra Nevada and the Basin and Range. The Sierra Nevada, the largest continuous mountain range within the contiguous United States, is a great block of granitic rocks, with older overlying sedimentary and metamorphic material that has been uplifted on its eastern side and tilted westward. The Basin and Range Province consists of north-south trending, block-faulted ranges separated by sediment-filled basins. These structures extend westward from Utah to the Sierra Nevada (Mono County 2010).

Abundant volcanic rocks have been superimposed on the basic block-faulted structure. Volcanic rocks that can be related to the Long Valley magma chamber first appeared about 1 million years ago at Glass Mountain. The most prominent volcanic event has been the eruption of the Bishop Tuff and subsequent collapse of the Long Valley caldera, 700,000 years ago (Mono County 2010). The most recent volcanic activity at the Long Valley Caldera occurred 50,000 years ago; however, eruptions have occurred at the Inyo-Mono Craters as recently as 250 years ago (Town of Mammoth Lakes 2007b). Volcanic activity in the Mammoth Lakes area is discussed in more detail below.

Long Valley Caldera has been the focus of intense study because of its volcanic and seismic activity and its potential as a geothermal energy source. There are thick layers of volcanic ash as well as rhyolite and basalt flows within the caldera. Subsequent to formation of the caldera, a resurgent magma dome formed underneath. This dome is the site of renewed uplift, apparently caused by the emplacement of magma beneath Long Valley Caldera (Mono County 2010).

Local Geological Conditions

The MMH is in the southwestern portion of the Long Valley Caldera. It is situated on middle Pleistocene-age alluvium deposits composed of unconsolidated stream deposits, glacial outwash, terrace gravels, low-relief alluvial-fan deposits, and possible lacustrine deposits. The MMH is bounded on the west and north by a basalt flow, on the east by the rhyolite flow of Doe Ridge, and on the south by the Convict Creek glacial deposit. The eastern Sierra Nevada front is about 2.5 miles south of MMH.

Geological Hazards

As a result of faulting and volcanism, the project site is subject to a range of geologic hazards. These hazards are documented in the Multi-Jurisdictional Hazard Mitigation Plan, prepared for both the Town and Mono County, which indicates potential exposure to hazards related to geology and soils, including faulting, earthquakes and other seismic-related hazards, along with a range of volcanic activity. These hazards are described in more detail below. The Hazard Mitigation Plan also indicates that MMH is unlikely to experience certain geologic and soil hazards such as expansive soils, landslides, and land subsidence (Mono County and Mammoth Lakes 2019).

Fault Rupture

Fault rupture is the actual movement of the ground's surface along a fault line when an earthquake occurs. This movement may be vertical, horizontal, or both, depending on the type of fault. Damage from fault rupture is limited to the area of the fault boundary itself, although depending on the amount of movement along the fault, the damage may be severe. Some earthquakes, known as blind thrust earthquakes, occur without causing visible surface rupture, although they may still cause substantial damage. The area at risk of fault rupture is limited to areas in the immediate vicinity of a fault.

An unnamed fault has been identified along Doe Ridge northeast of MMH (Town of Mammoth Lakes 2007b). This unnamed fault is believed to be part of an extension of the Hilton Creek Fault system, described below (Bryant 1981). No faults have been identified on the MMH property.

Ground Shaking

Ground shaking is generally the most damaging of seismic-related hazards and is the specific hazard most associated with earthquakes. The severity of ground shaking is affected by local geology, but in general it would be most severe closest to the site of the earthquake and decrease with distance. Ground shaking may occur in an up-and-down, side-to-side, or rolling motion, depending on the type of seismic waves produced by the earthquake.

Earthquakes occur frequently in Mono County, and particularly in the Long Valley area. The USGS Earthquake Catalog shows that earthquakes happen in the general vicinity weekly and almost daily, but most are under magnitude 3 and are not felt by people. There have been 145 earthquakes of at least magnitude 4.5 within 25 miles of Mono County since 1980, of which 94 had epicenters within the County borders (Mono County and Mammoth Lakes 2019).

Along with magnitude, an earthquake can be described by its intensity, which is based on observed physical effects. The Modified Mercalli Intensity Scale measures the intensity of physical effects associated with earthquakes (Alfors et al. 1973). Measurements are rendered in Roman numerals. The anticipated earthquake intensity within the Mammoth Lakes area would range from IX to X. IX indicates that heavy damage to unreinforced

structures would result and some structures would collapse. A Mercalli index of X indicates that most masonry structures would be destroyed, some well-built wooden structures would be destroyed, and public facilities would be damaged (Town of Mammoth Lakes 2007b).

Seismic activity in the project vicinity is a result of continuing tectonic movement along the eastern front of the Sierra Nevada, activity at faults in the Long Valley/Mono Lake area, and the movement of magma beneath Long Valley Caldera. The largest measured magnitude earthquake in the Mammoth Lakes area was 6.3 on May 25, 1980, during a sequence of earthquakes that were centered near the Town and produced the most pronounced damage in this area. Most damage to buildings was nonstructural and included broken windows and water mains, cracked plaster, and fallen chimneys. Damage to shelf stock and fixtures was moderate to severe in many stores, restaurants, and motels (Mono County and Mammoth Lakes 2019). These 1980 earthquakes have been connected to magma movement (Town of Mammoth Lakes 2007b).

Several faults have been identified in the project vicinity (Figure 8-1). There are several active and potentially active fault zones within 60 miles of MMH. Three historically active faults in the Town vicinity have the greatest potential to create significant ground shaking in the area: the Hilton Creek Fault (4 miles east of MMH), the Owens Valley Fault (42 miles south), and the Chalfant Valley Fractures (30 miles east). Six other faults have a lesser potential for ground shaking, including the Laurel Convict Fault approximately four miles southwest of MMH (Town of Mammoth Lakes 2007b). The unnamed fault along Doe Ridge, approximately 0.5 miles east of the project site, is considered to have been active during the Quaternary period (approximately 2.6 million years ago to the present), but no recent earthquakes have been identified with this fault (Bryant 1981).

Liquefaction

Liquefaction occurs when loosely packed sand or silt is saturated with water and then shaken hard enough for it to temporarily behave like a fluid. This causes the soil to lose its strength, which may in turn damage structures built on or in it. Liquefaction risk depends primarily on the height of the groundwater table and the composition of the soil. The California Department of Conservation Seismic Hazard Program delineates areas prone to earthquake-related hazards, including liquefaction. Liquefaction zones identify where the stability of foundation soils must be investigated, and countermeasures undertaken in the design and construction of buildings for human occupancy.

While no complete mapping is available for liquefaction risk in Mono County or the Town vicinity, past events suggest that the valley areas within the County face an elevated risk of liquefaction, particularly areas around dry lake beds. Selected areas within the Town are potentially subject to liquefaction (Mono County and Mammoth Lakes 2019). MMH was not identified as a liquefaction hazard area.

Tectonic Subsidence

Subsidence is the sinking of the earth's surface. Fault movement is one possible cause of subsidence. This type of subsidence has been observed in Mono County. The Hazard Mitigation Plan stated that, during the May 1980 sequence of earthquakes near Mammoth Lakes, up to 12 inches of vertical offset on the east side of ruptures was observed along the Hilton Creek fault zone extension near MMH (Mono County and Mammoth Lakes 2019).

Volcanic Activity

Mono County contains the most significant volcanic center in California outside of the Cascade Range. The Long Valley-Mono Basin Region is dominated by two distinct but interrelated systems that have produced volcanic and seismic activity for millions of years. The region includes the Long Valley Caldera, a 20-mile-by-10-mile, oval-shaped depression formed about 760,000 years ago. The MMH is near the southwest edge of the Long Valley Caldera. A younger system, the Mono-Inyo Craters, runs from Mono Lake to Mammoth Mountain near the rim of the caldera. (Mono County and Mammoth Lakes 2019).

Since the Long Valley Caldera's formation, clusters of smaller volcanic eruptions have occurred in the caldera at roughly 200,000-year intervals. The most recent eruption within the topographic basin occurred 16,000 to 17,000 years ago along the west rim of the caldera. The Mono-Inyo chain has erupted at intervals of 700 to 250 years over the last 3,000 years. The most recent activity in the Mono-Inyo chain occurred with the formation of Mono Lake's Paoha Island about 350 years ago (Mono County and Mammoth Lakes 2019). The 27-megawatt Ormat geothermal station is located about three miles west of MMH at the SR 395/SR 203 interchange. Flows of hot and mineralized water along Hot Creek are another local expression of geothermal activity. In addition, an area of potential future volcanic vents, inferred based on seismic activity, extends into the town's east side. The entire town is within hazard areas for pyroclastic flows and tephra fall (Mono County and Mammoth Lakes 2019).

Soils and Soil Conditions

Soil surveys of the MMH property, including a custom soil survey produced through the website of the Natural Resources Conservation Service, indicate that the project construction area is underlain by a soil type designated as Watterson family-Torriorthentic Haploxerolls complex. This is a somewhat excessively drained soil formed in alluvial fans. It consists of gravelly sandy loam from the surface to a depth of approximately 20 inches. From 20 to 60 inches, the complex is a very cobbly sandy loam. Permeability of this complex is moderately rapid, and the maximum erosion hazard is low. This soil has been determined to not be prime farmland or other important farmland, and it is classified as not capable of growing commercial conifer species for timber production (Inyo National Forest 1995, NRCS 2019).

Expansive soils can change dramatically in volume depending on moisture content. When wet, these soils can expand; conversely, when dry, they can contract or shrink. However, both the Watterson and the Torriorthentic soils have a low shrink-swell potential (NRCS 1996). In addition, no expansive soils have been mapped or encountered in the Town Planning Area, which includes MMH (Town of Mammoth Lakes 2007b).

Paleontological Resources

Paleontological resources, or fossils, are the remains and/or traces of prehistoric animal and plant life, exclusive of human remains or artifacts. The Town General Plan EIR indicated that there were no known paleontological resources or sites within the Town Planning Area, which includes MMH. The soils are glacial till and relatively recent volcanic materials, so no paleontological resources would be expected (Town of Mammoth Lakes 2007b).

Mineral Resources

Mineral resources in the Town Planning Area include industrial minerals (clay, aggregate, cinders, etc.) and precious metals associated with volcanic rocks and hot spring/geothermal activity. The Town General Plan EIR identifies a deposit of aggregate and a deposit of precious metals north of MMH, on the opposite side of Hot Creek. In addition, a geothermal lease area has been designated north and northeast of the Town (Town of Mammoth Lakes 2007b). No mineral resources, including geothermal lease areas, have been identified on MMH property. However, a gravel pit is located on Inyo National Forest land north of MMH, and the Ormat geothermal power station is located approximately three miles to the west.

REGULATORY FRAMEWORK

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act, enacted in 1972 and subsequently amended, prohibits the location of most structures for human occupancy across the traces of active faults and to thereby mitigate the hazard of fault rupture. Under the Act, the State Geologist is required to delineate Earthquake Fault Zones along known active faults in California. Cities and counties affected by the zones must regulate certain development projects within the zones, withholding development permits until geologic investigations demonstrate that proposed development sites are not threatened by surface displacement from future faulting (Bryant and Hart 2007).

The Mammoth Lakes region has several areas mapped by the State Geologist as a “Zone of Required Investigation,” including Alquist-Priolo Earthquake Fault Zones and Seismic Hazards Mapping Act zones. These zones are established where required to reduce the threat to public health and safety and to minimize the loss of life and property posed by

earthquake-triggered ground failures (California Geological Survey 2017). MMH is not within any of these mapped hazard zones.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 to address earthquake hazards such as seismically induced liquefaction and landslides. Under the Act, seismic hazard zones are mapped through the Seismic Hazards Zonation Program of the California Geological Survey to identify areas prone to earthquake-induced liquefaction, landslides, and amplified ground shaking. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property that may result from earthquake-triggered ground failure. Section 2697(a) of the Act states that cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard. As stated above, MMH is not within a mapped zone.

California Building Code

The California Building Code is included in Title 24 of the California Code of Regulations and incorporates the International Building Code, a model building code adopted across the United States. The California Building Code is updated every three years, and the current 2019 version took effect January 1, 2020. The Town has adopted the 2019 California Building Code, along with Section 15.24.020 of the Town Municipal Code. This section specifies the use of seismic ground accelerations, as defined in the California Building Code, to be used in building design.

Construction General Permit

Construction projects that involve one acre or more of ground disturbance are required to obtain a Construction General Permit, issued by the SWRCB. Discharges subject to the Construction General Permit must develop and implement a Storm Water Pollution Prevention Plan (SWPPP), which includes a site map and description of construction activities and identifies the Best Management Practices (BMPs) that will be employed to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. A monitoring program is generally required to ensure that BMPs are implemented according to the SWPPP and are effective at controlling discharges of stormwater-related pollutants.

Modifications to the Construction General Permit in 2010 established BMP and monitoring requirements through a "risk-based" approach. Construction activities would be assessed for the risk that erosion and sedimentation generated by the activity would pose to water quality in the area, based on potential rainfall likelihood and intensity and on the sensitivity of waters receiving runoff from the construction site.

Surface Mining and Reclamation Act

As mandated by the Surface Mining and Reclamation Act, the California Geological Survey has classified mineral resource development potential of lands in counties into an appropriate Mineral Resource Zone, in accordance with the California Mineral Land Classification System. Local agencies are required to use this information when developing land use plans and when making land use decisions. Only a small portion of Mono County has been so classified, and no Mineral Resource Zones have been designated in the Mammoth Lakes area, including MMH.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction), or landslides.
- Result in substantial soil erosion or the loss of topsoil,
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse,
- Be located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property,
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater,
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature,
- Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state, or
- 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.

Impact GEO-1: Fault Rupture

As noted, there are no faults on the MMH property. Therefore, it is unlikely that the project would experience any hazards from fault rupture. The project would have no known impact related to fault rupture.

Level of Significance: No impact

Mitigation Measures: None required

Impact GEO-2: Other Seismic Hazards

The project site, as with the Mammoth Lakes area, is subject to ground shaking from earthquakes, generated either by fault movements or movements of magma beneath the Long Valley Caldera. Earthquake intensities could be as high as X on the Modified Mercalli Scale, which would mean serious damage to structures. The proposed new buildings would be subject to potentially strong ground shaking.

The new buildings must comply with the adopted California Building Code, which contains provisions designed to improve the ability of structures to withstand ground shaking. The new buildings also must comply with Section 15.24.020 of the Town Municipal Code, which specifies the use of seismic ground accelerations to be used in building design. Compliance with the California Building Code and Section 15.24.020 would reduce the potential damage that may occur to these buildings during an earthquake.

As noted, MMH is not within a liquefaction or a landslide area. Tectonic subsidence has been observed on a fault passing through Doe Ridge northeast of MMH; however, any subsidence related to this or other faults is not expected to affect MMH itself. Project impacts related to other seismic hazards would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact GEO-3: Volcanic Activity

As noted, the Long Valley Caldera, within which MMH is located, is considered an active volcanic area. However, there has been no significant activity within the caldera in the last 50,000 years. More recent volcanic activity has occurred at the Inyo-Mono Craters, but the last known activity occurred 250 years ago in the Mono Lake area. Volcanic activity cannot be predicted, but the likelihood of such activity at any given time is considered low.

The main concern with volcanic activity as it relates to airport operations is the ash from eruptions, which could adversely affect aircraft engines. It is expected that MMH would close operations should ash be ejected in sufficient quantities to affect aircraft. Once the

ash is cleared, MMH operations would resume. Project impacts related to volcanic activity would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact GEO-4: Soil Erosion

As noted, the erosion potential of the soil on the project site is low. However, project construction activities would disturb and loosen the soil, leaving it exposed to potential water and wind erosion. The eroded soils, in turn, could be transported off the project site by runoff or wind.

Proposed development on the project site would need to obtain a Construction General Permit and comply with its provisions, including the preparation and implementation of a SWPPP that would control soil erosion and sedimentation. As part of the SWPPP, the contractor must incorporate an Erosion Control Plan consistent with all applicable provisions of the SWPPP within the site development plan. Compliance with the Construction General Permit and its requirements would reduce the amount of soil erosion and sedimentation resulting from construction. In addition, the project would comply with GBUAPCD Rule 401 (see Chapter 5.0, Air Quality), a fugitive dust control rule that also would reduce erosion potential. Implementation of these measures would reduce project impacts related to soil erosion to a level that would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact GEO-5: Expansive Soils

As noted, the predominant soils on the project site have low shrink-swell potential. As such, they are not expected to pose a hazard to the proposed buildings and supporting infrastructure. The Town General Plan has a policy requiring new development to submit soils reports that identify the potential for expansive soils, among other geotechnical concerns, which would identify any potential soil concerns during project design. The project would have no impact related to expansive soils.

Level of Significance: No impact

Mitigation Measures: None required

Impact GEO-6: Paleontological Resources and Unique Geological Features

As noted, there are no known unique paleontological resources or sites, and no known unique geologic features in the Town Planning Area, which includes the MMH. The soils in the project area are glacial till and relatively recent volcanic materials, and therefore

are unlikely to contain paleontological resources. The project would have no impact on paleontological resources.

Level of Significance: No impact

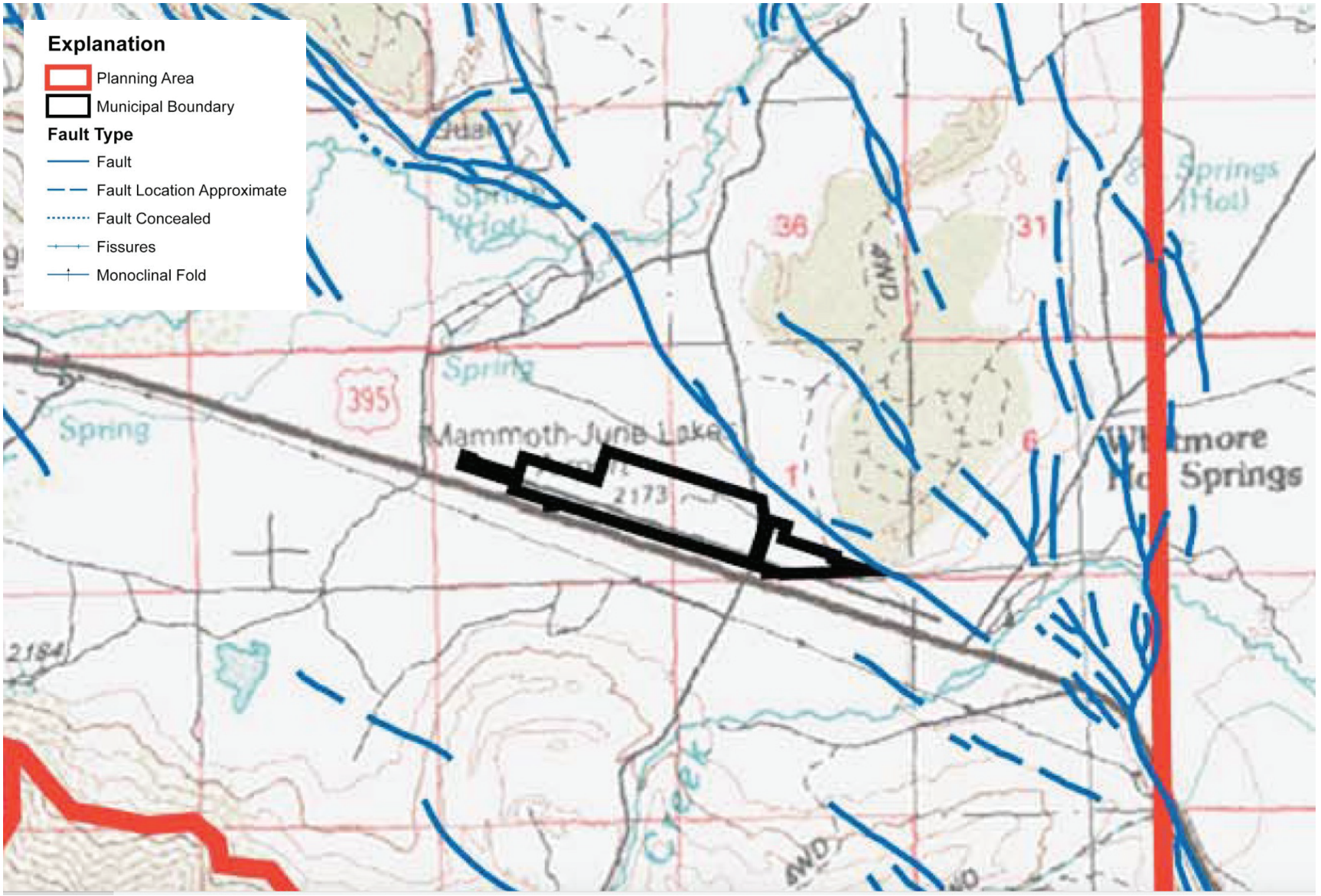
Mitigation Measures: None required

Impact GEO-7: Access to Mineral Resources

There are no identified or known mineral, petroleum, geothermal or natural gas resource areas on the project site, nor are there any active mining operations or petroleum/natural gas extraction on or near the project site, other than the gravel pit to the north. The gravel pit is accessible by a dirt road from Airport Road. The project would not directly affect the gravel pit, and access to the pit would be maintained even with the proposed work on Airport Road. The project would have no effect on the availability of or access to locally designated or known mineral resources. The project would have no impact on mineral resources.

Level of Significance: No impact

Mitigation Measures: None required



SOURCE: Town of Mammoth Lakes, General Plan Update

Figure 8-1
FAULTS IN MAMMOTH LAKES AREA

9.0 GREENHOUSE GAS EMISSIONS

ENVIRONMENTAL SETTING

Global Climate Change and Greenhouse Gases

Global climate change is a change in the average weather conditions, such as temperature and rainfall, of the Earth over a long period of time. Recent scientific observations and studies indicate that global climate change, linked to an increase in the average global temperature that has been observed, is now occurring. There is a consensus among climate scientists that the primary cause of this change is human activities that generate emissions of greenhouse gases (GHGs) (CAPCOA 2009). GHGs are gases that trap heat in the earth's atmosphere. They include carbon dioxide, the most abundant GHG, as well as methane, nitrous oxide, and other, less abundant gases. Although each GHG has heat-trapping properties, they vary in the amount of heat they can trap.

Measurements of GHG emissions are commonly expressed in CO_2 equivalent (CO_2e), in which emissions of all other GHGs are converted to equivalent carbon dioxide emissions. GHG emissions in California in 2017, the most recent year for which data are available, were estimated at approximately 424 million metric tons carbon dioxide equivalent (CO_2e) – a decrease of approximately 14% from the peak level in 2004. Transportation was the largest contributor to GHG emissions in California, accounting for approximately 40% of total emissions. Other significant sources include industrial activities, with approximately 21% of total emissions, and electric power generation, both in-state and imported, with 14.7% of total emissions (ARB 2019). Information on GHG emissions from the Town is not available.

The State of California, through a collaboration of three agencies, has prepared Climate Change Assessments that provide scientific assessments on the potential impacts of climate change in California and reports potential adaptation responses. The most recent report, issued in 2019, includes assessments of climate change impacts by regions such as the Sierra Nevada, which includes the project site. Potential climate change impacts occurring in the Sierra Nevada include reduced snowpack, increase in precipitation extremes (i.e., floods and drought), reduced forest productivity, increase in frequency and severity of wildfires, and challenges in managing water resources (Dettinger et al. 2018).

The United Nations Intergovernmental Panel on Climate Change has concluded that stabilization of greenhouse gases at a concentration of 400-450 parts per million (ppm) CO2e is required to keep mean global warming below 2° Celsius, which is considered necessary to avoid dangerous impacts of climate change (IPCC 2001). According to data collected by the National Oceanic and Atmospheric Administration, the carbon dioxide concentration in the atmosphere was 413.92 ppm in June 2019 (NOAA 2019).

Unlike the criteria air pollutants described in Chapter 5.0, Air Quality, GHGs have no "attainment" standards established by either the federal or state governments. Nevertheless, the EPA has found that GHG emissions endanger both the public health and public welfare under Section 202(a) of the Clean Air Act, due to their impacts associated with climate change (EPA 2009).

Emissions from Aircraft Operations

Aircraft flights contribute to GHG emissions, though not as much as other sectors; air transport accounts for 2% of global human-caused CO_2 emissions (IATA 2018). However, as the amount of air traffic increases, so does the amount of GHGs emitted. Estimates of GHG emissions related to flights vary extensively because of factors such as the size and type of aircraft, the altitude and the percentage of passenger or freight capacity of a particular flight, the distance of the flight, and the number of stops along the route.

REGULATORY FRAMEWORK

State

California has addressed climate change on its own initiative as early as 1988, when the California Energy Commission was designated as the lead agency for climate change issues. However, the most significant state activities have occurred from 2005 to the present, when various executive orders and State legislation established the current framework for dealing with climate change. Several of these efforts are described below.

Executive Orders S-3-05 and B-30-15

Executive Order S-3-05, signed by Governor Schwarzenegger in 2005, established GHG emission reduction targets for California. Specifically, GHG emissions would be reduced to the level of emissions in the year 2000 by 2010, to the level of emissions in the year 1990 by 2020, and to 80% below the 1990 emissions level by 2050. The 2020 reduction goal set forth by S-3-05 was codified by AB 32, which is described below.

On April 29, 2015, Governor Brown signed Executive Order B-30-15, which advances the goals of Executive Order S-3-05 by establishing a GHG reduction target of 40% below 1990 emission levels by 2030. The 2030 reduction goal set forth by B-30-15 was codified by Senate Bill (SB) 32, which also is described below.

AB 32

AB 32, the Global Warming Solutions Act of 2006, is State legislation that sets goals of reducing GHG emissions to year 2000 levels by 2010 and to year 1990 levels by 2020. These specific goals are directly related to the Governor's overall objectives established

in Executive Order S-3-05. The ARB has primary responsibility for AB 32 implementation.

ARB adopted a Climate Change Scoping Plan in 2008 with the purpose of meeting the AB 32 targets. The 2008 Scoping Plan proposed to reduce GHG emissions from the State's projected 2020 "business-as-usual" emissions by approximately 29% through various GHG reduction initiatives. These include a "cap-and-trade" program, expansion of energy efficiency programs, increase in the use of renewable energy sources, and low-carbon fuel standards, among others (ARB 2008b). In 2014, the ARB approved update to the Scoping Plan, which laid the foundation for establishing a broad framework for continued emission reductions beyond 2020, on the path to the 2050 target set forth in Executive Order S-3-05. The 2017 state GHG emissions were approximately seven million metric tons CO_2e below the 2020 target established by AB 32 (ARB 2019).

SB 32

In 2016, SB 32 became State law. SB 32 extends the GHG reduction goals of AB 32 by requiring statewide GHG emission levels to be 40% below 1990 levels by 2030, in accordance with the target originally established by Executive Order B-30-15. The State has adopted an updated Scoping Plan that sets forth strategies for achieving the SB 32 target. The updated Scoping Plan continues many of the programs that were part of the previous Scoping Plans, including the cap-and-trade program, plus it addresses for the first time GHG emissions from the natural and working lands of California, including the agriculture and forestry sectors (ARB 2017).

Executive Order B-55-18

On September 10, 2018, Governor Brown signed Executive Order B-55-18, which set a statewide goal of achieving carbon neutrality no later than 2045. "Carbon neutrality" refers to achieving net zero carbon emissions (i.e., GHGs) by balancing a measured amount of carbon released with an equivalent amount sequestered or offset. The goals set by Executive Order B-55-18 have not been codified, and the State has not prepared any plans to achieve the goal set by the Executive Order.

Regional and Local

Great Basin Unified Air Pollution Control District

As noted in Chapter 5.0, Air Quality, the GBUAPCD is primarily responsible for comprehensive air pollution control in the Air Basin. However, the GBUAPCD lacks the authority to directly regulate factors leading to global climate change or GHG emission issues associated with plans and new development projects throughout the Air Basin. Such authority rests with the local governments who adopt the plans and make decisions on development projects.

Town of Mammoth Lakes General Plan

The Town has not adopted any GHG reduction plan. The Town General Plan has only one policy that directly address climate change or GHG emissions. Policy R.11.A. supports the objectives of the U.S. Mayors Climate Protection Agreement, Assembly Bill 32, and California Executive Order S-03-05 and of implementing actions to reduce Mammoth Lakes' carbon footprint (Town of Mammoth Lakes 2019).

The Resources Management and Conservation Element of the Town General Plan includes several policies addressing energy efficiency, energy conservation, and building design that may indirectly reduce GHG emissions. Chapter 16.0 Utilities and Energy lists such policies that may be relevant to the project. The Mobility Element of the Town General Plan contains policies designed to reduce use of automobiles, which are a major source of GHG emissions. In addition, the Town is a participant in the Eastern Sierra Energy Initiative, which is intended to reduce energy use and thereby reduce fossil fuel consumption, which generates GHGs (see Chapter 16.0, Utilities and Energy).

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

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

This EIR conducts its GHG analysis in accordance with CEQA Guidelines Section 15064.4, which states that a lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. CEQA Guidelines Section 15064.4(b) states that a Lead Agency should consider the following factors, among others, when assessing the significance of impacts from GHG emissions on the environment:

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

Some jurisdictions have established quantitative thresholds for determining the significance of project GHG emissions from construction activities and project operations. Neither the Town nor the GBUAPCD has established such quantitative significance thresholds. However, based on guidance from the GBUAPCD, project-related emissions were quantified and compared to numerical thresholds developed by the California Air Pollution Control Officers Association (CAPCOA). In the absence of promulgated thresholds by the Town or GBUAPCD, the most conservative numerical threshold suggested by CAPCOA, 900 metric tons CO_2e per year, has been utilized as the threshold of significance for the proposed project.

The CalEEMod model estimated the total GHG construction and operational emissions associated with the proposed project site development (see Appendix B of this EIR). Table 9-1 presents the results of the CalEEMod run.

TABLE 9-1
PROJECT GHG EMISSIONS

GHG Emission Type	Significance Threshold	Unmitigated Emissions	Mitigated Emissions
Construction[1]	900.0	188.3	188.3
Operational[2]	900.0	403.6	379.7

Note: All figures are in metric tons CO_2e.
[1] Total GHG emissions for construction period.
[2] Annual emissions.
Source: California Emissions Estimator Model v. 2016.3.1.

Impact GHG-1: Project GHG Construction Emissions

Based on results from the CalEEMod run, total project construction GHG emissions would be approximately 188.3 metric tons CO_2e for the assumed project construction period. This is below the CAPCOA threshold of 900 metric tons CO_2e. Construction emissions would occur only during construction work and would cease once work is completed. In addition, implementation of rules that are designed to reduce air pollutant emissions, which are described in Chapter 5.0, Air Quality, is also expected to reduce incrementally the amount of GHGs generated by project construction. Project impacts of construction GHG emissions would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact GHG-2: Project GHG Operational Emissions and Consistency with Applicable Plans and Policies

The CalEEMod run estimated that operational GHG emissions resulting from project site development would be approximately 403.6 metric tons CO_2e annually under

"unmitigated" conditions (i.e., without implementation of any reduction measures). To estimate "mitigated" with project conditions, the CalEEMod run incorporated requirements under State law related to water conservation (20% reduction in water use) and solid waste (75% of waste to be recycled). With incorporation of these measures, estimated operational GHG emissions would be reduced to approximately 379.7 metric tons CO_2e annually. Both levels are below the CAPCOA threshold of 900 metric tons CO_2e.

The CAPCOA threshold is intended to screen out smaller projects that are not considered to have as significant an impact on GHG emissions. As such, projects that generate GHG emissions below this threshold are not expected to hinder compliance with State GHG emission reduction plans set forth in accordance with AB 32 and SB 32. Implementation of Town General Plan policies on energy efficiency and green building design would further reduce potential GHG emissions, thereby ensuring further consistency with State GHG emission reduction plans. Project operational impacts on GHG emissions would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

10.0 HAZARDS AND HAZARDOUS MATERIALS

ENVIRONMENTAL SETTING

This chapter focuses on health and safety issues associated with hazardous materials, proximity to airports, wildfires, and snow. Chapter 8.0, Geology, addresses geologic and soil hazards. Chapter 11.0 Hydrology and Water Quality addresses potential flooding hazards.

Hazardous Materials

The primary risks from hazardous materials in the project area generally are from radon, carbon monoxide (CO), propane, and hazardous material transportation. These risks are largely confined to residential uses where exposure times can be lengthy and are only incidentally related to airport facilities or operations. Radon, for example, is a commonly occurring radioactive gas from natural decay of uranium located in most soils that is the second largest cause of lung cancer. CO is a naturally occurring compound generated during carbon-based fuel combustion as well as volcanic activity. Environmental exposure to CO is discussed in Chapter 5.0, Air Quality. Safety regulations related to radon and CO are focused on homes, not on facilities such as MMH.

Propane, a liquified combustible gas, is widely used for fuel in the project area. Hazards related to propane use and transport include inhalation and flammability. Safety risks related to hazardous material transportation are concentrated along the main highways. US 395, adjacent to and south of MMH, is designated for the transport of hazardous materials in and through Mono County. Transportation of hazardous materials is subject to federal packaging, placarding and manifesting requirements.

Data on hazardous waste and hazardous material use and transportation sites are kept in the GeoTracker database, maintained by the SWRCB, and in the EnviroStor database, maintained by the California Department of Toxic Substances Control (DTSC). GeoTracker and EnviroStor map the locations and provide the names and addresses of hazardous material sites, along with their permit status, contamination history (if any), and cleanup status. A search of both databases indicated no record of active hazardous material sites on or in the vicinity of the project site. GeoTracker has a record of one Leaking Underground Storage Tank site at MMH; however, the status of the site is recorded as having been cleaned up, and the case is closed (SWRCB 2019, DTSC 2019).

A list of solid waste disposal sites identified by SWRCB that exhibit waste constituent levels outside the waste management unit as being above hazardous waste screening criteria did not contain any locations within the project vicinity (CalEPA 2016a). Likewise, a list by SWRCB containing sites under Cease and Desist Orders and Cleanup and Abatement Orders showed no locations near the project (CalEPA 2016b).

Airport Operations Hazards

Development near airports is potentially subject to hazards arising from airport operations. In general, development that concentrates residents and employees near airports is discouraged, both to avoid potential hazards associated with aircraft takeoffs and landings and to reduce exposure to noise associated with aircraft. The Airport Land Use Plan (see below) defines safety zones around MMH that limit the population density and residential land uses in these zones. Chapter 13.0, Noise, discusses potential noise impacts related to airport operations.

Hazardous Materials

MMH has two aboveground fuel storage tanks for airport vehicles – one storing approximately 1,500 gallons and the other storing approximately 500 gallons. The FBO is responsible for general aviation and commercial fueling (Maniaci, pers. comm.). Other hazardous materials used and stored at MMH include de-icing fluid, propane for heating, and materials typically used in airport operations such as other fuels, lubricants, solvents, antifreezes, sanitary waste paints, and detergents (Town of Mammoth Lakes 2002). De-icing fluid is applied by the airlines to their aircraft, and it is currently done on a concrete pad. The fluid naturally dissipates.

There have been no major hazardous material incidents at MMH; only minor fuel spills associated with aircraft. All onsite crews are trained to handle hazardous material spills, and the Long Valley Fire Protection District and the Mammoth Lakes Fire Protection District can assist if necessary. Also, the onsite ARFF has a 2007 Colet Jaguar pumper-tanker for fire and hazardous material incidents. The pumper-tanker uses a foam containing PFAS, or perfluorooctanoic acid, which is considered a hazardous material that is subject to federal and State regulations.

Wildlife Collisions

A hazard associated with airport operations, particularly in less-developed areas, is wildlife collisions. Wildlife collisions are frequent in rural and rural-urban fringe areas. Collisions can cause vehicle and aircraft damage, driver injuries, and loss of ground vehicle control; they are generally most common during early morning and evening hours, when animals are active and road visibility is low. In Mono County, wildlife collisions are most common on US 395 (Mono County and Town 2019).

A Wildlife Hazard Assessment was conducted for MMH, which included a total of 72 wildlife surveys, conducted at different times of the day, during the period from October 2013 to September 2014. The Wildlife Hazard Assessment determined that the wildlife species that potentially posed the greatest hazards at MMH included corvids (crows and ravens), raptors (birds of prey), ground-foraging passerine bird species, deer, and coyotes. While no wildlife strikes have been reported to the FAA's Strike Database for MMH, mule deer have intruded regularly on MMH property due to inadequate existing fencing (Advantage Consulting 2015). MMH has a Wildlife Hazards Management Plan in place.

Wildfire Hazards

The term "wildfire" refers to any fire that starts in a rural, sparsely populated, or largely undeveloped area. In many parts of the world, wildfires form part of the ecosystem and often burn at a safe distance from areas of human settlement. However, under dry conditions and when fanned by strong winds, fires can spread into heavily populated districts, causing major damage to property and even deaths. Wildfires may start as the result of lightning, downed or arcing power lines, or man-made fires accidentally or deliberately spread. The Town regularly experiences wildfires near its boundaries, but most of these fires are extinguished before they exceed 100 acres. No fires have been recorded in or around MMH (Mono County and Town 2019).

The California Department of Forestry and Fire Protection (Cal Fire) is required by state law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. These Fire Hazard Severity Zones (FHSZs) influence how people construct buildings and protect property to reduce risk associated with wildland fires. MMH generally is in a Moderate FHSZ and is mostly not within a State Responsibility Area, an area in which CalFire has primary firefighting responsibility. The portion of the eastern runway within LADWP lands is within a State Responsibility Area, but this area is also designated in a Moderate FHSZ. The MMH is in an area where wildfire could spread rapidly under moderate fuel moisture conditions and more so under extremely low fuel moisture conditions (Mono County and Town 2019). Chapter 14.0 Public Services and Recreation describes the providers of fire protection services at MMH.

Snow Hazards

Winters in the Mammoth Lakes region can produce 20 feet or more of snow in the Town, and double that in the surrounding mountains. Snowfall can cause serious hazards and structural concerns resulting from weight, instability on slopes, snowmelt, "snow creep" (i.e., slow downhill snow movement), adhesive tendencies, slickness, ice damming, and avalanches. In addition, snowstorms can temporarily isolate the community during snow removal efforts (Town of Mammoth Lakes 2007b).

Snowfall occurs at MMH during the winter, but snowfall rates are less than those in the Town proper. Snow accumulations of 1.5 to 2 feet may occur at MMH. MMH keeps in one hangar eight pieces of snow removal equipment, including loaders, plow trucks, and blowers. A crew of four to five people is available for snow removal. Snow equipment can remove snow such that MMH facilities can be open in about one hour (Maniaci, pers. comm.).

REGULATORY FRAMEWORK

Federal Hazardous Material Regulations

At the federal level, the principal agency regulating the generation, transport and disposal of hazardous substances is the EPA, under the authority of the Resource Conservation

and Recovery Act (RCRA). The RCRA established a federal hazardous substance "cradle-to-grave" regulatory program that regulates the generation, transportation, treatment, storage, and disposal of hazardous substances. Under RCRA, individual states may implement their own hazardous substance management programs if they are consistent with, and at least as strict as, the RCRA and if they receive EPA approval.

The EPA regulates hazardous substance sites under the Comprehensive Environmental Response Compensation and Liability Act, commonly referred to as Superfund. The purpose of Superfund is to provide authorities the ability to respond to uncontrolled releases of hazardous substances from inactive hazardous waste sites that endanger public health and the environment. The subsequent Superfund Amendments and Reauthorization Act amended Superfund to, among other things, expand EPA's response authority, strengthen enforcement activities at Superfund sites, and broaden the application of the law to include federal facilities. In addition, new provisions were added dealing with emergency planning and community right-to-know.

The U.S. Department of Transportation regulates the interstate transport of hazardous materials and wastes through implementation of the Hazardous Materials Transportation Act. This act specifies driver-training requirements, load labeling procedures, and container design and safety specifications. Transporters of hazardous wastes must also meet the requirements of additional statutes such as RCRA.

Airport Deicing Effluent Guidelines

The EPA promulgated the Airport Deicing Effluent Guidelines in 2012 (40 CFR Part 449). The requirements generally apply to wastewater associated with the de-icing of airfield pavement at commercial airports. The Effluent Guidelines require existing and new primary airports with 1,000 or more annual jet departures that discharge wastewater associated with airfield pavement de-icing to use non-urea-containing deicers, or alternatively, meet a numeric effluent limitation for ammonia. These requirements are incorporated into NPDES permits issued to airports.

State Hazardous Material Regulations

Several state agencies regulate the transportation and use of hazardous materials to minimize potential risks to public health and safety, including the California Environmental Protection Agency and the Office of Emergency Services. The California Highway Patrol and Caltrans enforce regulations related to hazardous materials transport.

The DTSC is within the California Environmental Protection Agency. It has the primary authority to enforce hazardous materials regulations for the generation, transport and disposal of hazardous wastes under the authority of the Hazardous Waste Control Law, with delegation of enforcement to local jurisdictions that enter into agreements with the agency. DTSC is also responsible for overseeing the evaluation and cleanup of contaminated properties throughout California, including military facilities, school construction and expansion projects, permitted facilities, brownfields, and voluntary agreements.

Under both RCRA and the Hazardous Waste Control Law, the generator of a hazardous substance must complete a manifest that accompanies the waste from the point of generation to the ultimate treatment, storage, or disposal location. The manifest describes the waste, its intended destination, and other regulatory information about the waste. Copies must be filed with the DTSC. Generators must also match copies of waste manifests with receipts from the treatment, storage, or disposal facility to which it sends waste.

Local Hazardous Material Plans

Mono County Environmental Health Department

The Mono County Environmental Health Department applies planning, inspection, enforcement, and public education skills to various activities, including sewage disposal facilities, water systems, well construction, underground storage tank facilities, and the management of hazardous waste/materials, among others. For hazardous materials, the Mono County Environmental Health Department is the Certified Unified Program Agency (CUPA) for the County and the Town. The CUPA oversees programs that address hazardous materials and their storage, such as the underground and aboveground storage tank programs.

The CUPA also implements California Health and Safety Code Section 25503.5, which requires all businesses that manage hazardous materials and/or hazardous wastes in quantities of 55 gallons (liquids), 200 cubic feet (compressed gases) and/or 500 pounds (solids) to submit a Hazardous Materials Business Plan within 60 days of starting business or within 30 days of a significant change in operations. The Hazardous Materials Business Plan consists of a minimum of five documents: Business Owner/Operator Information, Business Activities, Hazardous Materials Inventory, Site Map, and a Contingency Plan that describes emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material.

MMH Spill Prevention, Control, and Countermeasures Plan

A Spill Prevention, Control, and Countermeasures Plan has been prepared for MMH and is managed by the Town. The plan was prepared to comply with the Oil Pollution Act of 1990, which mandates a spill response system for the proper handling, storage, and transportation of oil in the event a discharge occurs (Town of Mammoth Lakes 2007b). The Spill Prevention Plan identifies aviation fuel, gasoline, and engine motor oil as the most likely substances that could be spilled. Any spill requires immediate notification of the Airport Manager, who in turn shall notify federal and state agencies and the Long Valley Fire Protection District. Together, these agencies shall direct and coordinate measures to mitigate the adverse effects of spills. In addition, MMH personnel who work close to potential spill areas will be periodically trained in spill prevention techniques (Town of Mammoth Lakes 2002).

Airport Land Use Plan

In 1986, Mono County and federal agencies, together with the Mono County Airport Land Use Commission, adopted the Mammoth/June Lake Airport Land Use Plan. Although the name has been changed to Mammoth Yosemite Airport and MMH has been annexed to the Town, this plan remains in effect. The Airport Land Use Plan establishes a comprehensive land use plan that defines the type and pattern of future development in a 28-square mile area surrounding MMH, As noted, development is restricted through the establishment of safety zones surrounding MMH. Land uses on nearby properties are planned with respect to compatibility with MMH safety zones, National Forest policies, and other factors. The Airport Land Use Plan primarily provides a framework for orderly development around MMH for the next 20 years. To date, the Airport Land Use Plan has not been updated.

California Fire Code

The California Fire Code is found in California Code of Regulations Title 24, Part 9 and is revised and published approximately every three years by the California Building Standards Commission. It incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official Fire Code for the State and all political subdivisions. The Town has adopted the 2019 version of the California Fire Code.

Town of Mammoth Lakes Municipal Code

Town Municipal Code Section 15.24.040 provides requirements concerning snow loads and snow design. This chapter sets forth minimum design requirements to withstand snow loads and any additional effects created by snow. These include parameters for minimum setbacks; protection of required entries/exits, parking, and driveways; building projections; utility corridors; roof requirements; and other structural requirements to minimize impacts from snow-related hazards.

Town Municipal Code Section 17.32.050 establishes a Snow Deposition Design zoning overlay district, which identifies those areas in the Town where avalanche potential has been found to exist after specific investigation. The Snow Deposition Design overlay zone has not been applied to the MMH property.

Town of Mammoth Lakes General Plan

The following Town General Plan policies related to hazards and hazardous materials are relevant to this project (Town of Mammoth Lakes 2019):

- Policy S.3.A. Design all structures in Mammoth Lakes to withstand snow loads and to reduce any additional hazards created by snow accumulation.
- Policy S.3.B. Design buildings so that snow shed, ice shed, and snowmelt are not a hazard to people and property.

- Policy S.3.L. All construction shall comply with wildland fire-safe standards, including standards established for emergency access, signing and building numbering, private water supply reserves available for fire use, and vegetation modification.
- Policy S.3.S. Require a Hazardous Materials Disclosure form from all development.
- Policy S.3.T. Maintain and implement the Spill Prevention, Control and Countermeasure Plan for the Mammoth Yosemite Airport.
- Policy S.4.C. Cooperate with emergency response agencies to maintain preparedness to respond to all types of emergencies.
- Policy S.4.D. Maintain mutual aid agreements with federal, State, and local police, fire, and emergency response agencies.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials,
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment,
- Emit hazardous emissions or handle hazardous or acutely hazardous materials within one-quarter mile of an existing or proposed school,
- Be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5, and as a result create a significant hazard to the public or the environment,
- For a project located within an airport land use plan or within two miles of a public or public-use airport if no plan has been adopted, result in a safety hazard or excessive noise for people residing or working in the project area,
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan, or
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Impact HAZ-1: Hazardous Material Transportation, Storage, and Disposal

Improvements associated with the project would involve the storage, transport, use, and disposal of hazardous materials. In particular, the proposed maintenance building may store and use materials that may be considered hazardous to human health, such as petroleum products and solvents. While the new terminal would have activities that do not require large amounts of hazardous materials, the building would require increased use of propane for heating purposes, which in turn may require larger onsite storage tanks. In addition, use of de-icing fluid would be extended at the proposed de-icing apron. De-icing fluids typically contain ethylene glycol, a toxic substance.

Project site activities that would transport or store hazardous materials would comply with applicable local, state, and federal regulations. These regulations would include preparation and implementation of a Hazardous Materials Business Plan for activities that would transport or store certain quantities of hazardous materials. Compliance with existing hazardous material regulations and business plan provisions would reduce impacts related to routine transport and storage of hazardous materials to a level that would be less than significant.

As discussed in Chapter 3.0, Project Description, de-icing fluid used at the proposed de-icing apron would drain to a central inlet. A valve-controlled dual-pipe discharge would send the collected de-icing fluid to a holding tank for storage until it is transported to a suitable disposal area. De-icing operations are required to obtain an industrial stormwater permit under the National Pollutant Discharge Elimination System (NPDES) program administered by the EPA through state agencies. Common requirements for coverage under an industrial stormwater permit include development of a written SWPPP and implementation of control measures. Compliance with the industrial stormwater permit, which incorporates the Effluent Guidelines, would further ensure that wastes from de-icing operations are properly collected and treated. Overall, impacts related to hazardous material transport, storage, and disposal would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-2: Hazardous Material Releases

Construction activities on the project site may involve the use of hazardous materials such as fuels and solvents, thus creating a potential for hazardous material spills. Construction and maintenance vehicles would transport and use fuels in ordinary quantities. Fuel spills, if any occur, would be minimal and would not typically have significant adverse effects. Potential hazardous materials spills during construction would be addressed in the SWPPP required under the Construction General Permit, as described in Chapter 8.0, Geology. In accordance with SWPPP requirements, contractors must have absorbent materials at construction sites to clean up minor spills. Other substances used in the construction process would be stored in approved containers and used in relatively small quantities, in accordance with the manufacturers' recommendations and/or

applicable regulations. Project impacts related to use of hazardous materials during construction activities would be less than significant.

As noted in the discussion under Impact HAZ-1, hazardous materials would likely be stored on the project site, which create a potential for spills or releases. However, the transportation and storage of these materials would be subject to federal, state and local regulations that would prevent release of hazardous materials to the soil and/or groundwater and the creation of new hazardous material or waste sites. In addition, MMH has a Spill Prevention, Control, and Countermeasures Plan that addresses spills most likely to occur, and the Hazardous Materials Business Plan outlines emergency response procedures for hazardous material releases. The Hazardous Materials Business Plan will be updated to account for additional storage of hazardous materials such as propane. Existing fuel storage tanks at MMH are surrounded by a secondary containment system that reduces the possibility of any fuel spills going beyond the MMH property (Town of Mammoth Lakes 2002). Project impacts related to possible spills or releases of hazardous materials would be less than significant.

As noted in CEQA Guidelines Appendix G, a project may have significant impacts if it would emit hazardous emissions or handle hazardous or acutely hazardous materials within one-quarter mile of an existing or proposed school. The nearest schools are in the Town six miles away, and possible releases of hazardous materials at MMH would be confined to the MMH property. Overall, project impacts related to hazardous material releases would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-3: Hazardous Material Sites

As noted, a search of hazardous material databases did not find records of active hazardous material sites on or near the project site. GeoTracker has a record of one Leaking Underground Storage Tank site at MMH; however, it is not an active site and cleanup has occurred. Construction of improvements associated with the project is not expected to encounter any significant soil contamination on the site. If any significant contamination is encountered, typical contractor requirements include provisions related to disposition of contaminated soils. Project impacts related to hazardous material sites would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-4: Airport Hazards

The project proposes improvements to existing MMH facilities to better serve passengers and aircraft and to improve MMH operations. The project does not propose any development on or near the project site that would generate a significant concentration of

residents or employees within a flight safety zone. No proposed structures would interfere with flight operations. Project impacts related to airport hazards would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-5: Interference with Emergency Vehicle Access and Evacuations

The General Plan EIR identified two year-round emergency evacuation routes that serve the Town. SR 203 and US 395 are the main evacuation routes, and a secondary evacuation option is provided by the Scenic Loop extending from Minaret Road to US 395. Two additional routes are available during the summer months: Sherwin Creek Road and the Sawmill cutoff, both primarily graded dirt roads (Town of Mammoth Lakes 2007b). The project, occurring on the MMH property approximately six miles away from the Town, would not affect these designated evacuation routes.

Project construction work that occurs adjacent to Airport Road could potentially interfere with emergency vehicle access and evacuations to and from MMH. Proposed construction would be focused on the proposed extension of the existing Airport Road, which would allow the existing road to remain open to traffic, including emergency vehicles. Once construction work is completed, project development would not obstruct any roadways. Project impacts on emergency vehicle access or emergency evacuation plans would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-6: Wildfire Hazards

The project site is not within a State Responsibility Area, and the entire MMH property is not within a High or Very High FHSZ, which are the primary concerns of the recently updated CEQA Guidelines Appendix G. While the MMH area could experience a wildfire under certain conditions, MMH is not within a forested area, and the site itself is developed. The project would reduce the existing wildland fire hazard with expanded buildings and pavement. Additionally, the project would be required to comply with the adopted California Fire Code, which would reduce potential fire risks to structures. Project impacts related to wildfires would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-7: Snow Hazards

As noted, the Mammoth Lakes area, including MMH, can experience significant amount of snowfall during winter. Although MMH is not within a Snow Deposition Design overlay zone, it could experience snow in amounts that could create a hazard for the proposed buildings and their occupants.

The project buildings would be constructed in accordance with Town Municipal Code requirements that would reduce hazards associated with snow, particularly for roofs and entries/exits. Also, the project would provide a new maintenance building where snow plows and blowers could be stored and maintained, thus increasing their availability in the event of major snowstorms. Project impacts related to snow hazards would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HAZ-8: Radon and CO Hazards

As noted, radon is a potential hazard in Mono County. Radon risks are largely confined to residential uses where exposure times can be lengthy, and such risks are only incidentally related to airport facilities or operations. As with radon, CO concerns are focused on homes, and risks are incidentally related to airport facilities or operations. Project impacts related to radon or CO hazards would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

11.0 HYDROLOGY AND WATER QUALITY

ENVIRONMENTAL SETTING

Surface Waters and Surface Water Quality

There are no streams or other surface waters on the MMH property; the nearest streams to the project site are Convict Creek, approximately 0.4 miles east of the MMH property boundary, and Hot Creek, approximately 1.5 miles to the northeast. Surface water runoff on MMH property is minimal due to the coarse nature of the alluvial soils; most runoff either percolates into the ground or evaporates (Wallace Environmental Consulting 2015). Runoff from impermeable surfaces at MMH is collected and infiltrated by short ditches (see Chapter 16.0, Utilities and Energy).

MMH is located within the Mammoth Hydrologic Basin. This approximate 71-square-mile basin is part of the Long Valley Subunit of the Owens Valley Hydrologic Unit. The Basin includes many alpine lakes, surface streams, and springs, which are all tributary to Mammoth Creek or Hot Creek. Mammoth Creek is a principal drainage course for these alpine waters; the creek passes through the Town and flows into Hot Creek at a point to the east of US 395, about two miles west of MMH. Hot Creek then flows easterly to join the Owens River about six miles north of MMH. Convict Creek also transmits water from the alpine areas, crossing US 395 east of MMH. Flow rates in these watercourses decrease in summer after peaking during the spring snowmelt (Town of Mammoth Lakes 2007b).

The RWQCB has prepared a list in accordance with Clean Water Act Section 303(d) that identifies surface waters in California considered impaired in water quality, along with the pollutants responsible for the impairment. Neither Convict Creek nor Hot Creek are on the 303(d) list for California. However, the RWQCB recently recommended that both creeks be added to the list, based upon a fecal coliform bacteria assessment, for the protection of the municipal water beneficial use identified for streams in the Lahontan region (Lahontan RWQCB 2014).

Groundwater and Groundwater Quality

The project site is within the Long Valley Groundwater Basin. The Basin is bordered on the west and southwest by the Sierra Nevada, to the north by Bald and Glass Mountains, and to the east by Round Mountain. Recharge occurs around the Long Valley Caldera rim within the western portion of the Basin and beneath the northwest central portion of the Caldera. Groundwater discharge also occurs in springs in these areas (Town of Mammoth Lakes 2007b). Total storage capacity of the Basin is estimated to be 160,000 acre-feet (DWR 2004).

Of the nine production wells maintained by the Mammoth Community Water District, which provides drinking water to the Town, one produces high-quality water that can be pumped into the water distribution system for direct use. The other seven wells contain iron and manganese at levels that exceed California Health Department standards. Iron and manganese are currently removed at two District treatment facilities within the Town (Town of Mammoth Lakes 2007b).

MMH is not part of the District's water distribution system; instead, water is provided by two on-site groundwater wells. A 2002 supplement to a Subsequent EIR, cited in a 2008 EA for regional service at MMH, indicated that a supply of up to 500 gallons of water per minute is available (Town of Mammoth Lakes 2002); this would provide a maximum yield of approximately 806.6 acre-feet of water annually. MMH water demand at the time of the 2008 EA was 17.92 acre-feet per year (Town of Mammoth Lakes 2008). Data from a USGS groundwater monitoring well just north of MMH indicate that groundwater levels in the area are generally around 35 feet below ground surface (USGS 2020). No water quality issues with these wells have been reported.

A detailed analysis of groundwater conditions underlying MMH was conducted, based on available well data, drilling logs and other technical data. A copy of the groundwater report is available in Appendix E of this EIR. The report concludes that the eastern two-thirds of MMH is underlain by permeable sand and gravel terrace, stream gravel and Convict Creek morainal deposits. A likely-continuous clay layer encountered at between 135 and 150 feet below the ground surface appears to act as a confining layer for deeper water bearing units (Mammoth Yosemite Airport 2020).

Groundwater was encountered in the unconfined alluvial deposits from 35 to 50 feet below the ground surface. Lack of static water level data in the on-site wells prohibits accurate determination of flow direction, but the available data indicate that the local groundwater gradient is likely west to east, toward Convict Creek. The study also indicates there is a small potential for low flows of groundwater toward Hot Creek to the west. However, any groundwater flow that might reach Hot Creek would be a very low amount (Mammoth Yosemite Airport2020).

Per- and polyfluoroalkyl substances (PFAS) are a concern related to groundwater quality at MMH. PFAS are a group of man-made chemicals that have been manufactured and used in a variety of industries. These chemicals do not break down and can accumulate in the environment and organisms over time potentially leading to adverse human health effects. PFAS is no longer manufactured in the U.S. but continues to be produced elsewhere and can be found in a variety of products, including food. Of importance at MMH is the occurrence of PFAS in fire-fighting foams, specifically aqueous firefighting foam (AFFF), as noted in Chapter 10.0 Hazards and Hazardous Materials.

The EPA and the SWRCB have identified PFAS-containing foams as a potentially important threat to groundwater contamination at airports and military bases where firefighting training occurs. MMH provides aircraft rescue and firefighting services, which include the availability and use of AFFF for control of flammable liquids fires. MMH maintains one firefighting unit equipped for AFFF dispersal and stores up to 165-gallons of AFFF in 55-gallon drums in the firefighting equipment bay.

The SWRCB has identified MMH as having used or stored PFAS-containing AFFF. The Lahontan RWQCB has ordered MMH and the Town to prepare a Work Plan for the investigation of soil and groundwater PFAS impacts at the airport. The Work Plan has been approved by the RWQCB, and the required investigation will likely occur during 2020. MMH staff have identified two locations where PFAS-containing firefighting foam was dispersed: 1) an abandoned paved taxiway in the western portion where a one-time use of AFFF occurred in an FAA-requested demonstration, and 2) a reinforced concrete pad in the central portion of the airport used for annual AFFF testing. MMH has never applied AFFF on unpaved surfaces or used it to extinguish an aircraft or vehicle fire.

Flooding

Existing flood zones in the Mammoth Lakes area are defined by the Federal Emergency Management Agency (FEMA), which provides flood insurance subsidies and federally financed loans for property owners in flood-prone areas. Certain areas in the south-central portion of the Town are defined as flood hazard areas (Town of Mammoth Lakes 2007b). Based upon Flood Insurance Rate Maps prepared by FEMA, MMH is within an area designated Zone X (Figure 11-1). Zone X denotes areas of minimal flood hazard (FEMA 2012).

The Multi-Jurisdictional Hazard Mitigation Plan, prepared for the Town and for Mono County, indicates several areas in Mono County where dam failure could lead to flooding. However, neither the Town nor MMH is in an area at risk from potential dam failure (Mono County and Town of Mammoth Lakes 2019).

REGULATORY FRAMEWORK

Federal

Clean Water Act

The Clean Water Act, as administered by the EPA, seeks to restore and maintain the chemical, physical, and biological integrity of the nation's waters. It employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff.

Section 303(d) requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water quality standards established by the State). These waters are identified in the Section 303(d) list as waters that are polluted and need further attention to support their beneficial uses. The intent of the 303(d) list is to identify water bodies that require future development of a Total Maximum Daily Load to maintain water quality. As noted, only Mammoth Creek is on the 303(d) list; no other streams near MMH are currently listed as impaired.

National Pollutant Discharge Elimination System

The 1972 amendments to the Clean Water Act prohibit the discharge of any pollutant to navigable waters of the United States from a point source unless the discharge is authorized by a National Pollution Discharge Elimination System (NPDES) permit. The EPA adopted final regulations that established Phase I stormwater discharge control requirements for the NPDES program in 1990. These regulations required large municipalities and specific industrial sites to obtain stormwater discharge permits under the NPDES program. In addition, these regulations required that stormwater discharge permits be issued to large construction activities consisting of five acres or more of land. In 2003, the Phase II NPDES program requirements took effect, regulating nonpoint source discharges from all construction sites one acre or more in size and expanding the permit requirements to smaller municipalities (Town of Mammoth Lakes 2016).

In California, the NPDES program is administered by the SWRCB through the nine RWQCBs. Because the Town of Mammoth Lakes is a small community, it falls below the threshold for the Phase II NPDES program's municipal stormwater regulations. Therefore, the Town's municipal storm drainage system is not required to be covered by an NPDES permit. However, under a Memorandum of Understanding with the Lahontan RWQCB (MOU No. 6-91-926), the Town administers an erosion control program on a project-by-project basis to make sure that erosion control measures are in place and operational. In addition, the construction activities component of the Phase II NPDES program applies to construction sites that disturb one acre or more (Town of Mammoth Lakes 2016).

National Flood Insurance Program

With the passage of the National Flood Insurance Act of 1968, the U.S. Congress established the National Flood Insurance Program, enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for compliance with State and community floodplain management regulations that reduce future flood damages.

The Flood Disaster Protection Act of 1973 prohibits federal agencies from providing financial assistance for acquisition or construction of buildings and certain disaster assistance in any community that do not participate in the National Flood Insurance Program. A Special Flood Hazard Area is that land within the floodplain of a community subject to a 1% or greater chance of flooding in any given year, commonly referred to as the "100-year flood." There are no special Flood Hazard Areas at or adjacent to MMH.

State

Water Quality Control Plan (Basin Plan)

The Town is within the jurisdictional boundaries of the Lahontan RWQCB. The Lahontan RWQCB adopted a Water Quality Control Plan for the Lahontan Region (Basin Plan), which recognizes and reflects regional differences in existing water quality, the

beneficial uses of the region's ground and surface waters, and local water quality conditions and problems. The Basin Plan identifies beneficial uses for waters within the Lahontan Region. A beneficial use is one of the various ways that water can be used for the benefit of people and/or wildlife. Although more than one beneficial use may be identified for a given waterbody, the most sensitive use must be protected.

SWRCB General Permits

SWRCB has adopted general permits for construction activity and industrial and commercial use to maintain surface water quality. As described in Chapter 8.0, Geology, project construction that causes one acre of ground disturbance or more is required to obtain a Construction General Permit, conditions for which include preparation of a SWPPP.

Sustainable Groundwater Management Act

In 2014, the California Legislature passed the Sustainable Groundwater Management Act, the purpose of which is to give local agencies greater authority to manage groundwater supplies. The legislation requires the formation by June 30, 2017 of local Groundwater Sustainability Agencies that must assess conditions in their local water basins and adopt management plans that are locally based. Under the Sustainable Groundwater Management Act, groundwater sustainability plans for critically overdrafted basins must be adopted by January 31, 2020, while other high- and medium-priority groundwater basins must adopt plans by January 31, 2022.

The Long Valley Groundwater Basin, of which MMH is a part, has been designated a "very low" priority basin by the Department of Water Resources. The Sustainable Groundwater Management Act encourages and authorizes, but does not require, low- and very low- priority basins to be managed under a groundwater sustainability plan or an alternative. No Groundwater Sustainability Agency has been formed for the Long Valley Groundwater Basin.

Drinking Water Permit

The SWRCB requires all public water systems to obtain a domestic water supply permit. A "public water system" is defined as a system that provides water for human consumption to 15 or more connections or regularly serves 25 or more people daily for at least 60 days out of the year. There are three legal distinctions between the types of public water systems: community, non-transient non-community, and transient. Transient water systems include entities like rural gas stations, restaurants and State and National parks that provide their own potable water source. Most people that consume the water neither reside nor regularly spend time there. The MMH water system would most likely be considered a transient system; regardless, it would be required to obtain a domestic water supply permit.

Regional and Local

Mono County Environmental Health Requirements

Mono County Environmental Health Department provides a range of public health services including regulation of food establishments, sewage disposal facilities, water systems and well construction, underground storage tank facilities, land development, and hazardous waste/materials management. Environmental Health regulates well drilling, operation of small water systems and well abandonment to ensure the supply of wholesome potable water in conformance with State standards.

Mono County regulates residential and commercial on-site wastewater treatment systems consistent with SWRCB standards designed to protect water quality and public health. New or modified on-site wastewater treatment systems and abandonment require a County permit in accordance with the County regulations; permit issuance is based on detailed site and soils evaluation and system design. As noted in Chapter 10.0, Hazards, the Mono County Environmental Health Department is the CUPA, with responsibility for overseeing and implementing various hazardous materials regulatory programs, including Hazardous Materials Business Plan requirements.

Groundwater Management Plan for the Mammoth Basin Watershed

The Mammoth Community Water District completed its Groundwater Management Plan in 2005. The Groundwater Management Plan identified three primary groundwater management objectives for the Mammoth Basin: preservation of water quality, water conservation, and prevention of impacts to surface water. Measures to pursue these objectives included monitoring, conservation, identification/management of wellhead protection and recharge areas and potential contamination sources, permit requirements for development of private wells, characterization of groundwater contaminant sources (leaking tanks discharging petroleum products or solvents and the application of pesticides and fertilizers), and a well abandonment and well destruction program (Mono County 2015).

Town of Mammoth Lakes Municipal Code

Town Municipal Code Chapter 15.08, Construction Site Regulations, require construction sites to protect drainage paths and control erosion from areas cleared of vegetation during construction. These requirements support the implementation of the Town's Stormwater Master Plan by providing authority to regulate erosion and sedimentation from construction sites. Town Municipal Code Chapter 12.08, Land Clearing, Earthwork, and Drainage Facilities, requires a grading permit for any lot graded or cleared of vegetation. Town Municipal Code Section 17.36.050, Grading and Clearing, requires all grading to comply with the Lahontan RWQCB requirements.

Town of Mammoth Lakes General Plan

The following Town General Plan policies related to hydrology and water quality are relevant to this project (Town of Mammoth Lakes 2007a):

- Policy R.4.B. Support and encourage water conservation and recycled water use within private and public developments.
- Policy R.5.B Require parking lot storm drainage systems to include facilities to separate oils and silt from storm water where practical and when warranted by the size of the project.
- Policy R.5.C. Prevent erosion, siltation, and flooding by requiring use of Best Management Practices (BMPs) during and after construction.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality,
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin,
- Substantially alter the existing drainage pattern of the area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site, impede or redirect flood flows, substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site, or 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,
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation, or
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Impact HYDRO-1: Surface Water Resources and Quality

As noted, there are no surface waters on the project site; the nearest stream is Convict Creek approximately 0.4 miles east of the MMH property boundary. The project would not involve any direct effect on an existing surface water resource, and the construction site is sufficiently distant from both creeks so that project site activities would not directly discharge sediments or other materials to the creeks.

Project construction work would involve disturbance of up to 22 acres of soil. The area of disturbance would be confined to a portion of the MMH property adjacent to the existing terminal and would not be near any streams or bodies of water such that activities would lead to a discharge of sediments or other contaminants into waters. Moreover, the area is surrounded by highly pervious generally undisturbed soils. As discussed in Chapter 8.0, Geology, construction work that disturbs one acre or more of ground would be required to obtain a Construction General Permit, which requires implementation of a SWPPP that would reduce the amount of sediment that could conceivably be carried off the construction site. Compliance with the Construction General Permit and its conditions, along with the provisions of the Memorandum of Understanding with the Lahontan RWQCB, would further minimize the potential project impact on surface water quality, which is already considered less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HYDRO-2: Groundwater Resources and Quality

The new buildings would utilize groundwater from the existing water system at MMH, which includes two groundwater wells. The increased demand resulting from occupancy of these buildings is not expected to be significant, as the number of people employed and passengers serviced is not expected to substantially increase, at least not as a direct effect of the project. The main source of increased water usage would be increased passenger volume at MMH. The existing water supply wells and storage tank system has been determined to be adequate to supply the projected potable water needs at MMH for passenger service at higher volumes than current (FAA 2010). Chapter 16.0, Utilities and Energy, discusses water supplies in more detail.

Project construction would occur mainly in a developed area. Though the aircraft parking apron and parking areas would be expanded, there would be no substantial impact on groundwater recharge, as the alluvial area surrounding MMH amounts to more than three square miles and is predominantly open space. As noted, groundwater depths are approximately 35 feet below ground surface. As such, project construction is unlikely to intercept and thereby result in direct effects on groundwater. Project impacts on groundwater would therefore be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HYDRO-3: Drainage Patterns and Runoff

Proposed development of the project site would alter existing storm drainage patterns, due to building construction and the addition of pavement for aircraft and motor vehicle parking. Some additional runoff would be generated due to the introduction of impervious surfaces, mainly with the expanded pavement for aircraft and motor vehicle parking. In the context of on- and off-site open space and lack of any defined water courses near the project, these effects would be minor.

Storm water runoff from paved areas of MMH is carried to shallow ditches or leach fields and allowed to infiltrate into the ground. The soils at MMH are so porous that it only requires short ditches to accommodate all the storm water from large, paved areas. Storm water outside the paved areas directly infiltrates into the ground (Brandley 2015). This existing method of drainage would continue to be used. Given the permeability of soils on the MMH property, it is expected that the project would not result in the generation of runoff in an amount that would lead to ponding or flooding. In addition, while drainage patterns would be slightly altered, this alteration would not lead to increased erosion or flooding. Project impacts on drainage and runoff would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HYDRO-4: Polluted Runoff and Release of Pollutants

The project would involve the use of substances that are potential water contaminants. Since surface waters are not on or near the project construction site, the main concern is groundwater contamination, especially since groundwater is the source of drinking water at MMH. Substances that are potential water pollutants include petroleum products, de-icing fluid, PFAS and AFFF, and wastewater discharges.

Petroleum Products

Vehicles used at MMH may leave deposits of oils, fluid, and metals that could be transported by runoff, along with solvents and other substances used in maintenance of vehicles and aircraft. Also, as noted in Chapter 10.0, Hazards and Hazardous Materials, aviation fuels are stored at MMH. The project proposes the construction of a new maintenance building, along with the expansion of aircraft and motor vehicle parking areas. This could lead to more areas where pollutants are deposited, which in turn could be transported by runoff.

However, as noted, there are no nearby surface bodies of water, and the depth to groundwater is at least 35 feet. It is unlikely that any pollutants collected by runoff would reach any water, as the pollutants would be filtered out of the runoff. Also, as noted in Chapter 10.0, a Spill Prevention, Control, and Countermeasures Plan has been prepared for MMH that addresses procedures for spills of petroleum products. Given this, it is unlikely that any petroleum products at MMH would contaminate groundwater.

De-icing Fluid

As noted in Chapter 3.0, Project Description, de-icing fluid would be collected by a drainage system at the proposed de-icing apron and would be held in a container until it can be properly disposed. No de-icing fluid would be released into the environment. As described in Chapter 10.0, Hazards and Hazardous Materials, MMH would be subject to the EPA's Airport Deicing Effluent Guidelines and would be required to obtain an industrial stormwater permit. Both actions would reduce the impacts of potential releases of de-icing fluid to a level that would be less than significant.

PFAS/AFFF

As described above, the Lahontan RWQCB has ordered MMH and the Town to prepare a Work Plan for the investigation of soil and groundwater PFAS impacts at the airport. The Work Plan has been approved by the RWQCB, and the required investigation was completed in July 2020. MMH has never applied AFFF on unpaved surfaces or used it to extinguish an aircraft or vehicle fire. The project is not expected to affect the use of AFFF.

Wastewater

The project would require the expansion or replacement of existing on-site wastewater disposal systems to accommodate projected passenger traffic and the associated wastewater flows. The project proposes a new septic tank and leach field to accommodate projected wastewater volumes (see Chapter 16.0, Utilities and Energy). The system would be installed in accordance with County Environmental Health Department requirements. These requirements are in place to prevent potential impacts on water quality. As a result, water quality impacts from project-related wastewater disposal would be less than significant.

In summary, potential pollutants from project improvements would not likely be carried to surface waters or groundwater, thereby degrading water quality. Project impacts related to pollutants in runoff and flood events would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact HYDRO-5: Exposure to Flood Hazard

The project site is not within a flood hazard area designated by FEMA, and it is not within an area identified as one at risk from dam failure. The project site is in a topographically flat area distant from large bodies of water; therefore, the project would not be subject to tsunami or seiche hazards. The project would have no impact related to flood hazards.

Level of Significance: No impact

Mitigation Measures: None required

Impact HYDRO-6: Consistency with Water Quality and Groundwater Management Plans

There are no water quality plans applicable to MMH. The Town has adopted a Stormwater Master Plan, which was prepared in part to address stormwater issues that could affect water quality, such as erosion and discharge of stormwater runoff into creeks and streams. However, the Stormwater Master Plan applies only to the Town proper. As noted, a Work Plan approved by Lahontan RWQCB would investigate potential PFAS issues at MMH; however, this is not a long-term plan to maintain water quality.

The Groundwater Management Plan for the Mammoth Basin Watershed applies to areas served by the Mammoth Community Water District. MMH is not served by the Water District. As noted, a groundwater sustainability plan has not been prepared for the Long Valley Groundwater Basin, nor is one required under the Sustainable Groundwater Management Act. Project impacts on water quality and groundwater management plans would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

12.0 LAND USE, POPULATION, AND HOUSING

This section addresses land use issues, in accordance with the Environmental Checklist in CEQA Guidelines Appendix G. Included in this chapter is a discussion of potential impacts of the project on agricultural and forest lands and on population and housing, Both of these issues have a separate section in the Environmental Checklist.

ENVIRONMENTAL SETTING

Land Use

Existing Land Uses

The project site is included within the existing boundaries of the Mammoth Yosemite Airport (MMH). Chapter 1.0, Introduction, provides a more detailed description of existing development at MMH. Existing facilities occupy approximately 146.5 acres, or 59.4%, of the overall 246.53-acre MMH property; the remaining area is undeveloped and covered mainly with sagebrush. Existing facilities include a 7,000-foot runway with parallel taxiway, aircraft parking and de-icing aprons and an interim terminal building with a detached tensile fabric structure used to accommodate commercial passengers. Other MMH facilities include hangars, an FBO office and pilots' lounge, the Airport Manager's Office, and an electrical and telephone vault. Airport Road provides access to the existing MMH buildings and surrounding parking areas.

Lands surrounding MMH include areas managed by the USFS, LADWP, and the U.S. Bureau of Land Management (BLM), with limited private ownership. Most of these lands are open space with limited development. Existing developments on these lands are described below (Town of Mammoth Lakes 2002, FAA 2010).

> *USFS.* USFS lands are part of the Inyo National Forest. These lands are used primarily for grazing, resource management, and recreation. The western portion of MMH is on land leased from the USFS. The only other significant development on USFS land in the vicinity is a gravel/borrow pit used by Mono County, located north of MMH and accessible via Airport Way. Approximately two miles south of MMH is the Convict Lake Recreation Area, which includes a campground and other recreational facilities.
>
> *LADWP.* Lands owned by the LADWP are located to the northwest, south, and east of MMH. Most of the eastern portion of the MMH runway is on land leased from LADWP. Developments on LADWP lands northwest of MMH include the Hot Creek Fish Hatchery, managed by CDFW, and several residences.

Developments on LADWP lands east of MMH include Whitmore Park, a recreational facility operated and maintained by the Town with involvement by Mono County. This recreational facility has baseball and softball fields, a track and sports field, and a six-lane, 25-meter pool with adjacent wading pool. Other facilities on LADWP lands in the area are a BLM gravel pit adjacent to US 395, the Whitmore Animal Shelter operated by Mono County, the Sierra Nevada Aquatic Research Laboratory, and the "Green Church," a former house of worship.

BLM. BLM lands are located to the northeast and southeast of MMH. No significant development has occurred on these lands in the MMH vicinity.

Private Lands. Approximately 1.25 miles north of MMH is Hot Creek Ranch, a former cattle ranch that has been converted to a private recreational facility oriented to fishing. Southwest of MMH, adjacent to the intersection of US 395 and Hot Creek Hatchery Road, is the Sierra Business Park, a development for light manufacturing activities.

Agricultural and Forestry Capability

Agricultural and forest lands contribute to the scenic appeal and to the local economy of the Mammoth Lakes area and Mono County as a whole. The total value of agricultural and forest production in Mono County in 2018 was $32,347,000. Approximately half of the total value was from field crops, mainly alfalfa and hay. Slightly less than half was from livestock and livestock products, mainly cattle and calves. Much of the land used for grazing is federally owned. LADWP lands are also leased for grazing (Mono County 2015). The annual value of forest products in Mono County was $86,300 (Inyo and Mono Counties 2019).

The project site and vicinity do not include important agricultural uses. Soil reports for the MMH vicinity indicated there are no soils that are considered prime or otherwise important farmland, except for a small area near Hot Creek Ranch (NRCS 2019). There are no agricultural operations within the Town limits or its Urban Growth Boundary, both of which include MMH. (Town of Mammoth Lakes 2016a). Nearby lands within the Inyo National Forest and the LADWP are within the Hot Creek Allotment for grazing. The allotment consists of approximately 13,300 acres, 11,000 acres of which are in the Inyo National Forest and the remainder in the LAWDP. The allotment permits 399 cattle on its acreage, with a grazing rate of approximately 33 acres per unit (USFS 2009). No grazing is permitted on the MMH property.

The MMH is adjacent to, and the western portion of the airport occupies, Inyo National Forest lands. There are no designated timber lands or timber activities on the project site or in the vicinity. The MMH area does not have trees that could be harvested; vegetation consists primarily of sagebrush. Soil reports indicate that soil types that could have productive forest land are not located on the MMH property (NRCS 2019).

Population and Housing

As of January 1, 2020, the population of the Town of Mammoth Lakes was estimated at 7,859, a decrease of 4.6% from its 2010 population as recorded by the U.S. Census Bureau (California Department of Finance 2020). Table 12-1 below shows population and growth trends in Mammoth Lakes, Mono County, and the State of California from 2010 to 2020.

TABLE 12-1
POPULATION OF MAMMOTH LAKES, MONO COUNTY, AND CALIFORNIA

Jurisdiction	Population April 1, 2010	Estimated Population January 1, 2020	Population Growth/Decline 2010-2020
Mammoth Lakes	8,234	7,859	-4.6%
Mono County	14,202	13,464	-5.2%
State of California	37,253,956	39,782,870	6.8%

Source: California Department of Finance 2020.

The permanent Town population is augmented by the number of transient residents and visitors, particularly during the winter months when the Mammoth Mountain ski resort is open. The Town General Plan EIR estimated that the Town experienced an average Saturday peak number of 34,265 "people at one time," which included both permanent residents and visitors (Town of Mammoth Lakes 2007b).

As of January 1, 2020, the Town had an estimated 9,782 housing units. The most common housing units (approximately 45.3%) were multifamily units in structures with five or more units. Approximately 25.2% of units were single-family detached units (typical homes), and 25.0% were in multifamily units such as duplexes and four-plexes (California Department of Finance 2020). There are no residential units on MMH; the nearest residences are on the Sierra Nevada Aquatic Research Laboratory property approximately one mile to the southeast of the proposed maintenance building and along Hot Creek Hatchery Road.

Employment data from the California Employment Development Department indicate that the average annual unemployment rate in the Town was 1.0% in 2018, a decrease from 1.2% in 2017 and from a peak of 9.2% in 2012. By comparison, the unemployment rate in California in 2018 was 4.2% (EDD 2019).

Environmental Justice

State law defines "environmental justice" as "the fair treatment of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies." Low-income residents, communities of

color, tribal nations, and immigrant communities have historically experienced disproportionate environmental burdens and related health problems. This inequity has resulted from many factors, including inappropriate zoning and incomplete land use planning, which has led to development patterns that concentrate pollution emissions and environmental hazards that have not had the political power to protect themselves.

The California Office of Environmental Health Hazard Assessment has developed the California Communities Environmental Health Screening Tool (CalEnviroScreen) to identify "environmental justice" or "disadvantaged" communities. CalEnviroScreen measures pollution and population characteristics using 20 indicators such as air and drinking water quality, waste sites, toxic emissions, asthma rates, and poverty. It applies a formula to each U.S. Census tract in California to generate a score that rates the level of cumulative impacts on each area. A census tract with a higher score is one that experiences higher pollution burden and vulnerability than one with a lower score. A CalEnviroScreen inquiry indicated that the Town and surrounding area are among the lowest scoring areas in California, indicating no significant environmental issues related to disadvantaged communities (OEHHA 2019).

REGULATORY FRAMEWORK

Land Use

Town of Mammoth Lakes General Plan

The Town's General Plan, updated in 2019, establishes standards, guidelines, and priorities that define the Mammoth Lakes community now and for the future. The General Plan is organized by elements, each of which is introduced with an explanation of the intent of the goals, policies, and actions within that element.

The distribution of land use designations throughout the Town are illustrated on the Land Use Diagram of the General Plan. The General Plan designates the project site as Airport (A), which allows for aviation, fueling, and FBO operator services at the MMH, along with retail uses.

The Mobility Element describes how the Town achieves a progressive and integrated multi-modal transportation system, one that serves the various needs of residents, employees, and visitors. One of the goals stated in the Mobility Element is to upgrade the MMH terminal to allow for regional air service - commercial service was not available at the time the General Plan was adopted but was subsequently re-established.

Two elements not explicitly mandated by the State are included in the Town's General Plan. The Community Design Element has goals and policies designed to promote harmony between the natural landscape and the built environment. Policies in the Community Design Element address site planning, distinctive architecture, light and glare, and building height, mass, and scale. While MMH is separated from the Town

proper, it acts as an entryway to the Town. As such, design of the proposed facilities, particularly the terminal, is an important issue.

The Economy Element, the other element not mandated by the State, describes strategies intended to create a more sustainable, year-round economy that is less dependent on tourism. High-altitude outdoor activities are the major economic and employment generators in the community, and the seasonal ebb and flow of visitors causes economic and employment fluctuation. Policies specific to MMH include (Town of Mammoth Lakes 2019):

- Policy E.1.E. Re-establish year-round scheduled air service and continue charter air service at Mammoth Yosemite Airport. [Note: Since adoption of the Town General Plan, year-round passenger service at MMH has been re-established.]
- Policy E.1.F. Establish and maintain air service connecting the Mammoth Lakes area with destination visitor markets.
- Policy E.1.G. Develop facilities that support commercial and charter air carrier service.

Town of Mammoth Lakes Municipal Code

The General Plan is primarily implemented by the Municipal Code, which regulates development type and intensity, among other matters. Development regulations include building heights, setbacks, lot coverage, parking, and landscaping, among other features. Zoning classifications for the Town are required to be consistent with the land use designations in the Town's General Plan.

The zoning for the project site is Airport (A). As described in Section 17.32.060, the Airport zone is intended to implement the Airport Layout Plan, along with the goals and policies in the Town's General Plan related to Airport facilities. Terminals, hangars, and other airport facilities and uses subject to all applicable regulations of the FAA and the Airport are permitted by right in the Airport zone, along with an FBO and accessory uses within a terminal building. A use permit is required for ancillary visitor facilities such as bars, restaurants, and retail and food operations not within the terminal building.

Mono County General Plan

The Mono County General Plan establishes policies to guide decisions on future growth, development, and conservation of natural resources on private lands in the unincorporated area of Mono County. The County General Plan covers all lands outside the Airport that are not part of the Inyo National Forest or owned by LADWP. Most of the land outside the Airport has been designated under the County General Plan as Resource Management (RM). The Resource Management designation provides for low-intensity rural uses in a manner that recognizes and maintains the resource values of the parcel. Lands to the northeast of the Airport are designated as Open Space, lands that

may be valuable for resource preservation, low-intensity recreational uses, mineral resources, or other reasons.

Mammoth/June Lake Airport Land Use Plan

As described in Chapter 10.0, Hazards, the Mammoth/June Lake Airport (now Mammoth Yosemite Airport) Land Use Plan establishes a comprehensive land use plan that defines the type and pattern of future development in a 28-square mile area surrounding MMH over a 20-year period. Surrounding land uses are planned with respect to compatibility with airport safety zones, National Forest policies, and other factors.

Agriculture and Forestry

Williamson Act

The Land Conservation Act of 1965, commonly known as the Williamson Act, was enacted to preserve farmland in California. Under the Williamson Act, a contract is executed between landowners and local governments to voluntarily restrict development on property in exchange for lower property tax assessments based on the existing agricultural land use. Contracts are entered for a 10-year period and can be terminated only by non-renewal or cancellation process defined in the California Government Code. Mono County is a participant in the Williamson Act program. However, as noted, there are no lands under Williamson Act contract within the Urban Growth Boundary of the Town, which includes MMH.

Z'berg-Nejedly Forest Practice Act of 1973

The Forest Practice Act of 1973 is the primary forest regulation statute in California. It established a State Board of Forestry to manage forest practices and resources according to Forest Practice rules. CalFire enforces Act requirements and serves as lead agency for projects that fall in the scope of the Act. As noted, there are no timberlands on MMH or in the vicinity.

Inyo National Forest Land Management Plan

MMH occupies a portion of, and is adjacent to, land that is within the Inyo National Forest. The Inyo National Forest is governed by a Land Management Plan that outlines desired resource conditions, management objectives, standards to be followed, designation of suitable land uses, and a monitoring strategy. The Land Management Plan provides a framework to guide site-specific project planning.

Inyo National Forest adopted its current Land Management Plan in October 2019. According to the recently adopted plan, the National Forest lands in the MMH vicinity have been identified as part of the Hot Creek Allotment for grazing, as previously described. No explicit mention is made of MMH in the Land Management Plan (Inyo National Forest 2019).

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Physically divide an established community,
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect,
- 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, to non-agricultural use,
- Conflict with existing zoning for agricultural use or a Williamson Act contract,
- Conflict with existing zoning for, or cause rezoning of, forest land as defined by 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),
- Result in the loss of forest land or conversion of forest land to non-forest use,
- 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 forest land to non-forest use,
- 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), or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

Impact LUP-1: Division of Communities

The project proposes improvements to MMH facilities. The MMH is separated from the Town by approximately six miles of mostly open space. There are no residential units on or adjacent to the MMH property; the nearest such units are at the Sierra Nevada Aquatic Research Laboratory southeast of MMH. The project would not divide any existing communities and therefore would have no impact on this issue.

Level of Significance: No impact

Mitigation Measures: None required

Impact LUP-2: Conflict with Applicable Plans, Policies, and Regulations

As noted, the project site has both a Town General Plan designation and zoning of Airport. The project proposes the improvement of MMH facilities; as such, the project is consistent with the General Plan designation and zoning. It is also consistent with the Mammoth/June Lake Airport Land Use Plan, which provides guidance for development at the MMH site.

The Town General Plan, as noted, has policies intended to avoid or to mitigate the environmental impacts of projects. Table 12-2 lists these policies, along with the consistency of the proposed project with these policies. As shown in Table 12-2, the project would be consistent with General Plan policies that would avoid or mitigate environmental effects, or such General Plan policies would not apply due to circumstances associated with the project or its location.

TABLE 12-2
TOWN GENERAL PLAN POLICIES AND PROJECT CONSISTENCY

General Plan Policy	**Project Consistency Determination**
Policy A.3.D. Be stewards of the cultural, historical and archaeological resources in and adjacent to town.	Consistent – While no cultural resources have been recorded on or near the project site, mitigation measures have been identified if previously unknown cultural resources are encountered.
Policy C.4.A. Development shall be designed to provide stewardship for significant features and natural resources of the site.	Not applicable – No natural resources have been identified on the project site.
Policy C.5.A. Require outdoor light fixtures to be shielded and down-directed so as to minimize glare and light trespass.	Consistent – The project would comply with Town Municipal Code Section 17.36.030, which requires outdoor lighting to be shielded and down-directed.
Policy L.6.A. No residential, commercial, or industrial development is permitted outside the Urban Growth Boundary (UGB) identified in Figure 4 [of the General Plan].	Consistent – The project site is within the Town's UGB.
Policy R.1.A. Be stewards of important wildlife and biological habitats within the Town's municipal boundary.	Not applicable – No important wildlife or biological habitats have been identified on or near the project site.
Policy R.1.B. Development shall be stewards of Special Status plant and animal species and natural communities and habitats.	Not applicable – No special-status species or natural communities have been identified on the project site.
Policy R.1.C. Prior to development, projects shall identify and mitigate potential impacts to site-specific sensitive habitats, including special status plant, animal species and mature trees.	Consistent – The project site was assessed for sensitive habitats and special-status species, and neither were found on or near the project site.
Policy R.1.H. Work with MCWD to ensure that groundwater is not over-drafted and does not cause negative environmental impacts to resources such as surface water, springs and native vegetation.	Consistent – Water supplies from existing onsite wells would be adequate to serve the project without affecting the aquifer. No surface waters, springs, or native vegetation would be affected.

TABLE 12-2
TOWN GENERAL PLAN POLICIES AND PROJECT CONSISTENCY

General Plan Policy	Project Consistency Determination
Policy R.2.B. Be stewards of forested areas, wetlands, streams, significant slopes and rock outcroppings. Allow stands of trees to continue to penetrate the community to retain the mountain character of Mammoth Lakes. Minimize tree removal for development to the greatest extent possible.	Not applicable – The project site does not contain forested areas, wetlands, streams, slopes, or rock outcroppings.
Policy R.2.C. Avoid wetland disturbance to greatest extent possible by requiring all feasible project modifications.	Not applicable - The project site does not contain wetlands.
Policy R.4.A. The Town shall work with MCWD to ensure that land use approvals are phased so that the development of necessary water supply sources is established prior to development approvals.	Consistent – The existing MMH water supply is considered adequate to serve the proposed facilities.
Policy R.5.B. Require parking lot storm drainage systems to include facilities to separate oils and silt from storm water where practical and when warranted by the size of the project.	Consistent – The project would comply with Town standards for drainage systems, including grease and sediment traps.
Policy R.5.C. Prevent erosion, siltation, and flooding by requiring use of Best Management Practices (BMPs) during and after construction.	Consistent – The project would implement BMPs as part of its Construction General Permit.
Policy R.10.D. Mitigate impacts on air quality resulting from development through design, participation in Town air pollution reduction programs, and/or other measures that address compliance with adopted air quality standards.	Consistent – Air pollutant emissions from the project would not exceed significance thresholds.
Policy R.10.E. The Town of Mammoth Lakes will strive to attain and maintain the National Ambient Air Quality Standard (NAAQS) for PM_{10}.	Consistent – PM_{10} emissions from the project would not exceed significance thresholds.
Policy R.10.F. The Town of Mammoth Lakes will work with the Great Basin Air Pollution Control District to develop and implement measures and programs with the intent of attaining the state standard for PM_{10}.	Consistent – PM_{10} emissions from the project would not exceed significance thresholds.
Policy R.10.G. Reduce air pollutants during construction through implementation of Best Management Practices (BMPs).	Consistent – Project construction would occur consistent with Town and GBUAPCD regulations.
Policy R.11.A. Support the objectives of the U.S. Mayors Climate Protection Agreement, Assembly Bill 32, and California Executive Order S-03-05 and implement actions to reduce Mammoth Lakes' carbon footprint.	Consistent – Project would be consistent with adopted Energy Code and Green Building Standards Code, provisions of which would reduce GHG emissions.

TABLE 12-2
TOWN GENERAL PLAN POLICIES AND PROJECT CONSISTENCY

General Plan Policy	Project Consistency Determination
S.3.T. Policy: Maintain and implement the Spill Prevention, Control and Countermeasure Plan for the Mammoth Yosemite Airport.	Consistent - Spill Prevention, Control and Countermeasure Plan applies to and will be implemented for any spills associated with the project.

According to the recently adopted Inyo National Forest Land Management Plan, the National Forest lands in the MMH vicinity have been identified as grazing land. No grazing is currently permitted on MMH property, so the project would not interfere with such activity.

In general, the project would not conflict with any plans, policies, or regulations designed to avoid or to mitigate environmental effects of projects. Project impacts would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact LUP-3: Agricultural Resources

No agricultural activities occur on the MMH property. Based on information from previous soil surveys, none of the soils on the MMH property are considered prime farmland or other important farmland. Therefore, the project would not result in the conversion of farmland to non-agricultural uses. No agricultural-related zoning designations have been placed on the MMH property or surrounding areas, and the MMH property is not under a Williamson Act contract. The project would have no impact on agricultural resources.

Level of Significance: No impact

Mitigation Measures: None required

Impact LUP-4: Forest Resources

The project site is located within a region that supports forests, and a portion of the MMH property is on USFS land. However, neither MMH nor surrounding lands are forested or capable of forest production. The project would not convert designated forest land to non-forestry uses. As the MMH property is not zoned for forest land or for timber production, project implementation would not result in the rezoning of forest land, timberland, or timberland zoned Timberland Production. The project would have no impact on forest resources.

Level of Significance: No impact

Mitigation Measures: None required

Impact LUP-5: Indirect Conversion of Agricultural or Forest Lands

As noted, there are no agricultural or forest resources on or near the project site. The proposed improvements would be confined to the MMH property, which has already been dedicated to long-term air transportation use and is significantly developed. The project would have no impacts related to potential indirect conversion of agricultural or forest land.

Level of Significance: No impact

Mitigation Measures: None required

Impact LUP-6: Inducement of Population Growth

The project does not propose the development of any housing units. As such, it would not directly induce any population growth. The proposed expansion of the terminal and construction of the maintenance building could potentially lead to more employment opportunities, which could attract more residents to the Town. However, the potential employment opportunities would be minimal, if any, and any population growth induced by the project would be consistent with the growth anticipated in the Town General Plan.

It is possible that the project may contribute to an increase in the number of visitors to the Town and the nearby resorts. A new terminal may contribute to an overall positive visitor experience, and as visitors discuss their positive experiences, others may be encouraged to visit the area. However, passenger traffic through MMH is the main determinant of impacts related to visitor population, and as previously noted, changes in traffic volumes would generally occur independent of the project. Nothing in the proposed project by itself is expected to generate a substantial increase in visitor population different from that anticipated in the Town General Plan. Project impacts related to population would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact LUP-7: Displacement of Housing and People

The project site contains no housing units or and supports no residential population. No displacement of housing or people would occur as a result of proposed project improvements.

The project could minimally contribute to impacts related to workforce housing, as an incremental increase in employment resulting from the project could lead to a temporary demand on existing residential units. The Town General Plan has policies related to providing workforce housing and anticipates an increase in residential units, including affordable units. The project would have no significant impact related to workforce

housing demand. Overall, project impacts related to displacement of housing or people would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

13.0 NOISE

ENVIRONMENTAL SETTING

Existing Noise Conditions

Noise is typically defined as airborne sound that is loud, unpleasant, unexpected, or undesired. It is measured by the decibel (dB) scale, ranging from 0 dB to 120 dB. Significant noise sources in the Town include traffic on SR 203 and major Town roadways, helicopter operations at Mammoth Hospital, intermittent noises associated with construction, snow removal and snowmaking activities, avalanche control operations, industrial activities near SR 203 and Meridian Boulevard, and recreation activities (Town of Mammoth Lakes 2007b). Aircraft operations at MMH are also considered a significant noise source. However, since MMH is six miles from the Town proper, Town residents have little exposure to noise from MMH.

Noise at MMH is generated mainly by arrivals and departures of aircraft. Most aircraft operations are by turboprop aircraft; jet operations accounted for 11.1% of air traffic and helicopters accounted for 1.4%. Noise modeling done for the United Air Service EA indicated that the 65-dB CNEL noise contour for projected 2015 conditions (Figure 13-1) did not extend beyond the MMH property, except for a small area beyond the eastern boundary (FAA 2010). The CNEL - Community Noise Equivalent Level – is the average sound level over a 24-hour day, with an additional 10-dB weighting applied to noise during the hours between 10:00 p.m. and 7:00 a.m. and an additional 5-dB weighting applied to noise during the hours between 7:00 p.m. and 10:00 p.m.

Human response to noise varies widely, depending on the type of noise, time of day, and sensitivity of the receptor. Certain land uses are particularly sensitive to noise, including schools, hospitals, rest homes, long-term medical and mental care facilities, and parks and recreation areas. Residential areas are also considered sensitive to noise, especially during the nighttime hours. Additional existing sensitive receptors include hotels, motels, schools, hospitals, libraries, parks and recreational facilities, and places of worship (Town of Mammoth Lakes 2016b). None of these land uses are on or immediately adjacent to the project site. The nearest potentially noise-sensitive land uses are the Sierra Nevada Aquatic Research Laboratory, approximately one mile southeast of the proposed construction site, and residences along Hot Creek Hatchery Road, approximately 1.5 miles northwest of the proposed construction site. These land uses are not within the 65-dB CNEL noise contour of MMH.

Groundborne Vibration

Groundborne vibration is not a common environmental problem. It is typically associated with transportation facilities, although it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, trucks and buses on rough roads, and construction activities such as blasting, pile driving, and operating heavy earth-moving equipment. The effects of groundborne vibration include felt movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings (FTA 2006).

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocity (PPV) in inches per second (in/sec). Standards pertaining to annoyance and damage to structures have been developed for vibration levels defined in terms of peak particle velocities. Caltrans data indicate that 0.1 in/sec PPV is the level at which continuous vibrations begin to annoy people, and 0.2 in/sec PPV is the threshold at which there is a risk of "architectural" damage to normal dwelling structures with plaster walls and/or ceilings (Town of Mammoth Lakes 2007b).

REGULATORY FRAMEWORK

14 CFR Part 36, Noise Standards

The FAA regulates the maximum noise level that an individual civil aircraft can emit through requiring aircraft to meet certain noise certification standards. These standards designate changes in maximum noise level requirements by "stage" designation. The U.S. noise standards are defined in the Code of Federal Regulations (CFR) Title 14 Part 36 – Noise Standards: Aircraft Type and Airworthiness Certification (14 CFR Part 36). The FAA publishes certificated noise levels in the advisory circular, *Noise Levels for U.S Certificated and Foreign Aircraft*. This advisory circular provides noise level data for aircraft certificated under 14 CFR Part 36, including jet and large turboprop aircraft, and categorizes aircraft into their appropriate noise stages.

21 CCR 5000, Aviation Noise Standards

Title 21 of the California Code of Regulations, Section 5000 *et seq.* (21 CCR 5000), sets forth Aviation Noise Standards. The basic requirement is that airport noise shall not exceed 65 dBA CNEL in exterior areas of residences, public and private schools, hospitals and convalescent homes, and churches and other houses of worship. Standards and procedures for defining noise impact areas, noise monitoring, and resolution of complaints are also provided.

California Office of Noise Control

Guidelines for the acceptability of noise have been developed by the EPA and adapted by the California Office of Noise Control as planning tools for use by local government in California. These are reflected in the Office of Noise Control's "Guidelines for the Preparation and Content of Noise Elements of the General Plan" (1976). While cities, counties and other agencies are free to adopt their own standards, most general plans incorporate these standards or a modified version of them. The Office of Noise Control guidelines recognize that a more restrictive standard could be appropriate under special circumstances, such as quiet suburban or rural settings.

An exterior noise environment of 50-60 dBA L_{dn} or CNEL is "normally acceptable" for residential uses, and noise levels of up to 70 dBA L_{dn} or CNEL are "conditionally acceptable." L_{dn}, or the Day-Night Average Level, is the average sound level over a 24-hour day, with an additional 10-dB weighting applied to noise during the hours between 10:00 p.m. and 7:00 a.m. Other sensitive uses such as schools, libraries, churches, hospitals, and the like are "normally acceptable" up to 70 dBA. Commercial, industrial, and recreational uses are substantially less sensitive. The above composite noise standards are appropriate tools for assessing the acceptability of prevailing noise conditions; they do not recognize the impact of "intrusive" noise sources, or sources which involve intermittent, temporary, or similar noise events which are well above ambient levels.

Town of Mammoth Lakes Municipal Code

Chapter 8.16 of the Town Municipal Code is the Town Noise Ordinance. The Town Noise Ordinance sets forth maximum exterior noise levels by land use, as well as interior noise standards for multifamily residential land uses. It also regulates noise from construction activities, with allowable levels based upon adjacent land uses, mainly residential and business properties. All mobile or stationary internal combustion engine-powered equipment or machinery shall be equipped with suitable exhaust and air intake silencers in proper working order. The Town Noise Ordinance does not control noise sources pre-empted by other jurisdictions, such as in-flight aircraft.

Town of Mammoth Lakes General Plan

The Town General Plan contains a Noise Element that provides a framework for addressing potential noise impacts encountered in the planning process. Policies relevant to the project include Policy 4.2.1, which prohibits new development of noise-sensitive land uses in areas exposed to existing or projected future noise levels from transportation noise sources which exceed 60 dB L_{dn} in outdoor activity areas or 45 dB L_{dn} in interior spaces.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would 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,
- Generation of excessive groundborne vibration or groundborne noise levels, or
- For a project located within the vicinity of a private airstrip or an airport land use plan, or within two miles of a public or public use airport if no plan has been adopted, expose people residing or working in the project area to excessive noise levels.

One means of determining a potential noise impact is to assess a person's reaction to changes in noise levels due to a project. The information in Table 13-1 below is commonly used to show expected public reaction to changes in environmental noise levels. This table was developed based on test subjects' reactions to changes in the levels of steady-state pure tones or broad-band noise and to changes in levels of a given noise source. It is probably most applicable to noise levels in the range of 50 to 70 dBA, as this is the usual range of voice and interior noise levels.

TABLE 13-1
SUBJECTIVE REACTIONS TO CHANGES IN NOISE LEVELS

Change in Level (dBA)	Subjective Reaction	Factor Change in Acoustical Energy
1	Imperceptible (except for tones)	1.3
3	Just Barely Perceptible	2.0
6	Clearly Noticeable	4.0
10	About Twice (or Half) as Loud	10.0

Source: Egan 1988.

As noted, standards pertaining to annoyance and damage to structures have been developed for vibration levels defined in terms of PPV. Based upon standards developed by Caltrans and the Federal Transit Administration, groundborne vibration levels greater than 0.2 in/sec PPV would be considered to have a significant environmental impact.

Impact NOISE-1: Increase in Noise Levels in Excess of Standards – Construction

Noise from project construction activities would add to the noise environment in the project vicinity. Activities involved in construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet, as indicated in Table 13-2. Noise would also be generated during the construction phase by increased truck traffic on area roadways, associated with transport of heavy materials and equipment to and from construction sites.

TABLE 13-2
CONSTRUCTION EQUIPMENT NOISE

Type of Equipment	**Maximum Level, dB at 50 feet**
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: FHWA 2006.

Construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. The truck traffic noise increase would be of short duration and would likely occur primarily during daytime hours. In addition, as noted, there are no land uses sensitive to noise on or near the project site. Project construction would be required to comply with noise provisions of the Town Municipal Code, including use of exhaust and air intake silencers, which would reduce construction noise. Project impacts related to construction noise would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact NOISE-2: Increase in Noise Levels in Excess of Standards – Operations

Once project construction work is completed, the project is not expected to contribute substantially to noise levels at MMH. As noted, aircraft operations are the main source of noise. The number and type of future aircraft operations are independent of the project and would therefore not be affected by the project.

The maintenance building would include activities that may generate noise. However, most of these activities would occur inside the building, and there are no nearby land uses that would be affected by maintenance noise. The nearest sensitive receptors are existing residences on the Sierra Nevada Aquatic Research Laboratory facility, approximately one mile southeast of the proposed maintenance building. The proposed terminal is not expected to be a significant noise source; the principal noise associated with the terminal would be vehicles entering and leaving the parking areas. Other potential noise sources, such as public address systems and baggage handling systems, would be mostly indoors. Project impacts related to noise from operations would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact NOISE-3: Groundborne Vibrations

The project would not involve potential groundborne vibration sources other than operation of construction equipment. In most cases, vibration induced by typical construction equipment does not result in adverse effects on people or structures.

Caltrans has developed a methodology for estimating groundborne vibrations generated by construction equipment other than pile drivers or hydraulic breakers, neither of which are anticipated to be used. The formula is as follows (Caltrans 2013):

$$PPV_{Equipment} = PPV_{Ref}(25/D)_n \text{ (in/sec)}$$

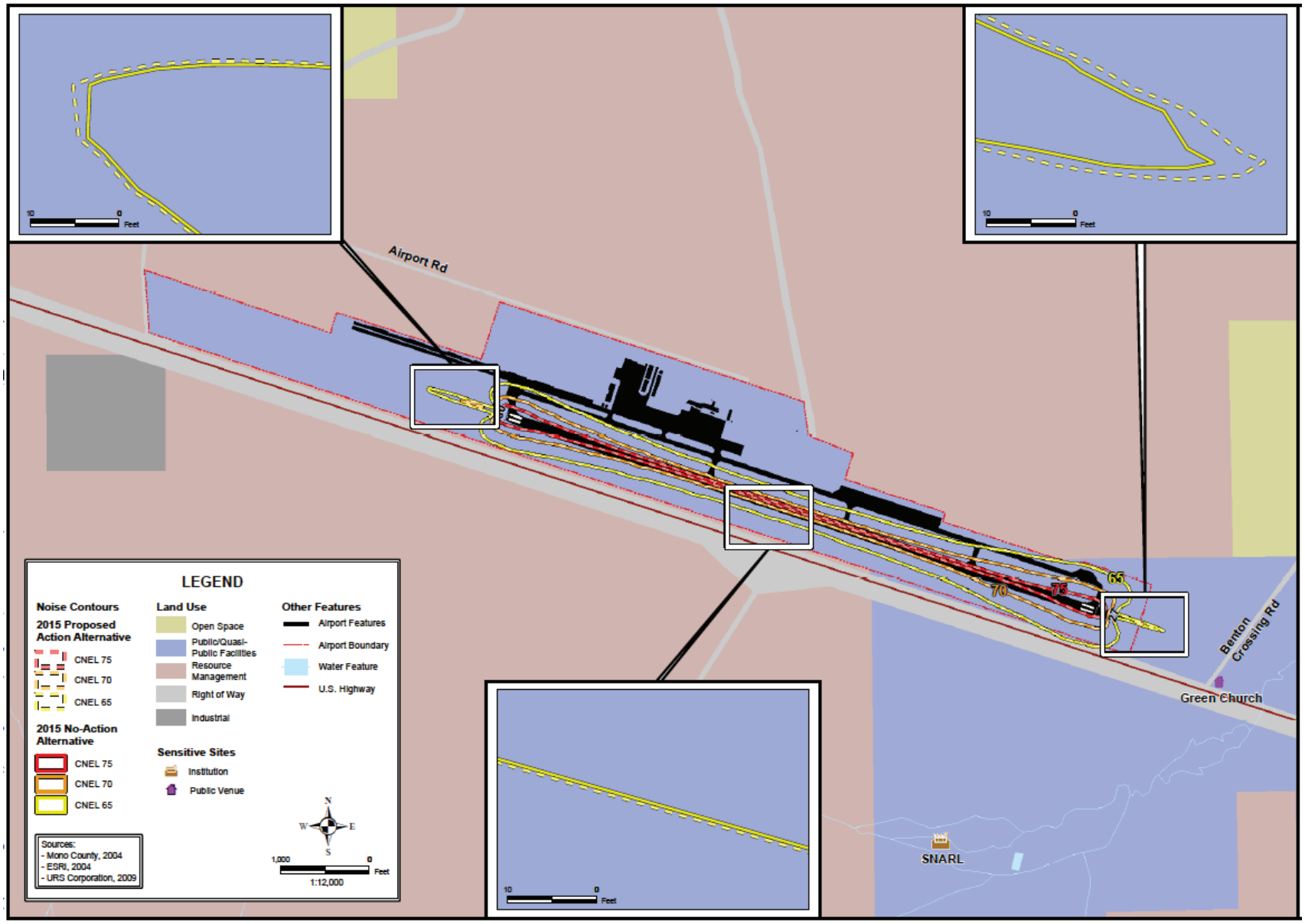
where:

PPV_{Ref} = *reference PPV at 25 ft.*
D = *distance from equipment to the receiver in ft.*
n = *1.1 (the value related to the attenuation rate through ground)*

Construction equipment with the highest reference PPV is a vibratory roller at 0.210 in/sec PPV. Using this reference PPV and a distance of 50 feet from a receiving structure, the estimated PPV for a vibratory roller at 100 feet would be approximately 0.098 in/sec. This would be below the 0.2 in/sec PPV threshold established for potential structural damage. Therefore, groundborne vibrations from construction equipment would not adversely affect existing MMH structures or any off-site structures. No groundborne vibrations would be generated by the project after construction work is completed. Project impacts related to groundborne vibrations would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required



BaseCamp Environmental

Figure 13-1
PROJECTED NOISE CONTOURS 2015

14.0 PUBLIC SERVICES AND RECREATION

ENVIRONMENTAL SETTING

Fire Protection

Fire protection and emergency response services in the Town are typically provided by the Mammoth Lakes Fire Protection District. Since the MMH is separated from the Town by about six miles, fire protection services to MMH are provided primarily by the Long Valley Fire Protection District. The Long Valley Fire Protection District serves an approximately 114-square mile area of Mono County that includes the Long Valley communities. It provides fire prevention/suppression and emergency medical response services, search and rescue, wildland firefighting, hazardous material handling, technical rescue, hydrant testing, school safety programs, community education, permit approvals and development proposal reviews. The Long Valley Fire Protection District has a station in Crowley Lake.

On-site fire protection services are provided at MMH. The first response to an emergency at MMH would be provided by the ARFF vehicle stationed at MMH (Town of Mammoth Lakes 2008). A mutual aid agreement with the Mammoth Lakes Fire Protection District is in place, which would provide additional support for fire emergencies. Fire protection services for USFS lands in the vicinity are provided by the USFS.

Police Protection

Police protection and law enforcement services in the Town of Mammoth Lakes and at MMH are primarily provided by the Mammoth Lakes Police Department. The Police Department, with its station at 58 Thompsons Way, provides all police services for the project area, including the handling of criminal investigation calls. The Police Department is also responsible for all traffic-related offences within the Town except on SR 203, where the California Highway Patrol also provides traffic-related services. Police Department staff is currently comprised of 15 full-time equivalent sworn officers and one part-time reserve (Davis, electronic mail). Typically, two to four sworn officers are on duty at any one time (Town of Mammoth Lakes 2016b).

The Mono County Sheriff's Department, based in Bridgeport, is responsible for police services in the unincorporated area of the County and for jail operations that handle persons arrested in both the County and the Town. It also provides coroner operations, processing and serving civil paperwork, and search and rescue operations. A substation has been established by the Sheriff’s Department in Crowley Lake. The Sheriff’s Department provides dispatch services to both the Mammoth Lakes Police Department

and the Mammoth Lakes Fire Protection District under a contractual agreement, as well as to other agencies.

The California Highway Patrol provides traffic law enforcement on the State highways in Mono County. This includes US 395 and SR 203 through the Town. Highway Patrol offices are in Bridgeport and Bishop.

Schools

The Town is within the jurisdiction of the Mammoth Unified School District. The Mammoth Unified School District provides education to students in grades kindergarten through 12th grade, with facilities that include Mammoth Elementary School, Mammoth Middle School, Mammoth High School, and Sierra High School. There are no schools in the vicinity of MMH.

Parks and Recreational Services

The Town provides parks and recreational facilities for use by the general public. Existing developed park land totals approximately 53 acres, of which approximately 18 acres is owned and operated by the Town. An additional 16.5 acres is operated by the Town under a Special Use Permit from the USFS. The closest park facility to MMH is Whitmore Park, an approximately 18.7-acre recreational facility on Benton Crossing Road. As described in Chapter 12.0, Land Use, Whitmore Park, operated and maintained by the Town, is approximately 1.3 miles northeast of the MMH terminal and has sports fields and a pool.

Other Public Services

Other public services potentially impacted include public libraries, hospitals/healthcare, courthouses, and public roadway maintenance. Library services in the Town are provided by the Mono County Library System. The Mammoth Lakes Library Branch, which is located at 400 Sierra Park Road, is approximately 17,000 square feet in size.

Major health services in the Town are provided by Mammoth Hospital and the associated Sierra Park Medical Center, both part of the Southern Mono Health Care District. Mammoth Hospital is a fully accredited, acute care hospital offering emergency care, inpatient medical, surgical, and other medical services.

The Superior Court of California operates two courthouses in Mono County. One of these is in Mammoth Lakes, which contains two courtrooms in a structure at the intersection of SR 203 and Sierra Park Road (Mono County 2010). The other is in Bridgeport, the Mono County seat.

Roadway maintenance is provided by the Town for all non-State and non-federal highways, including road repair, maintenance, and snow removal. Snow removal equipment includes five loaders with blades, two trucks with plows and cinder spreaders,

one grader and three snowblowers (Town of Mammoth Lakes 2006). As noted, MMH has its own snow removal equipment.

REGULATORY FRAMEWORK

Schools

SB 50, enacted in 1998, established a base fee for both residential and commercial/industrial development, the proceeds from which provide capital improvement funding for schools. California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to issuance of a building permit. California Government Code Section 65996(b) further states that the payment of school impact fees is deemed to provide full and complete school facilities mitigation under CEQA. The project would not be subject to school impact fees.

Recreation

The Town adopted its Parks and Recreation Master Plan in 2012. The vision of the Master Plan is to provide multipurpose, year-round, indoor and outdoor recreation opportunities that are accessible to all residents and visitors. The Master Plan sets standards for park development in the Town. For developed parkland acreage, the Master Plan recommended adopting a standard of 5 acres of local park per 1,000 residents. For regional park acreage, a standard of 2.5 acres per 1,000 residents was recommended (Town of Mammoth Lakes 2012).

Town of Mammoth Lakes General Plan

The following Town General Plan policies related to public services and recreation are relevant to this project (Town of Mammoth Lakes 2019):

- Policy S.2.B. Ensure effective code enforcement and policing programs.
- Policy S.2.C. Provide public safety facilities at multiple locations to facilitate prompt response times.
- Policy S.5.A. Continue to facilitate MLFPD's participation in the development review process and coordinate on conditions of approval.
- Policy P.3.B. Coordinate with multiple organizations, agencies and jurisdictions to plan, steward, interpret, promote and sustain trails, public access and outdoor recreation amenities in the Mammoth Lakes region.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment related to public services if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or generate a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protection, police protection, schools, parks, or other public facilities,

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated, or

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Impact PSR-1: Fire Protection Services

The project proposes a new terminal building and a new maintenance building. The new buildings would add to the existing development on the MMH property, thereby increasing the potential for the need of fire protection services.

The new facilities would be constructed in accordance with the version of the California Fire Code adopted by the Town at the time of project approval. As noted in Chapter 10.0, Hazards and Hazardous Materials, the Town currently has adopted the 2019 California Fire Code. The California Fire Code includes provisions related to building systems and services as they relate to potential safety hazards and when and how they should be installed; minimum requirements for active systems of fire protection equipment to perform the functions of detecting a fire, alerting the occupants or fire department of a fire emergency, controlling smoke and controlling or extinguishing the fire; and the regulation of interior finishes, decorative materials and furnishings in new and existing buildings so that they do not significantly add to or create fire hazards within buildings.

Compliance with the provisions of the California Fire Code would reduce the risk of fire in the new buildings, which would reduce the potential calls for fire protection services. Other proposed improvements, such as the new parking areas and expanded apron, are not prone to fires. The project proposes a building that would house the ARFF facility, thereby providing a new firefighting facility on the MMH property. Because of this, the project is not expected to require new or expanded facilities for the Long Valley Fire Protection District. Project impacts on fire protection services would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact PSR-2: Police Protection Services

The Mammoth Lakes Police Department already provides services to MMH. While the project proposes a new terminal and maintenance buildings, they are not expected to lead to a significant increase in the number of employees or non-passenger users of these facilities. The Police Department has indicated that the project would not require new or expanded facilities to provide service (Davis, electronic mail). Project impacts on police protection services would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact PSR-3: Schools

The project consists of improvements to a transportation facility. As such, it is not expected to generate a significant increase in population, which is the main driver for demand for school services (see Chapter 12.0, Land Use). As noted, the project would not be subject to development impact fees. Project impacts on schools would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact PSR-4: Parks and Recreational Services

The project would not involve any direct effects on parks or recreational facilities, as none are located on or near the project site. Since the project would not generate a substantial population increase, it would not generate a demand for new or expanded parks or recreational facilities or services. Project impacts on parks and recreational facilities would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact PSR-5: Other Public Facilities

Since the project is unlikely to generate a substantial population increase, it is anticipated that the project would not generate a demand for additional library, public hospital, or courthouse services. As noted, MMH has its own snow removal service, so no demands would be placed on the road maintenance and snow removal services of the Town. No

new or expanded facilities would be required. Project impacts on other public facilities would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

15.0 TRANSPORTATION

ENVIRONMENTAL SETTING

Ground transportation systems serving MMH and the Town of Mammoth Lakes include roads and highways, transit, and non-motorized bicycle and pedestrian systems. MMH serves commercial and civil aviation needs as well as emergency uses. Each of these systems is described in more detail below.

Roadways

US 395 is a north-south state highway that provides primary ground transportation access to the Mammoth Lakes area and MMH. US 395 extends from Interstate 15 near Hesperia in the south to Reno, northeastern California, Oregon, and Washington in the north. It provides the principal highway access to the recreational and tourist attractions of the Mammoth Lakes area. The nearest US 395 connections to other major roads are at US 6, approximately 30 miles southeast at Bishop; State Route (SR) 169, approximately 43 miles southeast at Big Pine; SR 14, approximately 145 miles south near Indian Wells; and SR 120, approximately 27 miles northwest near Lee Vining. SR 120 and SR 14/178 are the closest trans-Sierra highway routes. SR 120, which goes through Yosemite National Park, is typically closed during the winter season. SR 88 and US 50 farther north provide alternative trans-Sierra routes when SR 120 is closed.

Near the project site, US 395 has two travel lanes in each direction, with additional transition lanes at the SR 203 interchange. The northbound lanes south of SR 203 include a climbing lane. Dedicated left-turn lanes are provided in both directions at the US 395 intersections with Sherwin Creek Road, Hot Creek Hatchery Road, and Convict Lake Road. At Benton Crossing Road, there is only a dedicated southbound turn lane. The speed limit on US 395 in the vicinity of the project site is 65 miles per hour (mph).

SR 203 provides the principal access to the Town from a grade-separated diamond interchange where SR 203 intersects US 395. On and off-ramps at the interchange are single-lane and stop-controlled, except for the southbound off-ramp that features a free westbound right turn and the southbound on-ramp that has two lanes that merge prior to entering the mainline highway. Near US 395, SR 203 provides two lanes in each direction separated by a striped island near the Town, and then by more than 100 feet of undeveloped right-of-way on the approach to US 395.

Mono County has approximately 684 miles of County-maintained roads (Mono County 2015). Local roads in the MMH vicinity include Hot Creek Hatchery Road to the west, Convict Lake Road to the south, and Benton Crossing Road to the east.

- *Hot Creek Hatchery Road* begins at US 395 and extends in a northerly direction. A two-lane paved road about 30 feet in width from US 395 to beyond Airport Road, the road transitions to a 24-foot-wide paved roadway and eventually to a 20-foot-wide gravel-surfaced road. This road serves the Hot Creek Fish Hatchery, the Hot Creek Geological Area, and public lands to the north and east. The paved section of this road between US 395 and Airport Road is in poor condition, but it is scheduled to be improved by the County in 2020.

- *Convict Lake Road* is a two-lane paved road that extends south from US 395 to Convict Lake and nearby recreational facilities. A gated access road that runs north of the intersection of US 395 and Convict Lake Road provides emergency vehicle access to MMH.

- *Benton Crossing Road* is a two-lane paved road that begins at US 395 and extends in a generally northeast direction until it ends at its intersection with SR 120. It serves the communities of Whitmore Hot Springs and Benton Crossing. The road is in relatively poor condition.

Airport Road, a two-lane paved road, is the only public access road to MMH. It extends eastward from Hot Creek Hatchery Road at a point approximately 0.3 miles north of US 395. The paved section of Airport Road is in poor condition. Mono County is in the design and permitting process for a proposed widening, addition of bike lanes, and repaving of Airport Road and Hot Creek Hatchery Road between Airport Road and US 395. A contract for this improvement is expected to be approved in 2020.

Existing Traffic Conditions

Traffic at MMH is generated primarily by commercial flight passengers leaving or arriving and by workers at MMH facilities. Much of the visitor traffic is destined for the Town and to Mammoth Mountain, particularly during the ski season. MMH is connected to the Town via US 395 and SR 203. Average daily traffic volumes on US 395 in the vicinity of MMH range from 6,900 to 9,650 vehicles per day, reaching 13,400 vehicles per day during the peak month (Caltrans 2017b).

US 395 in Mono County is identified as a regionally significant part of the Interregional Road System (IRRS), as a "lifeline route" (i.e., a route on the State Highway System deemed critical to emergency response/lifesaving activities), and as part of the National Truck Network on the National Highway System (NHS), which authorizes use by larger trucks and provides access to facilities off the route (Mono County 2015). Truck traffic constitutes approximately 15% of all vehicle traffic on US 395 south of the SR 203 interchanges and approximately 31% of all vehicle traffic north of the interchange. Corresponding peak month traffic on SR 203 ranges between 9,200 and 17,900 (Caltrans 2016).

Mono County experiences a substantial volume of recreational travel, both to and through the county. Most of that traffic travels on US 395, and in the summer months on SR 120, 108, and 89, which provide access to the area from the west side of the Sierra. Recreational traffic creates specific problems for the interregional and local

transportation and circulation system, due both to the volume and type of that traffic. Winter ski weekends, particularly during peak holiday periods, result in a traffic pattern that simulates recurrent congestion patterns found in more urban areas, both in communities and on highways. Recreational events during the summer may also create congested traffic patterns, particularly in community areas, and safety concerns with slow-moving recreational vehicles, particularly on two-lane sections of roadways. However, existing traffic on local roads serving MMH and the vicinity is relatively minor and likely below 500 trips per day

Public Transportation, Bicycle, and Pedestrian Systems

The Eastern Sierra Transit Authority (ESTA) provides bus service to the Town and the eastern Sierra region. ESTA is a Joint Powers Authority between the Counties of Inyo and Mono, the City of Bishop, and the Town of Mammoth Lakes. ESTA began operating transit services in 2007, assuming control of all the services, staff, and capital formerly known as Inyo Mono Transit.

ESTA bus routes connect the Town to other towns along US 395 in Mono and Inyo Counties, and interregional service is provided as far north as Reno and as far south as Lancaster in Los Angeles County. ESTA also provides a year-round bus route within the Town and seasonal shuttles connecting the Town to the Mammoth Mountain ski area and to Devils Postpile National Monument, among other places. It also offers deviated fixed routes and in-town dial-a-ride services. No direct ESTA service is currently available to MMH.

The Town has a network of bicycle routes, sidewalks, and trails, with connections to areas outside the Town boundaries. There are also an increasing number of bicycling facilities in Mono County, such as bike paths along Crowley Lake Drive and Benton Crossing Road. As MMH is separated from the Town by six miles, it is not part of the Town's network, and there are no existing bike routes or pedestrian facilities at MMH or on the roads going to MMH. Proposed improvements to Airport Road and Hot Creek Hatchery Road will include bike lanes, providing designated bicycle access between US 395 and the airport.

Other Transportation Services

As described in Chapter 1.0, Introduction, Mammoth Yosemite Airport provides commercial air flight service for the Town and the eastern Sierra region. United Airlines currently is the only commercial airline serving the Airport. Non-stop year-round service is provided to Los Angeles International Airport, and seasonal (winter) non-stop service is currently provided to other California airports and to Denver, Colorado. MMH is also the only airport in Mono County that provides air cargo service (Mono County Local Transportation Commission 2019).

Taxi services are available between the Town and MMH, along with private shuttle services such as Mammoth All-Weather Shuttle and Sierra Shuttle Service. Additionally,

some of the hotels and resorts in the Mammoth Lakes area provide shuttle service to MMH for their guests.

REGULATORY FRAMEWORK

Federal Aviation Administration (FAA)

The FAA is the main regulatory agency of airports and their operations. It has the authority to regulate the construction and operation of airports, air traffic management, and the certification of personnel and aircraft, among other aspects of aviation. The FAA prescribes Federal Aviation Regulations, which are part of Title 14 of the Code of Federal Regulations, to exercise its authority. MMH maintains an Airport Master Plan and Airport Layout Plan that are subject to FAA review and approval. As noted in Chapter 1.0, Introduction, an EA is being prepared for this project, which will require modification of the Airport Layout Plan subject to FAA approval, in compliance with NEPA. The FAA is the lead federal agency for the project.

California Department of Transportation

The California Department of Transportation (Caltrans) is the primary State agency responsible for transportation facilities and planning and transportation impact analysis. Caltrans has established standards for roadway traffic flow and has developed procedures to determine if State-controlled facilities require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities but may influence traffic flow and Level of Service (LOS) at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

LOS measures the quality of traffic movement on roadways and through intersections. LOS is represented by letter designations from A to F, with A representing the best movement conditions and F representing the worst. For all its facilities, Caltrans maintains a minimum LOS at the transition between LOS C and LOS D, based on the facility and its measure of effectiveness. US 395 and SR 203 are both Caltrans facilities.

Caltrans also has a Division of Aeronautics that focuses on California aviation facilities. This division is responsible for issuing permits for airport operations, airport inspections, and other matters related to airports and aviation, including noise safety and land use planning near airports.

State CEQA Guidelines Section 15064.3

The State of California has recently added Section 15064.3 to the CEQA Guidelines, which is meant to incorporate SB 743 into CEQA analysis. SB 743 was enacted in 2013 with the intent to balance congestion management needs and the mitigation of the

environmental impacts of traffic with statewide GHG emission reduction goals. SB 743 directed the Governor's Office of Planning and Research to develop an alternative mechanism for evaluating transportation impacts and to amend the CEQA guidelines to provide a transportation impact analysis framework that prioritizes reducing GHG emissions, replacing the prior focus of minimizing automobile delay.

Section 15064.3 states that vehicle miles traveled (VMT) is the preferred method for evaluating transportation impacts, rather than the commonly used LOS. While LOS focuses on vehicle traffic flow, the VMT metric measures the total miles traveled by vehicles as a result of a given project. VMT accounts for the total environmental impact of transportation associated with a project, including use of non-vehicle travel modes. Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric:

- VMT exceeding an applicable threshold of significance may indicate a significant impact. The City's General Plan has a threshold of significance related to VMT, which is discussed later in this chapter.

- Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing "high-quality transit corridor" should be presumed to cause a less-than-significant transportation impact. There are no transit stops or transit corridors near the project site.

- Projects that decrease VMT in the project area compared to existing conditions should be presumed to cause a less-than-significant transportation impact.

While a quantitative analysis of VMT is preferred, a qualitative analysis may be used if existing models or methods are not available to estimate VMT for the project being considered. The Town currently does not have an established VMT threshold of significance. However, by July 1, 2020, local jurisdictions are required to establish a methodology for assessing the significance of project environmental impacts related to traffic using VMT.

Regional Transportation Plan

California Government Code Section 65080 *et seq*. requires agencies to prepare a Regional Transportation Plan (RTP) and to update the RTP at least every four years. An updated Regional Transportation Plan for Mono County and the Town was adopted in 2019. The RTP is a long-range regional mobility plan that provides a blueprint for achieving a coordinated and multi-modal circulation system throughout Mono County and the Town. The RTP establishes strategies for addressing mobility needs, and a basis for making decisions concerning future transportation investments. More specifically, it assesses existing and projected transportation needs, identifies and quantifies both short-term and long-term regional transportation needs, proposes actions to address these needs, and indicates potential costs and revenue sources for meeting these needs.

The roads near MMH, other than US 395, are County roads. Mono County currently uses LOS to determine the acceptability of traffic flow on its roads. As indicated in the

updated RTP, the minimally acceptable LOS is D on the Peak Design Day at intersections along arterial and collector roads (Mono County Local Transportation Commission 2019). However, as noted, VMT rather than LOS is intended to be used as the determinant of the significance of a transportation impact.

One of the transportation needs identified in the updated RTP is the expansion of air services and transit options at MMH to alleviate surface transportation problems in the Town. The RTP describes a Mammoth Lakes Airport Improvement Program to address this need. This program lists proposed actions and their estimated costs, along with the proposed schedule for implementing these actions. Many of these actions are part of the proposed project, including the terminal building, airport parking apron, de-icing apron, new ARFF building, access road, parking lots, and other improvements (Mono County Local Transportation Commission 2019).

Town of Mammoth Lakes

Town of Mammoth Lakes General Plan, Mobility Element

As described in Chapter 12.0, Land Use, the Mobility Element of the Town General Plan, updated in 2016, describes how the Town achieves a progressive and integrated multi-modal transportation system, one that serves the various needs of residents, employees, and visitors. Policy M.5.3 seeks to maintain a LOS of D or better or better on the Peak Design Day at intersections along arterial and collector roads. Peak Design Day is defined as the seventh busiest winter day, comparable to the Town's typical winter Saturday. However, Goal M.16 seeks to create a sustainable transportation system that reduces VMT, thereby acknowledging the upcoming change in evaluating traffic impacts (Town of Mammoth Lakes 2016c).

Policy M.18.5 states that the Town will continue to support Mammoth-Yosemite Airport as a regional transportation hub through advancement of the policies and actions for air service established in the General Plan Economy Element. These include General Plan Action E.1.F.2., which seeks to upgrade the Mammoth Yosemite Airport terminal to allow for regional air service (Town of Mammoth Lakes 2019). Also, Action M.12.1.8. encourages the expansion or extension of transit service to areas that are currently unserved or underserved by transit as funding and demand allows, including MMH. (Town of Mammoth Lakes 2016c).

Town of Mammoth Lakes Bikeway and Pedestrian Plans

The Town of Mammoth Lakes Bikeway Plan Update, adopted in 2014, guides the future development of bicycle facilities and programs in the Town. Its recommendations facilitate bicycling for transportation and recreation and help attain the goals identified in the bicycle section of the General Plan Mobility Element. No recommendations were made that were related to MMH.

The Town of Mammoth Lakes Pedestrian Master Plan, also adopted in 2014, and the Mammoth Lakes Trail System Master Plan (2011), guide the future development and

enhancement of pedestrian facilities and trails within the Town. As with the Bikeway Plan Update, this plan does not include recommendations that are related to MMH.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities,
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b),
- Substantially increase safety hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or
- Result in inadequate emergency access.

Impact TRANS-1: Vehicular Transportation Plans

The project would involve a major improvement to the existing MMH passenger terminal and related facilities, including access road, pedestrian circulation, and parking. The importance and need to continue improvements at MMH are recognized in the range of transportation planning documents applicable to the Mammoth Lakes area.

The Mobility Element of the Mammoth Lakes General Plan identifies support for MMH as key to the Town's economic base and includes policies and actions designed to improve air service at MMH. Transit services are presently available only within the Town area, but the General Plan supports extension of transit service to the airport. The Plan anticipates construction of a new passenger terminal as a part of overall ongoing airport expansion.

MMH is specifically recognized in the Mono County RTP, which identifies the need to expand air and transit services, continue airport improvements and provide for safe, efficient airport operations. The RTP identifies expansion of the airport's terminal facilities and improvement of Airport Road and Hot Creek Hatchery Road as specific objectives. Proposed terminal improvements are consistent with the Airport Master Plan and Airport Layout Plan.

The Airport Road extension would improve the passenger loading/unloading at the terminal, including provision of sidewalk and a parking lane. These improvements would make loading/unloading by private shuttles more convenient, as well as improve the pedestrian experience for passengers. Although not a part of the project, the County's

proposed improvements to Airport Road, including widening and repaving, and corresponding improvements to Hot Creek Hatchery Road from Airport Road to US 395 would implement provisions of the RTP and the Town General Plan related to MMH.

The proposed project would implement elements of the various applicable transportation plans and would involve no inconsistency with these plans. Project impacts related to transportation plans would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact TRANS-2: Conflicts with Non-Vehicular Transportation Plans

The Mobility Element of the Mammoth Lakes General Plan addresses alternative transportation modes, such as bicycling and pedestrian sidewalks and trails, but these facilities and services are available only within the Town area. The General Plan does not identify existing non-vehicular facilities or services at MMH, and no such facilities or services are currently available. The project would not result in any adverse effects on existing non-vehicular transportation facilities or service at MMH.

As forecasted growth in air passenger use occurs, some increases in demand for non-vehicular transportation use can be expected. However, the project would not conflict with any known non-motor vehicle transportation plans or projects, including the installation of bicycle lanes as part of the Airport Road and Hot Creek Hatchery Road improvements to be done separately from the proposed project. Potential impacts in this issue area would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact TRANS-3: Consistency with CEQA Guidelines Section 15064.3(b)

As noted, CEQA Guidelines Section 15064.3(b) sets forth the criteria for analyzing transportation impacts using the preferred VMT metric. The project is not within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor. As noted, the Town currently does not have an established VMT threshold of significance.

The project can be expected to increase VMT in the project area; however, the increase directly associated with the project would be minimal. As discussed in Chapter 12.0, Land Use, the project could potentially lead to more employment opportunities, but increases would be more attributable to increases in passenger traffic than provision of the terminal facilities themselves. VMT increases associated directly with addition of the new terminal facilities would be minimal. As noted elsewhere in this EIR, increases in passenger volumes at MMH, which are more directly related to traffic, generally would occur independent of the project.

The Governor's Office of Planning and Research has issued a Technical Advisory on evaluating traffic impacts using VMT as a metric. The Technical Advisory notes that, of land use projects, residential, office, and retail projects tend to have the greatest influence on VMT (OPR 2018). The proposed project, which is the improvement of a transportation facility, has no residential component. Office uses would be limited to those overseeing MMH operations, and any retail opportunities the project would make available would be incidental, oriented more to serving passengers rather than the general public. The VMT increases by the potential office and retail uses would be minimal, if any.

Moreover, as noted in the discussion under Impact TRANS-2, project improvements would likely make use of private shuttles more convenient, which would likely encourage greater use of shuttles. This would reduce VMT, although the degree of this reduction is unknown. Given this information, the project would not substantially conflict with the intent of the criteria set forth in CEQA Guidelines Section 15064.3(b). Project impacts would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact TRANS-4: Safety Hazards

The proposed terminal and related circulation improvements would be designed and constructed in accordance with the Town's adopted version of the Uniform Building Codes, Town design guidelines, adopted street and utility design standards and other applicable building standards. The terminal interior and aviation-side airport improvements, including new aprons and taxiways, would be subject to FAA approval and associated airport design and transportation security standards. No safety concerns are expected to result from design and construction of any of these improvements.

Project construction activity would occur on the MMH property, including the extension of Airport Road to the new terminal area. The project would not physically affect Airport Road or other public roads in the MMH vicinity such that safety hazards might result. The Airport Road extension would be constructed in accordance with adopted Town and other applicable standards. These improvements are intended to increase the safety of arriving and departing passengers in light vehicles and shuttles.

Both the existing Airport Road and the segment of Hot Creek Hatchery Road between Airport Road and US 395 are in poor condition. The County is currently in the design and approval phase of a project to resurface the roadway while widening it to add bike lanes. These improvements, which are included in the Mono County Short-Range Local Roadway Improvement Program in the RTP, are due to be constructed within the next ten years (Mono County Local Transportation Commission 2019), and a contract is expected to be approved in 2020. These improvements would eliminate any safety concerns associated with deteriorated conditions on these roads.

The existing traffic to and from MMH consists of passenger vehicles, shuttles, and trucks serving MMH operations. This composition is not expected to change substantially with the project, and no new vehicle types incompatible with this composition are expected to be introduced as a part of the project. Project impacts related to safety hazards would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact TRANS-5: Emergency Access

Emergency access to the MMH site is currently provided by Airport Road and an access gate near the US 395/Convict Lake Road intersection. These access points would continue to be in service with project implementation. Emergency and other vehicle access to the new maintenance building would be provided by a new internal road. The proposed extension of Airport Road, as well as the planned County improvements to this road, would facilitate emergency vehicle access to the new terminal building. The project does not involve any other known emergency access concerns. Project impacts related to emergency access would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

16.0 UTILITIES AND ENERGY

ENVIRONMENTAL SETTING

Utility Systems

Wastewater

Wastewater treatment services within the Town limits are provided by the Mammoth Community Water District (MCWD). MMH is not connected to the Town's wastewater system. Currently, wastewater demands at MMH are served by a septic system consisting of a septic tank and leach trenches, located east of the existing terminal building (FAA 2010). The septic system is considered very effective due to the high coefficient of permeability of the sand and gravel soils (Brandley 2015).

Water

MMH is served by its own water system, consisting of two groundwater wells and a 428,000-gallon storage tank. The two wells were installed in 1999. Each has a capacity of approximately 500 gallons per minute (gpm). These two wells are 143 feet deep and are screened from 100 to 140 feet below ground surface (FAA 2010). The storage tank is a bolted steel tank that provides operational and fire storage. A pump system provides domestic low flows and has a high-capacity fire flow pump (Brandley 2015).

Storm Drainage

The Town has a storm drainage collection system, but MMH is not connected to this system. There is no established storm drainage system at MMH. As discussed in Chapter 11.0, Hydrology and Water Quality, most runoff either evaporates or percolates into the ground due to the highly permeable soils on the MMH property. Short ditches collect and infiltrate all the storm water from the paved areas in the terminal and general aviation area (Brandley 2015).

Solid Waste

Solid waste service for the Town, including MMH, is currently provided by Mammoth Disposal, Inc., based in Mammoth Lakes. Solid waste typically is transported to the Mammoth Lakes Transfer Station on Commerce Drive. The transfer station, which is open to the public, provides waste disposal, recycling, and hazardous waste disposal services.

All solid waste generated by the Town is transferred to the Benton Crossing Landfill for disposal. The landfill, owned and operated by Mono County, is approximately 145 acres in size with a footprint of approximately 72 acres (Mono County 2015). The maximum daily permitted throughput is 500 tons per day. The landfill has a remaining capacity of 695,047 cubic yards of compacted waste and is projected to close in December 2023 (Town of Mammoth Lakes 2016b). The projected closure is because of lease considerations, not because of capacity (Dutton, pers. comm.). The County is exploring other concepts for solid waste disposal, including the development of a regional recycling center and transfer station (Town of Mammoth Lakes 2016a).

Other Utility Systems

Electrical service is provided to MMH by Southern California Edison (SCE). The Energy section below discusses the electrical system in more detail. There is no natural gas service at MMH; propane provided by local suppliers is used for heating. Propane is stored in tanks located adjacent to the terminal building, airport office, FBO building, FBO hangars, and the east and west hangars. Telephone service is provided by Frontier. MMH is also served by the Digital 395 fiber optic cable that can provide high-speed communications and Internet service. Both are connected to MMH via the existing electrical vault building.

Energy Systems and Consumption

CEQA requires that an EIR includes a discussion of the potential energy impacts of a proposed project, with emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy. Appendix F of the CEQA Guidelines provides guidance for a discussion of energy impacts. Subjects may include identifying wasteful, inefficient, and unnecessary consumption of energy during project construction, operation, maintenance and/or removal that cannot be feasibly mitigated, and the pre-emption of future energy development or future energy conservation. The most recent revisions to the CEQA Guidelines contain a new section in the Environmental Checklist in Appendix G that addresses energy.

Energy Usage

According to the latest information from the U.S. Energy Information Administration, California consumed 7,830 trillion British thermal units (BTUs) of energy in 2016. Only Texas consumed more energy. However, consumption per capita in California was 197 million BTUs, which was lower than all states and the District of Columbia except for two states. Transportation accounted for approximately 39.8% of the energy consumed in California, followed by industrial with 23.7%, commercial with 18.9%, and residential with 17.7% (EIA 2017).

Electricity is a major energy source for residences and businesses in California. In 2018, electricity consumption in California totaled approximately 281,120 million kilowatt-hours (kWh). In Mono County, electricity consumption in 2018 totaled approximately

195.33 million kWh, of which approximately 110.73 million kWh were consumed by non-residential uses and the remainder by residential uses (CEC 2019).

Motor vehicle use accounts for substantial energy usage. As of 2016, existing vehicle miles traveled (VMT) in the Town was 152,844 daily. On-road automotive fuel consumption in Mono County in 2016 was approximately 16,264,000 gallons daily (Town of Mammoth Lakes 2016b).

Energy Systems and Facilities

Electrical usage within most of the County, including the Town and MMH, is served from a transmission network owned by SCE. The SCE service area covers most of Mono County including the communities of Benton, Bridgeport, Chalfant, June Lake, Lee Vining, and Toms Place (Mono County 2015). MMH is connected to the SCE electrical system via an electrical vault adjacent to the existing temporary terminal building. As with the communications systems, state-regulated energy franchise utilities are obligated to extend services to new development sites as necessary.

REGULATORY FRAMEWORK

Wastewater and Water

Chapter 11.0 Hydrology and Water Quality discusses applicable State and local regulations and requirements regarding individual wastewater disposal systems and drinking water.

Solid Waste

The California Integrated Waste Management Act (AB 939), State legislation enacted in 1989 and subsequently amended, requires local jurisdictions to divert at least 50% of their solid waste from landfills by 2000. The 50% recycling of solid waste places the City in compliance with AB 939. More recent legislation, AB 341, increased the recycling requirement to 75% of solid waste by 2020.

The Town currently has recycling programs focused on condominium, commercial, and recreational areas. The Town, the Sierra Conservation Project, Inc., and Mammoth Disposal are working on a project, funded by a grant from CalRecycle, to expand condominium programs and to increase and improve commercial recycling programs by providing outdoor bear-proof recycling containers to condominiums, apartment complexes, and commercial customers.

Energy

California Energy Code

California has implemented numerous energy efficiency and conservation programs that have resulted in substantial energy savings. The State has adopted comprehensive energy efficiency standards as part of its Building Standards Code, California Codes of Regulations, Title 24. Part 6 of Title 24, also known as the California Energy Code, contains energy conservation standards applicable to all residential and non-residential buildings throughout California. These standards are occasionally updated. The Town has adopted the 2019 California Energy Code.

California Green Building Standards Code (CALGreen)

In 2009, the California Building Standards Commission adopted a voluntary Green Building Standards Code, also known as CALGreen, which became mandatory in 2011. CALGreen sets forth mandatory measures, applicable to new residential and nonresidential structures as well as additions and alterations, on water efficiency and conservation, building material conservation, interior environmental quality, and energy efficiency. Mandatory energy efficiency measures for nonresidential structures include compliance with the latest building energy efficiency measures adopted by the State, mainly the California Energy Code. The Town has adopted the 2019 CALGreen.

Renewables Portfolio Standard

In 2002, California adopted a Renewables Portfolio Standard and subsequently modified it in 2006 and 2011. Under the 2011 modifications, all electricity retailers in the state must generate 20% of electricity they sell from renewable energy sources (i.e., solar, wind, geothermal, hydroelectric from small generators, etc.) by the end of 2013, 25% by the end of 2016, and 33% by the end of 2020. As of the end of 2017, California derived 30% of its electricity from renewable sources, which is within 3% of the 2020 target and within 20% of the 2030 target (CEC 2018a).

In 2015, SB 350 was signed into law, which increased the electricity generation requirement from renewable sources to 50% by 2030. Most recently, in 2018, SB 100 was enacted. SB 100 accelerated the schedule for 50% electricity generation from renewable sources to 2026 and set a goal of 60% electrical generation from renewable sources by 2030. It also set the goal that, by the end of 2045, eligible renewable energy resources and zero-carbon resources will supply 100% of retail sales of electricity to California end-use customers and 100% of electricity procured to serve all State agencies. Although not associated with Executive Order B-55-18, the goals of SB 100 are consistent with the carbon neutrality goal of the executive order (see Chapter 9.0, Greenhouse Gas Emissions).

Eastern Sierra Energy Initiative

The Eastern Sierra Council of Governments, representing the Town of Mammoth Lakes, the City of Bishop, Inyo County, and Mono County, launched the Eastern Sierra Energy Initiative, a multi-agency, local energy partnership between SCE and the Eastern Sierra Council. The Eastern Sierra Energy Initiative is a rural-oriented partnership covering over 13,000 square miles and serving a total population of about 25,000. Its objective is to reduce energy use and demand by focusing on three key areas: (1) establishing a "culture" of energy efficiency; (2) working closely with SCE to implement existing programs more effectively; and (3) seeking innovative approaches to energy efficiency in the alpine environment. Programs that have been implemented since the Eastern Sierra Energy Initiative was launched include SCE's Direct Install, Multi-Family Energy Efficiency Program, School Energy Efficiency Program and Mobile Home Energy Efficiency Program.

Town of Mammoth Lakes General Plan

The following Town General Plan policies related to utilities and service systems are relevant to this project (Town of Mammoth Lakes 2019):

- Policy R.6.A. Reduce energy demand by promoting energy efficiency in all sectors of the community.
- Policy R.6.C. Encourage energy efficiency in new building and retrofit construction, as well as resource conservation and use of recycled materials.
- Policy R.7.A. Use green building practices to greatest extent possible in all construction projects.
- Policy R.8.B. Educate building industry professionals on value of energy efficient building construction and use of renewable resource heating and power systems both in new and retrofit construction.
- Policy R.8.C. Research and facilitate cost-benefit analysis for energy and resource conservation in new and existing building systems.
- Policy R.8.F. Encourage building design and orientation for passive solar heating.
- Policy R.9.A. Support programs to recycle materials such as paper, cardboard, glass, metal, plastics, motor oil; and programs to compost or chip for mulch tree cuttings, brush, and other vegetation.

Significance Thresholds

According to Appendix G of the CEQA Guidelines, a project may have a significant impact on the environment if it would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects,
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years,
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments,
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, or
- Not comply with federal, state, and local statutes and regulations related to solid waste.

Recently, CEQA Guidelines Appendix G was updated to include questions regarding energy consumption and conservation. According to the updated Appendix G, a project may have a significant impact on the environment if it would:

- Result in potentially significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation, or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Impact UTIL-1: Wastewater Services and Facilities

The project proposes the construction of a new terminal building and a new maintenance building. Both these facilities would require connection to a wastewater collection system. The project proposes installation of a septic tank and leach field, along with new collection lines, to serve the new buildings.

Wastewater generation associated with MMH operations would increase in response to the forecast levels of passenger enplanements and associated levels of airport staff. A 2010 EA estimated that, with 4 flights per day during the 2011 winter air service period, approximately 800 gallons per day of additional domestic waste would be generated, and

with 8 flights per day in 2015 approximately 1,800 gallons per day would be generated. The EA did not identify any adverse impacts of wastewater discharge on the groundwater aquifer supplying MMH (FAA 2010).

It should be noted that growth in passenger enplanements would occur independent of the project. The project by itself may lead to an increase in MMH staff and tenants, which would incrementally increase demand for wastewater service. However, as noted above, the MMH property can accommodate greater wastewater generation without adverse impacts on the underlying aquifer. Project impacts related to wastewater service would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-2: Water Services and Facilities

The proposed terminal building and maintenance building would require connection to a water supply. The existing water supply system at MMH would be used for the project, with the extension of water lines to the new facilities.

Water consumption would increase in response to the forecast levels of passenger enplanements and associated levels of airport staff. The 2010 EA forecasted enplanements to be approximately 41,500 in 2011 and 70,775 in 2015. The existing water supply well and storage tank system was determined to be adequate to supply the projected potable water needs at MMH (FAA 2010).

As noted, passenger enplanements would generally occur independent of the project. The project by itself would likely contribute to an increase in MMH staff and tenants, which would increase demand for water service. However, as discussed in Chapter 3.0, Project Description, the existing MMH water supply is considered adequate to serve the new facilities. No new water supplies would be required, and no further improvements to the water system (beyond connection lines) would be necessary. Project impacts related to water service would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-3: Stormwater Services and Facilities

As discussed in Chapter 11.0, Hydrology and Water Quality, stormwater runoff on the MMH property either infiltrates into the soils or evaporates. Precipitation on impervious surfaces is collected in ditches, where it also infiltrates.

The project proposes a storm drainage system that would collect runoff from the terminal and apron areas and discharge the runoff into a leach field. As noted, soils would provide adequate infiltration, and underlying groundwater quality would not be affected. The

storm drainage system would be installed in an area that is already developed, so the installation would have no significant impacts on the land that would be used. The system would be subject to the permitting requirements of the County Environmental Health Department, which are designed to avoid or minimize adverse environmental effects. As noted, the proposed de-icing apron would have a drainage facility that would collect fluid for later disposal. Project impacts related to storm drainage would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-4: Solid Waste

Project implementation could increase solid waste generation, placing greater demands on collection and disposal services, and diminishing landfill capacity. Existing capacity at the Benton Crossing Landfill is adequate to accommodate the waste generation and disposal needs for the proposed project. However, the landfill is scheduled to close in 2023. Discussions have occurred about long-term solutions to solid waste disposal after closure of the Benton Crossing Landfill. The project would comply with Town regulations that may be developed in coordination with the long-term solution selected. Also, the project shall comply with State and local laws and regulations related to recycling. Project impacts related to solid waste services would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-5: Energy and Telecommunications Facilities

As noted, MMH has existing energy and telecommunication facilities. These facilities can be extended to the new buildings as necessary. The most significant impact would be the likely addition of propane tanks for heating. However, as discussed in Chapter 10.0, Hazards and Hazardous Materials, propane tanks would be subject to federal, State, and local regulations regarding hazardous material transport and storage. Project impacts related to energy and telecommunications facilities would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

Impact UTIL-6: Project Energy Consumption

The project proposes development of a new terminal building with a floor area of approximately 38,688 square feet, and a maintenance building with a floor area of approximately 8,400 square feet. According to the 2012 Commercial Buildings Energy Consumption Survey by the EIA, the most recent such survey conducted, government facilities consumed on average 14.3 kWh of electricity per square foot annually, and

vehicle service facilities consumed 8.7 kWh of electricity per square foot annually on average (EIA 2012). Based on these factors, proposed development on the project site would consume approximately 626,318 kWh of electricity annually.

Development on the project site would be required to comply with the adopted California Energy Code, which specify building energy efficiency standards. Compliance with the California Energy Code adopted by the Town would likely reduce electricity consumption by project development, as estimated consumption was based on a nationwide average. Along with compliance with the Renewables Portfolio Standard targets and the adopted CALGreen, the project would consume a smaller amount of fossil fuels.

Project construction would consume energy during activities such as grading, development of buildings and site improvements, and installation of utilities and street improvements. Because of the relatively flat topography of the site, the project would not require any extraordinary grading requirements. Project construction is not expected to involve substantially inefficient, wasteful, or unnecessary consumption of energy.

In summary, the project would consume less energy in building operations associated with project development, and the project would implement measures that would reduce energy consumption. The project would not consume energy in a manner that is wasteful, inefficient, or unnecessary. Project impacts on energy consumption would be less than significant.

Level of Significance: Less than significant

Mitigation Measures: None required

17.0 CUMULATIVE IMPACTS

17.1 INTRODUCTION

A cumulative impact is an environmental effect that may result from the combination of two or more environmental effects associated with the proposed project, or from the combination of one or more project environmental effects with related environmental effects caused by other closely related projects. Cumulative impacts may also result when a project's environmental effects compound or increase other environmental impacts. Cumulative impacts can result from individually minor but collectively significant projects taking place over time (CEQA Guidelines Section 15355).

CEQA Guidelines Section 15130 states an EIR must discuss the cumulative environmental impacts of a project "when the project's incremental effect is cumulatively considerable." As described in CEQA Guidelines Section 15065(a)(3), "cumulatively considerable" effects occur when the incremental effects of an individual project are significant when viewed in connection with the effects of other closely related projects, including past projects, current projects and probable future projects.

If the project does not involve a cumulatively considerable contribution to a significant cumulative effect, the project's effect does not need to be considered significant, and discussion in the EIR can be limited to the basis for that conclusion. Projects that do involve cumulatively considerable contributions may involve significant cumulative impacts. A project's contribution may be considered less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact. As provided in *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1996) a project's cumulatively considerable contribution to a significant cumulative impact can be reduced to a level that is less than considerable with mitigation measures.

The analysis of cumulative impacts is to be based on either 1) a list of past, present, and probable future projects producing related or cumulative impacts, or 2) on a summary of projections contained in an adopted general plan or related planning document, or in a prior certified environmental document which described or evaluated regional or area-wide conditions contributing to the cumulative impact. For this EIR, the list approach is used.

The following cumulative impact analysis determines for each environmental discipline:

- The geographic context for the analysis,
- Whether there exists the potential for a significant cumulative impact in that environmental discipline,

- Whether the project would make a cumulatively considerable contribution to a significant cumulative impact, or make significant an impact that was otherwise less than significant, and

- Whether and how a significant cumulative impact or a considerable contribution can feasibly be avoided or reduced to a less than significant or less than considerable level.

Where significant cumulative impacts are identified, the EIR must examine reasonable, feasible options for mitigating or avoiding the project's contribution to a level that is less than considerable. In some cases, the only feasible mitigation may involve the adoption of ordinances or regulations.

17.2 CUMULATIVE IMPACTS SETTING

MMH is within the incorporated area of the Town of Mammoth Lakes, but it is separated from the Town proper by approximately six miles. Because of this, activities that occur in the MMH area would have relatively little environmental impact on the Town, and vice versa.

Nevertheless, there are existing and proposed activities at and near MMH that may have cumulative environmental effects in the area. These include the following:

- Sierra Business Park – an existing 36-acre business park across US 395 from the western end of the MMH runway, established primarily for light industrial uses. The business park is partially developed at this time. In 2000, the Mono County Board of Supervisors adopted the Sierra Business Park Specific Plan, which regulates development at the business park.

- Installation of approximately 22,800 linear feet of perimeter chain-link fencing, approximately eight feet high, around most of the MMH property to prevent large mammals from entering the active airfield, mainly deer, and to provide controlled access to MMH facilities.

- Acquisition of land currently leased by MMH from USFS and LADWP.

-

- Improvements to Airport Road and to Hot Creek Hatchery Road between Airport Road and US 395 (see Chapter 15.0, Transportation).

In addition, the Town is working cooperatively with Inyo County in the County’s pursuit of Part 139 certification for commercial air service and shifting of subsidized air service to the Bishop Airport. The certification of Bishop Airport may have cumulative impacts on environmental issues such as transportation and air quality.

17.3 CUMULATIVE IMPACTS OF PROJECT

17.3.1 Aesthetics and Visual Resources

Cumulative impacts on aesthetics are assumed to be localized; that is, aesthetic changes at a site will not generally impact aesthetics at another site if the sites are not visually connected in some fashion. A visual connection could be established by juxtaposition or by location along a travel corridor, among other possibilities. For the purposes of this EIR, the geographic context for cumulative analysis is defined as the "project vicinity," defined more precisely as the project site and adjacent lands.

The project, along with potentially more development at the Sierra Business Park and the installation of perimeter fencing, would contribute to the appearance of a more developed landscape, particularly to motorists on US 395. However, there is already significant development on the MMH property and at Sierra Business Park. Development would occur within already developed areas; no existing open space areas would be developed. The project contribution to cumulative impacts on aesthetics and visual resources would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.2 Air Quality

Cumulative impacts on air resources may be assessed at both a regional and local level. The project would involve contributions to potential air quality impacts at the regional level, defined as the Great Basin Valley Air Basin, and at the local level, defined as the project vicinity.

Air pollution is largely a cumulative effect; the nonattainment status of regional pollutants is a result of past and present development. Future attainment of federal and State ambient air quality standards is a function of successful implementation of adopted attainment plans. Consequently, the application of significance thresholds for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

Chapter 6.0, Air Quality, quantifies and describes the criteria air pollutant contributions of the proposed project to the Air Basin. Both project construction emissions and operational emissions would not exceed the significance thresholds applied to the project to evaluate its potential air quality impacts. Construction emissions of this and other projects would be spread out and would not be concentrated within a specific time, so construction emissions are unlikely to exceed applicable significance thresholds.

Cumulative operational emissions would be mainly generated by the proposed terminal project and future development of the Sierra Business Park. Since operational emissions from both the proposed project and Sierra Business Park can be expected to be relatively

low, combined emissions from these projects are not expected to exceed significance thresholds. Based on this information, the project contribution to cumulative impacts related to air pollutant emissions in the Air Basin would be less than considerable.

The proposed certification of Bishop Airport for commercial air service may lead to some commercial air traffic being diverted from MMH. On the one hand, this may increase ground traffic between Bishop Airport and the Town, which may lead to increased air pollution in the area. On the other hand, both air and ground traffic to and from MMH would be reduced as a result of diversion of commercial trips to Bishop, as would air pollutant emissions from this traffic. It is not possible to determine the extent of the potential impacts, since no transportation plan to move people to and from Bishop and the Town has been prepared.

Proposed development projects, including the proposed project, would likely involve emissions of diesel PM, which is a TAC. These emissions would be associated with project construction and would cease when construction work is completed. As noted above, construction work would be spread out over time. Project operations would involve limited operational diesel PM emissions, and there would be no sensitive receptors that would be continually exposed to these emissions over an extended time sufficient to result in health risks. As such, the project contribution to cumulative impacts related to TACs would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.3 Biological Resources

Cumulative impacts on biological resources can be addressed in several potential contexts, including habitat areas for individual sensitive species, watersheds, or bioregions. The proposed project site is in an area that has been subjected to airport development and is not biologically diverse or sensitive. For the purposes of this EIR, the geographic context for cumulative biological resource analysis is defined as the project vicinity.

Development on and near the MMH would not significantly affect habitat. The area is already substantially developed, and the proposed terminal area has been extensively disturbed. The proposed airport fencing, which is not a part of the proposed project, can be expected to prevent large animals from entering the active airfield, thereby reducing harm to wildlife. Since future projects on MMH property, such as the runway widening, would most likely be enclosed by the fencing, there would be limited cumulative impacts from these projects on wildlife.

As noted in Chapter 6.0, Biological Resources, no special-status species occur on or near MMH property, other than western white-tailed jackrabbit, which is unlikely to occur within the project site due to lack of on-site water and cover. Masonic rock cress had been historically observed within the project site, but onsite habitat for this species is considered marginal. There are no wetlands or Waters of the U.S. on MMH property.

There are no trees that would constitute desirable nesting habitat for migratory birds, and the project site provides little if any jackrabbit habitat. The project contribution to cumulative impacts related to biological resources would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.4 Cultural Resources and Tribal Cultural Resources

The geography of cultural resource impacts can be defined by region, by political subdivision, or by the geography of the cultural resources present in an area when adequate inventory data are available to define it. Cultural resource information is ordinarily available only for small percentages of a given area – those areas that have been intensively surveyed. For the purposes of this EIR, the geographic context for cumulative analysis of cultural resources is defined as the project vicinity.

As described in Chapter 7.0, Cultural Resources, no known important archaeological or historically significant resources are located on the project site. For the project site, mitigation measures described in Chapter 7.0 would ensure that any cultural resources encountered during construction will be treated such that impacts would be less than significant. The project contribution to cumulative impacts related to cultural resources would be less than considerable.

Like the geography of cultural resource impacts, the geography of tribal cultural resource impacts can be defined by region, by political subdivision, or by the geography of the cultural resources present in an area, where adequate inventory data are available to define it. However, another area of consideration is the geographic area that is traditionally and culturally affiliated with the tribes that may include a project site. At this time, such an area is known only when a tribe requests consultation on a project in accordance with AB 52. Also, like cultural resources, information on tribal cultural resources is ordinarily available only for small percentages of a given area – those areas that have been intensively surveyed. For the purposes of this EIR, the geographic context for cumulative analysis of tribal cultural resources is defined as the project vicinity.

As noted in Chapter 7.0, no local tribes have responded to AB 52 letters on the project indicating little or no local tribal interest in Tribal Cultural resources in the project vicinity. No known important archaeological or historically significant resources are located within the project vicinity, and mitigation measures would reduce potential impacts on tribal cultural resources to a level that would be less than significant. The project contribution to cumulative impacts related to tribal cultural resources would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.5 Geology, Soils, and Mineral Resources

Potential cumulative impacts associated with geology and soils are assumed to be localized. The proposed project would not result in potential geology and soils impacts, including project exposure to geologic hazards, seismic shaking, soil-related hazards, and soil erosion. Except for soil erosion, these are potential issues that could impact the project or its occupants, and these issues are not inherently accumulative. Soil impacts associated with the project can be mitigated to a level that would be less than significant. The project contribution to cumulative impacts related to geology and soils would be less than considerable.

For the purposes of this EIR, the geographic context for cumulative mineral resource analysis is defined as Mono County. As discussed in Chapter 8.0, Geology, there are no mineral resources on the project site. The project contribution to cumulative impacts related to mineral resources would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.6 Greenhouse Gas Emissions

GHG emissions are related to global climate change. Global climate change is a distinct CEQA issue in that, while a project may generate GHG emissions, the impacts of such emissions are global. As such, the impacts of a project's GHG emissions are considered cumulative in nature. Therefore, there is no cumulative impact discussion in this chapter, as the analysis in Chapter 9.0, Greenhouse Gas Emissions, addresses the potential cumulative impacts of the project. The analysis concluded that the project would have no significant GHG impacts.

17.3.7 Hazards and Hazardous Materials

Potential cumulative impacts associated with hazards and hazardous materials are assumed to be localized. Any project exposure to hazards would occur on or in the immediate vicinity of the site, and any potential on- or off-site impact of hazardous materials use associated with the project would also be limited to the immediate vicinity. For the purposes of this EIR, the geographic context for cumulative analysis of hazards and hazardous materials is defined as the project vicinity.

While the project may lead to the transport and storage of additional hazardous materials, mainly propane, hazards associated with these materials would be confined to the MMH property. None of the other proposed projects would contribute to potential hazardous material impacts except for the continued development of Sierra Business Park. Hazardous material use, storage, and disposal by activities at Sierra Business Park would be subject to various federal, State, and local regulations related to these materials, as would MMH operations. The projects would also not be subject to increased risk from

hazards such as wildfire and snow. The project contribution to cumulative impacts related to hazards and hazardous materials would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.8 Hydrology and Water Quality

Cumulative groundwater hydrologic impacts are logically analyzed at an aquifer level. The project site is located within the Long Valley Groundwater Subbasin, which is the geographic context for cumulative groundwater analysis. For surface waters, the geographical context for cumulative analysis is the project vicinity, as there are no surface waters on or adjacent to the project site.

As discussed in Chapter 11.0, Hydrology, MMH currently draws minimally on the potential capacity of the groundwater wells serving the airport. The proposed project is not expected to draw significantly on this capacity, as would the other projects. Future development at Sierra Business Park would be served by a groundwater well that has not been determined to significantly affect groundwater supplies (Mono County Planning Department 2000). Also, as noted in Chapter 11.0, the MMH property is outside identified floodplains. The project contribution to cumulative impacts related to hydrology and water quality would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.9 Land Use, Population, and Housing

The potential for cumulative land use impacts is related to the scale of the project and the presence or absence of a defined community or land use entity; the geographic context for cumulative land use analysis can range from a project site and adjacent parcels to an entire community or region, depending on project size. The project site is under Town jurisdiction, but it is surrounded by land in unincorporated Mono County and the Inyo National Forest. For the purposes of this EIR, the geographic context for cumulative land use analysis is defined as the project vicinity.

As noted in Chapter 12.0, Land Use, the terminal project would be developed on existing developed land. Other projects at the airport or in the Sierra Business Park would likewise be located on developed land.

Cumulative impacts on agricultural and forest land resources may be assessed on a regional or local level; analysis at a local level yields a more conservative result. For the purposes of this EIR, the geographic context for cumulative analysis of agricultural and forestry resources is defined as Mono County. As noted in Chapter 5.0, Agricultural and Forestry Resources, no Important Farmland has been identified in Mono County. A portion of the MMH is on land that is part of the Inyo National Forest; however, there is

no timber on this National Forest land. The project would be constructed entirely on existing MMH property; none of the proposed improvements would encroach upon additional National Forest land. The project would make no contribution to cumulative impacts on agricultural and forestry resources.

Cumulative projects would not have a significant impact on local population or housing. None propose any housing, and the scale of employment opportunities would be limited. The project contribution to cumulative impacts related to land use, population, and housing would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.10 Noise

Cumulative noise impacts are assumed to be localized; the impacts of noise are reduced with distance, and unless there is a very significant existing or proposed noise source, the potential for cumulative impacts will ordinarily be limited to a few hundred yards. There are no "very significant" noise sources in the project vicinity, other than MMH operations and US 395. For the purposes of this EIR, the geographic context for cumulative noise analysis is defined as the project vicinity.

Noise from MMH operations and US 395 would occur independent of development projects. There are no noise-sensitive land uses closer than one mile to the project site, as noted in Chapter 13.0, Noise. As such, any noise generated by the terminal or other projects at MMH would have no substantial impact on these receptors. The most significant noise impacts would occur with construction. Construction activity would be at considerable distance from residential receptors at the Sierra Nevada Aquatic Research Laboratory and north of Hot Creek Hatchery Road, and any construction noise would cease once work is completed. Therefore, construction noise would not be cumulative in nature.

Additional businesses locating at Sierra Business Park, along with increased traffic on Airport Road resulting from projected increases in passenger volume at MMH, would contribute to an increase in the ambient noise level, with potential effects on residences along Hot Creek Hatchery Road. However, as noted, the potential for cumulative impacts will ordinarily be limited to a few hundred yards. The Airport Road intersection would be at least 600 yards away from the nearest sensitive receptors, and the Sierra Business Park would be at least 1,200 yards away. As such, potential noise from these sources is unlikely to substantially affect ambient noise levels at these sensitive receptors. Additionally, improvements to Airport Road and Hot Creek Hatchery Road may lead to a decrease in noise, as traffic would travel on smoother pavement. As the proposed project is even more distant from these receptors, it is unlikely to substantially contribute to any increases in ambient noise. The project contribution to cumulative impacts related to noise would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.11 Public Services and Recreation

Potential cumulative impacts related to public services are appropriately addressed at a community level. For this project, the level of impact would be the jurisdiction or district that provides the public service to MMH.

As discussed in Chapter 14.0, Public Services, the project would have no significant impact on Town services. Future projects at MMH would likewise have no significant impact, as they would not substantially add population or employees and therefore demand for services. Sierra Business Park is currently served by the same public services as MMH, except that law enforcement services are provided by the Mono County Sheriff's Department. As the business park is already partially developed, future development is not expected to add significant demands for public services. The project contribution to cumulative impacts related to public services and recreation would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.12 Transportation

Cumulative transportation impacts, primarily vehicular traffic, are addressed within the area potentially impacted by a proposed project, typically within a certain radius from the project site. As discussed in Chapter 15.0, Transportation, the project would not generate a substantial volume of new traffic. In general, MMH traffic is generated primarily by passenger aircraft operations, which would occur independent of terminal development or any future project effects on the MMH property.

Future development of Sierra Business Park may generate additional traffic. Cumulative circulation impacts of the Sierra Business Park were analyzed in the EIR for that project, and it was concluded that cumulative circulation impacts would be less than significant (Mono County Planning Department 2000). Increased traffic from both MMH and Sierra Business Park is unlikely to exceed the capacities of existing roads in the vicinity, particularly with the improvements to Airport Road and Hot Creek Hatchery Road.

As described in Section 17.3.2, the proposed certification of Bishop Airport for commercial air service may increase ground traffic between Bishop Airport and the Town. However, ground traffic between MMH and the town would likely be reduced as a result of reduced commercial air service. It is not possible to determine the extent of the potential impacts, since no transportation plan to move people to and from Bishop and the Town has been prepared.

No cumulative impacts on public transit would occur, since no such service is currently provided to the MMH area. Public transit routes to MMH may be considered in the future. Extension of public transit service would be consistent with the Town General

Plan and would likely contribute to a reduction in VMT. The project contribution to cumulative impacts related to transportation would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

17.3.13 Utilities and Energy

Cumulative utility impacts are appropriately considered at the level of the service area of the utilities. As described in Chapter 16.0, Utilities and Energy, MMH is served by its own water, wastewater, and storm drainage systems. Anticipated future development on the MMH property is unlikely to require a substantial expansion of onsite systems; the fencing and land acquisition projects would place no demands on these systems at all. Sierra Business Park has its own onsite systems and is not connected to MMH's systems. SCE can extend electrical service to new facilities as needed, and additional propane can be provided if necessary. The project contribution to cumulative impacts related to utilities and energy would be less than considerable.

Contribution to Significant Cumulative Impacts: Less than considerable

Mitigation Measures: None required

18.0 ALTERNATIVES

18.1 INTRODUCTION

CEQA Guidelines Section 15126.6(a) requires that an EIR "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." It further provides that the EIR "consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation." The alternatives analysis must describe the potential alternatives and include adequate information about each one to allow meaningful evaluation, analysis, and comparison with the proposed project. The analysis must consider a range of reasonable alternatives that can feasibly attain most of the basic objectives of the project, and that would avoid or substantially lessen one or more of the significant effects of the project, even if the alternative would be costlier or would impede to some degree the attainment of the project objectives.

There are no set rules governing the nature and scope of the alternatives to be discussed, other than the "rule of reason." If an alternative is not feasible or does not provide an opportunity to avoid or substantially reduce environmental effects, the alternative need not be analyzed in detail; if this is the case, the alternative should nonetheless be identified and the reasons for limiting the analysis should be noted. Measures of alternative feasibility may include site suitability, economic viability, availability of infrastructure, general plan consistency, consistency or conflict with other plans or regulatory limitations, jurisdictional boundaries, and whether the applicant can reasonably acquire, control, or otherwise have access to the alternative site. The environmentally superior alternative must be identified among the alternatives considered.

18.2 SELECTION OF ALTERNATIVES

Project alternatives selected for evaluation were based primarily on the alternatives selected in the NEPA Environmental Assessment (EA) for the project. The project alternatives were evaluated based on the criteria set forth in CEQA Guidelines Section 15126.6. These criteria include 1) ability of the alternative to meet most of the basic objectives of the project; 2) feasibility of the alternative; and 3) ability of the alternative to avoid or substantially reduce one or more of the significant environmental effects of the project. These criteria are discussed in more detail below.

Ability of the Alternative to Meet Project Objectives

Potential alternatives to the project were evaluated and selected with respect to the objectives of the project. As identified in Chapter 3.0, Project Description, the project objectives are to improve MMH to accommodate existing and future commercial aviation demand, to provide an acceptable level of customer service, and to ensure the safe and efficient use of navigable airspace.

Feasibility of the Alternative

Alternatives were evaluated with respect to the "rule of reason" and general feasibility criteria suggested by the CEQA Guidelines, including such criteria as the suitability of the site or alternative site, the economic viability of the alternative, the availability of infrastructure, the consistency of the alternative with general plan designations, zoning or other plans or regulatory limitations, the effect of applicable jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to an alternative site, including consideration of whether or not the site is already owned by the applicant. The application of these criteria to potential alternatives to the proposed project is described in Sections 18.2 and 18.3.

Avoidance or Substantial Reduction of Significant Effects

The evaluation of alternatives must also consider the potential of the alternative to avoid or substantially lessen any of the significant environmental effects of the project, as identified in Chapters 4.0 through 16.0 of this EIR. The potential effects of the project are summarized in Chapter 2.0, Summary.

The alternatives analysis accounts for the potentially significant environmental effects of the alternatives as compared to the proposed project. Some of the potential effects of the project, and the alternatives, are common to virtually all development in the Mammoth Lakes vicinity and would not vary from alternative to alternative. Similarly, certain environmental effects are addressed by routine requirements that would apply uniformly to any alternative. Since the focus of the alternatives analysis is comparison to the proposed project, potential environmental effects that do not vary between the alternatives are not extensively analyzed.

18.3 ALTERNATIVES NOT CONSIDERED IN DETAIL

18.3.1 Renovation of Existing Terminal Building

The EA discussed an alternative that involved renovating the existing interim terminal building and increasing the size of the building to accommodate projected future space requirements. The existing interim terminal, constructed within a remodeled maintenance building, has a floor area of 5,060 square feet (see Chapter 3.0, Project Description).

Based on the layout of the existing terminal building, renovation would not be practical from function, material, and cost standpoints. The terminal building would need to be increased in size from 5,060 square feet to 38,688 square feet. The layout of the existing terminal building would make it difficult to design, renovate, and site at the current location, in a cost-effective manner. Also, the Town must be able to maintain MMH operations during terminal renovation, which is not considered possible given the dimensions and configuration of the existing terminal building. Renovation is often less cost-effective and less efficient than constructing a new building. For these reasons, the EA concluded this alternative would result in significant impacts to MMH operations compared to the proposed project and therefore was not retained for further consideration.

This alternative is not consistent with the objectives of the project. Renovation of the existing interim terminal building would be a more costly alternative to implement, plus it would not meet project objectives and would not reduce any of the significant environmental impacts of the proposed project. Therefore, this alternative was not considered for detailed CEQA analysis.

18.3.2 Development of Facilities at Another Airport

The EA considered the alternative use of another commercial airport in the region. There are two general aviation airports owned and operated by Mono County: Lee Vining Airport, approximately 33 miles north of MMH; and Bridgeport Airport (Bryant Field), approximately 60 miles to the north.

MMH is a federally obligated commercial service airport that is part of the National Plan of Integrated Airport Systems (NPIAS). It meets NPIAS criteria because it serves a community located 30 minutes or more by average ground travel time from the nearest existing or proposed NPIAS airports.

No other commercial service airports are located within Mono County. The closest commercial service airport is Reno-Tahoe International Airport in Reno, Nevada, approximately 170 miles north of the MMH. Under good driving conditions, the estimated driving time from Mammoth Lakes to Reno-Tahoe International Airport is 3.5 hours. The next closest commercial service airport is Fresno-Yosemite International Airport in Fresno, California approximately 190 highway miles southwest of MMH. The approximate driving time to Fresno-Yosemite Airport via Yosemite National Park is more than 4.5 hours. Highway access to both airports can be limited by winter weather, and winter travel to these airports would be hazardous for travelers. Additionally, access to the Fresno airport is frequently obstructed by road closures at Yosemite National Park. Since both airports are beyond the 30-minute ground travel criteria for NPIAS airports, MMH is considered the regional airport.

The Lee Vining and Bridgeport airports are small general aviation airports that are geographically constrained for expansion. Both would require a significant investment in infrastructure and land acquisition, extended runways, new or expanded vehicle access roads, parking facilities, expanded aircraft aprons, and new terminal buildings to

accommodate the existing and forecasted Airport passenger and aircraft load. The EA considered the enhancement of an existing NPIAS general aviation airport in Mono County not practical; therefore, this alternative was not retained for further consideration. Such acquisition and construction would likely have significant environmental impacts, probably greater than those of the proposed project since additional land would need to be acquired at both airports and the functions of these airports would substantially change.

There are four NPIAS general aviation airports in California's eastern Sierra region which serve private aircraft: Lee Vining Airport in Lee Vining, 30-miles north of MMH; Bryant Field Airport, in Bridgeport, 55-miles north of MMH; Eastern Sierra Regional Airport in Bishop 35 miles south of MMH, and Lone Pine Airport, 100 miles to the south. Inyokern Airport, 170 miles to the south in Kern County, offered commercial passenger service until it was terminated in October 2017. As noted in Chapter 17.0, Cumulative Impacts, the Town is working cooperatively with Inyo County in the County's pursuit of Part 139 certification for commercial air service and shifting of subsidized air service to the Bishop Airport. This may result in some commercial air service being shifted from MMH to Bishop.

However, moving passengers to these airports would result in negative system-wide surface transportation impacts, including increases in vehicle miles traveled and related air pollutant emissions. More localized environmental impacts, such as aircraft noise levels and air pollutant concentrations, would merely be shifted from one airport to another. In addition, there would be the loss of convenient air transportation services to residents of the Town of Mammoth Lakes and nearby communities.

In summary, this alternative would not meet the objectives of the proposed project, while it would likely introduce new and/or more severe environmental impacts. Therefore, this alternative was not considered for detailed CEQA analysis.

18.3.3 Development of New Airport at Another Site

The project EA considered the alternative of developing a new airport at another location, replacing the existing MMH. Development of another site would require infrastructure capable of handling the existing and forecasted operations of MMH. The aviation activity forecasts, airfield configuration, and facility requirements for a new site would presumably be very similar to the existing MMH.

New airport construction would require a substantial investment of money, land, and time to provide the necessary infrastructure. The drawbacks and areas of concern associated with another site include but are not limited to, operational authority to move aircraft operations, access to highways and mass transit facilities, community acceptance, financial feasibility, potentially significant environmental impacts, potential airspace conflicts, and development within federally owned lands that would probably be the only land available for this alternative.

Moreover, this alternative would not meet the objectives of the proposed project, because it would not improve the function of the existing MMH or increase its opportunity for

providing quality service. Under the Federal Aviation Regulation Part 139 certification for commercial service operations, the sponsor is obligated to promote air service at MMH rather than to shift operations or passengers to another airport. Therefore, the EA did not retain this alternative for further consideration.

As noted, the construction of a new airport would introduce new and potentially more severe impacts at the construction site and surrounding area, especially if the new airport were constructed on federal land, which, in the Mammoth Lakes area, is mostly National Forest land. In addition, the existing MMH would be closed or repurposed, Buildings on the existing MMH property can be expected to deteriorate with non-use and would most likely need to be removed. This would generate additional environmental impacts associated with demolition of structures and potential cleanup of contamination.

This alternative is not consistent with project objectives and would most likely introduce new and/or more severe environmental impacts. In addition, this would be a relatively costly alternative to implement. Therefore, this alternative was not considered for detailed CEQA analysis.

18.4 ALTERNATIVES CONSIDERED IN DETAIL

18.4.1 No Project Alternative

CEQA Guidelines Section 15126.6(e) states that the alternatives analysis must include evaluation of a "no project" alternative. "No project" is defined as no action with respect to the proposed project and continuation of existing circumstances without approval of the project. CEQA Guidelines Section 15126.6(e)(3)(B) further explains:

> If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment.

For the purposes of this EIR, the No Project Alternative is defined as no improvements as proposed by the project. There would be no new terminal building or improved circulation and parking areas; the existing interim terminal and tensile fabric structure would continue to be used. No new maintenance building would be constructed; ARFF and MMH equipment would continue to be stored in their existing locations. The existing

airport apron would continue to be used; no expansion of this apron nor the construction of a separate de-icing apron would occur. No new utility infrastructure would be installed, such as the septic system and new sewer, water, and storm drainage lines.

Under the No Project alternative, there would be no environmental impacts that are associated with the proposed project. Air pollutant emissions and noise associated with construction activities would be eliminated, even though such impacts by the proposed project were considered and reduced to a less than significant level with mitigation measures. Also, since no ground would be disturbed, no mitigation for potential impacts on biological or cultural resources would be necessary.

However, this alternative would meet none of the objectives of the proposed project. The EA analyzed a No Action Alternative, and the EA concluded that this alternative would not provide adequate levels of service for accommodating existing and future passenger demand. It also would not improve the function of MMH with new facilities that have dedicated areas for needed airport services. The No Project Alternative would require MMH to keep the existing temporary passenger holding structure, which would not withstand long-term weather and operational conditions. As a result, an eventual replacement structure would be necessary.

In addition, the ARFF and snow equipment would continue to be stored in existing facilities, which are considered inadequate and may adversely affect services provided by the equipment. Without a separate de-icing apron, de-icing fluid would not be collected and stored in a separate holding tank. Thus, the fluid could get into the general environment, causing contamination. This would be of concern if MMH operations increase as anticipated.

While this alternative would avoid the environmental impacts of the proposed project, it would not satisfy proposed project objectives. It should be noted that potential environmental impacts of the proposed project would be reduced to levels that are less than significant with the implementation of mitigation measures, while still realizing the project objectives.

18.4.2 Alternative Terminal Location

The Terminal Area Development Plan evaluated two terminal building locations, designated as Site A and Site B. Site B was selected by the Town as the preferred location. Site A is located approximately 250 feet south of the proposed Airport Road extension cul-de-sac, closer to Taxiway A than the preferred location (Figure 18-1). This alternative assumes that the new terminal would be of the same size and design as that for the proposed project. It also assumes that all other aspects of the proposed project, such as the new maintenance building and utility improvements, would be implemented under this alternative as under the proposed project. However, this alternative would necessitate the redesign of the airport parking apron, as the terminal would be on the site of the existing apron.

In general, environmental impacts under this alternative would remain the same as those under the proposed project. The aesthetic, air quality, biological, cultural, geologic

hazards, greenhouse gas, environmental hazards, hydrologic, traffic, and wildfire impacts of the alternative would be comparable to the proposed project and less than significant. Like the project, the alternative would have no agriculture, soils, land use, noise, public services, or other environmental effects. The effects of the alternative do not appear to be substantially different that those described for the preferred alternative. During the development of the *Terminal Area Development Plan*, the authors concluded that Site A was too close to Taxiway A. If the taxiway and runway need to be modified at some point in the future, a terminal at Site A would have to be relocated (Brandley 2017). The relocation may involve demolition, which would introduce environmental impacts not associated with the location proposed by the project. In addition, as noted above, the alternative would require the redesign of the parking apron, which in turn may require the redesign of other facilities. These changes may generate new or more severe environmental impacts than the proposed project, depending on how facilities are redesigned.

While this alternative would meet project objectives, it may introduce new and/or more severe environmental impacts and may add costs to future airport improvements. This alternative is not considered environmentally superior to the proposed project.

18.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) indicates that an EIR should identify an "environmentally superior" alternative. If the No Project alternative is considered the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other alternatives.

The No Project Alternative would eliminate or avoid potential environmental effects associated with the proposed project; therefore, it could be considered the environmentally superior alternative. However, it would not meet the proposed project objectives of improving MMH operations and providing facilities to accommodate existing and forecasted passenger use.

The Alternative Terminal Location would be generally consistent with the project objectives but would involve future engineering concerns with respect to its proximity to the aircraft apron. This alternative would not involve any substantial potential for reduction of environmental effects of the project and cannot therefore be considered the environmentally superior alternative.

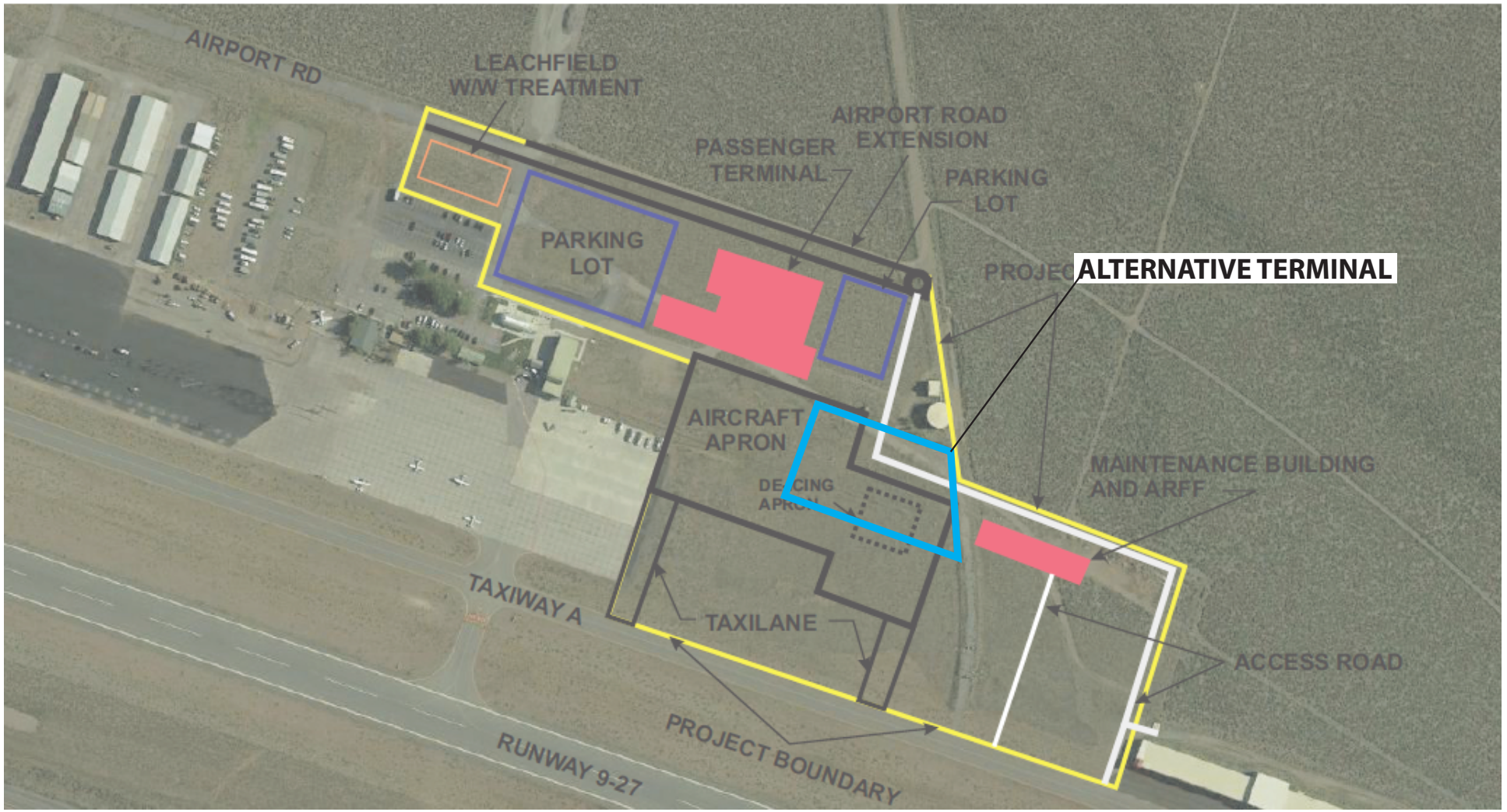


Figure 18-1
ALTERNATIVE TERMINAL SITE

19.0 OTHER CEQA ISSUES

19.1 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

CEQA Guidelines Section 15126.2(b) states that an EIR shall discuss significant environmental effects that cannot be avoided if a proposed project is implemented. This includes significant impacts that can be mitigated but not reduced to a level of insignificance. Where there are impacts that cannot be alleviated without imposing an alternative design, the implications of these impacts, and the reasons why the project is being proposed notwithstanding their effects, should be described.

Table 2-1 of this EIR identifies all the potentially significant environmental effects of the project and the mitigation measures to address these effects. In all cases, the proposed mitigation measures would be effective in reducing potential environmental effects to levels that would be less than significant. The project would have no significant and unavoidable environmental impacts.

19.2 IRREVERSIBLE ENVIRONMENTAL COMMITMENTS

CEQA Guidelines Section 15126.2(c) states that an EIR shall discuss significant irreversible environmental changes which would be involved in a proposed project should it be implemented. CEQA Guidelines Section 15126.2(c) states, in part:

> "Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified."

The project would involve the irreversible commitment of construction materials to the construction of buildings and supporting infrastructure, along with apron and parking lot expansion. Construction materials would likely involve concrete, metals, plastics, and glass for the buildings. Plastics and metals would be used for the sewer, water, and storm drainage lines and leaching fields, and asphalt and concrete would be used for the proposed aprons and parking lots.

The construction materials would not be used in highly significant or unusual quantities when compared to similar projects. All materials would be obtained from existing

commercial sources. Some of these materials could be recycled if some or all the project facilities were removed in the future.

There are no other changes associated with the project, or resources impacted by the project, that are irreversible, other than the use of energy during project construction and operations. Energy use is discussed in Chapter 16.0, Utilities and Energy, in which it was determined that the project would not consume energy in a wasteful, inefficient, or unnecessary manner, especially since the proposed buildings would comply with the California Energy Code and CALGreen in effect at the time the project is approved.

19.3 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126.2(d) requires an EIR to discuss the potential growth-inducing impacts of a project or program. "Growth-inducing impacts" are ways in which a proposed project could foster economic or population growth or the construction of additional housing in the surrounding environment, either directly or indirectly. CEQA Guidelines Section 15126.2(d) further notes that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

Growth can be induced in a variety of ways. New development can create demands for other types of development. For example, new industrial development which provides jobs may attract new residents to an area, creating a demand for more housing. The same project in an area with an available supply of labor may have no growth-inducing effect at all. In a more general sense, new urban development in rural areas may induce growth by providing both a nucleus for a change in land use and economic incentives for conversion of nearby agricultural lands. These are considered "direct" growth-inducing impacts.

Growth may also be induced through the removal of development obstacles. One potential obstacle is the lack of utilities or infrastructure to support development. The provision of new utilities or other infrastructure that can serve development, particularly in an area that is undeveloped, may induce growth. For example, construction of new or larger domestic water systems to unserved areas may facilitate development of these areas. Expansion of other utility systems, like electrical systems, can have similar effects. These are considered "indirect" growth-inducing impacts.

As discussed in Chapter 12.0, Land Use, the population of the Town at a given time consists of permanent residents and visitors. The project is not expected to have any direct effect on the population of permanent residents; the project consists of improvements to a transportation facility and would not add residences. The new terminal would make travel to MMH and the Town incrementally more appealing to visitors and potential future residents. In turn, this could result in incremental increases in development to accommodate visitors, such as lodging, restaurants, and retail, as well as permanent residences.

However, as has been previously discussed, additional passenger volume at MMH would generally occur independent of terminal development. Other than an incremental increase in employment opportunities associated with the new structures, growth of the Town and vicinity would be expected to occur with or without the project. The Town General Plan assumes commercial service at MMH, and the project would not alter General Plan assumptions about growth. Therefore, the project by itself would not substantially induce growth.

20.0 SOURCES

20.1 REFERENCES CITED

Advantage Consulting, LLC. 2015. Mammoth Yosemite Airport (KMMH) Wildlife Hazard Assessment, Mammoth Lakes, Mono County, California. January 12, 2015.

Alfors, John T., John L. Burnett and Thomas E. Gay, Jr. 1973. Urban Geology Master Plan for California. California Division of Mines and Geology Bulletin 198.

Association of Environmental Professionals – American Planning Association (AEP-APA). 2015. Application for Leave to File Amicus Curiae Brief in Support of Friant Ranch, L.P. Filed with California Supreme Court May 12, 2015.

Brandley, Reinard W. 2015. Mammoth Yosemite Airport, Mammoth Lakes, California Airport Layout Plan Update Narrative. January 2015.

_____. 2017. Mammoth Yosemite Airport Terminal Area Development Plan. Van Sant Group Architects. April 2017.

Bryant, William A. 1981. California Division of Mines and Geology Fault Evaluation Report FER-107. January 30, 1981.

Bryant, William A. and Earl W. Hart. 2007. Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps. Department of Conservation, California Geological Survey Special Publication 42. Interim Revision 2007.

California Air Pollution Control Officers Association (CAPCOA). 2009. Model Policies for Greenhouse Gases in General Plans: A Resource for Local Government to Incorporate General Plan Policies to Reduce Greenhouse Gas Emissions. June 2009.

California Air Resources Board (ARB). 1993. Assessment and Mitigation of the Impacts of Transported Pollutants on Ozone Concentrations in California. June 1993.

_____. 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005.

_____. 2008a. 2008 California Toxic Inventory.

_____. 2008b. Climate Change Scoping Plan: A Framework for Change. December 2008.

_____. 2013. The California Almanac of Emissions and Air Quality. 2013 Edition.

_____. 2014. First Update to the Climate Change Scoping Plan: Building on the Framework. May 2014.

_____. 2016. Ambient Air Quality Standards. June 4, 2016.

_____. 2017. California's 2017 Climate Change Scoping Plan. November 2017.

_____. 2018a. Air Quality Standards and Area Designations. Available online at https://ww3.arb.ca.gov/desig/desig.htm. Page reviewed June 12, 2018.

_____. 2018b. California Greenhouse Gas Emission Inventory: 2000-2016. 2018 Edition.

California Department of Finance. 2020. Report E-5, Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2020, with 2010 Benchmark. Released May 1, 2020.

California Department of Forestry and Fire Protection (Cal Fire). 2007. Draft Fire Hazard Severity Zones in LRA, San Joaquin County (map). October 2, 2007.

California Department of Toxic Substances Control (DTSC). 2008. Interim Guidance for Sampling Agricultural Properties (Third Revision). August 7, 2008.

_____. 2019. EnviroStor database, www.envirostor.dtsc.ca.gov. Accessed September 20, 2019.

California Department of Transportation (Caltrans). 2013. Transportation and Construction Vibration Guidance Manual. September 2013.

_____. 2016. 2016 Annual Average Daily Truck Traffic on the California State Highway System.

_____. 2017a. Designated and Eligible California Scenic Highways. Available online at www.dot.ca.gov/design/lap/livability/scenic-highways/index.html. March 2017.

_____. 2017b. 2017 Traffic Volumes. Available online at https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-280-405.

California Employment Development Department. 2019. Labor Force and Unemployment Rate for Cities and Census Designated Places. Available at https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html. Accessed October 1, 2019.

California Energy Commission (CEC). 2012. 2013 Building Energy Efficiency Standards for Residential and Nonresidential Buildings. May 2012.

_____. 2019. Electricity Consumption by County. Available online at ecdms.energy.ca.gov/elecbycounty.aspx. Accessed September 23, 2019.

California Environmental Protection Agency (CalEPA). 2016a. Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. Available online at http://www.calepa.ca.gov/SiteCleanup/CorteseList/CurrentList.pdf. Accessed August 2, 2017.

_____. 2016b. List of "Active" CDO and CAO from Water Board. Available online at http://www.calepa.ca.gov/SiteCleanup/CorteseList/default.htm. Accessed August 1, 2017.

California Geological Survey (CGS). 2017. CGS Information Warehouse: Regulatory Maps. Available online at http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps. Accessed July 29, 2017.

California Office of Environmental Health Hazard Assessment (OEHHA). 2019. CalEnviroScreen 3.0. Available online at https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30. Accessed October 1, 2019.

California Office of Noise Control. 1976. Guidelines for the Preparation and Content of Noise Elements of the General Plan. February 1976.

Egan, M. Davis. 1988. Architectural Acoustics. McGraw-Hill, New York.

Federal Aviation Administration. 2010. Mammoth Yosemite Airport United Air Service Environmental Assessment. April 2010.

_____. 2015. Aviation Emissions and Air Quality Handbook, Version 3, Update 1. January 2015.

Federal Emergency Management Agency. 2012. Flood Insurance Rate Map (FEMA #06051C1425D). Mono County and Incorporated Areas, California. Effective date December 18, 2012.

Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model User's Guide. FHWA-HEP-05-054. January 2006.

International Air Transport Association (IATA). 2018. Fact Sheet – Climate Change and CORSIA. May 2018.

Inyo and Mono Counties. 2019. 2018 Inyo and Mono Counties Crop and Livestock Report.

Inyo National Forest. 1995. Soil Survey, Inyo National Forest, West Area, California.

_____. 2013. Inyo National Forest Assessment.

_____. 2019. Inyo National Forest Land Management Plan. September 2019.

Mammoth Community Water District. 2017. 2015 Urban Water Management Plan. January 2017.

Mammoth Yosemite Airport. 2020. Technical Memorandum for Mammoth Yosemite Airport: Groundwater. February 2020.

Mono County. 2010. Mono County Master Environmental Assessment. Prepared by Community Development Department Planning Staff.

_____. 2015. County of Mono Regional Transportation Plan and General Plan Update Draft EIR. SCH #2014061029. July 31, 2015.

Mono County Local Transportation Commission. 2019. 2019 Regional Transportation Plan. Amended December 9, 2019.

Mono County and Town of Mammoth Lakes. 2019. Multi-Jurisdictional Hazard Mitigation Plan (including the Mono County Community Wildfire Protection Plan). Prepared by Michael Baker International. May 2019.

Mono County Planning Department. 2000. Sierra Business Park Specific Plan and Draft EIR. SCH #1997032100. Prepared by Bauer Planning & Environmental Services, Inc. July 21, 2000.

Monterey Regional Airport. 2018. Draft Airport Master Plan Environmental Impact Report. SCH #2015121105. September 2018.

National Oceanic and Atmospheric Administration (NOAA). 2019. Monthly Average Mauna Loa CO_2. Data collected by Earth System Research Laboratory, Global Monitoring Division. Available online at https://www.esrl.noaa.gov/gmd/ccgg/trends/. Accessed July 25, 2019.

Natural Investigations Company, Inc. 2019. Cultural Resources Inventory and Effects Assessment for the Mammoth-Yosemite Airport Terminal Area Development Plan, Town of Mammoth Lakes, Mono County, California. Revised October 28, 2019.

Regional Water Quality Control Board, Lahontan Region (Lahontan RWQCB). 2018. Lahontan Regional Water Quality Control Board Clean Water Act Sections 305(b) And 303(d) 2018 Integrated Report for the Lahontan Region.

Salix Consulting, Inc. 2020. Biological Resources Assessment for the ±24-Acre Mammoth Yosemite Airport Terminal Area Development Plan Study Area, Mono County, California. January 2020.

_____. 2021. Biological Assessment for the Mammoth Yosemite Airport Terminal Area Development Project, Town of Mammoth Lakes, Mono County, California. Revised April 2021.

State Water Resources Control Board (SWRCB). 2019. GeoTracker website, www.geotracker.swrcb.ca.gov. Accessed September 20, 2019.

Town of Mammoth Lakes. 2000. *Final Report: Environmental Assessment*. December 14, 2000. Prepared for Mammoth Yosemite Airport Expansion Project. Cited in Natural Investigations Company 2019.

_____. 2002. Final Supplement to Subsequent Environmental Impact Report (SSEIR), Mammoth Yosemite Airport Expansion Project, Mammoth Yosemite Airport (State Clearinghouse No. 2000-034005). March 2002.

_____. 2007. Final Program Environmental Impact Report, Town of Mammoth Lakes 2005 General Plan Update. May 2007.

_____. 2008. Initial Study/Mitigated Negative Declaration, Mammoth Yosemite Airport Regional Air Service. Prepared by RBF Consulting. March 14, 2008.

_____. 2015. Town of Mammoth Lakes Stormwater Master Plan 2015. Prepared for Town of Mammoth Lakes and Mono County Local Transportation District.

_____. 2016a. Draft Environmental Impact Report, Land Use Element/Zoning Code Amendments and Mobility Element Update. June 2016.

_____. 2016b. Mammoth Creek Park West New Community Multi-Use Facilities Environmental Impact Report, Public Review Draft. Prepared by Michael Baker International. December 2016.

_____. 2016c. Town of Mammoth Lakes General Plan Mobility Element. Adopted December 16, 2016.

_____. 2019. Town of Mammoth Lakes General Plan. Adopted September 2019.

_____. Undated. Design Guidelines for the Town of Mammoth Lakes. Prepared by Design Workshop.

United Nations Intergovernmental Panel on Climate Change (IPCC). 2001. Climate Change 2001: The Scientific Basis. Contribution of Working Group I to the Third Assessment Report of the Intergovernmental Panel on Climate Change.

_____. 2004. "16 Years of Scientific Assessment in Support of the Climate Convention." December 2004.

U.S. Bureau of Land Management (BLM). 2015. Sage-Grouse Habitat Assessment Framework: A Multiscale Assessment Tool. Technical Reference 6710-1. June 2015.

U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS). 1996. Soil Survey of Benton-Owens Valley Area, California, Parts of Inyo and Mono Counties.

_____. 2019. Custom Soil Resource Report for Benton-Owens Valley Area Parts of Inyo and Mono Counties, California; and Inyo National Forest, Western Part, California. December 30, 2019.

U.S. Energy Information Administration (EIA). 2012. 2012 Commercial Buildings Energy Consumption Survey. Available online at https://www.eia.gov/consumption/commercial/.

_____. 2017. California State Energy Profile. Last updated October 19, 2017.

U.S. Environmental Protection Agency (EPA). 2009. Endangerment and Cause of Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act. Federal Register Vol. 74, No. 239, pp. 66496-66546. December 15, 2009.

_____. 2018a. Ground-Level Ozone Pollution: Health Effects of Ozone Pollution. Available on EPA website at https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution. Last updated on October 10, 2018.

_____. 2018b. Particulate Matter (PM) Pollution: Health and Environmental Effects of Particulate Matter (PM). Available on EPA website at https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm. Last updated on June 20, 2018.

U.S. Forest Service (USFS). 2009. Environmental Assessment for Crowley Lake Watershed Grazing Allotment Analysis. Inyo National Forest. June 2009.

U.S. Geological Survey (USGS). 2020. Groundwater Watch - Site Number: 373754118501701 - 004S028E01F001M. Available online at https://groundwaterwatch.usgs.gov/AWLSites.asp?mt=g&S=373754118501701&ncd=awl. Accessed January 9, 2020.

Wallace Environmental Consulting, Inc. 2015. Biological Assessment for the Mammoth Yosemite Airport Wildlife Hazard Management Plan. September 2015.

20.2 PERSONS CONSULTED

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20.3 EIR PREPARERS

This document was prepared by BaseCamp Environmental, Inc. of Lodi, with assistance from, and under the direction of, Wallace Environmental and the Town of Mammoth Lakes. BaseCamp Environmental staff participating in document preparation included the following:

Charles Simpson, Principal

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APPENDIX A
NOTICE OF PREPARATION AND COMMENTS

NOTICE OF PREPARATION

TOWN OF MAMMOTH LAKES
MAMMOTH YOSEMITE AIRPORT IMPROVEMENTS

Date: October 21, 2019

To: Reviewing Agencies and Other Interested Parties

Subject: Notice of Preparation of a Draft Environmental Impact Report

Project Title: Mammoth Yosemite Airport Improvements

Project Proponent: Town of Mammoth Lakes

Scoping Meeting: October 24, 2019 at 4:00 PM, Town Council Chambers, 437 Old Mammoth Road, Suite Z, Mammoth Lakes, California 93546

The Town of Mammoth Lakes will prepare an Environmental Impact (EIR) for a proposed newe passenger terminal area at the existing Mammoth Yosemite Airport (the project). The purpose of this Notice of Preparation (NOP) is to provide information related to the project and its potential environmental impacts and to solicit agency and public comments and suggestions regarding (1) the scope and content of the EIR and (2) the environmental issues and alternatives to be addressed in the EIR, pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15082.

Pursuant to Public Resources Code Section 21080.4, are requested to submit any comments in response to this NOP no later than 30 days from the receipt of the NOP, or November 19, 2019. The NOP and related materials are available for review at:

1. Town of Mammoth Lakes, Community and Economic Development Department, 437 Old Mammoth Road, Suite R, Mammoth Lakes.

2. Mono County Library, 400 Sierra Park Road, Mammoth Lakes

3. Town of Mammoth Lakes website: https://www.townofmammothlakes.ca.gov/622/Environmental-Review---Airport

All comments or questions related to the NOP should be submitted in writing to:

Kim Cooke, Associate Planner
Town of Mammoth Lakes
Community and Economic Development Department
P.O. Box 1609
437 Old Mammoth Road, Suite R
Mammoth Lakes, California 93546
Telephone: 760-965-3630
Fax: 760-934-8608
Email: kcooke@townofmammothlakes.ca.gov

The Town will conduct a public scoping meeting in conjunction with this NOP in order to present the project, discuss the EIR and the EIR process and receive public comments and suggestions regarding the scope and content of the EIR. The meeting will be held on Thursday, October 24, 2019 at 4:00 PM at the **Mammoth Lakes Town Hall, 437 Old Mammoth Road, Suite Z, Mammoth Lakes, California**.

Project Location

Mammoth Yosemite Airport consists of approximately 246 acres located approximately six miles east of the Town, adjacent to and north of U.S. Highway 395 between Hot Creek Hatchery Road and Benton Crossing Road. The proposed project site is in the vicinity of the existing terminal area. The airport and the terminal area project site are shown on the attached exhibits. The site is shown on the Whitmore Hot Springs U.S. Geological Survey 7.5-minute quadrangle map within Sections 1, 2, and 12 of Township 4 South, Range 28 East, Mt. Diablo Baseline and Meridian. The approximate latitude of the project site is 37° 37′ 41″ North, and the approximate longitude is 118° 50′ 30″ West.

Existing Airport and Environmental Setting

The project site is the existing Mammoth Yosemite Airport (Airport), which is owned and operated by the Town of Mammoth Lakes. The Airport serves general aviation aircraft, commercial aircraft helicopter operations and charter flights. It has a single runway, Runway 9-27, that is 7,000 feet long and 100 feet wide with 12-foot paved shoulders. The runway is paralleled by Taxiway A at a 300-foot centerline-to-centerline distance. Five cross taxiways connect the runway and the parallel taxiway.

The existing interim passenger terminal area is approximately 5,060 square feet in floor area, immediately north of the runway/taxiway. The existing terminal currently handles commercial operations and including electronic check-in kiosks, baggage check, and passenger check-in. The terminal also provides areas for Transportation Security Administration (TSA) screening, secure passenger waiting, rental car operations, TSA baggage screening, lost baggage storage, and

airline and TSA storage lockers. A temporary 2,250-square foot tensile structure has been installed adjacent to the interim terminal to provide additional passenger holding area.

The existing terminal area includes a 58,000-square foot, 12-inch thick Portland cement concrete parking apron with a 417,000-square foot of flexible pavement section. The apron includes 74 tie-down spaces for small aircraft. A series of tee hangars and storage hangars served by hangar taxi lanes extend along the north side of the runway west and east of the terminal area. Other terminal area facilities include the Fixed Base Operator office and pilots' lounge, the Airport Manager's office, an electrical and telephone vault and parking areas.

Undeveloped portions of the airport site are vacant and populated primarily with big sagebrush. Soils consist of medium to coarse sands and gravels that produce little runoff. There are no water bodies located on the airport property. Land surrounding the project site is mostly undeveloped. Lands to the north and west are managed by the Inyo National Forest, part of the U.S. Forest Service. A portion of the Airport is located on National Forest land, subject to a Special Use Permit. Lands to the east are owned by the Los Angeles Department of Water and Power (LADWP), including a portion of the Airport which is under a 50-year lease from the LADWP. Access to the Airport is provided by Hot Creek Hatchery Road, which intersects US 395 just west of the Airport, and Airport Road. The Town of Mammoth Lakes General Plan designates the project site as Airport, and the zoning for the site is Airport.

Project Background

The Airport was originally constructed by the U.S. Army during World War II. Mono County acquired the Airport after the War and operated it until 1992, when it was acquired by the Town. Commercial passenger service began in 1973 and continued intermittently through 1997. After an 11-year hiatus, Alaska Airlines began commercial air service in 2008 followed by United Airlines in 2011. In 2011-2012, the two airlines provided up to seven daily flights. Alaska Airlines ended service at the Airport in November 2018; all current passenger service is now provided by United Airlines.

The existing interim passenger terminal resulted from remodeling of an existing building. However, the terminal facility is overcrowded and too small to accommodate airline and security requirements. In 2011, to relieve passenger overcrowding and to provide a passenger holding area, the temporary fabric structure was installed adjacent to the interim terminal.

In 2015, a Terminal Area Development Plan (TADP) for the airport was completed; the TADP found that expansion of the interim terminal is not economically or operationally feasible and instead recommended development of an entirely new terminal facility, a commercial aircraft apron, maintenance facility building, and related infrastructure. The improvements described in the TADP constitute the proposed project.

The Federal Aviation Administration is responsible for airport facilities regulation, planning and improvement funding. These activities are therefore subject to the requirements of the

National Environmental Policy Act (NEPA). In addition to the CEQA EIR, the Town is also preparing a NEPA Environmental Assessment (EA) for the project for use by the FAA.

Project Description

The proposed project involves construction of the various terminal area improvements recommended in the TADP. The relative location of the proposed facilities is shown on the attached exhibits. Specifically, the project proposes construction of:

- New passenger terminal building
- Aircraft parking apron
- Aircraft de-icing facilities
- Connecting taxilanes
- Automobile parking lots
- Twelve-bay maintenance building
- Supporting infrastructure, including access and service roads, automobile parking, water and sewer improvements

The approximately 38,688 square foot passenger terminal would devote about 40% of its area to commercial airline services, including ticket counters, ticketing kiosks and baggage handling and claim areas. An additional 40% square feet would be dedicated to public seating and waiting areas, circulation corridors, security checkpoints, and ticket lobbies. The remaining area would be used for car rental services, restaurants and retail uses, ground transportation, and airport administration, maintenance, mechanical and other support facilities.

The proposed 130,500 square foot, 16-inch thick concrete aircraft parking apron will accommodate three Q400 aircraft or three CRJ700 aircraft in a taxi-in/taxi-out type operation, or three B 737 aircraft in a taxi-in/pushout type operation. A separate 16-inch thick concrete de-icing apron would be located adjacent to the aircraft parking apron. Storm water and de-icing fluid from the apron would be captured at a central drain inlet; storm water would be routed to an on-site disposal area, while de-icing fluid would be directed to a central holding tank for disposal to a licensed disposal facility. Two asphalt concrete connecting taxilanes will connect the aircraft parking and de-icing aprons to existing Taxiway A.

A new 9,000 square foot, twelve-bay maintenance building would be constructed to the east of the de-icing facility, which would include provide housing for Aircraft Rescue and Fire Fighting (ARFF)/snow removal equipment. The building would include an approximately 32,750 square foot apron area and an 800-foot by 25-foot access road connecting it with Taxiway A.

The project would include a four-lane, median-divided extension of Airport Road from its existing terminus to a cul-de-sac at the new terminal. A 20-foot concrete sidewalk would line the road along the terminal frontage, and parallel parking would be provided for passenger loading and unloading. The project includes two new automobile parking areas; 130 spaces

would be provided west of the new terminal primarily for rental car parking; an additional 60 spaces would be located east of the new terminal for use by commercial passengers and visitors parking.

Project-related infrastructure improvements would include a package sewage treatment plant, associated sanitary sewer lines and a treated effluent disposal field. Potable water would be supplied by existing on-site wells and storage, distributed to proposed facilities by new water lines. Electricity would be provided by Southern California Edison from existing facilities at the Airport as would telecommunication services, which would be provided by Verizon.

Security will be provided in the terminal building as necessary, including alarmed doors and security cameras. In the new terminal area, security fencing will be installed and/or relocated to separate Airport operations area from the non-secure civilian use area. The existing wire fence around the entire airport will be replaced with a new 8-foot high chain link fence with coded gates as required. Security cameras would be installed at all entrance gates and at critical points on the aircraft parking apron.

No date has been set for initiation of project construction. It is anticipated that construction will proceed as funding becomes available.

Potential Environmental Impacts to be Addressed in the EIR

The Town will prepare an Environmental Impact Report (EIR) for the proposed project in accordance with the requirements of CEQA; the Town will proceed with EIR preparation without first preparing an Initial Study. The Draft EIR will consider the following potential environmental issues and concerns together with any other issues and concerns identified during the Notice of Preparation review and project scoping process.

The objectives of the proposed project are to provide passenger terminal facilities needed to serve existing and projected airline traffic.

- *Aesthetics and Visual Resources* – The EIR will identify and describe existing views of the Airport and environs as seen from Airport Road, US 395 and open space lands surrounding the Airport. The proposed project may result in short-term aesthetic impacts related to project construction and long-term effects from the addition of new terminal area buildings, lighting and other improvements. Potential effects of these changes on existing views from the affected public places and on the populations using these facilities will be evaluated in the EIR.

- *Agriculture and Forestry Resources* – The EIR will document the suitability of the project site for agriculture and forestry and the effects of proposed development on these on-site capabilities, if any. The EIR will consider the potential effects of proposed improvements on use of National Forest lands and any nearby areas used or zoned for timber production.

- *Air Quality* – Existing air quality conditions, and existing and projected future air emissions from airport operations will be described from existing available documentation. The EIR will document potential air quality impacts resulting from project construction, such as dust generation, construction vehicle and equipment emissions, and odors. The EIR will document any incremental increases in aircraft or vehicle emissions associated with passenger terminal improvement. The EIR will describe project consistency with regional air quality planning programs applicable to the Great Basin Valleys Air Basin.

- *Biological Resources* – The EIR will identify and describe existing biological conditions on and near the project site including special-status species, migratory birds, wetlands, and sensitive habitat areas. The EIR will consider the potential biological resource effects of project construction and operation, including potential effects on on-site resources as well as off-site impacts on special-status species nesting and foraging activities.

- *Cultural Resources* – The EIR will describe the cultural resource sensitivity of the project site and vicinity as documented in cultural resource technical studies prepared for the project. No cultural resources have yet been recorded on or in the immediate vicinity of the site. However, the EIR will analyze the potential for encountering undiscovered historical and archaeological resources during project construction and prescribe mitigation measures that would reduce potential for significant cultural resources effects to a less than significant level.

- *Energy* – The EIR will examine potential energy consumption associated with project construction and operations and will determine whether such consumption would be wasteful or inefficient.

- *Geology and Soils* – The Town and surrounding area is situated within a seismically active region, capable of producing surface rupture, ground motion, or soil settlement of sufficient magnitude to damage buildings or structures during an earthquake. The EIR will describe the seismicity, geologic hazards and soil conditions of the area from the *Town of Mammoth Lakes 2005 General Plan Update Final Environmental Impact Report* (General Plan EIR) and the potential exposure of proposed improvements and airport users to these conditions.

- *Greenhouse Gas Emissions* – Proposed terminal area improvements would involve increases in greenhouse gas emissions both during construction and operation of the proposed project. The EIR will quantify the greenhouse gas emissions from project construction and long-term operations, including building, and transportation emissions, the applicability of state and local "green" building standards and the consistency of the resulting emissions with applicable greenhouse gas reduction plans and standards.

- *Hazards and Hazardous Materials* – The EIR will document existing hazardous materials and waste records on and in the vicinity of the Airport and consider the potential hazards and hazardous materials concerns related to construction and operation of the project. Concerns to be addressed would include storage and use of hazardous materials such as fuels, cleaning and degreasing solvents, and other materials used in the regular maintenance of buildings and landscaping. The EIR will consider potential hazards associated with the transport, use, or disposal of hazardous materials, and the potential for reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. The EIR will evaluate the potential for project interference with applicable emergency response or evacuation plans.

- *Hydrology and Water Quality* – The EIR will describe the surface and groundwater hydrology of the project site and vicinity. The EIR will analyze construction-related effects on hydrology and water quality; effects on or exposure to flooding; any potential long-term water quality effects, including potential effects of land disposal of treated wastewater effluent; permanent changes to stormwater drainage and/or flooding; project-related impacts to groundwater quantity and quality; and off-site hydrology and water quality impacts.

- *Land Use* – The EIR will identify and describe applicable land use plan designations and zoning. The proposed project will be evaluated for consistency with the existing policies and standards of the Town General Plan, Mammoth Lakes Municipal Code (Municipal Code), the Mono County General Plan, the Inyo National Forest Land and Resource Management Plan and other applicable land use plans and standards. The EIR will consider potential adverse impacts on adjacent land uses.

- *Noise* – The EIR will document existing and projected future noise levels in the project area including aircraft operations and vehicular traffic. The EIR will describe the project's short-term construction noise as well as any long-term changes in noise levels in the area that may result from project operations in comparison to applicable noise thresholds as set forth in the Town of Mammoth Lakes General Plan.

- *Population and Housing* – The project proposes improvements to an existing airport facility and would not construct or demolish housing or extend airport infrastructure in such a way that it could influence new housing development or population growth. As such, the project is not expected to have a substantial impact on population and housing.

- *Public Services* – The EIR will report on contacts with potentially affected public service agencies, such as fire protection and law enforcement, in order to describe relevant existing conditions, potential project impacts, and recommended mitigation measures, if needed. The EIR will document any potential increased demand for services and any potential need for the construction, alteration or expansion of service facilities

associated with the project. The Draft EIR will evaluate the ability of the project to receive adequate service based on applicable Town standards and, if adequate services are not available, recommended mitigation measures if necessary.

- *Transportation* – The EIR will describe existing transportation systems associated with the airport. The EIR will consider the potential impacts of project construction and operations and effects on local and regional transportation facilities, internal circulation, and emergency access to the project site. The EIR will consider traffic issues as well as potential effects on public transit and other alternative modes of transportation.

- *Tribal Cultural Resources* – The Draft EIR will analyze the potential impacts of the project on resources of importance to tribes with a geographical and cultural affiliation to the project site. The analysis will include the results of tribal notification as required by AB 52 and any tribal consultation that may be requested pursuant to AB 52.

- *Utilities and Service Systems* – The EIR will describe the existing utility systems on and near the project site, including existing systems serving the Airport. The EIR will consider increases in utility demand associated with the project as well as the potential for direct project impacts on existing utility facilities.

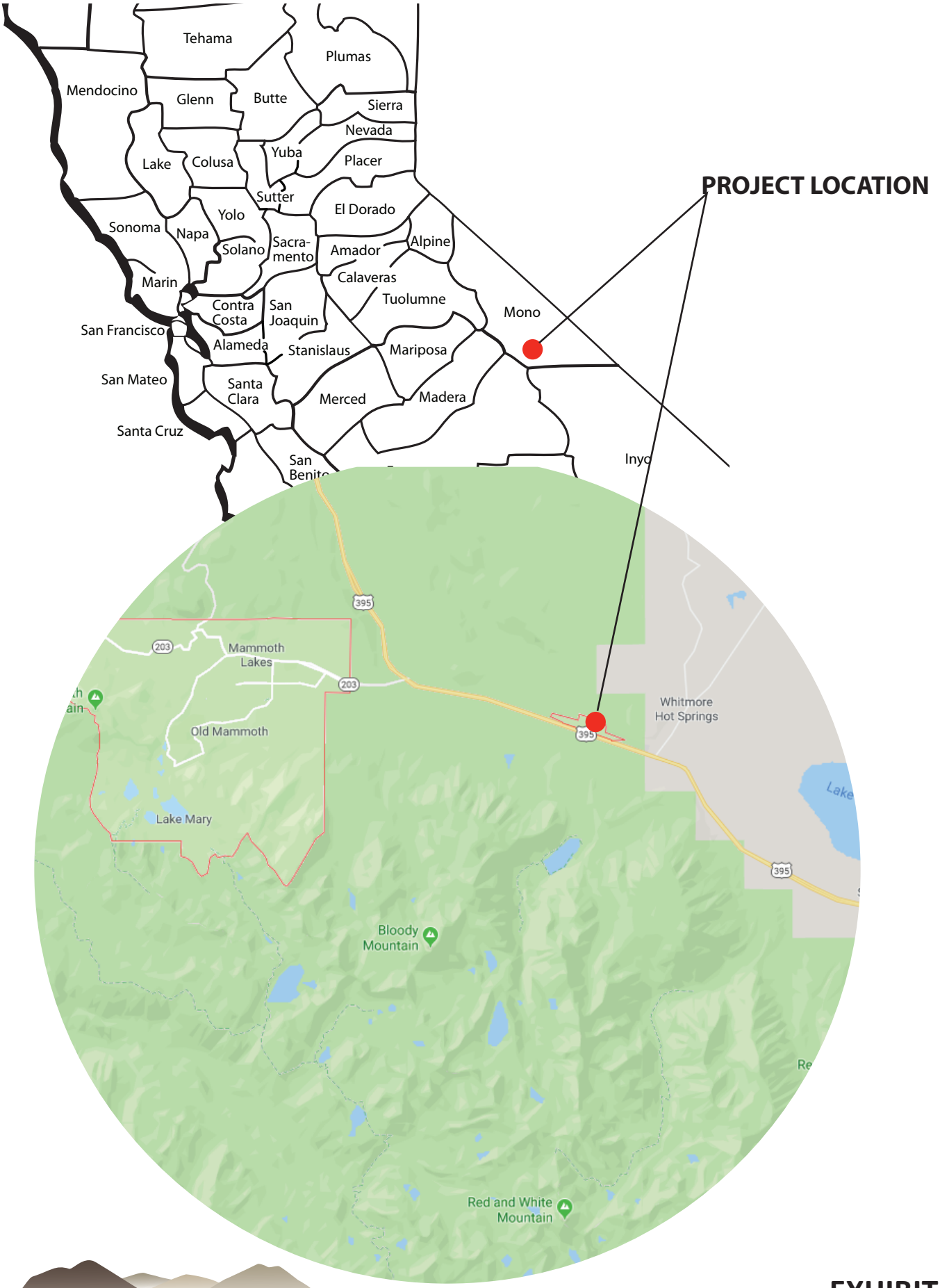
- *Wildfire* – The EIR will document the existing wildfire hazards associated with the airport site and surroundings as well as on-site fire management facilities and services. The EIR will consider the wildfire risk to the project site, along with other potential hazards such as exposure of project occupants to pollutant concentrations from a wildfire, exacerbation of fire risks from project features, and exposure to downslope or downstream flooding or landslides arising from wildfires.

- *Cumulative Impacts* – Consistent with CEQA Guidelines Section 15130, the Draft EIR will discuss the cumulative impacts of the proposed project, addressing each topic covered in the environmental analysis.

- *Project Alternatives* – Under CEQA, environmental documentation must include an analysis of a reasonable range of alternatives to the project, including the "No Project" alternative. The Draft EIR will consider alternatives to the project, potentially including the alternatives considered in the NEPA EA, as applicable, along with other reasonable alternatives to the project. Each alternative will be contrasted with the proposed project in terms of the extent to which project's objectives are met and a reduction in adverse impacts is achieved. The environmentally superior alternative will be identified.

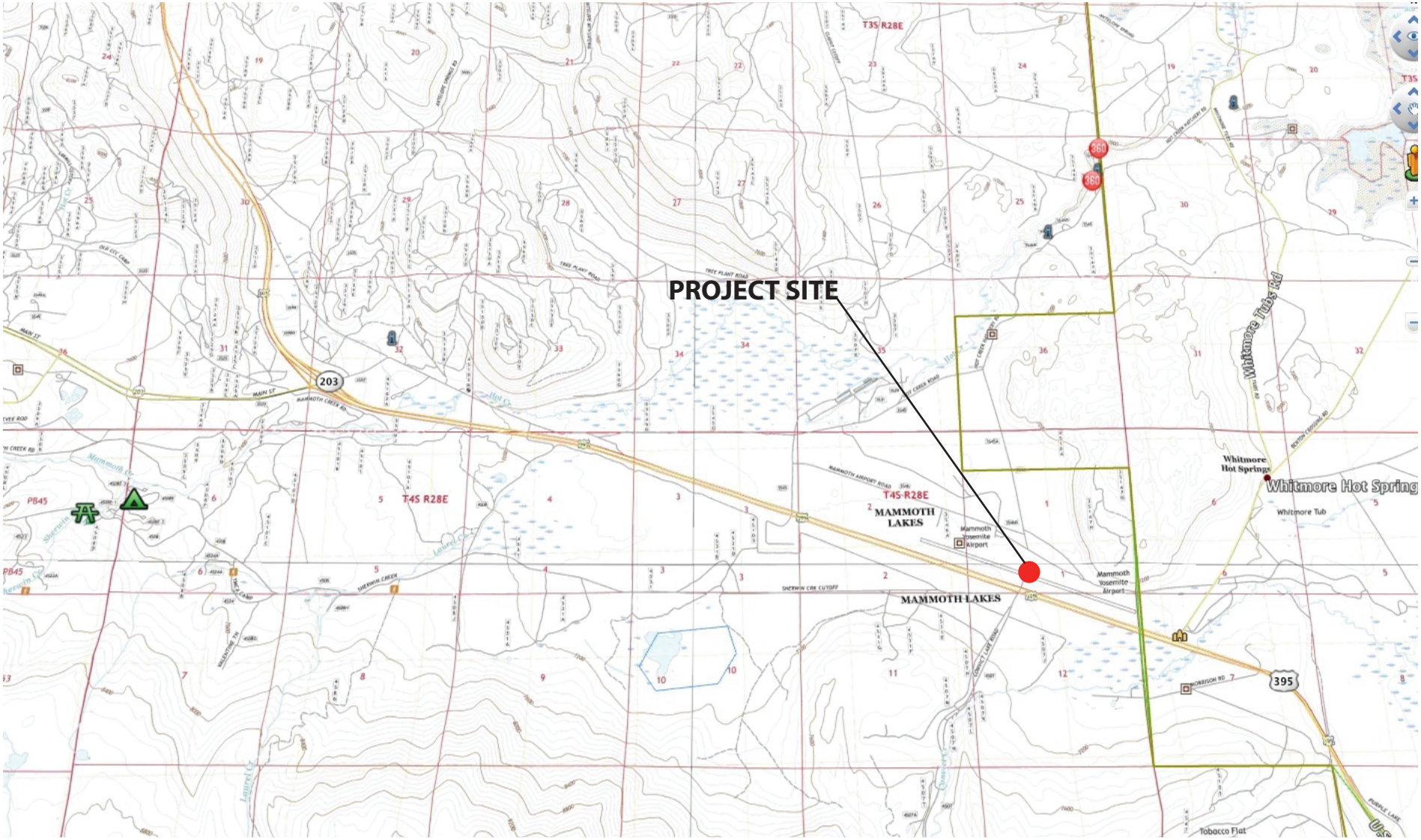
- *Significant and Unavoidable Environmental Effects* – The Draft EIR will describe, if any, environmental impacts that cannot be avoided or reduced to a level that would be less than significant with the application of mitigation measures.
- *Growth-Inducing Impacts* – As required under CEQA Guidelines Section 15126.2(d), the

Draft EIR will include a discussion of growth-inducing effects as well as any secondary impacts that could result from projected growth. The Draft EIR will consider the project's potential to foster economic or population growth and/or its potential to remove obstacles to population growth through extension of infrastructure.



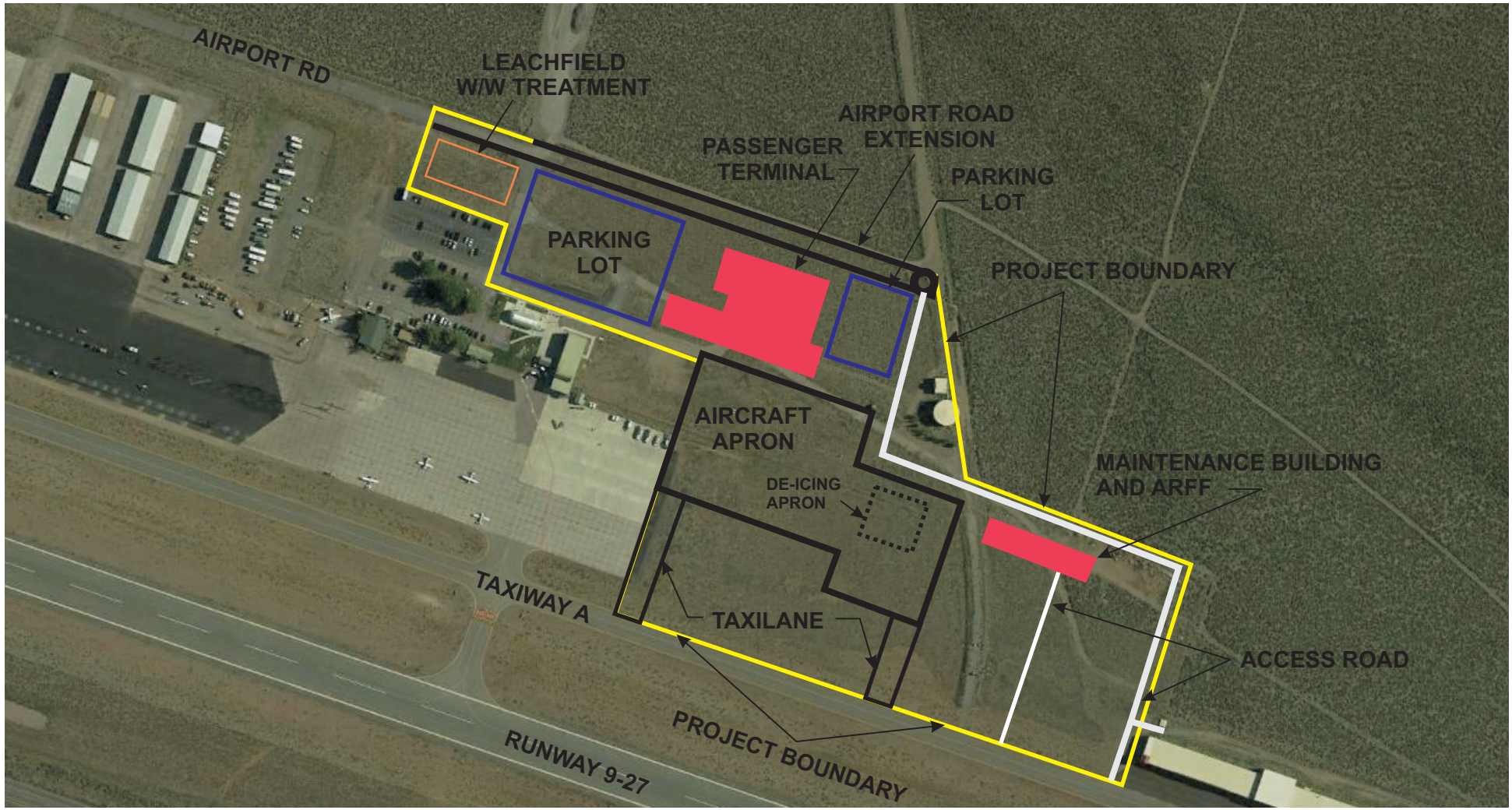
BaseCamp Environmental

EXHIBIT 1



BaseCamp Environmental

EXHIBIT 2



Mammoth Yosemite Airport
Terminal Area Development Plan

EXHIBIT 3

DEPARTMENT OF TRANSPORTATION
DISTRICT 9
500 SOUTH MAIN STREET
BISHOP, CA 93514
PHONE (760) 872-0785
FAX (760) 872-0678
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life.

November 7, 2019

Ms. Kim Cooke
Town of Mammoth Lakes
P.O. Box 609
Mammoth Lakes, CA 93546

File: Mno-395- 22.74
NOP DEIR
SCH #: 2019100384

Mammoth Airport Terminal Area Development Plan - Notice of Preparation of a draft Environmental Impact Report (NOP DEIR)

Dear Ms. Cooke:

The California Department of Transportation (Caltrans) District 9 appreciates the opportunity to review the proposed development at the airport, which abuts US 395 and accesses it via Hot Creek Road. Please consider the following in environmental analysis:

- Aesthetics and Visual Resources - Consider that US 395 is designated as a Scenic Highway in this corridor.
- Biological Resources - Assess and address any impacts on animal movement patterns. Utilize current information/resources of the Eastern Sierra Wildlife Stewardship Team, which includes Mammoth Lakes staff member Haley Lang.
- Transportation - Assess and address traffic impacts for the US 395/Hot Creek Road intersection.
- Utilities and Service Systems - Assess if any project utility upgrades would be within US 395 right-of-way (thus, necessitating a Caltrans encroachment permit).
- If not already in consultation, the Town should do so with Mono County. The County has a project proposed to rehabilitate Hot Creek Hatchery and Airport Roads.

We value our cooperative working relationship with the Town regarding development affecting the state transportation system. For any questions, feel free to contact me at (760) 872-0785 or at gayle.rosander@dot.ca.gov.

Sincerely,

Gayle J. Rosander

GAYLE J. ROSANDER
External Project Liaison

c: State Clearinghouse
Mark Reistetter, Caltrans D9

Department of Toxic Substances Control

Jared Blumenfeld
Secretary for
Environmental Protection

Meredith Williams, Ph.D.
Acting Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Gavin Newsom
Governor

November 18, 2019

Ms. Kim Cooke
Town of Mammoth Lakes Community and Economic Development
P.O. Box 609
Mammoth Lakes, California 93546

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PLAN PROJECT – DATED OCTOBER 21, 2019
(STATE CLEARINGHOUSE NUMBER: 2019100384)

Dear Ms. Cooke:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for Mammoth Yosemite Airport Terminal Area Development Plan Project.

The proposed project would include a new approximately 40,000 square foot, three-gate passenger terminal and an associated aircraft parking apron of approximately 130,500 square feet capable of parking three commercial aircraft. The project would include automobile parking lots, an aircraft de-icing apron, new taxiways, an Airport Road extension, service road realignment, a package wastewater treatment plant and wastewater disposal field, new electrical service, and an Aircraft Rescue and Fire Fighting-Snowplow building with a new vehicle parking apron and access road.

DTSC recommends that the following issues be evaluated in the EIR, Hazards and Hazardous Materials section:

1. The forthcoming EIR should acknowledge the potential for project site activities to have resulted in the release of hazardous wastes/substances. In instances in which releases have occurred, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and

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the government agency who will be responsible for providing appropriate regulatory oversight.

2. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers* (https://dtsc.ca.gov/wpcontent/uploads/sites/31/2018/09/Guidance_Lead_Contamination_050118.pdf).

3. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/SMP_FS_Cleanfill-Schools.pdf).

4. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)* (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/Ag-Guidance-Rev-3-August-7-2008-2.pdf).

DTSC appreciates the opportunity to review the NOP. Should you need any assistance with an environmental investigation, please submit a request for Lead Agency Oversight Application, which can be found at: https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/09/VCP_App-1460.doc. Additional information regarding voluntary agreements with DTSC can be found at: https://dtsc.ca.gov/brownfields/.

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.clearinghouse@opr.ca.gov

Ms. Lora Jameson, Chief
Site Evaluation and Remediation Unit
Department of Toxic Substances Control
Lora.Jameson@dtsc.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereasis@dtsc.ca.gov

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

November 12, 2019
Sent via email

Kim Cooke
Associate Planner
Town of Mammoth Lakes
P.O. Box 1609
Mammoth Lakes, CA 93546
kcooke@townofmammothlakes.ca.gov

Subject: Notice of Preparation of a Draft Environmental Impact Report
Mammoth Yosemite Airport Improvements Project
State Clearinghouse No. 2019100384

Dear Ms. Cooke:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the Town of Mammoth Lakes for the Mammoth Yosemite Airport Improvements Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources, and holds those resources in trust by statute for all the people of the state. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

PROJECT DESCRIPTION SUMMARY

Description: The Town of Mammoth Lakes (Town; Lead Agency) proposes improvements and additions to the passenger terminal area at the existing Mammoth Yosemite Airport to provide adequate passenger terminal facilities for existing and projected commercial airline operations. The Project includes construction of a new terminal building, aircraft parking and de-icing aprons and taxiways, maintenance facilities, and associated infrastructure.

Location: The Mammoth Yosemite Airport consists of approximately 246 acres located approximately six miles east of the Town, adjacent to and north of U.S. Highway 395 between Hot Creek Hatchery Road and Benton Crossing Road. The proposed Project site is in the vicinity of the existing terminal area, located at approximately 37° 37' 41" north and 118° 50' 30" west on the Whitmore Hot Springs U.S. Geological Survey 7.5-minute quadrangle map.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the Town in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming DEIR address the following:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the DEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW's California Natural Diversity Database (CNDDB) in Sacramento should be contacted at (916) 322-2493 or CNDDB@wildlife.ca.gov to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project. CDFW recommends that CNDDB Field Survey Forms be completed and submitted to CNDDB to document survey results. Online forms can be obtained and submitted at: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data

   Please note that CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see https://www.wildlife.ca.gov/Conservation/Plants).

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the Project. To

ensure that Project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

1. A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by zoning of development projects or other Project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

2. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands.

3. An evaluation of impacts to adjacent open space lands from both the construction of the Project and long-term operational and maintenance needs.

4. A cumulative effects analysis developed as described under CEQA Guidelines § 15130. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future Projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Alternatives Analysis

Note that the DEIR must describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would "feasibly attain most of the basic objectives of the project," and would avoid or substantially lessen any of the Project's significant effects (CEQA Guidelines § 15126.6[a]).

Mitigation Measures for Project Impacts to Biological Resources

The DEIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the Project. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully protected species may not be taken or possessed at any time. Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to

the Project area. CDFW also recommends that the DEIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization and mitigation measures will avoid indirect impacts to fully protected species.

2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.

3. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

   The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

4. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in local ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in advance of project activities to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate.

Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

5. *Nesting Birds and Migratory Bird Treaty Act:* Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory non-game native bird species are protected by international treaty under the federal Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 U.S.C. 703 *et seq.*). In addition, sections 3503, 3503.5, and 3513 of the Fish and Game Code (FGC) afford protective measures as follows: Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by FGC or any regulation made pursuant thereto; Section 3503.5 states that is it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by FGC or any regulation adopted pursuant thereto; and Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

   CDFW recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but may not be limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), constructing sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should an active nest be located within the Project site. If pre-construction surveys are proposed in the DEIR, CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

6. *Moving out of Harm's Way:* The proposed Project is anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, CDFW recommends that the lead agency condition the DEIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-

related activities. Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise by injured or killed, and individuals should be moved only as far a necessary to ensure their safety (i.e., CDFW does not recommend relocation to other areas). Furthermore, it should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for the purposes of offsetting Project impacts associated with habitat loss.

7. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful.

Lake and Streambed Alteration Program

Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

Upon receipt of a complete notification, CDFW determines if the proposed Project activities may substantially adversely affect existing fish and wildlife resources and whether a Lake and Streambed Alteration (LSA) Agreement is required. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify your Project that would eliminate or reduce harmful impacts to fish and wildlife resources.

CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources. To obtain a Lake or Streambed Alteration notification package, please go to https://www.wildlife.ca.gov/Conservation/LSA/Forms.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a data base which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected

during Project surveys to the California Natural Diversity Database (CNDDB). The CNNDB field survey form can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/CNDDB_FieldSurveyForm.pdf. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: http://www.dfg.ca.gov/biogeodata/cnddb/plants_and_animals.asp.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP of a DEIR for the Mammoth Yosemite Airport Improvements Project to assist the Town of Mammoth Lakes in identifying and mitigating Project impacts on biological resources.

Questions regarding this letter or further coordination should be directed to Rose Banks, Environmental Scientist, at (760) 873-4412 or Rose.Banks@wildlife.ca.gov.

Sincerely,

Scott Wilson
Environmental Program Manager

cc: State Clearinghouse

REFERENCES

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

Lahontan Regional Water Quality Control Board

November 15, 2019

Kim Cooke, Associate Planner
Town of Mammoth Lakes Planning Department
P.O. Box 1609
Mammoth Lakes, CA 93546
kcooke@townofmammothlakes.ca.gov

File: Environmental Doc Review
Mono County

Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Mammoth Yosemite Airport Terminal Area Development Plan Project, Mono County, State Clearinghouse Number 2019100384

Lahontan Region Water Quality Control Board (Water Board) staff received a Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for the above-referenced project (Project) on October 25, 2019. The NOP was prepared by Town of Mammoth Lakes Planning Department and submitted in compliance with provisions of the California Environmental Quality Act (CEQA). Water Board staff, acting as a responsible agency, is providing these comments to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations, title 14, section 15096. Based on our review of the NOP, we recommend the following: 1) the most recent and current documents/publications be utilized in to the EIR to establish baseline environmental conditions; 2) cumulative effects of sewage treatment and disposal systems be considered in the environmental analysis; and 3) a mitigation measure be included that requires the preparation and implementation of site-specific Storm Water Pollution Prevention Plan (SWPPP) to effectively treat storm water runoff during the life of the Project. Our comments on the Project are outlined below.

WATER BOARD'S AUTHORITY

All groundwater and surface waters are considered waters of the State. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the United States. The Federal Clean Water Act (CWA) provides additional protection for those waters of the State that are also waters of the United States.

The Water Quality Control Plan for the Lahontan Region (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at Basin Plan - References.

GENERAL COMMENTS AND RECOMMENDATIONS

1. The NOP states, "The EIR will describe the seismicity, geologic hazards and soils conditions of the area from the *Town of Mammoth Lakes 2005 General Plan Update Final Environmental Impact Report* (General Plan EIR) and potential exposure of proposed improvements and airport users to these conditions." The General Plan EIR alone is inadequate. The EIR must consider the most recent and up to date documents/publications from all sources, including federal, state, county, and local agencies, when establishing baseline conditions and in evaluating the Project's potential impacts on environmental resources, particularly on water quality and hydrology.

2. The EIR should identify and consider all existing sewage treatment and disposal systems and associated infrastructure (i.e. sewer lines) in addition to any new or modifications to existing systems and associated infrastructure.

3. The EIR should consider the long-term cumulative effects of all existing and proposed sewage treatment and disposal systems on water quality and hydrology.

4. A Project-specific SWPPP and implementation of site-specific erosion and sediment control best management practices (BMPs) is an effective way to reduce potentially significant water quality impacts to a less than significant level. To that end, we recommend the development and implementation of a Project-specific SWPPP during both the construction and post-construction (industrial) phases of the Project. The SWPPP should be applicable to all areas of the Project site throughout the life of the Project.

5. Equipment staging areas, excavated soil stockpiles, and hazardous materials (i.e. oils and fuels) should be sited in upland areas outside surface waters and adjacent flood plain areas. The EIR should include a mitigation measure for the preparation and implementation of a comprehensive Spill Prevention and Response Plan that outlines the site-specific monitoring requirements and lists the BMPs necessary to prevent hazardous material spills or to contain and cleanup a hazardous material spill, should one occur.

6. All surface waters are waters of the State. The EIR will need to fully delineate the extent of waters of the State and evaluate potential impacts to these resources with respect to hydrology and water quality as a result of Project implementation

7. The Project site is located within the Long Hydrologic Area of the Owens Hydrologic Unit (626.40), and groundwater beneath the Project site is contained within the Long Valley Groundwater Basin (6-11). The beneficial uses of these water resources are listed either by watershed (for surface waters) or by groundwater basin (for groundwater) in Chapter 2 of the Basin Plan. We request that the EIR identify and list the beneficial uses of the water resources within the Project area and include an analysis of the Project's potential impacts to water quality and hydrology with respect to those beneficial uses.

8. The EIR should identify the water quality standards that could potentially be violated by the Project and consider these standards when evaluating thresholds of significance for impacts. Water quality objectives and standards, both numerical and narrative, for all waters of the State within the Lahontan Region, including surface waters and groundwater, are outlined in Chapter 3 of the Basin Plan. Implementation of the proposed Project must comply with all applicable water quality standards and prohibitions, including provisions of the Basin Plan.

9. Buffer areas should be identified, and exclusion fencing used to protect water resources and to prevent unauthorized vehicles or equipment from entering or otherwise disturbing the surface waters. Equipment should use existing roadways to the extent feasible.

PERMITTING REQUIREMENTS FOR INDIVIDUAL PROJECTS

10. A number of activities implemented by individual projects in accordance with the General Plan amendment have the potential to impact waters of the State and, therefore, may require permits issued by either the State Water Resources Control Board (State Water Board) or Lahontan Water Board. The required permits may include the following.

11. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board.

12. Land disturbance of more than 1 acre may require a CWA, section 402(p) storm water permit, including a National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order (WQO) 2009-0009-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board.

13. Depending on the Standard Industrial Classification (SIC) code for industrial-type activities at a specific site, individual projects may require an NPDES General Industrial Storm Water Permit, WQO-2014-0057-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board.

14. Discharge of waste to land (i.e. evaporation ponds) may require waste discharge requirements (WDRs) issued by the Lahontan Water Board in compliance with the CCR, title 27, section 20005 et seq. If the Project includes wastes that can be characterized as either designated and/or non-hazardous, and a planned discharge to land would occur, the discharger will be required to submit the Report of Waste Discharge application, Form 200, to the Water Board.

We request that the EIR recognize the potential permits that may be required for the Project, as outlined above, and identify the specific activities that may trigger these permitting actions in the appropriate sections of the environmental document. Information regarding these permits, including application forms, can be downloaded from our web site at http://www.waterboards.ca.gov/lahontan/. Early consultation with Water Board staff regarding potential permitting is recommended.

Thank you for the opportunity to comment on the NOP. If you have any questions regarding this letter, please contact me at (760) 241-4942 jeffrey.fitzsimmons@waterboards.ca.gov or Jan Zimmerman, Senior Engineering Geologist, at (760) 241-7404 or jan.zimmerman@waterboards.ca.gov. Please send all future correspondence regarding this Project to the Water Board's email address at Lahontan@waterboards.ca.gov and Project name in the subject line.

Jeff Fitzsimmons
Engineering Geologist

cc: State Clearinghouse (SCH 2019100384) (state.clearinghouse@opr.ca.gov)
Nick Buckmaster, CDFW (nick.buckmaster@wildlife.ca.gov)
Louis Molina, Mono County (lmolina@mono.ca.gov)

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APPENDIX B
AIR QUALITY MODELING RESULTS

Mammoth Yosemite Airport

Mono County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Office Park	38.69	1000sqft	0.89	38,688.00	0
General Light Industry	8.40	1000sqft	0.19	8,400.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	54
Climate Zone	1			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage of terminal.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	200.00	230.00
tblConstructionPhase	NumDays	4.00	8.00
tblConstructionPhase	NumDays	10.00	18.00
tblConstructionPhase	NumDays	2.00	5.00
tblLandUse	LandUseSquareFeet	38,690.00	38,688.00
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural

2.0 Emissions Summary

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					
2022	0.1539	1.2054	1.1645	2.2200e-003	0.0290	0.0541	0.0831	6.6300e-003	0.0518	0.0584	0.0000	187.4632	187.4632	0.0322	0.0000	188.2674
2023	0.6242	0.6181	0.6956	1.3100e-003	0.0126	0.0262	0.0388	3.3900e-003	0.0252	0.0286	0.0000	110.4641	110.4641	0.0178	0.0000	110.9095
Maximum	**0.6242**	**1.2054**	**1.1645**	**2.2200e-003**	**0.0290**	**0.0541**	**0.0831**	**6.6300e-003**	**0.0518**	**0.0584**	**0.0000**	**187.4632**	**187.4632**	**0.0322**	**0.0000**	**188.2674**

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					
2022	0.1539	1.2054	1.1645	2.2200e-003	0.0239	0.0541	0.0779	5.9100e-003	0.0518	0.0577	0.0000	187.4630	187.4630	0.0322	0.0000	188.2672
2023	0.6242	0.6181	0.6956	1.3100e-003	0.0126	0.0262	0.0388	3.3900e-003	0.0252	0.0286	0.0000	110.4640	110.4640	0.0178	0.0000	110.9094
Maximum	**0.6242**	**1.2054**	**1.1645**	**2.2200e-003**	**0.0239**	**0.0541**	**0.0779**	**5.9100e-003**	**0.0518**	**0.0577**	**0.0000**	**187.4630**	**187.4630**	**0.0322**	**0.0000**	**188.2672**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**12.31**	**0.00**	**4.20**	**7.19**	**0.00**	**0.83**	**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)
1	5-3-2022	8-2-2022	0.5221	0.5221
2	8-3-2022	11-2-2022	0.4999	0.4999
3	11-3-2022	2-2-2023	0.4875	0.4875
4	2-3-2023	5-2-2023	0.4495	0.4495
5	5-3-2023	8-2-2023	0.5999	0.5999
		Highest	0.5999	0.5999

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	0.2385	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Energy	3.7600e-003	0.0342	0.0287	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	140.8671	140.8671	4.9900e-003	1.5700e-003	141.4590
Mobile	0.0547	0.3509	0.6670	2.2500e-003	0.1656	1.7800e-003	0.1673	0.0444	1.6600e-003	0.0461	0.0000	206.5630	206.5630	9.4400e-003	0.0000	206.7991
Waste						0.0000	0.0000		0.0000	0.0000	9.4188	0.0000	9.4188	0.5566	0.0000	23.3346
Water						0.0000	0.0000		0.0000	0.0000	2.7979	19.9046	22.7025	0.2882	6.9600e-003	31.9799
Total	**0.2970**	**0.3851**	**0.6961**	**2.4600e-003**	**0.1656**	**4.3800e-003**	**0.1699**	**0.0444**	**4.2600e-003**	**0.0487**	**12.2167**	**367.3355**	**379.5522**	**0.8593**	**8.5300e-003**	**403.5736**

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	0.2385	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Energy	3.7600e-003	0.0342	0.0287	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	140.8671	140.8671	4.9900e-003	1.5700e-003	141.4590
Mobile	0.0547	0.3509	0.6670	2.2500e-003	0.1656	1.7800e-003	0.1673	0.0444	1.6600e-003	0.0461	0.0000	206.5630	206.5630	9.4400e-003	0.0000	206.7991
Waste						0.0000	0.0000		0.0000	0.0000	2.3547	0.0000	2.3547	0.1392	0.0000	5.8337
Water						0.0000	0.0000		0.0000	0.0000	2.2383	15.9237	18.1620	0.2306	5.5600e-003	25.5839
Total	**0.2970**	**0.3851**	**0.6961**	**2.4600e-003**	**0.1656**	**4.3800e-003**	**0.1699**	**0.0444**	**4.2600e-003**	**0.0487**	**4.5930**	**363.3546**	**367.9476**	**0.3841**	**7.1300e-003**	**379.6766**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**62.40**	**1.08**	**3.06**	**55.29**	**16.41**	**5.92**

3.0 Construction Detail

Construction Phase

Mammoth Yosemite Airport - Mono County, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/3/2022	5	5	
3	Grading	Grading	6/4/2022	6/15/2022	5	8	
4	Building Construction	Building Construction	6/16/2022	5/3/2023	5	230	
5	Paving	Paving	5/4/2023	5/29/2023	5	18	
6	Architectural Coating	Architectural Coating	5/30/2023	6/22/2023	5	18	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 70,220; Non-Residential Outdoor: 23,407; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Mammoth Yosemite Airport - Mono County, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

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	1	3.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	16.00	8.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Demolition	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Demolition - 2022

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					7.1900e-003	0.0000	7.1900e-003	1.0900e-003	0.0000	1.0900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**7.1900e-003**	**8.3800e-003**	**0.0156**	**1.0900e-003**	**7.8300e-003**	**8.9200e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

3.2 Demolition - 2022

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	9.6000e-004	7.2000e-004	6.0100e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.3158	1.3158	5.0000e-005	0.0000	1.3170
Total	**9.6000e-004**	**7.2000e-004**	**6.0100e-003**	**1.0000e-005**	**1.6100e-003**	**1.0000e-005**	**1.6200e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.3158**	**1.3158**	**5.0000e-005**	**0.0000**	**1.3170**

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					3.2300e-003	0.0000	3.2300e-003	4.9000e-004	0.0000	4.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**3.2300e-003**	**8.3800e-003**	**0.0116**	**4.9000e-004**	**7.8300e-003**	**8.3200e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

3.2 Demolition - 2022

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	9.6000e-004	7.2000e-004	6.0100e-003	1.0000e-005	1.6100e-003	1.0000e-005	1.6200e-003	4.3000e-004	1.0000e-005	4.4000e-004	0.0000	1.3158	1.3158	5.0000e-005	0.0000	1.3170
Total	**9.6000e-004**	**7.2000e-004**	**6.0100e-003**	**1.0000e-005**	**1.6100e-003**	**1.0000e-005**	**1.6200e-003**	**4.3000e-004**	**1.0000e-005**	**4.4000e-004**	**0.0000**	**1.3158**	**1.3158**	**5.0000e-005**	**0.0000**	**1.3170**

3.3 Site Preparation - 2022

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2800e-003	0.0366	0.0177	4.0000e-005		1.5600e-003	1.5600e-003		1.4300e-003	1.4300e-003	0.0000	3.7788	3.7788	1.2200e-003	0.0000	3.8094
Total	**3.2800e-003**	**0.0366**	**0.0177**	**4.0000e-005**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**3.7788**	**3.7788**	**1.2200e-003**	**0.0000**	**3.8094**

3.3 Site Preparation - 2022

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	1.5000e-004	1.1000e-004	9.2000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2024	0.2024	1.0000e-005	0.0000	0.2026
Total	**1.5000e-004**	**1.1000e-004**	**9.2000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2024**	**0.2024**	**1.0000e-005**	**0.0000**	**0.2026**

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					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2800e-003	0.0366	0.0177	4.0000e-005		1.5600e-003	1.5600e-003		1.4300e-003	1.4300e-003	0.0000	3.7788	3.7788	1.2200e-003	0.0000	3.8094
Total	**3.2800e-003**	**0.0366**	**0.0177**	**4.0000e-005**	**0.0000**	**1.5600e-003**	**1.5600e-003**	**0.0000**	**1.4300e-003**	**1.4300e-003**	**0.0000**	**3.7788**	**3.7788**	**1.2200e-003**	**0.0000**	**3.8094**

3.3 Site Preparation - 2022

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	1.5000e-004	1.1000e-004	9.2000e-004	0.0000	2.5000e-004	0.0000	2.5000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.2024	0.2024	1.0000e-005	0.0000	0.2026
Total	**1.5000e-004**	**1.1000e-004**	**9.2000e-004**	**0.0000**	**2.5000e-004**	**0.0000**	**2.5000e-004**	**7.0000e-005**	**0.0000**	**7.0000e-005**	**0.0000**	**0.2024**	**0.2024**	**1.0000e-005**	**0.0000**	**0.2026**

3.4 Grading - 2022

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					2.1200e-003	0.0000	2.1200e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3300e-003	0.0480	0.0237	6.0000e-005		2.0700e-003	2.0700e-003		1.9000e-003	1.9000e-003	0.0000	4.9526	4.9526	1.6000e-003	0.0000	4.9926
Total	**4.3300e-003**	**0.0480**	**0.0237**	**6.0000e-005**	**2.1200e-003**	**2.0700e-003**	**4.1900e-003**	**2.3000e-004**	**1.9000e-003**	**2.1300e-003**	**0.0000**	**4.9526**	**4.9526**	**1.6000e-003**	**0.0000**	**4.9926**

3.4 Grading - 2022

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	2.4000e-004	1.8000e-004	1.4800e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3239	0.3239	1.0000e-005	0.0000	0.3242
Total	**2.4000e-004**	**1.8000e-004**	**1.4800e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3239**	**0.3239**	**1.0000e-005**	**0.0000**	**0.3242**

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					9.5000e-004	0.0000	9.5000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.3300e-003	0.0480	0.0237	6.0000e-005		2.0700e-003	2.0700e-003		1.9000e-003	1.9000e-003	0.0000	4.9526	4.9526	1.6000e-003	0.0000	4.9926
Total	**4.3300e-003**	**0.0480**	**0.0237**	**6.0000e-005**	**9.5000e-004**	**2.0700e-003**	**3.0200e-003**	**1.0000e-004**	**1.9000e-003**	**2.0000e-003**	**0.0000**	**4.9526**	**4.9526**	**1.6000e-003**	**0.0000**	**4.9926**

3.4 Grading - 2022

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	2.4000e-004	1.8000e-004	1.4800e-003	0.0000	4.0000e-004	0.0000	4.0000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3239	0.3239	1.0000e-005	0.0000	0.3242
Total	**2.4000e-004**	**1.8000e-004**	**1.4800e-003**	**0.0000**	**4.0000e-004**	**0.0000**	**4.0000e-004**	**1.1000e-004**	**0.0000**	**1.1000e-004**	**0.0000**	**0.3239**	**0.3239**	**1.0000e-005**	**0.0000**	**0.3242**

3.5 Building Construction - 2022

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	0.1171	0.8877	0.9036	1.5700e-003		0.0418	0.0418		0.0404	0.0404	0.0000	128.9196	128.9196	0.0225	0.0000	129.4810
Total	**0.1171**	**0.8877**	**0.9036**	**1.5700e-003**		**0.0418**	**0.0418**		**0.0404**	**0.0404**	**0.0000**	**128.9196**	**128.9196**	**0.0225**	**0.0000**	**129.4810**

3.5 Building Construction - 2022

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	2.6500e-003	0.0596	0.0189	1.6000e-004	3.3900e-003	1.4000e-004	3.5300e-003	9.8000e-004	1.3000e-004	1.1200e-003	0.0000	15.3943	15.3943	1.0400e-003	0.0000	15.4203
Worker	8.3800e-003	6.2900e-003	0.0525	1.3000e-004	0.0140	1.0000e-004	0.0141	3.7300e-003	9.0000e-005	3.8200e-003	0.0000	11.4981	11.4981	4.1000e-004	0.0000	11.5084
Total	**0.0110**	**0.0659**	**0.0714**	**2.9000e-004**	**0.0174**	**2.4000e-004**	**0.0177**	**4.7100e-003**	**2.2000e-004**	**4.9400e-003**	**0.0000**	**26.8924**	**26.8924**	**1.4500e-003**	**0.0000**	**26.9287**

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	0.1171	0.8877	0.9036	1.5700e-003		0.0418	0.0418		0.0404	0.0404	0.0000	128.9195	128.9195	0.0225	0.0000	129.4808
Total	**0.1171**	**0.8877**	**0.9036**	**1.5700e-003**		**0.0418**	**0.0418**		**0.0404**	**0.0404**	**0.0000**	**128.9195**	**128.9195**	**0.0225**	**0.0000**	**129.4808**

3.5 Building Construction - 2022

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	2.6500e-003	0.0596	0.0189	1.6000e-004	3.3900e-003	1.4000e-004	3.5300e-003	9.8000e-004	1.3000e-004	1.1200e-003	0.0000	15.3943	15.3943	1.0400e-003	0.0000	15.4203
Worker	8.3800e-003	6.2900e-003	0.0525	1.3000e-004	0.0140	1.0000e-004	0.0141	3.7300e-003	9.0000e-005	3.8200e-003	0.0000	11.4981	11.4981	4.1000e-004	0.0000	11.5084
Total	**0.0110**	**0.0659**	**0.0714**	**2.9000e-004**	**0.0174**	**2.4000e-004**	**0.0177**	**4.7100e-003**	**2.2000e-004**	**4.9400e-003**	**0.0000**	**26.8924**	**26.8924**	**1.4500e-003**	**0.0000**	**26.9287**

3.5 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	0.0670	0.5153	0.5549	9.7000e-004		0.0226	0.0226		0.0219	0.0219	0.0000	79.9036	79.9036	0.0136	0.0000	80.2428
Total	**0.0670**	**0.5153**	**0.5549**	**9.7000e-004**		**0.0226**	**0.0226**		**0.0219**	**0.0219**	**0.0000**	**79.9036**	**79.9036**	**0.0136**	**0.0000**	**80.2428**

3.5 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	1.3500e-003	0.0308	0.0102	1.0000e-004	2.1000e-003	4.0000e-005	2.1500e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	9.4031	9.4031	4.8000e-004	0.0000	9.4151
Worker	4.8600e-003	3.4800e-003	0.0291	8.0000e-005	8.7000e-003	6.0000e-005	8.7600e-003	2.3100e-003	5.0000e-005	2.3700e-003	0.0000	6.8609	6.8609	2.3000e-004	0.0000	6.8666
Total	**6.2100e-003**	**0.0343**	**0.0393**	**1.8000e-004**	**0.0108**	**1.0000e-004**	**0.0109**	**2.9200e-003**	**9.0000e-005**	**3.0200e-003**	**0.0000**	**16.2640**	**16.2640**	**7.1000e-004**	**0.0000**	**16.2816**

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	0.0670	0.5153	0.5549	9.7000e-004		0.0226	0.0226		0.0219	0.0219	0.0000	79.9035	79.9035	0.0136	0.0000	80.2427
Total	**0.0670**	**0.5153**	**0.5549**	**9.7000e-004**		**0.0226**	**0.0226**		**0.0219**	**0.0219**	**0.0000**	**79.9035**	**79.9035**	**0.0136**	**0.0000**	**80.2427**

3.5 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	1.3500e-003	0.0308	0.0102	1.0000e-004	2.1000e-003	4.0000e-005	2.1500e-003	6.1000e-004	4.0000e-005	6.5000e-004	0.0000	9.4031	9.4031	4.8000e-004	0.0000	9.4151
Worker	4.8600e-003	3.4800e-003	0.0291	8.0000e-005	8.7000e-003	6.0000e-005	8.7600e-003	2.3100e-003	5.0000e-005	2.3700e-003	0.0000	6.8609	6.8609	2.3000e-004	0.0000	6.8666
Total	**6.2100e-003**	**0.0343**	**0.0393**	**1.8000e-004**	**0.0108**	**1.0000e-004**	**0.0109**	**2.9200e-003**	**9.0000e-005**	**3.0200e-003**	**0.0000**	**16.2640**	**16.2640**	**7.1000e-004**	**0.0000**	**16.2816**

3.6 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	5.8000e-003	0.0561	0.0792	1.2000e-004		2.7800e-003	2.7800e-003		2.5600e-003	2.5600e-003	0.0000	10.5952	10.5952	3.3600e-003	0.0000	10.6792
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.8000e-003**	**0.0561**	**0.0792**	**1.2000e-004**		**2.7800e-003**	**2.7800e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**10.5952**	**10.5952**	**3.3600e-003**	**0.0000**	**10.6792**

3.6 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	8.1000e-004	5.8000e-004	4.8300e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1402	1.1402	4.0000e-005	0.0000	1.1412
Total	**8.1000e-004**	**5.8000e-004**	**4.8300e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1402**	**1.1402**	**4.0000e-005**	**0.0000**	**1.1412**

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	5.8000e-003	0.0561	0.0792	1.2000e-004		2.7800e-003	2.7800e-003		2.5600e-003	2.5600e-003	0.0000	10.5952	10.5952	3.3600e-003	0.0000	10.6791
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**5.8000e-003**	**0.0561**	**0.0792**	**1.2000e-004**		**2.7800e-003**	**2.7800e-003**		**2.5600e-003**	**2.5600e-003**	**0.0000**	**10.5952**	**10.5952**	**3.3600e-003**	**0.0000**	**10.6791**

3.6 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	8.1000e-004	5.8000e-004	4.8300e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1402	1.1402	4.0000e-005	0.0000	1.1412
Total	**8.1000e-004**	**5.8000e-004**	**4.8300e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1402**	**1.1402**	**4.0000e-005**	**0.0000**	**1.1412**

3.7 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	0.5425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**0.5442**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

3.7 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	1.9000e-004	1.3000e-004	1.1200e-003	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2631	0.2631	1.0000e-005	0.0000	0.2634
Total	**1.9000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2631**	**0.2631**	**1.0000e-005**	**0.0000**	**0.2634**

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	0.5425					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7200e-003	0.0117	0.0163	3.0000e-005		6.4000e-004	6.4000e-004		6.4000e-004	6.4000e-004	0.0000	2.2979	2.2979	1.4000e-004	0.0000	2.3014
Total	**0.5442**	**0.0117**	**0.0163**	**3.0000e-005**		**6.4000e-004**	**6.4000e-004**		**6.4000e-004**	**6.4000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.4000e-004**	**0.0000**	**2.3014**

3.7 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	1.9000e-004	1.3000e-004	1.1200e-003	0.0000	3.3000e-004	0.0000	3.4000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2631	0.2631	1.0000e-005	0.0000	0.2634
Total	**1.9000e-004**	**1.3000e-004**	**1.1200e-003**	**0.0000**	**3.3000e-004**	**0.0000**	**3.4000e-004**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**0.0000**	**0.2631**	**0.2631**	**1.0000e-005**	**0.0000**	**0.2634**

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	tons/yr										MT/yr					
Mitigated	0.0547	0.3509	0.6670	2.2500e-003	0.1656	1.7800e-003	0.1673	0.0444	1.6600e-003	0.0461	0.0000	206.5630	206.5630	9.4400e-003	0.0000	206.7991
Unmitigated	0.0547	0.3509	0.6670	2.2500e-003	0.1656	1.7800e-003	0.1673	0.0444	1.6600e-003	0.0461	0.0000	206.5630	206.5630	9.4400e-003	0.0000	206.7991

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	30.16	11.09	5.71	92,491	92,491
Office Park	149.73	63.45	29.40	348,080	348,080
Total	179.89	74.54	35.12	440,572	440,572

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
General Light Industry	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Office Park	14.70	6.60	6.60	33.00	48.00	19.00	82	15	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.530267	0.037148	0.196347	0.120186	0.025624	0.006375	0.008580	0.059610	0.006951	0.001307	0.005436	0.000965	0.001204
Office Park	0.530267	0.037148	0.196347	0.120186	0.025624	0.006375	0.008580	0.059610	0.006951	0.001307	0.005436	0.000965	0.001204

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	103.6597	103.6597	4.2800e-003	8.9000e-004	104.0306
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	103.6597	103.6597	4.2800e-003	8.9000e-004	104.0306
NaturalGas Mitigated	3.7600e-003	0.0342	0.0287	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	37.2073	37.2073	7.1000e-004	6.8000e-004	37.4284
NaturalGas Unmitigated	3.7600e-003	0.0342	0.0287	2.1000e-004		2.6000e-003	2.6000e-003		2.6000e-003	2.6000e-003	0.0000	37.2073	37.2073	7.1000e-004	6.8000e-004	37.4284

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					
General Light Industry	29484	1.6000e-004	1.4500e-003	1.2100e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5734	1.5734	3.0000e-005	3.0000e-005	1.5827
Office Park	667755	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	35.6339	35.6339	6.8000e-004	6.5000e-004	35.8457
Total		**3.7600e-003**	**0.0342**	**0.0287**	**2.1000e-004**		**2.6000e-003**	**2.6000e-003**		**2.6000e-003**	**2.6000e-003**	**0.0000**	**37.2073**	**37.2073**	**7.1000e-004**	**6.8000e-004**	**37.4284**

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					
General Light Industry	29484	1.6000e-004	1.4500e-003	1.2100e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5734	1.5734	3.0000e-005	3.0000e-005	1.5827
Office Park	667755	3.6000e-003	0.0327	0.0275	2.0000e-004		2.4900e-003	2.4900e-003		2.4900e-003	2.4900e-003	0.0000	35.6339	35.6339	6.8000e-004	6.5000e-004	35.8457
Total		**3.7600e-003**	**0.0342**	**0.0287**	**2.1000e-004**		**2.6000e-003**	**2.6000e-003**		**2.6000e-003**	**2.6000e-003**	**0.0000**	**37.2073**	**37.2073**	**7.1000e-004**	**6.8000e-004**	**37.4284**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	35952	11.4551	4.7000e-004	1.0000e-004	11.4961
Office Park	289386	92.2047	3.8100e-003	7.9000e-004	92.5345
Total		**103.6597**	**4.2800e-003**	**8.9000e-004**	**104.0306**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	35952	11.4551	4.7000e-004	1.0000e-004	11.4961
Office Park	289386	92.2047	3.8100e-003	7.9000e-004	92.5345
Total		**103.6597**	**4.2800e-003**	**8.9000e-004**	**104.0306**

6.0 Area Detail

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	0.2385	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Unmitigated	0.2385	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004

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	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.2385**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

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	0.0546					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1839					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.0000e-005	0.0000	4.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	8.4000e-004	8.4000e-004	0.0000	0.0000	9.0000e-004
Total	**0.2385**	**0.0000**	**4.3000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**8.4000e-004**	**8.4000e-004**	**0.0000**	**0.0000**	**9.0000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.1620	0.2306	5.5600e-003	25.5839
Unmitigated	22.7025	0.2882	6.9600e-003	31.9799

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.9425 / 0	3.9653	0.0634	1.5200e-003	6.0050
Office Park	6.87652 / 4.21464	18.7372	0.2248	5.4300e-003	25.9749
Total		**22.7025**	**0.2882**	**6.9500e-003**	**31.9799**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	1.554 / 0	3.1722	0.0508	1.2200e-003	4.8040
Office Park	5.50121 / 3.37171	14.9898	0.1798	4.3500e-003	20.7799
Total		**18.1620**	**0.2306**	**5.5700e-003**	**25.5839**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.3547	0.1392	0.0000	5.8337
Unmitigated	9.4188	0.5566	0.0000	23.3346

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	10.42	2.1152	0.1250	0.0000	5.2402
Office Park	35.98	7.3036	0.4316	0.0000	18.0944
Total		**9.4188**	**0.5566**	**0.0000**	**23.3346**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	2.605	0.5288	0.0313	0.0000	1.3101
Office Park	8.995	1.8259	0.1079	0.0000	4.5236
Total		**2.3547**	**0.1392**	**0.0000**	**5.8337**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX C
BIOLOGICAL RESOURCE ASSESSMENTS

BIOLOGICAL RESOURCES ASSESSMENT
FOR THE

±24-ACRE MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PLAN STUDY AREA

MONO COUNTY, CALIFORNIA



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JANUARY 2020

TABLE OF CONTENTS

±24-ACRE MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PLAN STUDY AREA 1

Introduction 1

Project Location 1
Project Setting 1
Objectives of Biological Resources Assessment 1

Methods 1

Literature Review 1
Special-Status Species Reports 4
Field Assessments 4

Survey and Literature Search Results 5

Soils 5
Hydrology 5
Biological Communities 6
Sagebrush Scrub 6
Paved 6
Disturbed 6
Structures 6
Wildlife Occurrence and Use 12
Special-Status Species 12
Plants 13
Animals 19

Recommendations 21

Waters of the United States 21
Streams, Pond, and Riparian Habitat 22
Special-Status Plants 22
Special-Status Wildlife 22
Western white-tailed jackrabbit 22
Nesting Raptors and Migratory Birds 22

References and Other Resources 23

FIGURES

Figure 1. Site & Vicinty 2
Figure 2. Aerial Photograph 3
Figure 3. Habitat Map 7

Figures 4a-d. Site Photos 8-11
Figure 5a. CNDDB Special-Status Plant Species Occurrence Locations 13
Figure 5a. CNDDB Special-Status Animal Species Occurrence Locations 14

TABLES

Table 1. Biological Communities Present within the Mammoth Yosemite Airport Terminal Area Development Plan Study Area 6
Table 2. Special-Status Species Determined to Have ANY POTENTIAL to Occur Within the Mammoth Yosemite Airport Terminal Area Development Plan Study Area 16

APPENDICES

Appendix A. Plant Species Observed Within the Study Area
Appendix B. Potentially-Occurring Special-Status Plants
Appendix C. Potentially-Occurring Special-Status Animals

Biological Resources Assessment for the

±24-ACRE MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PLAN STUDY AREA

INTRODUCTION

Project Location

Salix Consulting, Inc. (Salix) has prepared a Biological Resources Assessment for the ±24 -acre Mammoth Yosemite Airport Terminal Area Development Plan study area located seven miles east of Mammoth Lakes in Mono County, California. The airport is owned by the Town of Mammoth Lakes and is located within the city limits. It is bounded on the south and southwest U.S. Highway 395, on the west by Hot Creek Hatchery Road, on the north by Airport Road, and on the east by Benton Crossing Road. The approximate coordinates for the center of the study area are: 37° 37′ 35.13″ N and 118° 50′ 23.59″ W. The study area is situated within Section 1 Township 4S Range 28E of the Whitmore Hot Springs, California 7.5-minute USGS topographic quadrangle (Figure 1).

Project Setting

Mammoth Yosemite Airport consists of approximately 246 acres located in the Long Valley caldera along the eastern edge of the central Sierra Nevada mountain range. The airport —which is surrounded by the Inyo National forest to the west, north and south— is situated approximately 3.5 miles west of Crowley Lake and approximately two miles north of convict lake near the Whitmore Hot Springs. U.S. Highway 395 is located along the entire south side of the airport and Doe Ridge is located on the northeast side of the airport (Figure 2). The site is relatively flat, with elevations ranging from approximately 7119 feet along the northwestern edge to approximately 7093 along the southeastern edge.

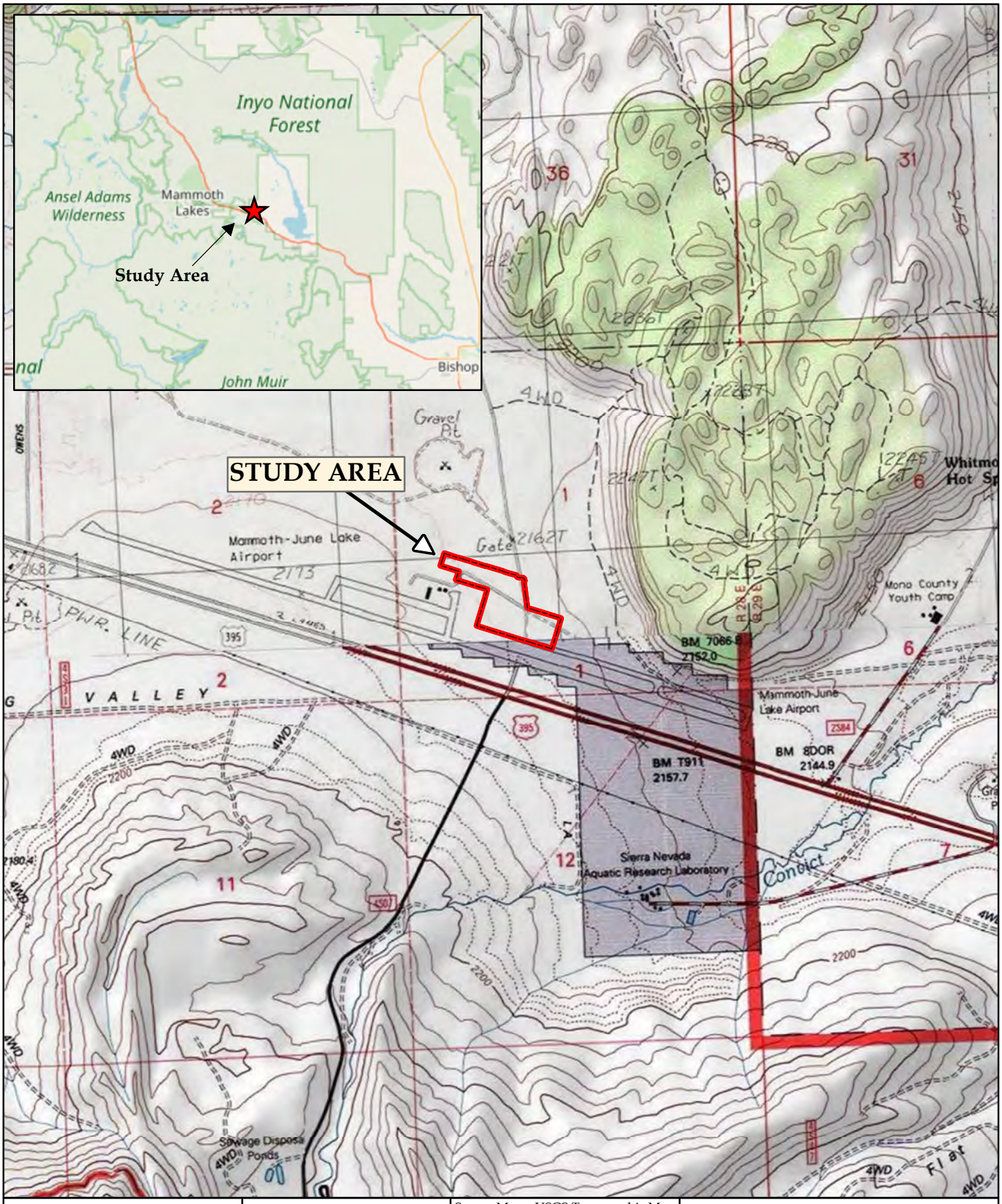
Objectives of Biological Resources Assessment

- Identify and describe the biological communities present in the study area;
- Evaluate and identify if any sensitive habitats or special-status plant and animal species exist or could exist on the site;
- Conduct an analysis to determine if waters of the U.S. are present, and
- Provide conclusions and recommendations.

METHODS

Literature Review

For this analysis, Salix biologists reviewed aerial photographs, USGS maps, engineering and architectural drawings of the proposed Development Plan along with previous biological studies conducted for the area surrounding the airport. Standard publications on life history, habitat requirements, and distribution of regionally occurring plant and



Salix consulting, inc.

N

0 1,000 2,000

Feet

Source Maps: USGS Topographic Map
Whitmore Hot Springs Quad 1:24,000
S1 T4S R28E

Figure 1

SITE AND VICINITY MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Salix consulting, inc.

N

0 125 250

Feet

Study Area
(±24 acres)

Imagery: 9-17-19 Salix Consulting
Overlaid on DigitalGlobe 6/19/2015 Basemap

Figure 2

AERIAL MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

animal species were reviewed as needed for identification and to determine the likelihood of occurrence for special status species.

Special-Status Species Reports

To assist with the determination of which special-status species could occur within or near the study area Salix biologists queried the California Natural Diversity Data Base (CDFW 2019) and the California Native Plant Society Inventory (CNPS 2019) and the USFWS Information for Planning and Consultation (USFWS IPaC 2019) database for reported occurrences of special-status fish, wildlife, and plant species in the region surrounding the study area. The five-quadrangle search area included the Whitmore Hot Springs, Old Mammoth, Convict Lake, Watterson Canyon, and Toms Place USGS quadrangles. In addition, Salix biologists reviewed the California Department of Fish and Wildlife list of Species of Special Concern for the project vicinity.

For the purposes of this report, special-status species are those that fall into one or more of the following categories:

- Listed as endangered or threatened under the federal Endangered Species Act (or candidate species, or formally proposed for listing);
- Listed as endangered or threatened under the California Endangered Species Act (or proposed for listing);
- Designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- Designated a Species of Special Concern by the California Department of Fish and Wildlife, or
- Designated as Ranks 1, 2, or 3 on lists maintained by the California Native Plant Society.

Field Assessments

Field assessments of the study area were conducted by Salix biologists Jeff Glazner and Hunter Gallant on September 16 and 17, 2019 to characterize existing conditions, to assess the potential for sensitive plant and wildlife resources to occur, and to determine if waters of the U.S. were present onsite. During the field assessments, biological communities were mapped and assessed for the potential to support special status species, plants and animals observed were documented, and ground photos were taken. The UAV was utilized to obtain an orthomosaic and oblique aerial photos of the study area.

Plants observed are listed in Appendix A; animals observed are listed in the *Wildlife Occurrence and Use* section below. Plant names are according to The Jepson Manual: Vascular Plants of California, Second Edition (Baldwin et. al. 2012) and updated literature that supersedes the Jepson Manual. Standard manuals were used as needed to identify wildlife species observed.

Soils

One soil unit has been mapped within the study area: Watterson family-Torriorthentic Haploxerolls complex, 5 to 15 percent slopes. The components of the complex are described below.

Torriorthentic Haploxerolls (40%)

The Torriorthentic Haploxerolls component makes up 40 percent of the map unit. Slopes are 15 to 30 percent. This component is on alluvial fans, alluvial plains. The parent material consists of alluvium and/or colluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Watterson family (40%)

The Watterson family component makes up 40 percent of the map unit. Slopes are 15 to 30 percent. This component is on alluvial fans, alluvial plains. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Hydrology

The site is in the Convict Creek HUC12 watershed (180901020207), which is part of the greater Crowley Lake HUC8 watershed (18090102). Surface water, which is minimal to non-discernable, trends toward the northeast corner of the study area before exiting the site. Although there is no significant surface drainage apparent, water appears to continue in a southeasterly direction along the base of Doe Ridge for approximately 1 mile before joining a drainage southeast of the runway. From there, water continues to flow southeast in the drainage for approximately 0.5 miles before draining into Convict Creek. Convict Creek flows southeasterly for approximately 4.5 miles before draining into Crowley Lake.

Biological Communities

One primary biological community is present within the study area– sagebrush scrub, and the site also contains three other distinct areas: pavement, disturbed areas, and structures, as illustrated in Figure 3 and summarized in Table 1. Four aerial site photos are presented in Figures 4a and 4b, and four representative ground photos are presented in Figures 4c and 4d.

Table 1.
Biological Communities Present within the
Mammoth Yosemite Airport Terminal Area Development Plan Study Area

Biological Community	Approximate Acreage
Sagebrush scrub	19
Paved	2.5
Disturbed	2.5
Structures	<0.1
Total	**24**

Sagebrush Scrub

The unpaved areas of the study area are composed of sagebrush scrub, characterized by low, generally sparse shrubs and native and weedy herbaceous species. Common species include sagebrush (*Artemisia tridentata*), antelope bush (*Purshia tridentata*), rubber rabbitbrush (*Ericameria nauseosa*), Parry's rabbitbrush (*E. parryi*), desert peach (*Prunus andersonii*), tumbleweed (*Salsola tragus*), and cheatgrass (*Bromus techtorum*). Vegetative cover over most of this habitat type is less than 50%.

Paved

Approximately 2.5 acres of the study area is paved and lacks vegetation.

Disturbed

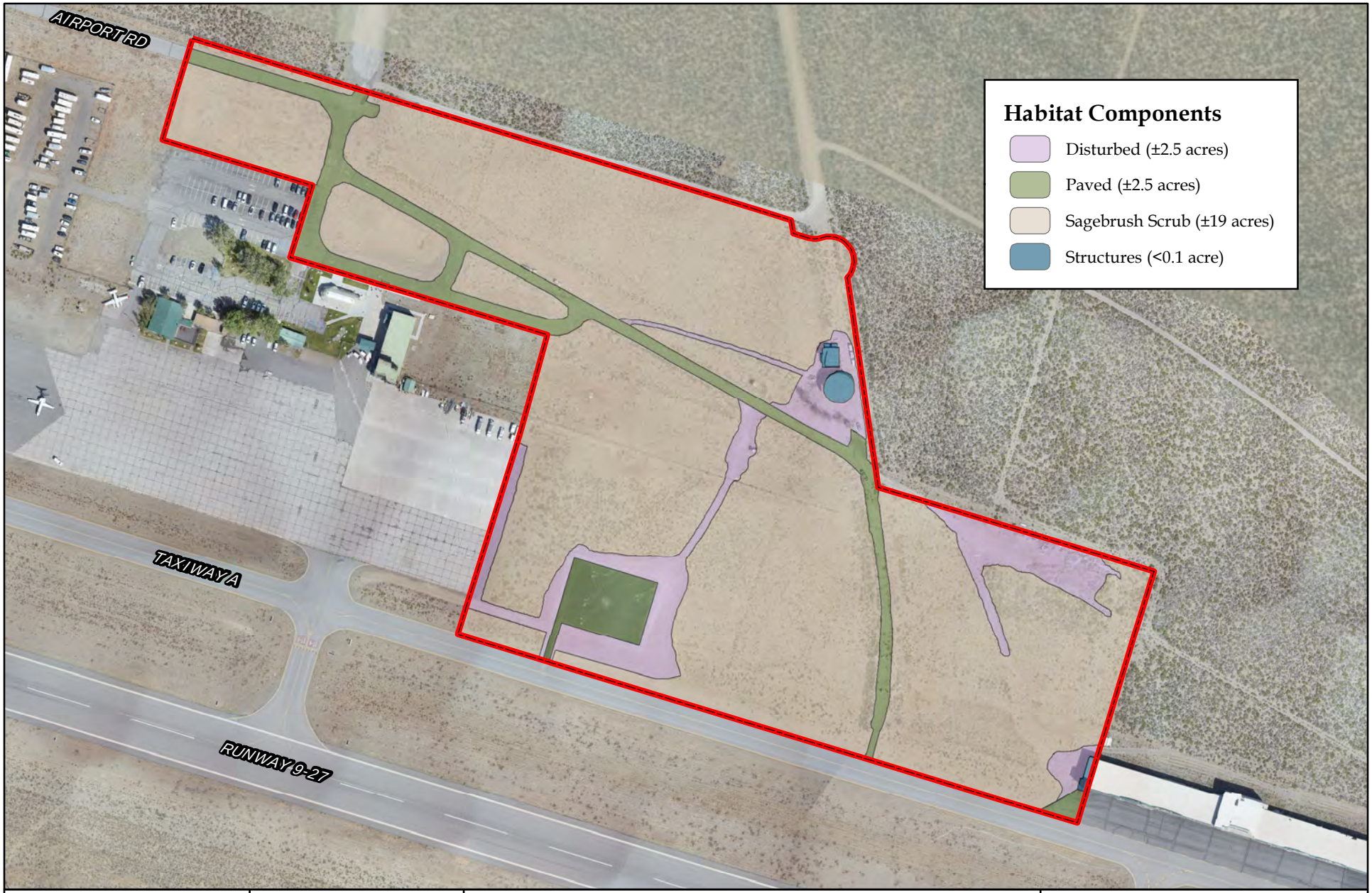
Approximately 2.5 acres of the study area is dirt roads and ruderal surfaces with little or no vegetation.

Structures

A small portion of the study area has existing structures, including a water tank, a maintenance shed and the edge of a hanger. There are planted trees on the runway side of the water tank (mostly aspen- the only trees in the study area).

Potential Waters of the U.S

The study area was assessed for waters of the U.S. This was done by reviewing aerial photography and through a thorough ground assessment. The study area contains no



Salix consulting, inc.

N

0 125 250

Feet

Study Area
(±24 acres)

Imagery: 9-17-19 Salix Consulting
Overlaid on DigitalGlobe 6/19/2015 Basemap

Figure 3

HABITAT MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking west over study area. *Photo Date 9-16-19.*



Looking east over study area. *Photo Date 9-16-19.*

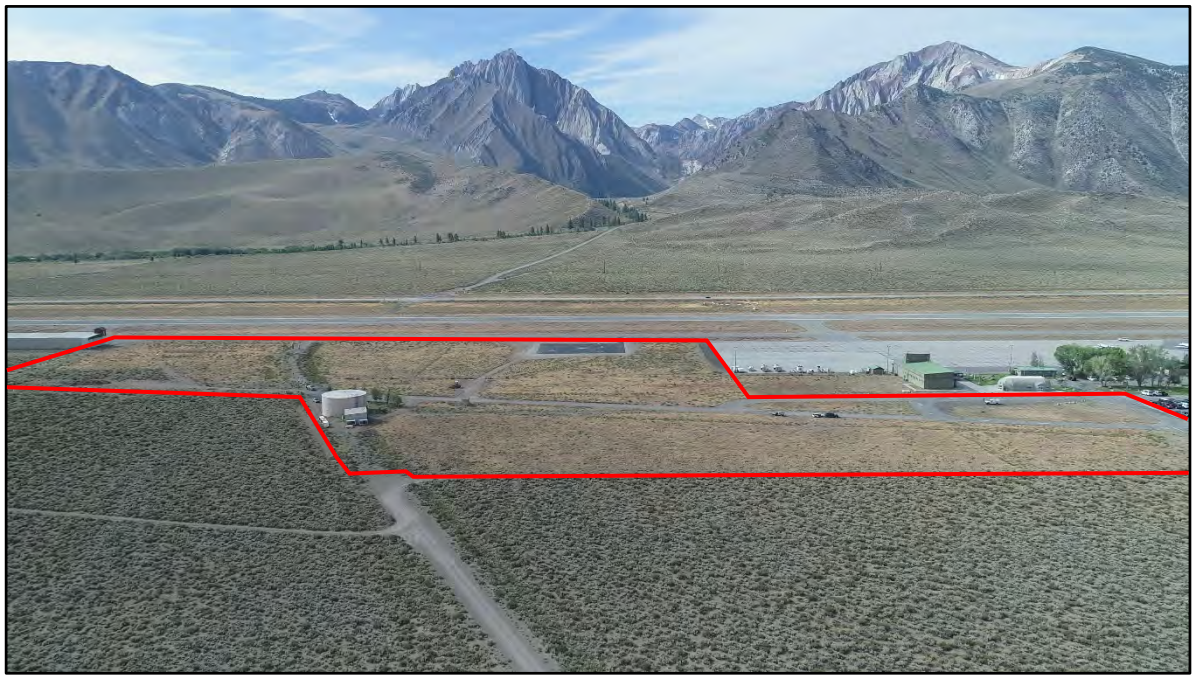
Salix consulting, inc.

Figure 4a

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking south over study area. *Photo Date 9-16-19.*



Looking north over study area. *Photo Date 9-16-19.*

Salix consulting, inc.

Figure 4b

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking east over study area. *Photo Date 9-17-19.*



Looking southeast over eastern portion of study area and proposed AARF building. *Photo Date 9-17-19.*

Salix consulting, inc.

Figure 4c

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking west over study area toward existing terminal.
Photo Date 9-17-19.



Looking southeast over southern half of study area.
Photo Date 9-17-19.

Salix consulting, inc.

Figure 4d

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

depressions that hold water for an extended period, groundwater discharge areas, or surface drainages. There are no waters of the U.S. in the study area.

Wildlife Occurrence and Use

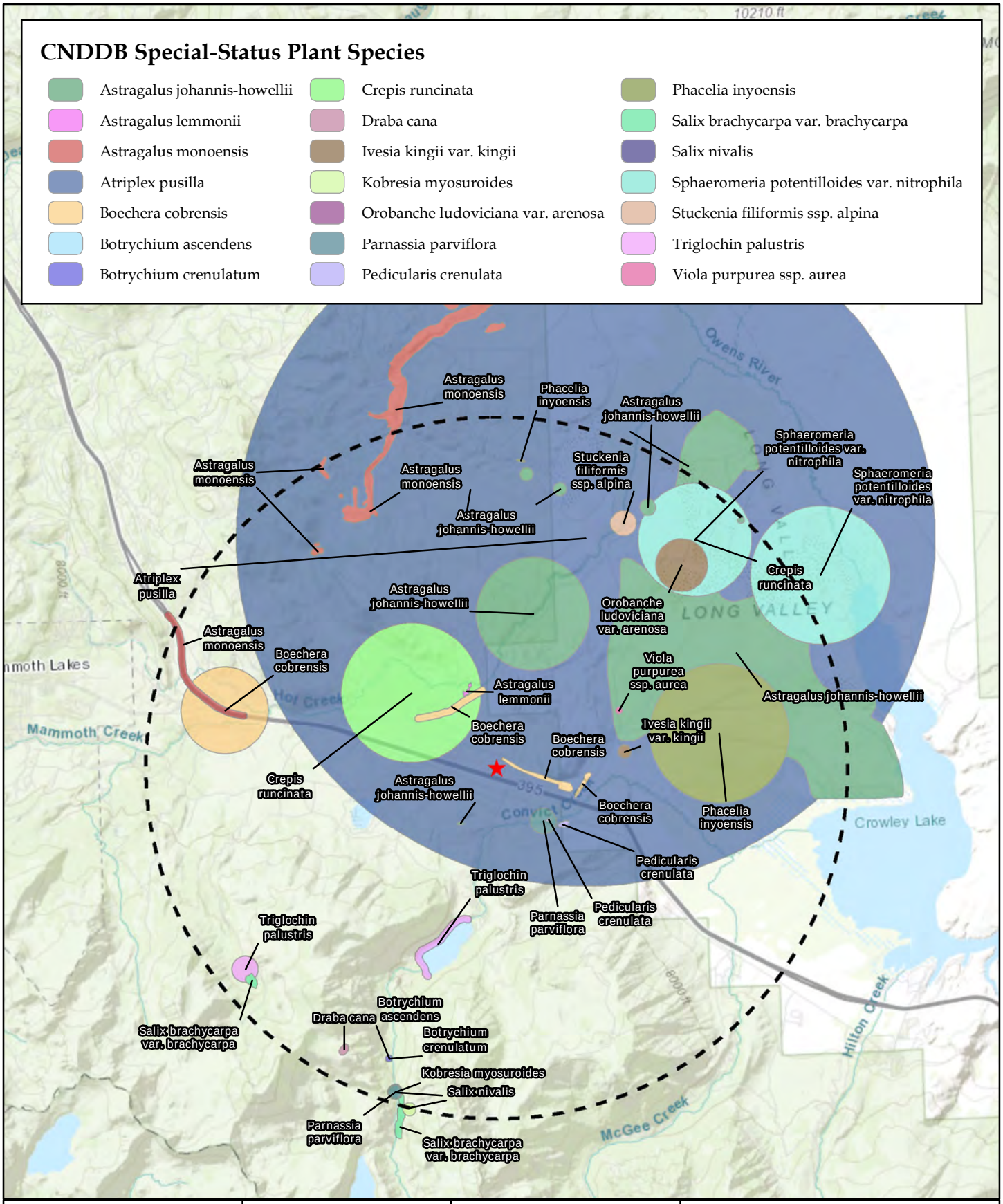
The study area occurs adjacent to the existing airport facility and most of the ground is influenced by airport operations, including infrastructure and vegetation management. Wildlife species occur throughout the area but are generally transient foragers that do not linger. Sign of mule deer (tracks) was present although none were observed during the site visits. Other mammal tracks were observed but not identified. Bird utilization was low during the two-day site visit. Species observed included Brewer's blackbird, northern flicker, spotted towhee, California scrub-Jay, common raven, dark-eyed Junco and house sparrow, red-tailed hawk, turkey vulture, house finch, green-tailed towhee, northern mockingbird and mourning dove. Rodent burrows were observed but other than golden mantled ground squirrel (*Spermophilus lateralis*) few live animals were observed.

Great Basin mixed scrub and big sagebrush scrub habitat in the area surrounding the airport provide important forage for populations of mule deer (*Odocoileus hemionus*) belonging to the Round Valley herd. The migration route of the Round Mountain Herd passes through an area south of the airport and U.S. Route 395 (US 395) and the airport is part of a "holding area" where deer may linger for up to 6-10 weeks (Caltrans 2016). The mule deer is considered a species of least concern by the International Union for Conservation of Nature (IUCN). However, the Round Valley herd has experienced decline and fluctuation in population numbers (Town of Mammoth Lakes 2002) and the biggest "hot-spot" for deer vehicle collisions along US 395 is located between Benton Crossing Road and Mt. Morrison Rd, just east of the airport (Caltrans 2016).

A Wildlife Hazard Assessment (WHA) prepared for Town of Mammoth Lakes (TOML) in December 2015 recommended that an 8-foot chain link fence be constructed along the Airport boundary to prevent deer and other wildlife from entering the airfield (Advantage Consulting, LLC 2015). The fence has not yet been constructed.

Special-Status Species

To determine potentially-occurring special-status species, the standard databases from the USFWS, CDFW (the CNDDB), and CNPS were queried and reviewed. These searches provided a list of regionally occurring species and were used to determine which species have some potential to occur within or near the study area. Appendix B lists potentially-occurring special-status plants, and Appendix C lists special-status animals compiled from our queries as described above. The field survey and the best professional judgment of Salix biologists were used to further refine the tables in Appendices B and C. Additionally, plant species found on the CNPS List 4 are not considered further in the document. Figure 5a shows the approximate locations of reported occurrences of CNDDB special-status plants within a five-mile radius of the study area, and Figure 5b shows the same for reported occurrences of sensitive and special-status animals



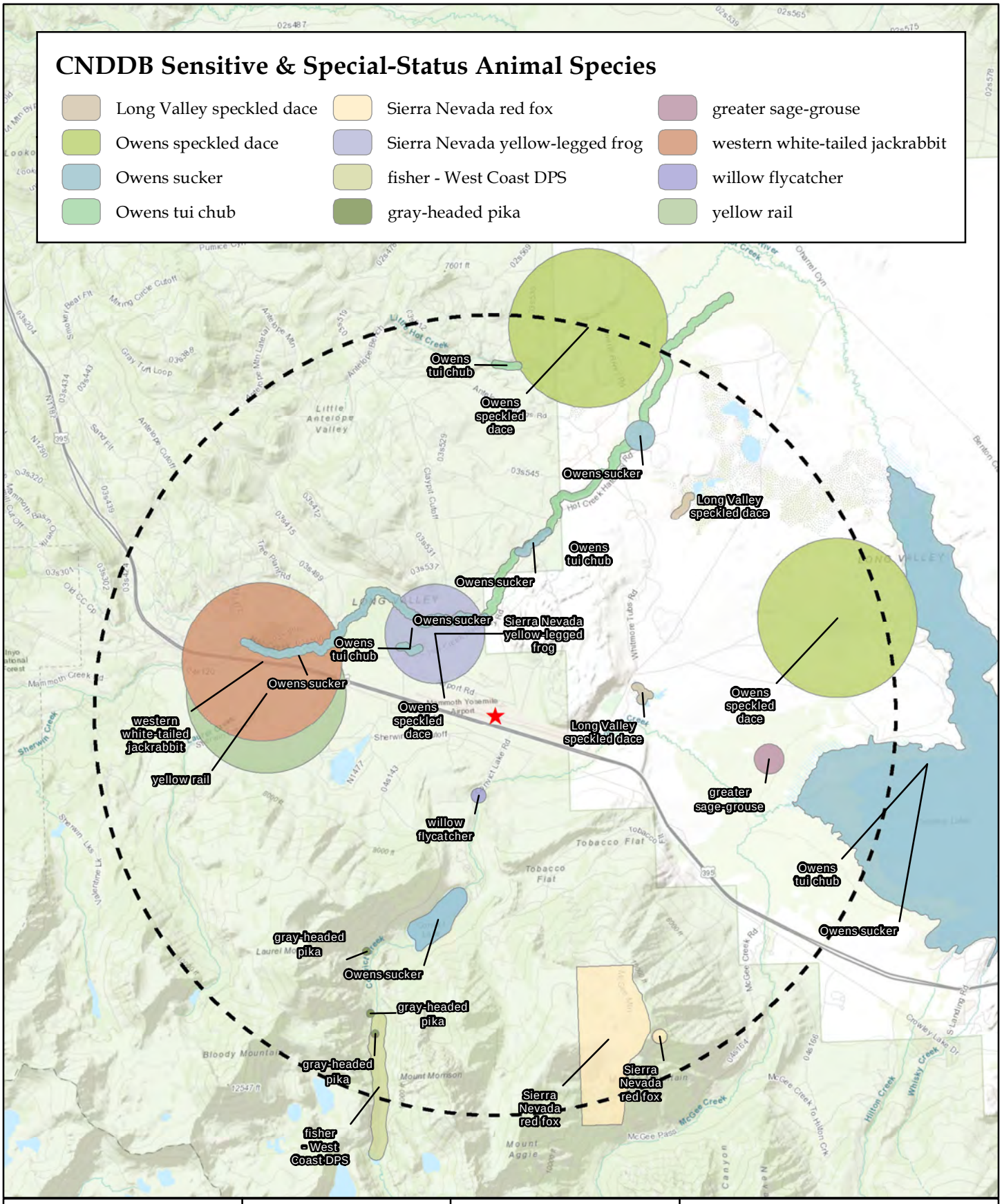
Salix consulting, inc.

Figure 5a

CNDDB OCCURRENCES MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Salix consulting, inc.

N

0 4,400 8,800

Feet

5-Mile Radius

Project Site

Figure 5b

CNDDB OCCURRENCES MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

Plants

Of the 42 potentially-occurring plant species identified in the CNDDB query (Appendix B), 21 were identified as occurring within or near a five-mile radius of the study area (Figure 5a).

Thirty-six (36) species were determined to have no potential to occur due to the absence of suitable habitats or substrates. The following 18 species have no potential to occur due to the lack of wet conditions within the study area. Those that are reported to occur within a 5-mile radius of the study area are marked with an asterisk (*).

- Alkali tansy-sage (*Sphaeromeria potentilloides var. nitrophila)**
- Canescent draba (*Draba cana)**
- Tall draba (*Draba praealta)*
- Foxtail thelepody (*Thelypodium integrifolium ssp. complanatum)*
- Bog sandwort (*Minuartia [Sabulina] stricta)*
- Western single-spiked sedge (*Carex scirpoidea ssp. pseudoscirpoidea)*
- Little bulrush (*Trichophorum pumilum*)
- Lemmon's milkvetch (*Astragalus lemmonii)**
- Marsh arrow-grass (*Triglochin palustris)**
- Upswept moonwort (*Botrychium ascendens)**
- Scalloped moonwort (*Botrychium crenulatum)**
- Mingan moonwort (*Botrychium minganense*)
- Scallop-leaved lousewort (*Pedicularis crenulata)**
- Small-flowered grass-of-parnassus (*Parnassia parviflora)**
- Slender-leaved pondweed (*Stuckenia filiformis ssp. alpina*)*
- Alkali ivesia (*Ivesia kingie var. kingii)**
- Short-fruited willow (*Salix brachycarpa var. brachycarpa)**
- Snow willow (*Salix nivalis)**

Eighteen (18) species were determined to have no potential for occurring onsite due to the absence of suitable habitat (pinon/juniper forest, rock outcrops or slopes, pumice flats, or talus slopes) or alkaline substrates. These include the following. Those that are reported to occur within a 5-mile radius of the study area are marked with an asterisk (*).

- Fiddleleaf hawksbeard (*Crepis runcinata)**
- Inyo hulsea (*Hulsea vestita inyoensis)*
- Inyo phacelia (*Phacelia inyoensis)*
- Bodie Hills rock cress (*Boechera bodiensis)*

- Pinyon rockcress (*Boechera dispar)*
- Sweetwater Mountains draba (*Draba incrassata)*
- Spear-fruited draba (*Draba lonchocarpa)*
- Smooth saltbush (*Atriplex pusilla*)*
- Dwarf monolepis (*Micromonolepis pusilla)*
- Seep kobresia (*Kobresia myosuroides)**
- Mono milkvetch (*Astragalus monoensis)**
- Mono Lake lupine (*Lupinus duranii)*
- Hockett Meadows lupine (*Lupinus lepidus var. culbertsonii)*
- Inyo County star-tulip (*Calochortus excavatus)*
- Torrey's blazing star (*Mentzelia torreyi)*
- Fell-fields claytonia (*Claytonia megarhiza)*
- Booth's evening-primrose (*Eremothera boothii ssp. boothii)*
- Scribner's wheatgrass (*Elymus scribneri)*

In summary, 36 special-status plants known from the region surrounding the study area (Appendix C), including 17 species that are known from within a five-mile radius (Figure 5a), require habitats or substrates that do not occur within the study area, were determined to have no potential for occurring onsite, and were eliminated from further consideration.

Six (6) plant species from Appendix B, listed in Table 2 below, were determined to have some potential to occur within the study area and are described below. Four of these species are reported to occur within a 5-mile radius of the study area (Figure 5a) and are marked with an asterisk (*) in Table 2.

Table 2.

Special-Status Plant Species Determined to Have Some Potential to Occur within the Mammoth Yosemite Airport Terminal Area Development Plan Study Area

Species	Status* Federal	State	CNPS	Habitat	Potential for Occurrence Within Study Area**
Naked-stemmed phacelia *Phacelia gymnoclada*	-	-	2B.3	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland; gravelly or clay.	Unlikely. Marginal habitat present within study area.
Masonic rock cress *Boechera cobrensis**	-	-	2B.3	Great Basin scrub; pinyon/ juniper woodland [sandy].	Possible. Marginal habitat present within study area. Observed within study area in 2003 and 2010.

Species	Status* Federal	State	CNPS	Habitat	Potential for Occurrence Within Study Area**
Long Valley milkvetch *Astragalus johannis-howellii**	-	CR	1B.2	Great Basin scrub (sandy loam).	Unlikely. Marginal habitat present within study area.
Booth's hairy evening-primrose *Eremothera boothii intermedia*	-	-	2B.3	Great Basin scrub (sandy), Pinyon and juniper woodland	Unlikely. Marginal habitat present within study area.
Suksdorf's broom-rape *Orobanche ludoviciana arenosa**	-	-	2B.3	Great Basin scrub	Unlikely. Marginal habitat present within study area.
Golden violet *Viola purpurea aurea**	-	-	2B.2	Great Basin scrub; pinyon/juniper woodland; [sandy].	Unlikely. Marginal habitat present within study area.

*Status Codes:
State
CR California Rare
CNPS
Rank 1 Rare, Threatened, or Endangered in California
Rank 2 R, T, or E in California, more common elsewhere

**Definitions for the Potential to Occur:
Unlikely. Some habitat may occur, but disturbance may restrict/eliminate the possibility of occurrence. Habitat may be very marginal, or study area is outside range of species.

Naked-stemmed phacelia (*Phacelia gymnoclada),* an annual herb of the Hydrophyllaceae family, has no federal or state status, but is ranked 2B.3 by CNPS. It is native to the western Great Basin of the United States, where it can be found in the scrublands of Nevada, Oregon, and the eastern edge of California. Its habitats include chenopod scrub, Great Basin scrub and pinon and juniper woodland. *Phacelia gymnoclada* has a branching, spreading or upright stem up to about 20 centimeters long. Each flower is up to a centimeter long and has a yellow tubular throat and five corolla lobes which are usually lavender in color. *Phacelia gymnoclada* blooms from April thru June, sometimes August.

According to the CNDDB, the nearest recorded occurrence of the species is approximately 7.6 miles north of the study area, near the Owens River in 1979, location a "best guess." Habitat within the study area is marginal, and it was not observed during the September field assessment, although the survey was conducted after the bloom period. It is unlikely that it occurs on the site.

Masonic rock cress (*Boechera cobrensis)* is a perennial herb of the Brassicaceae (mustard) family, and has no federal or state status, but is ranked 2B.3 by CNPS. It is native to the western United States from eastern California to Wyoming, where it is found in sandy habitat, especially sagebrush in Great Basin scrub and pinon and juniper woodland. This is a perennial herb growing several erect, slender stems to heights near half a meter from a branching caudex. The plant forms a narrow clump with a base of narrow, linear, densely hairy leaves up to 5 centimeters long. The top of each stem is occupied by an

inflorescence of small, nodding flowers with dull yellowish sepals and white petals. Masonic rock cress blooms in June and July.

While habitat within the study area is marginal, masonic rock cress has been observed within the study area, on the north side of the airport and the west side of Benton Crossing Road, in 2003 and 2010, according to the CNDDB. It was not observed during the September field assessment, but the survey was conducted after the bloom period, and it is possible that it may occur.

Long Valley milkvetch *Astragalus johannis-howellii** is a perennial herb of the Fabaceae family, native to California. It has no federal status but is listed as Rare by the State; it is ranked 1B.2 by CNPS. It is native to eastern California, including Long Valley in Mono County, and its distribution extends over the border into Nevada. Its habitat is Great Basin scrub. Long valley milkvetch forms loose clumps of very thin, branching stems up to 20 centimeters long. The leaves are a few centimeters long and are made up of many tiny folded oval-shaped leaflets. The inflorescence holds 6 to 12 off-white pale-striped flowers, each a few millimeters long. It blooms from May or June through August.

According to the CNDDB, the nearest reported occurrence of Long Valley milkvetch I approximately one mile southwest of the study area, west of the Sierra Nevada Aquatic Research Laboratory, May 2011. Habitat within the study area is marginal, and it was not observed during the September field assessment, although the survey was conducted after the bloom period. It is unlikely that it occurs on the site.

Booth's hairy evening-primrose *Eremothera boothii intermedia* is an annual herb of the Onagraceae family, native to California. It has no federal or state status but is ranked 2B.3 by CNPS. It is most abundant in arid areas. It has hairy reddish-green stems and mottled foliage. The stem ends in a nodding inflorescence of many small flowers which may be white to red or yellowish, often with darker shades on the external surfaces of the four spoon-shaped petals. It blooms from April to September.

According to the CNDDB, the nearest recorded occurrence of Booth's hairy evening-primrose is approximately 11.3 miles northeast of the study area in the Glass Mountains in 1982. Habitat within the study area is marginal, and it was not observed during the September field assessment, toward the end of the bloom period. It is unlikely that it occurs on the site.

Suksdorf's broom-rape *Orobanche ludoviciana arenosa** is a perennial herb of the Orobanchaceae family, native to California. It is "achlorophyllous," meaning it is partly or entirely non-photosynthetic. It has no federal or state status but is ranked 2B.3 by CNPS. According to CNPS, the species is parasitic on *Ericameria* and *Iva* spp. and occurs in Great Basin scrub habitat. It blooms from June through September or October.

According to the CNDDB, the nearest recorded occurrence of Suksdorf's broom-rape is approximately 3.6 miles northeast of the study area in Long Valley, Little Alkali Lake, Benton Crossing Road north of Highway 395, specific location unknown, in 2002. Habitat within the study area is marginal, and it was not observed during the September field assessment, toward the end of the bloom period. It is unlikely that it occurs on the site.

Golden violet *Viola purpurea aurea**is perennial herb of the Violaceae family, native to California. It has no federal or state status but is ranked 2B.2 by CNPS. Its habitats are Great Basin scrub and pinon/juniper woodland, sandy soils. It is known from scattered occurrences in various types of dry habitat such as the slopes of desert mountains. It grows from a tough taproot and produces a woolly-haired stem up to about 13 centimeters tall. A solitary flower has five yellow petals, the lowest one marked with brown veining and the upper pair tinged with brown or purple on the outer surface. It blooms from April through June.

According to the CNDDB, the nearest recorded occurrence of golden violet is approximately 1.6 miles northeast of the study area along Whitmore Tubs Road, north of Whitmore Hot Springs, "best guess location" in 2011. Habitat within the study area is marginal, and it was not observed during the September field assessment, although the survey was conducted after the bloom period. It is unlikely that it occurs on the site.

Animals

Of the 22 sensitive and special-status animal species identified in the CNDDB and USFWS queries (Appendix C), 12 were identified as occurring within or near the five-mile radius of the study area (Figure 5b).

None of the fish or amphibian species occurring within a 5-mile radius (* below) or identified in the CNDDB and USFWS queries were determined to have any potential for occurring onsite due to the total absence of suitable aquatic habitat. These include:

- Owens speckled dace (*Rhinichthys osculus ssp.2)**
- Long Valley speckled dace (*Rhinichthys osculus ssp. 5)**
- Owens pupfish (*Cyprinodon radiosus)*
- Lahontan cutthroat trout (*Oncorhynchus clarki henshawi)*
- Owens tui chub (*Siphateles bicolor snyderi)**
- Owens sucker (*Catostomus fumeiventris)**
- Yosemite toad (*Anaxyrus canorus)*
- Sierra Nevada yellow-legged frog (*Rana sierrae)**

None of the bird species occurring within a 5-mile radius (* below) or identified in the CNDDB and USFWS queries were determined to have any potential for occurring onsite due to the total absence of suitable nesting habitat. These include:

- Northern goshawk (*Accipiter gentilis)*
- Swainson's hawk (*Buteo swainsoni)*
- Greater sage-grouse (C*entrocercus urophasianus)**
- Yellow rail (*Coturnicops noveboracensis)**
- Great gray owl (*Strix nebulosa)*
- Willow flycatcher (*Empidonax traillii)**

- Bank swallow (*Riparia riparia)*

Six (6) of the seven (7) mammalian species occurring within a 5-mile radius (* below) or identified in the CNDDB and USFWS queries were determined to have no potential for occurring onsite due to the absence of suitable habitats (streams, riparian, forests, rocky terrain). In one case, the study area's proximity to human activity also precluded occurrence (California wolverine). These mammals include:

- Mt. Lyell shrew (*Sorex lyelli)*
- Sierra Nevada mountain beaver (*Aplodontia rufa californica)*
- Sierra Nevada red fox (*Vulpes vulpes necator)**
- Fisher - West Coast DPS (*Pekania pennanti)**
- California wolverine (*Gulo gulo)*
- Sierra Nevada bighorn sheep (*Ovis canadensis sierrae)*

In summary, 21 special-status animals known from the region surrounding the study area (Appendix C), including 12 species that are known from within a five-mile radius (Figure 5b) require habitats that do not occur within the study area, were determined to have no potential for occurring onsite, and were eliminated from further consideration.

One animal species from Appendix C, white-tailed jackrabbit (*Lepus townsendii),* is reported to occur within five miles of the study area and was determined to have some potential (unlikely) to occur within the study area and is discussed below.

In addition, the CNDDB query indicated that the gray-headed pika, which has no federal or state status but is considered a sensitive species, is also reported to occur within five miles of the study area and is discussed below.

Western white-tailed jackrabbit *(Lepus townsendii)* is an uncommon to rare year-round resident of the crest and upper eastern slope of the Sierra Nevada and Cascade Range from the Oregon border south to Tulare and Inyo counties. Populations of the western white-tailed jackrabbit have become significantly fragmented. This primarily nocturnal species prefers open areas with scattered shrubs, such as in sagebrush, subalpine conifer, juniper, and perennial grassland habitats. Seasonal movement from higher to lower elevations during winter months is common. Like other hares, white-tailed jackrabbit takes cover in a shallow depression in dense underbrush. Breeding takes places from February to July, with gestation occurring for 30 to 42 days. Soon after birth, the young forage for themselves, becoming independent at about 3 to 4 weeks. During the spring through fall, the diet consists of grasses and other herbaceous plants. In winter, the diet includes buds, bark, and young twigs (Zeiner et al., 1990).

The CNDDB documents the nearest occurrence of the western white-tailed jackrabbit as a 1955 observation, three miles west of the study area, in Long Valley about 1.2 miles southeast of Casa Diablo Hot Springs. It is unlikely that white-tailed jackrabbit would occur within the Mammoth Airport study area because there is no nearby water and

cover on the site is minimal. The species was not observed during the September survey.

The **greater sage grouse** (*Centrocercus urophasianus*) is an uncommon permanent resident in northeastern California that ranges from the Oregon border to northern Inyo county along the east side of the Cascade and Sierra Nevada mountain ranges. The species prefers a habitat of sagebrush, perennial grassland, or wet meadow interspersed with open areas among shrubs to perform mating courtship displays. Breeding occurs in late winter and early spring, when males from several square miles congregate at established courtship ritual areas (leks) to perform a strutting display for observing females. After breeding, female greater sage grouse nest underneath sagebrush in areas surrounding the lek (Zeiner et al., 1990).

The Bi-State distinct population segment (DPS) of greater sage grouse (which occupies the Mono Basin in Mono, Alpine and Inyo counties) currently has a federal status of proposed threatened and is considered a species of special concern by the California Department of Fish and Wildlife (CDFW). On October 1, 2019, the USFWS announced a 6-month extension of the final determination of whether to list the Bi-State DPS as a threatened species under the Endangered Species Act.

Greater sage-grouse are known to occur in the region surrounding the airport and signs of sage grouse (fecal droppings) were observed north of the airport near Hot Creek Hatchery Road in June 2000 (Town of Mammoth Lakes 2002). The nearest CNDDB documented occurrence of the greater sage-grouse is from 1987, when a large lek was observed approximately 3.5 miles east of the study area in sage desert habitat near Crowley Lake in 1987. Because of the study area's proximity to human and airport activity, there is no suitable habitat for the greater sage-grouse on the site, and the species was not observed during the September survey.

The **gray-headed pika** does not have federal or state status, but it is given a rank of S2S4 by the State, which indicates a range of uncertainty about the status of the species (S2=imperiled to S4=apparently secure). Pika inhabits talus or piles of broken rock fringed by suitable vegetation within generally cool, mesic, and usually montane habitat.

The CNDDB documents several occurrences of pika within a five-mile radius of the site, the nearest being approximately 3.4 miles southwest of the study area, 0.9 mile east northeast of Laurel Mountain, along Convict Creek in light limestone-based debris flow, in 2009. No suitable habitat for pika occurs within the study area, and the species was not observed during the September survey.

RECOMMENDATIONS

Waters of the United States

The study area contains no potential waters of the U.S. and therefore, there are no Clean Water Act permitting requirements.

Streams, Pond, and Riparian Habitat

No streams or riparian areas are present within the study area. Thus, no impacts to the bed, bank, or channel of streams or ponds are anticipated, and no Lake & Streambed Alteration Agreement (LSAA) from the California Department of Fish and Wildlife (CDFW) would be required.

Special-Status Plants

The study area contains marginal habitats for six special-status plant species that may occur in the region, as listed in Table 2. One of these, Long Valley milkvetch, has no federal status but is listed as Rare by the State. All six plants are ranked 1B or 2B by CNPS. While none were detected during the September survey, the survey was conducted outside the bloom period for most of these species. The Town of Mammoth Lakes may require that special-status plant surveys be conducted during the appropriate time (late spring-early summer) to determine if any of these species are present onsite. Should any special-status plant species be detected within the study area, appropriate mitigation measures shall be developed in coordination with the Town Planning Department.

Special-Status Wildlife

Western white-tailed jackrabbit

The study area provides marginal habitat for the western white-tailed jackrabbit and therefore, additional springtime observation is warranted to determine if it is present in the study area. If this species is detected within the study area, appropriate mitigation measures shall be developed in coordination with the Town Planning Department. The Town may defer to CDFW for consultation.

Nesting Raptors and Migratory Birds

The site does not provide suitable nesting habitat for any common raptors known from the region, nor for other birds protected by the Migratory Bird Treaty Act. Thus, a pre-construction survey would not be necessary.

REFERENCES AND OTHER RESOURCES

Advantage Consulting, LLC. 2015. Mammoth Yosemite Airport Wildlife Hazard Assessment. Hodgson, Ann B. and Exner, Gary, preparers. January 12, 2015

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

California Department of Fish and Wildlife, California Wildlife Habitat Relationships Program. 2008. Complete List of Amphibians, Reptiles, Birds, and Mammals in California. Sacramento, California.

California Department of Fish and Wildlife, Wildlife and Habitat Data Analysis Branch. 2019. Natural Diversity Data Base Report (CNDDB). Sacramento, California.

California Department of Transportation, District 9 (Caltrans). 2016. Feasibility Study Report for Wildlife Vehicle Collision Reduction in Caltrans District 9. October 2016.

CaliforniaHerps.com. A Guide to the Amphibians and Reptiles of California. Updated 2019. Found online: http://www.california.herps.com

California Native Plant Society. 2019. Inventory of Rare and Endangered Plants. An online database maintained by the Native Plant Society.

Fix, David and Andy Bezener. 2000. Birds of Northern California. Lone Pine Publishing. Renton, Washington.

Jameson, E.W., Jr. and H.J. Peeters. 2004. Mammals of California. University of California Press. Berkeley, California.

Jennings, Mark R. and Marc P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California.

Sibley, D.A. 2003. The Sibley Field Guide to Birds of Western North America. Alfred A. Knopf. New York.

Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company. Boston, Massachusetts.

Town of Mammoth Lakes. 2002. Final Supplement to Subsequent Environmental Impact Report. Mammoth Yosemite Airport Expansion Project. Mammoth Yosemite Airport. March 2002. Section III. 3.3.

U.S. Fish and Wildlife Service. 2019. IPaC Trust Resources Report generated for the Mammoth Airport study area, Sacramento County.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1988. California's Wildlife, Volume I. Amphibians and Reptiles. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990a. California's Wildlife, Volume II: Birds. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990b. California's Wildlife, Volume III: Mammals. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Appendix A.
Plant Species Observed Within the Mammoth Airport Study Area

Appendix A

Mammoth Yosemite Airport - Plants Observed - September 2019

Angiosperms - Dicots

Asteraceae (Compositae) - Sunflower Family

Achillea millefolium	Common yarrow
Artemisia tridentata subsp. vaseyana	Mountain sagebrush
Ericameria nauseosa	Rubber rabbitbrush
Ericameria parryi var. aspera	Rough rabbitbrush
Erigeron sp.	Fleabane

Boraginaceae - Borage Family

Lappula redowskii var. redowskii	Western stickseed

Brassicaceae (Cruciferae) - Mustard Family

**Descurainia sophia*	Tansy mustard

Chenopodiaceae - Goosefoot Family

**Chenopodium album*	White pigweed
**Salsola tragus*	Russian-thistle

Fabaceae (Leguminosae) - Legume Family

Astragalus sp.	Loco weed
Lupinus sp.	Lupine

Linaceae - Flax Family

Linum lewisii	Prairie flax

Loasaceae - Loasa Family

Mentzelia dispersa	Nevada stickleaf

Montiaceae - Miner's Lettuce Family

Calyptridium monospermum	One-seeded pussypaws

Polemoniaceae - Phlox Family

Eriastrum wilcoxii	Wilcox's woolly-star

Polygonaceae - Buckwheat Family

Chorizanthe sp.	Spineflower
Eriogonum baileyi var. baileyi	Bailey's wild buckwheat
Eriogonum sp.	Wild buckwheat
**Polygonum aviculare*	Common knotweed

Rosaceae - Rose Family

Prunus andersonii	Desert peach
Purshia tridentata	Antelope bitterbrush

Scrophulariaceae - Figwort Family

**Verbascum thapsus*	Woolly mullein

Angiosperms -Monocots

Poaceae (Gramineae) - Grass Family

**Agropyron cristatum subsp. pectinatum*	Crested wheatgrass
**Bromus madritensis*	Foxtail brome

* Indicates a non-native species

**Bromus tectorum*	Cheat grass
Elymus elymoides	Squirreltail
**Elymus repens*	Quackgrass
**Poa pratensis*	Kentucky bluegrass

Appendix B.
Potentially-Occurring Special-Status Plants in the Region of the Mammoth Airport Study Area

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Asteraceae (Compositae)				
Crepis runcinata Fiddleleaf hawksbeard	Fed: - State: - CNPS: Rank 2B.2	May-August	Mojavean desert scrub, Pinyon and juniper woodland; Mesic, alkaline.	None. No suitable habitat present. Study area lacks alkaline soils.
Hulsea vestita inyoensis Inyo hulsea	Fed: - State: - CNPS: Rank 2B.2	April-June	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland; rocky	None. No suitable habitat present. Study area lacks open gravelly talus slopes in pinyon ununiper woodland.
Sphaeromeria potentilloides nitrophila Alkali tansy-sage	Fed: - State: - CNPS: Rank 2B.2	June-July	Meadows and seeps, Playas; usually alkaline	None. No suitable habitat present. Study area lacks wet conditions. Generally occurs at lower elevations.
Boraginaceae				
Phacelia gymnoclada Naked-stemmed phacelia	Fed: - State: - CNPS: Rank 2B.3	April-June	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland; gravelly or clay.	Unlikely. Marginal habitat present within study area.
Phacelia inyoensis Inyo phacelia	Fed: - State: - CNPS: Rank 1B.2	April-August	Meadows and seeps (alkaline)	None. No suitable habitat present. Study area lacks alkaline meadows..
Brassicaceae (Cruciferae)				
Boechera bodiensis Bodie Hills rock cress	Fed: - State: - CNPS: Rank 1B.3	June-August	Alpine boulder and rock field, Great Basin scrub, pinyon and juniper woodland.	None. No suitable habitat present. Study area lacks igneous rock outcrops. Study area below range of species.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Boechera cobrensis Masonic rock cress	Fed: - State: - CNPS: Rank 2B.	June-July	Great Basin scrub; pinyon/juniper woodland [sandy].	Possible. Marginal habitat present within study area, but species observed within study area in 2003 and 2010.
Boechera dispar Pinyon rockcress	Fed: - State: - CNPS: Rank 2B.3	March-June	Joshua Tree woodland; Mojavean desert scrub; pinyon/juniper woodland [granitic, gravelly].	None. No suitable habitat present. Study area lacks rocky outcrops.
Draba cana Canescent draba	Fed: - State: - CNPS: Rank 2B.3	July-July	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest; carbonate	None. No suitable habitat present. Study area lacks wet areas and boulder fields.
Draba incrassata Sweetwater Mountains draba	Fed: - State: - CNPS: Rank 1B.3	July-August	Alpine boulder and rock field (rhyolitic talus)	None. No suitable habitat present. Study area lacks alpine barrens and rocky slopes.
Draba lonchocarpa Spear-fruited draba	Fed: - State: - CNPS: Rank 2B.3	June-July	Alpine boulder and rock field (carbonate, scree)	None. No suitable habitat present. Study area lacks calcareous scree.
Draba praealta Tall draba	Fed: - State: - CNPS: Rank 2B.3	July-August	Meadows and seeps (mesic)	None. No suitable habitat present. Study area lacks wet areas or talus.
Thelypodium integrifolium complanatum Foxtail thelepody	Fed: - State: - CNPS: Rank 2B.2	June-October	Great Basin scrub, Meadows and seeps; alkaline or subalkaline, mesic.	None. No suitable habitat present. Study area lacks alkaline soils and wet areas.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Caryophyllaceae				
Minuartia stricta Bog sandwort	Fed: - State: - CNPS: Rank 2B.3	July-September	Alpine boulder and rock field, Alpine dwarf scrub, Meadows and seeps	(Also called Sabulina stricta). None. No suitable habitat present. Study area lacks wet areas.
Chenopodiaceae				
Atriplex pusilla Smooth saltbush	Fed: - State: - CNPS: Rank 2B.1	June-September	Great Basin scrub, Meadows and seeps (hot springs); alkali.	None. No suitable habitat present. Study area lacks alkaline soils and hot springs.
Micromonolepis pusilla Dwarf monolepis	Fed: - State: - CNPS: Rank 2B.3	May-August	Great Basin scrub; alkaline, openings.	None. No suitable habitat present. Study area lacks alkali flats.
Cyperaceae				
Carex scirpoidea pseudoscirpoidea Western single-spiked sedge	Fed: - State: - CNPS: Rank 2B.2	July-September	Alpine boulder and rock field, Meadows and seeps, Subalpine coniferous forest (rocky); mesic, often carbonate	None. No suitable habitat present. Study area lacks wet areas.
Kobresia myosuroides Seep kobresia	Fed: - State: - CNPS: Rank 2B.2	June-August	Alpine boulder and rock field (mesic); meadows and seeps (carbonate); subalpine coniferous forest.	None. No suitable habitat present. Study area lacks rocky seeps.
Trichophorum pumilum Little bulrush	Fed: State: CNPS: Rank 2B.2	August-August	Bogs and fens, Marshes and swamps, Riparian scrub; riverbanks, carbonate.	None. No suitable habitat present. Study area lacks wet areas.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Fabaceae (Leguminosae)				
Astragalus johannis-howellii Long Valley milkvetch	Fed: - State: CR CNPS: Rank 1B.2	June-August	Great Basin scrub (sandy loam).	Unlikely. Marginal habitat present withiin study area.
Astragalus lemmonii Lemmon's milkvetch	Fed: FSS State: - CNPS: Rank 1B.2	May-August	Great Basin scrub (meadows, seeps, marshes, and swamps). 1280 to 2200 meters.	None. No suitable habitat present. Study area lacks wet areas.
Astragalus monoensis Mono milkvetch	Fed: - State: CR CNPS: Rank 1B.2	June-August	Great Basin scrub; upper montane coniferous forest; [pumice flats].	None. No suitable habitat present. Study area lacks open pumice flats.
Lupinus duranii Mono Lake lupine	Fed: - State: - CNPS: Rank 1B.2	May-August	Great Basin scrub, Subalpine coniferous forest, Upper montane coniferous forest; volcanic pumice, gravelly.	None. No suitable habitat present. Study area lacks dry volcanic pumice areas.
Lupinus lepidus culbertsonii Hockett Meadows lupine	Fed: - State: - CNPS: Rank 1B.3	July-August	Meadows and seeps, Upper montane coniferous forest (mesic, rocky)	None. No suitable habitat present. Study area lacks rocky slopes.
Juncaginaceae				
Triglochin palustris Marsh arrow-grass	Fed: - State: - CNPS: Rank 2B.3	July-August	Meadows and seeps, Marshes and swamps (freshwater), Subalpine coniferous forest; mesic.	None. No suitable habitat present. Study area lacks wet areas.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Liliaceae				
Calochortus excavatus Inyo County star-tulip	Fed: - State: - CNPS: Rank 1B.1	April-July	Chenopod scrub; meadows (alkaline).	None. No suitable habitat present. Study area lacks meadows or alkali scrub habitat.
Loasaceae				
Mentzelia torreyi Torrey's blazing star	Fed: - State: - CNPS: Rank 2B.2	June-August	Great Basin scrub, Mojavean desert scrub, Pinyon and juniper woodland; sandy or rocky, alkaline, usually volcanic.	None. No suitable habitat present. Study area lacks alkaline, volcanic substrate.
Montiaceae				
Claytonia megarhiza Fell-fields claytonia	Fed: FSW State: - CNPS: Rank 2B.3	July-August	Alpine boulder or rock; subalpine coniferous forest (rocky).	None. No suitable habitat present. Study area lacks rocky habitat. Site below elevational range of species.
Onagraceae				
Eremothera boothii boothii Booth's evening-primrose	Fed: - State: - CNPS: Rank 2B.3	April-May	Joshua Tree woodland; pinyon/juniper woodland.	None. Study area does not support Joshua tree or pinyon juniper woodland.
Eremothera boothii intermedia Booth's hairy evening-primrose	Fed: - State: - CNPS: Rank 2B.3	May-June	Great Basin scrub (sandy), Pinyon and juniper woodland	Unlikely. Marginal habitat present within study area.
Ophioglossaceae				
Botrychium ascendens Upswept moonwort	Fed: FSS State: - CNPS: Rank 2B.3	July-August	Lower montane coniferous forest [mesic]; meadows and seeps.	None. No suitable habitat present. Study area lacks moist, shaded areas.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Botrychium crenulatum Scalloped moonwort	Fed: FSS State: - CNPS: Rank 2B.2	June-July	Lower montane coniferous forest; bogs and fens; meadows; marshes and swamps (freshwater).	None. No suitable habitat present. Study area lacks wet areas.
Botrychium minganense Mingan moonwort	Fed: FSS State: - CNPS: Rank 2B.2	July-September	Upper and lower montane coniferous forest (mesic); bogs and fens.	None. No suitable habitat present. Study area lacks wet areas.
Orobanchaceae				
Orobanche ludoviciana arenosa Suksdorf's broom-rape	Fed: - State: - CNPS: Rank 2B.3	June-October	Great Basin scrub	Unlikely. Marginal habitat present within study area.
Pedicularis crenulata Scallop-leaved lousewort	Fed: - State: - CNPS: Rank 2B.2	June-July	Meadows and seeps (mesic)	None. No suitable habitat present. Study area lacks wet areas.
Parnassiaceae				
Parnassia parviflora Small-flowered grass-of-parnassus	Fed: - State: - CNPS: Rank 2B.2	August-September	Meadows and seeps; mesic.	None. No suitable habitat present. Study area lacks rocky seeps.
Poaceae (Gramineae)				
Elymus scribneri Scribner's wheatgrass	Fed: - State: - CNPS: Rank 2B.3	July-August	Alpine boulder and rock field	None. No suitable habitat present. Study area lacks rocky areas and is located below elevational range of species.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site
Potamogetonaceae				
Stuckenia filiformis alpina Slender-leaved pondweed	Fed: FSW State: - CNPS: Rank 2B.2	May-July	Marshes and swamps (assorted shallow freshwter).	None. No suitable habitat present. Study area lacks wet areas.
Rosaceae				
Ivesia kingii kingii Alkali ivesia	Fed: - State: - CNPS: Rank 2B.2	May-August	Great Basin scrub, Meadows and seeps, Playas; mesic, alkaline, clay.	None. No suitable habitat present. Study area lacks moist alkaline clay.
Salicaceae				
Salix brachycarpa brachycarpa Short-fruited willow	Fed: - State: - CNPS: Rank 2B.3	June-July	Alpine dwarf scrub, Meadows and seeps, Subalpine coniferous forest; carbonate.	None. No suitable habitat present. Study area lacks wet areas.
Salix nivalis Snow willow	Fed: - State: - CNPS: Rank 2B.3	July-August	Alpine dwarf scrub	None. No suitable habitat present. Study area lacks wet areas and is located below the elevational range of species.
Violaceae				
Viola purpurea aurea Golden violet	Fed: - State: - CNPS: Rank 2B.2	April-June	Great Basin scrub; pinyon/juniper woodland; [sandy].	Unlikely. Marginal habitat present within study area.

Appendix B

Mammoth Airport - Potentially-occurring Special-status Plants

Family Taxon Common Name	Status*	Flowering Period	Habitat	Probability on Project Site

***Status**

Federal:
FE - Federal Endangered
FT - Federal Threatened
FPE - Federal Proposed Endangered
FPT - Federal Proposed Threatened
FC - Federal Candidate
FSS - Forest Service Sensitive
FSW - Forest Service Watchlist

State:
CE - California Endangered
CT - California Threatened
CR - California Rare
CSC - California Species of Special Concern

CNPS (California Native Plant Society - List.RED Code):
Rank 1A - Extinct
Rank 1B - Plants rare, threatened, or endangered in California and elsewhere
Rank 2A- Plants extinct in California, but more common elsewhere
Rank 2B - Plants rare, threatened, or endangered in California, more common elsewhere
Rank 3 - Plants about which more information is needed, a review list
Rank 4 - Plants of limited distribution, a watch list
RED Code
1 - Seriously endangered (>80% of occurrences threatened)
2 - Fairly endangered (20 to 80% of occurrences threatened)
3 - Not very endangered (<20% of occurrences threatened)

Appendix C.
Potentially-Occurring Special-Status Animals in the Region of the Mammoth Airport Study Area

Appendix C

Mammoth Airport - Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site
Fish			
Owens speckled dace *Rhinichthys osculus ssp.2*	Fed: - State: - Other: CSC	Known to occupy a variety of habitats ranging from small coldwater streams and hot-spring systems, although they are rarely found in water exceeding 29° C. They also have been found in irrigation ditches near Bishop	None. No suitable aquatic habiat present within study area.
Long Valley speckled dace *Rhinichthys osculus ssp 5*	Fed: - State: - Other: CSC	The entire native range of this dace lies within the 700,000 year-old Long Valley volcanic caldera, just east of Mammoth Lakes. The sole remaining population within the native range is in Whitmore Hot Springs.	None. No suitable aquatic habiat present within study area.
Owens pupfish *Cyprinodon radiosus*	Fed: FE State: CE Other: CFP	Spring pools, sloughs, irrigation ditches, swamps, and flooded pastures in the Owens Valley from Fish Slough in Mono County to Lone Pine in Inyo County. Currently confined to five populations in the Owens Valley.	None. No suitable aquatic habiat present within study area.
Lahontan cutthroat trout *Oncorhynchus clarki henshawi*	Fed: FT State: - Other: -	Historically found in all cold waters of the Lahontan Basin, including Independence Lake.	None. No suitable aquatic habiat present within study area.
Owens tui chub *Siphateles bicolor snyderi*	Fed: FE State: CE Other:	Three existing natural populations: at the Owens River Gorge, at source springs of CDFW Hot Creek Hatchery, and a pond and ditches at Cabin Bar Ranch near Owens Dry Lake. Other populations have been established with landowners in the region.	None. No suitable aquatic habiat present within study area.
Owens sucker *Catostomus fumeiventris*	Fed: - State: - Other: CSC	Lower Owens River, lower Rock Creek and lower Hot Creek, in sections with long runs and few riffles. Adults can thrive in lakes, reservoirs, but presumably need gravelly riffles in tributary streams for spawning.	None. No suitable aquatic habiat present within study area.
Amphibians			
Yosemite toad *Anaxyrus canorus*	Fed: FC State: CSC Other: *	Endemic to California. Alpine County south to Fresno County at high elevations in the Sierra Nevada mountains. Inhabits wet mountain meadows and the borders of forests. 4,800 - 12,000 ft.	None. No suitable aquatic habiat present within study area.

Appendix C

Mammoth Airport - Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site
Sierra Nevada yellow-legged frog *Rana sierrae*	Fed: FE State: CT Other: SSC	Associated with streams, lakes, and ponds in montane riparian, lodgepole pine, subalpine conifer and wet meadow habitats. Occurs in the northern and central portions of the Sierra Nevada at elevations above 4,500 feet. Always near water.	None. No suitable aquatic habiat present within study area.
Birds			
Northern goshawk *Accipiter gentilis*	Fed: - State: SSC Other: *	Dense, mature coniferous forests, most typically dense fir stands in the Sierra Nevada mountains.	None. No suitable habitat (trees/nest sites) present within study area.
Swainson's hawk *Buteo swainsoni*	Fed: - State: CT Other: *	Breeds in open areas with scattered trees; prefers riparian and sparse oak woodland habitats. Requires nearby grasslands, grain fields, or alfalfa for foraging. Rare breeding species in Central Valley.	None. No suitable habitat (trees) present within study area.
Greater sage-grouse *Centrocercus urophasianus*	Fed: - State: SSC Other:	Sagebrush plains; foothills and mountain slopes where sagebrush grows. Open plains, high valleys, rocky mesas, mountainsides, but only in vicinity of sagebrush. Nesting habitat includes some low, wet areas for insect foraging by young.	None. Sagebrush habitat within study area periodically disturbed (by mowing), and airport generates regular human disturbance. Suitable, preferred habitat present beyond airport boundary.
Yellow rail *Coturnicops noveboracensis*	Fed: - State: CSC Other: *	Highly secretive marsh bird. Grassy marshes, meadows. In summer, favors large wet meadows or shallow marshes dominated by sedges and grasses. Typically in fresh or brackish marsh. Winters mostly in coastal salt marsh.	None. No suitable (wet) habitat present within study area.
Great gray owl *Strix nebulosa*	Fed: - State: CE Other: *	Sierra Nevada in mature mixed conifer and red fir forests, adjacent to montane meadows within forested habitat. No regular seasonal migration; however, elevational migration with food availability may occur. Nests in broken top snag or mature fir.	None. No suitable habitat (trees/nest sites) present within study area.
Willow flycatcher *Empidonax traillii*	Fed: - State: CE Other: *	Uncommon summer resident in upper elevation montane riparian and wet meadow areas, usually with a thick growth of shrubby willow.	None. No suitable (riparian) habitat present within study area.
Bank swallow *Riparia riparia*	Fed: - State: CT Other: *	Colonial nester near riparian and oher lowland habitats. Requires vertical banks or cliffs with fine-textured, sandy soils near streams, rivers, and lakes.	None. No suitable (cut banks, cliffs) habitat present within study area.

Appendix C

Mammoth Airport - Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site
Mammals			
Mt. Lyell shrew *Sorex lyelli*	Fed: State: CSC Other:	Endemic to a small area of the Sierra Nevada in California in Fresno, Mariposa, Mono, and Tuolumne counties between 6,890 to 11,910 ft. Typically found in sub-alpine riparian areas near fast-running streams.	None. Study area lacks streams and riparian habitat. Study area occurs at lower elevational range of species.
White-tailed jackrabbit *Lepus townsendii*	Fed: - State: SSC Other: -	Sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland habitats. Also found in low sagebrush, wet meadow, and early successional stages of conifer habitats. Prefers open areas with scattered shrubs.	Unlikely. Study area lacks nearby water, and cover is minimal.
Sierra Nevada mountain beaver *Aplodontia rufa californica*	Fed: - State: SSC Other: -	Dense decidious trees and shrubs in riparian habitat with an abundant source of water.	None. No suitable riparian habitat or waters
Sierra Nevada red fox *Vulpes vulpes necator*	Fed: - State: CT Other: *	Occurs in conifer forests and rugged alpine landscape of the Sierra Nevada and Cascade ranges between 4,000 feet and 12,000 feet, most often above 7,000 feet.	None. No suitable forested habitat present within study area.
Fisher - West Coast DPS *Pekania pennanti*	Fed: - State: CT Other: SSC	Occurs in intermediate to large-tree stage coniferous forests and riparian woodlands with a high percent level of canopy closure. .	None. No suitable forested habitat present within study area.
California wolverine *Gulo gulo*	Fed: FPT State: CT Other: CFP	Habitat generally consists of open terrain above the timberline, but has been observed at 1500 feet. Prefer areas with low human disturbance. Use caves, hollows in cliffs, logs, rock outcrops, and burrows for cover, generally in denser forest stages.	None. No suitable habitat. Study area lacks cover and is adjacent to human activity.
Sierra Nevada bighorn sheep *Ovis canadensis sierrae*	Fed: FE State: CE Other:	Typical terrain is rough, rocky and steep; also encompasses alpine meadows, summit plateaus, and hanging meadows fed by springs within escape terrain. Summer range is 10,000-14,000 ft. Winter range typically 5,000-9,000 ft.	None. No rocky terrain present within study area.

Appendix C

Mammoth Airport - Potentially-occurring Special-status Animals

	Status*	Habitat	Probability on Project Site

***Status**

Federal:	State:	Other:
FE - Federal Endangered	CE - California Endangered	Some species have protection under the other designations, such as the California Department of Forestry Sensitive Species, Bureau of Land Management Sensitive Species, U.S.D.A. Forest Service Sensitive Species, and the Migratory Bird Treaty Act. Raptors and their nests are protected by provisions of the California Fish and Game Code. Certain areas, such as wintering areas of the monarch butterfly, may be protected by policies of the California Department of Fish and Game.
FT - Federal Threatened	CT - California Threatened	
FPE - Federal Proposed Endangered	CR - California Rare	
FPT - Federal Proposed Threatened	CC - California Candidate	
FC - Federal Candidate	CFP - California Fully Protected	
FPD - Federal Proposed for Delisting	CSC - California Species of Special Concern	WL - CDFG Watch List

BIOLOGICAL ASSESSMENT FOR THE MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PROJECT
TOWN OF MAMMOTH LAKES, MONO COUNTY, CALIFORNIA



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Revised April 2021

TABLE OF CONTENTS

1.0 INTRODUCTION 1

2.0 DESCRIPTION OF THE PROPOSED PROJECT 1

2.1 DESCRIPTION OF PROPOSED PROJECT 1
2.2 LOCATION OF PROJECT 6
2.3 ACTIVITIES AND METHODS THAT COMPRISE THE WHOLE PROJECT 6
2.4 TIMEFRAME AND DURATION OF PROPOSED PROJECT 6
2.5 CONSERVATION MEASURES 7

3.0 ACTION AREA 8

3.1 ENVIRONMENTAL BASELINE 8
3.1.1 Soils 8
3.1.2 Hydrology 9
3.1.3 Waters of the U.S. 9
3.1.4 Biological Communities 9
3.1.5 Wildlife Associations 11

4.0 FEDERAL ENDANGERED, THREATENED, CANDIDATE, AND PROPOSED THREATENED OR PROPOSED ENDANGERED SPECIES 16

4.1 CRITICAL HABITAT 17

5.0 EVALUATION OF SPECIES AND CRITICAL HABITAT 19

5.1 STATUS OF SPECIES IN ACTION AREA 19
5.1.1 Species Discussion 24
5.1.2 Species That May Be Affected 24

6.0 EFFECTS OF THE PROPOSED ACTION 25

6.1 DIRECT EFFECTS 25
6.2 INDIRECT EFFECTS 25
6.3 CRITICAL HABITAT 25
6.4 CUMULATIVE EFFECTS 25

7.0 CONCLUSION AND DETERMINATION 26

8.0 REFERENCES AND LITERATURE CITED 27

FIGURES

Figure 1. Site & Vicinity Map 2
Figure 2. Aerial Photo & Action Area 3
Figure 3. Project Components 5
Figure 4. Biological Communities 10
Figure 5a-d. Aerial and Ground Site Photos 12
Figure 6. Critical Habitats 18
Figure 7. CNDDB Occurrences Map 23

TABLES

Table 1. Biological Communities within the Action Area.....9
Table 2. Federally Listed Species Known from the Region of the Action Area 19

APPENDICIES

Appendix A. Special-Status Species (USFWS IPaC) query results)
Appendices B1-B2. Potentially occurring Special-Status Species (CNDDB query results)

BIOLOGICAL ASSESSMENT FOR THE MAMMOTH YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PROJECT TOWN OF MAMMOTH LAKES, MONO COUNTY, CALIFORNIA

1.0 INTRODUCTION

The Proposed Action subject to the Endangered Species Act (ESA) consultation consists of the implementation of the Terminal Area Development Project (TADP) within Mammoth Yosemite Airport property (airport property), located seven miles east of the Town of Mammoth Lakes in Mono County, California (Figure 1). The purpose of the action is to construct the various terminal area improvements recommended in the TADP.

The Action Area for the purposes of this BA consists of areas to be affected directly or indirectly by the proposed Terminal Area Development Project at Mammoth Yosemite Airport (Figure 2).

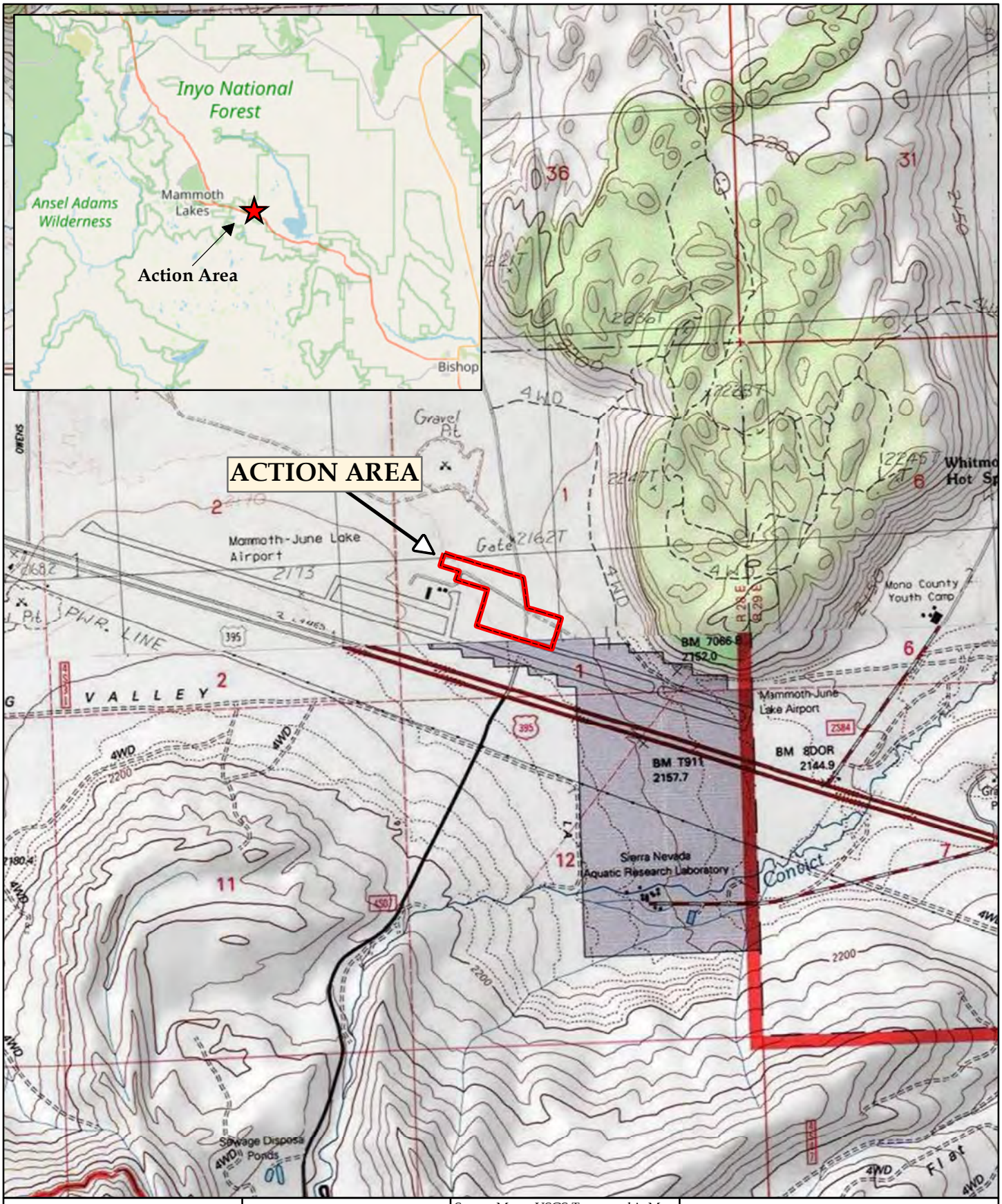
The purpose of this Biological Assessment (BA) is to review the proposed Terminal Area Development project at the Mammoth Yosemite Airport in sufficient detail to determine whether and, if so, to what extent, the Proposed Action (refer to Section 3.0) may affect federally listed threatened or endangered species, or species proposed for federal listing. This document is prepared in accordance with legal requirements set forth under Section 7 of the federal Endangered Species Act (ESA; 16 U.S.C. 1536(c)) and follows standards established by the National Environmental Policy Act (NEPA) and ESA guidance.

2.0 DESCRIPTION OF THE PROPOSED PROJECT

2.1 Description of Proposed Project

The proposed project involves construction of the various terminal area improvements recommended in the TADP. The relative location of the proposed facilities is shown on Figure 3. Specifically, the project proposes construction of:

- New passenger terminal building,
- Aircraft parking apron,
- Aircraft de-icing facilities,
- Connecting taxi lanes,
- Automobile parking lots,
- Eight-bay maintenance building, and
- Supporting infrastructure, including access and service roads, and utilities including wastewater treatment facility and disposal field, potable water system, electrical service, and telecommunications.



Salix consulting, inc.

N

0 1,000 2,000

Feet

Source Maps: USGS Topographic Map
Whitmore Hot Springs Quad 1:24,000
S1 T4S R28E

Figure 1

SITE AND VICINITY MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Salix consulting, inc.

N

0 125 250

Feet

Action Area
(±23.6 acres)

Imagery: 9-17-19 Salix Consulting
Overlaid on DigitalGlobe 6/19/2015 Basemap

Figure 2

AERIAL MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

The approximately 38,688 square foot passenger terminal would devote most of its area to commercial airline services. Other services to be provided include car rental services, restaurants and retail uses, ground transportation, and airport administration, maintenance, mechanical and other support facilities. Three passenger arrival/ departure gates will meet planning criteria in Federal Aviation Administration (FAA) Advisory Circular 150-5360-13A, *Airport Terminal Planning*. The building is designed to be less than 35 feet in height and will include telecommunication, electrical, fire suppression, heating and cooling, and water and wastewater systems.

The proposed 130,500 square foot, 16-inch-thick concrete aircraft parking apron will accommodate three Q400 aircraft or three CRJ700 aircraft in a taxi-in/taxi-out type operation, or three B 737 aircraft in a taxi-in/pushout type operation.

A new, separate 16-inch-thick concrete de-icing apron would be located adjacent to the aircraft parking apron. Storm water and deicing fluid from the apron would be captured at a central drain inlet; storm water would be routed to an on-site disposal area, while de-icing fluid would be directed to a central holding tank for disposal to a licensed disposal facility.

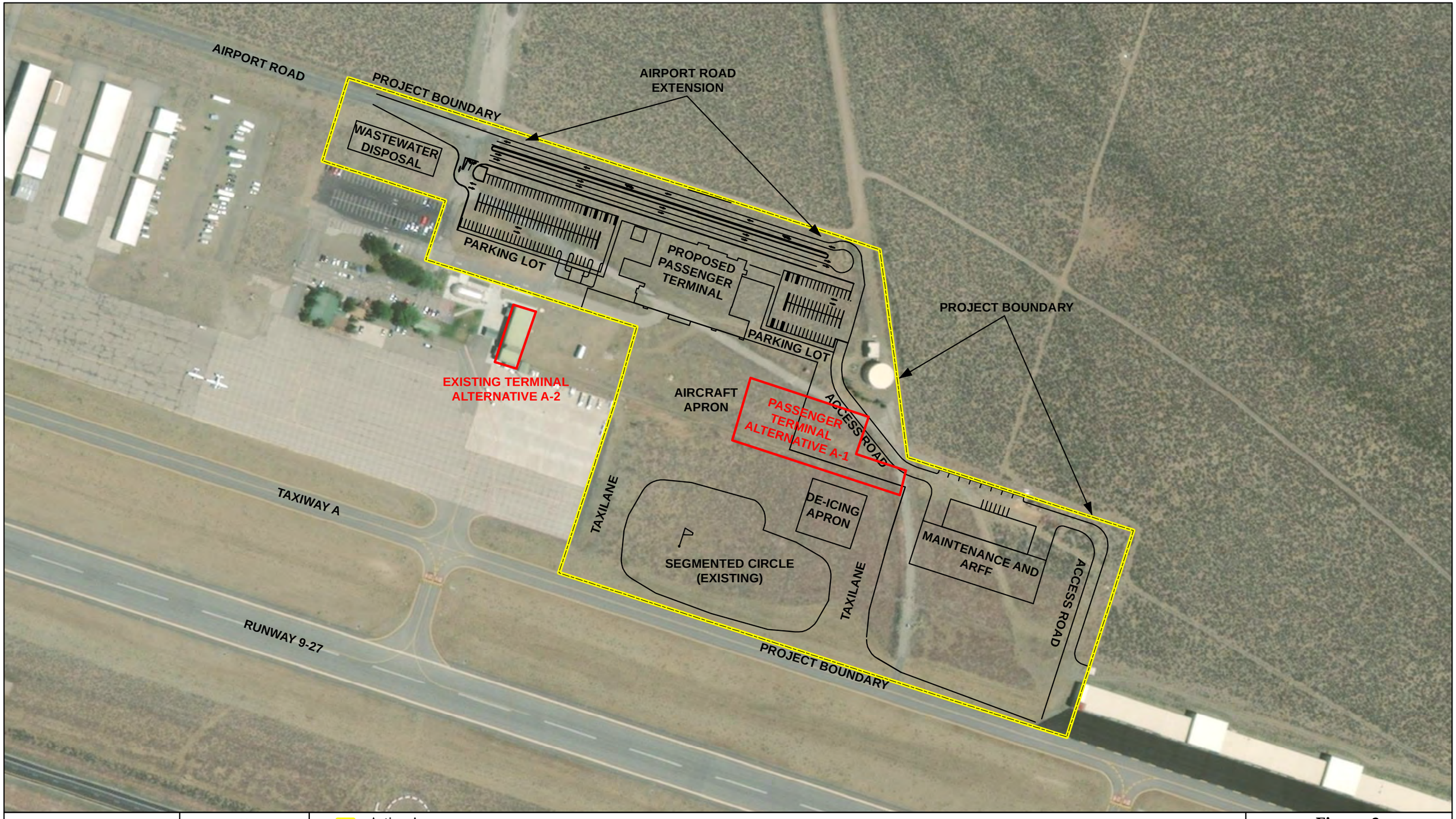
Two new asphalt concrete connecting taxi lanes will connect the terminal aircraft apron and de-icing aprons to existing Taxiway A.

The project includes two new automobile parking areas with a combined capacity of 130 spaces, located south of the new terminal.

The project will include a four-lane, median-divided extension of Airport Road from its existing terminus to a cul-de-sac at the new terminal. A 20-foot concrete sidewalk would line the road along the terminal frontage, and parallel parking would be provided for passenger loading and unloading. A new service road will be constructed to the new maintenance facility.

A new 8,600 square foot, 8-bay maintenance building would be constructed to the east of the de-icing facility, which would include provide housing for Aircraft Rescue and Fire Fighting (ARFF)/snow removal equipment. The building would include a new access road connecting it with Taxiway A.

Project-related infrastructure improvements would include a package sewage treatment plant, associated sanitary sewer lines and a treated effluent disposal field. Potable water would be supplied by existing on-site wells and storage, distributed to proposed facilities by new water lines. Electricity would be provided by Southern California Edison from existing facilities at the Airport as would telecommunication services, which would be provided by Verizon. Security will be provided in the terminal building as necessary, including alarmed doors and security cameras. In the new terminal area, security fencing will be installed and/or relocated to separate the airport operations area from the non-secure civilian use area.



Salix consulting, inc.

N

0 100 200

Feet

Action Area
(±23.6 acres)

Imagery: 6/19/2015 DigitalGlobe

Figure 3

PROPOSED PROJECT COMPONENTS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

2.2 Location of Project

The ±24 -acre Mammoth Yosemite Airport Terminal Area Development Project Action Area is located within Airport property, which located seven miles east of the Town of Mammoth Lakes in Mono County, California. The airport is owned by the Town of Mammoth Lakes and is located within the city limits. It is bounded on the south and southwest by U.S. Highway 395, on the west by Hot Creek Hatchery Road, on the north by Airport Road, and on the east by Benton Crossing Road. The approximate coordinates for the center of the study area are: 37° 37′ 35.13″ N and 118° 50′ 23.59″ W. The Action Area is situated within Section 1 Township 4S Range 28E of the Whitmore Hot Springs, California 7.5-minute USGS topographic quadrangle (Figure 1).

Mammoth Yosemite Airport consists of approximately 246 acres located in the Long Valley caldera along the eastern edge of the central Sierra Nevada mountain range. The airport, which is surrounded by the Inyo National forest to the west, north and south, is situated approximately 3.5 miles west of Crowley Lake and approximately two miles north of Convict Lake near the Whitmore Hot Springs. U.S. Highway 395 is located along the entire south side of the airport, and Doe Ridge is located on the northeast side of the airport (Figure 2). The site is relatively flat, with elevations ranging from approximately 7119 feet along the northwestern edge to approximately 7093 along the southeastern edge.

The Proposed Action will occur entirely within an Action Area of approximately 24 acres, located in the eastern portion of the airport property (Figure 2).

2.3 Activities and methods that comprise the whole project

It is anticipated that the project will involve several stages, including demolition, grading, drainage, utility relocation, and eventual construction of new facilities.

Demolition of about 600 linear feet of asphaltic pavement will occur in the terminal area and may involve the use of an excavator and grinder equipment to pulverize the existing pavement material.

Earthwork in the entirety of the Action Area will involve the use of excavators, dozers, scrapers, graders, rollers, water trucks, haul trucks, and other similar equipment to grade the site, slope aprons for proper drainage, install underground utilities, install pavement, and construct new facilities.

The proposed project will increase the overall impervious drainage area, driven by new buildings and aprons, parking, and access roads. Surface drainage will occur away from the hangar/terminal area to the northeast, exit the site, and continue in a southeasterly direction.

Figure 3 shows the locations of the various components of the Proposed Action. It is estimated that approximately 23.8 acres will be disturbed in association with the project.

2.4 Timeframe and Duration of Proposed project

No date has been set for initiation of project construction. It is anticipated that construction will proceed as funding becomes available.

2.5 Conservation Measures

The following general conservation measures will be implemented as part of the Proposed Action:

- Prior to implementation of the proposed project, the Town of Mammoth Lakes will prepare and implement a detailed erosion control plan that incorporates Best Management Practices (BMPs) including dust-control measures, erosion reduction and sediment control, and restricted equipment fueling and maintenance practices. The plan will also require revegetation of any disturbed areas, as necessary, and provisions for erosion control in the event of non-seasonal or early seasonal rainfall during construction.
- Construction activities shall comply with state National Pollutant Discharge Elimination System permit requirements. Erosion will be avoided by use of best management practices during construction and by directing surface water runoff from paved surfaces into the Airport drainage system.
- All grading activities will occur during the non-rainy season (May to October).
- Rainy season erosion control measures shall be in place before October 1 of each year.
- To prevent erosion and sedimentation in drainage areas, silt fence, fiber rolls, or a combination of both, will be placed along the edge of the grading limits immediately adjacent to those areas to contain sediment runoff.
- Bright orange construction fencing will be installed along the perimeter (outer edge) of the construction area, to clearly delineate the limits of contractor access.
- During construction associated with the proposed action, the contractor will ensure that construction equipment and vehicles operated in the action area are checked and maintained daily to prevent leaks of fuels, lubricants or other fluids. The biological monitor will make periodic checks to ensure that adequate vehicle and equipment maintenance is being implemented as required.
- Contractors will access the site from the existing Airport Road.
- All spoils will be removed to the nearest landfill accepting construction waste. When not in use, contractor equipment will be staged within the work limits, or in the established staging area.
- Following completion of construction, all disturbed areas will be smooth-graded and reseeded. Standard erosion control measures will remain in place until reseeded areas are successfully revegetated. An appropriate seed mixture using only native species will be used for all reseeding activities onsite.

3.0 ACTION AREA

The Action Area for the purposes of this BA consists of areas to be affected directly by the proposed Terminal Area Development Project at Mammoth Yosemite Airport (Figure 2). Areas to be directly affected by the proposed project are shown in Figure 3.

3.1 Environmental Baseline

This section discusses the environmental setting of the Action Area and is based on the findings of a biological survey conducted by Jeff Glazner, Principal Biologist of Salix Consulting, in September 2019, the *Mammoth Yosemite Airport United Air Service Final EA* (URS 2010), the *Biological Assessment: Unincorporated Communities of Mono County DRAFT* (Paulus 2014), the *Mono County Master Biological Assessment* (Mono County CDD Planning Department Staff 2010), the *Biological Assessment for the Mammoth Yosemite Airport Wildlife Hazard Management Plan* (Wallace Environmental Consulting, 2015), and *the Feasibility Study Report for Wildlife Vehicle Collision Reduction in Caltrans District 9* (CalTrans 2016). Also incorporated into the following discussions, where appropriate, are observations from site assessments and general wildlife surveys conducted in association with a Wildlife Hazard Assessment (WHA) prepared for Town of Mammoth Lakes in December 2015 (Advantage Consulting, LLC 2015).

The field evaluation in September 2019 was conducted to assess existing conditions and determine if the site could support any special status species.

3.1.1 Soils

One soil unit has been mapped within the study area: Watterson family-Torriorthentic Haploxerolls complex, 5 to 15 percent slopes. The components of the complex are described below.

Torriorthentic Haploxerolls (40%)

The Torriorthentic Haploxerolls component makes up 40 percent of the map unit. Slopes are 15 to 30 percent. This component is on alluvial fans, alluvial plains. The parent material consists of alluvium and/or colluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7e. This soil does not meet hydric criteria.

Watterson family (40%)

The Watterson family component makes up 40 percent of the map unit. Slopes are 15 to 30 percent. This component is on alluvial fans, alluvial plains. The parent material consists of alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent.

3.1.2 Hydrology

The Action Area is in the Convict Creek HUC12 watershed (180901020207), which is part of the greater Crowley Lake HUC8 watershed (18090102). Surface water, which is minimal to non-discernable, trends toward the northeast corner of the study area before exiting the site. Although there is no significant surface drainage apparent, water appears to continue in a southeasterly direction along the base of Doe Ridge for approximately 1 mile before joining a drainage southeast of the runway. From there, water continues to flow southeast in the drainage for approximately 0.5 miles before draining into Convict Creek. Convict Creek flows southeasterly for approximately 4.5 miles before draining into Crowley Lake.

3.1.3 Waters of the U.S.

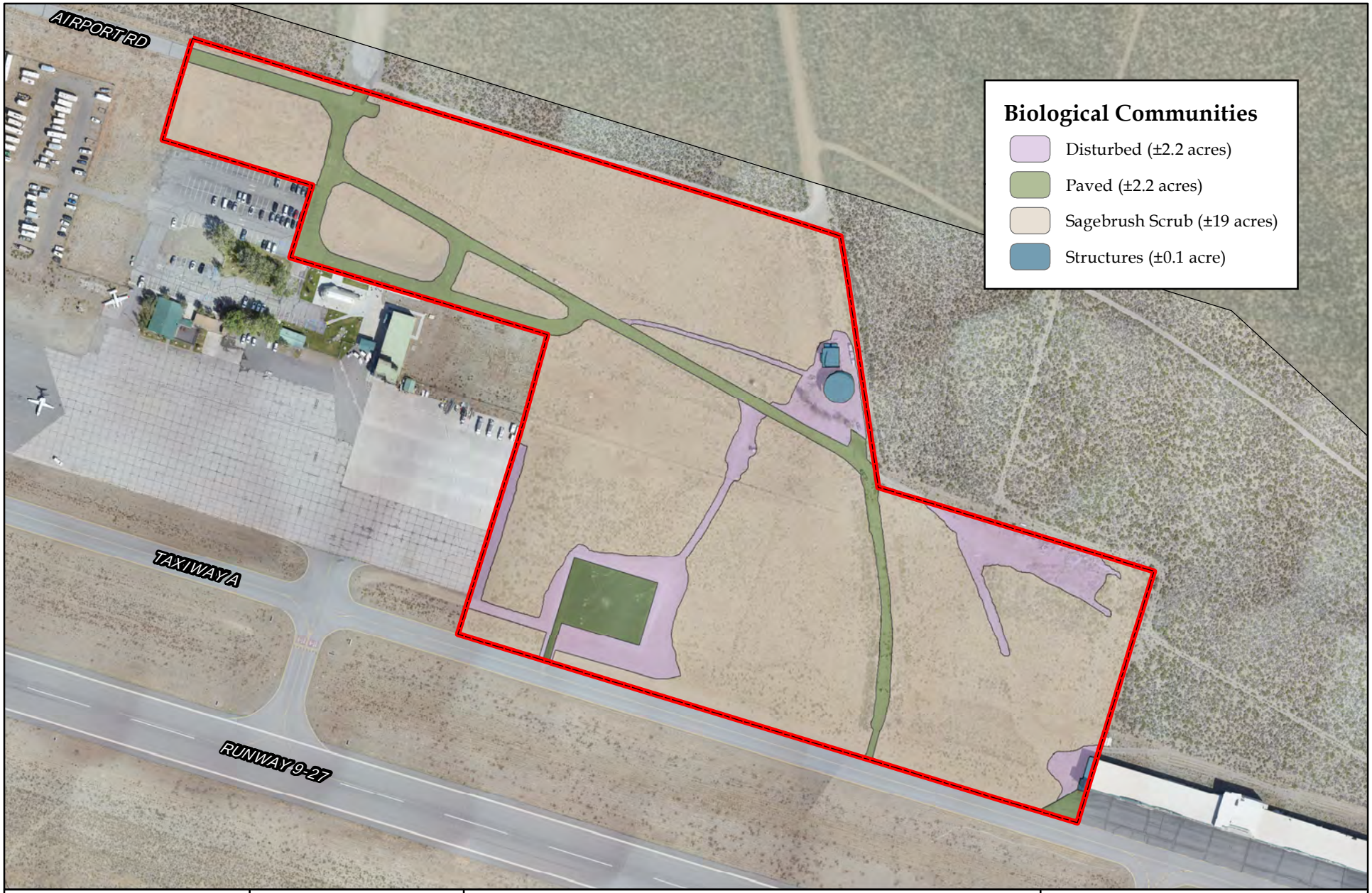
The study area was assessed for waters of the U.S. by reviewing aerial photography and through a thorough ground assessment. The study area contains no depressions that hold water for an extended period, groundwater discharge areas, or surface drainages. There are no waters of the U.S. in the study area.

3.1.4 Biological Communities

One primary biological community is present within the study area– sagebrush scrub, and the site also contains three other distinct areas: pavement, disturbed areas, and structures, as illustrated in Figure 4 and summarized in Table 1. Four aerial site photos are presented in Figures 5a and 5b, and four representative ground photos are presented in Figures 5c and 5d.

Table 1.
Biological Communities Present within the
Mammoth Yosemite Airport Terminal Area Development Project Action Area

Biological Community	Approximate Acreage
Sagebrush scrub	19
Paved	2.5
Disturbed	2.5
Structures	<0.1
Total	**24**



Salix consulting, inc.

N

0 125 250

Feet

Action Area
(±23.6 acres)

Imagery: 9-17-19 Salix Consulting
Overlaid on DigitalGlobe 6/19/2015 Basemap

Figure 4

BIOLOGICAL COMMUNITIES MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

Sagebrush Scrub

The unpaved areas of the study area are composed of sagebrush scrub, characterized by low, generally sparse shrubs and native and weedy herbaceous species. Common species include sagebrush (*Artemisia tridentata*), antelope bush (*Purshia tridentata*), rubber rabbitbrush(*Ericameria nauseosa*), Parry's rabbitbrush (*E. parryi*), desert peach (*Prunus andersonii*), tumbleweed (*Salsola tragus*), and cheatgrass (*Bromus techtorum*). Vegetative cover over most of this habitat type is less than 50%.

Paved

Approximately 2.5 acres of the study area is paved and lacks vegetation.

Disturbed

Approximately 2.5 acres of the study area is dirt roads and ruderal surfaces with little or no vegetation.

Structures

A small portion of the study area has existing structures, including a water tank, a maintenance shed and the edge of a hanger. There are planted trees on the runway side of the water tank (mostly aspen- the only trees in the study area).

3.1.5 Wildlife Associations

The Action Area occurs adjacent to the existing airport facility, and most of the ground is influenced by airport operations, including infrastructure and vegetation management. Wildlife species occur throughout the area but are generally transient foragers that do not linger. Sign of mule deer (*Odocoileus hemionus*) (tracks) was present, although none were observed during the site visits. Other mammal tracks were observed but not identified. Bird utilization was low during the two-day site visit. Species observed included Brewer's blackbird (*Euphagus cyanocephalus)*, northern flicker (*Colaptes auratus)*, spotted towhee (*Pipilo maculatus)*, western scrub-jay (*Aphelocoma californica)*, common raven (*Corvus corax)*, dark-eyed Junco (*Junco hyemalis)*, house sparrow (*Passer domesticus)*, red-tailed hawk (*Buteo jamaicensis)*, turkey vulture (*Cathartes aura)*, house finch (*Haemorhous mexicanus)*, green-tailed towhee (*Pipilo chlorurus)*, northern mockingbird (*Mimus polyglottos*, and mourning dove (*Zenaida macroura)*. Rodent burrows were observed, but other than golden-mantled ground squirrel (*Spermophilus lateralis*), few live animals were observed.

Great Basin mixed scrub and big sagebrush scrub habitat in the area surrounding the airport provide forage for populations of mule deer belonging to the Round Valley herd. The airport is located within an area where deer may linger for up to 6-10 weeks before moving on to winter and/or summer ranges (Caltrans 2016). The biggest "hot-spot" for deer-vehicle collisions along US 395 is located between Benton Crossing Road and Mt. Morrison Rd, just east of the airport (Caltrans 2016).



Looking west over action area. *Photo Date 9-16-19.*



Looking east over action area. *Photo Date 9-16-19.*

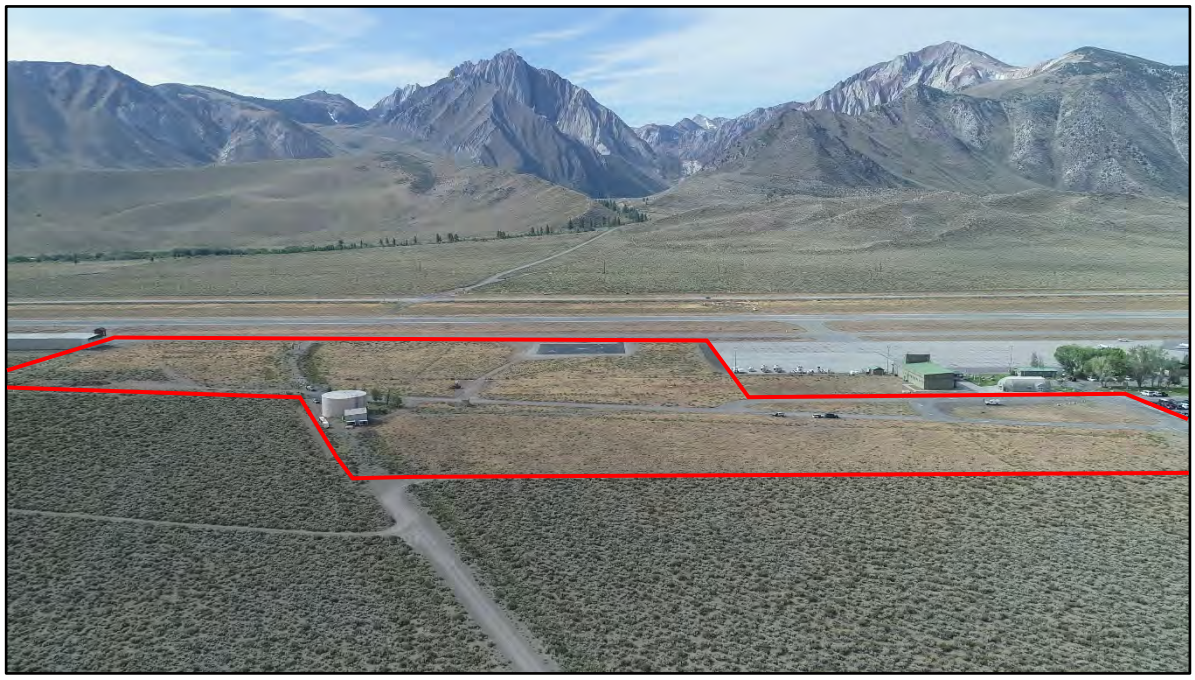
Salix consulting, inc.

Figure 5a

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking south over action area. *Photo Date 9-16-19.*



Looking north over action area. *Photo Date 9-16-19.*

Salix consulting, inc.

Figure 5b

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking east over action area. *Photo Date 9-17-19.*



Looking southeast over eastern portion of action area and proposed AARF building. *Photo Date 9-17-19.*

Salix consulting, inc.

Figure 5c

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA



Looking west over action area toward existing terminal.
Photo Date 9-17-19.



Looking southeast over southern half of action area.
Photo Date 9-17-19.

Salix consulting, inc.

Figure 5d

SITE PHOTOS

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

A Wildlife Hazard Assessment (WHA) prepared for Town of Mammoth Lakes in December 2015 recommended that an 8-foot chain link fence be constructed along the airport boundary to prevent deer and other wildlife from entering the airfield (Advantage Consulting, LLC 2015). The fence has not yet been constructed. According to CalTrans, in a March 2016 meeting with CalTrans and Town of Mammoth Lakes (TOML) regarding a proposal to construct a deer fence around the airport,

> "airport personnel described the general pattern of the deer, as generally avoiding the areas of the airport with buildings and hangers creating a pattern of use where the deer track around the airport to the north and south. At the south end of the air field the deer cross through Caltrans' standard barb wire fence and continue on to the opposite side of airport property and on to foraging areas to the east of the airport. The TOML acknowledged that there may be increased DVCs resulting from construction of the airport fence. As it is now, deer are unimpeded by the Caltrans right of way fence (standard 42" tall barb wire fence) separating the airport from Caltrans right of way; deer cross the highway from the west to gain access to foraging areas east of the airport."

4.0 FEDERAL ENDANGERED, THREATENED, CANDIDATE, AND PROPOSED THREATENED OR PROPOSED ENDANGERED SPECIES

Lists of federally endangered (E), threatened (T), candidate (C), and proposed endangered or threatened (PE/PT) species known to occur (and their critical habitat) in the broader region surrounding the Action Area were obtained from the U.S. Fish and Wildlife Service (USFWS or Service) Information for Planning & Consultation (IPaC) query (USFWS 2021) (Appendix A). The California Natural Diversity Data Base (CNDDB 2020) was also queried for occurrence information on federally listed species within five US Geographic Survey (USGS) quadrangles surrounding the Action Area including the Whitmore Hot Springs, Old Mammoth, Convict Lake, Watterson Canyon, and Toms Place USGS quadrangles (Appendices B1 and B2). The following 12 federally listed species that may be present were included on these lists:

- Fisher (*Pekania pennanti*) (E)
- Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*) (E)
- Sierra Nevada red fox (*Vulpes vulpes necator*) (PE)
- Yosemite toad (*Anaxyrus canorus*) (T)
- Sierra Nevada yellow-legged frog (*Rana sierrae*) (E)
- Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) (T)
- Owens tui chub (*Siphateles bicolor snyderi*) (E)
- Owens pupfish (*Cyprinodon radiosus*) (E)
- Monarch butterfly (*Danaus plexippus*)
- Southwestern willow flycatcher (*Empidonax traillii extimus*)
- Yellow-billed cuckoo (*Coccyzus americanus*)
- Whitebark pine *(Pinus albicaulis*) (C)

4.1 Critical Habitat

Critical habitat is defined by the USFWS as "a specific geographic area (s) that contains features essential for the conservation of a threatened or endangered species and that may require specific management and protection." The Action Area occurs approximately one (1) mile southeast of Critical Habitat in Hot Creek for the federally listed Owens tui chub, and approximately 2.5 miles northeast of the northeastern boundary of Critical Habitat for the federally listed Sierra Nevada bighorn sheep. The Action Area does not occur within the boundaries of either of these Critical Habitats (Figure 6), and the Action Area does not occur within the boundaries of Critical Habitat for the federally listed Sierra Nevada yellow-legged frog, the Yosemite toad, southwestern willow flycatcher, or yellow-billed cuckoo.

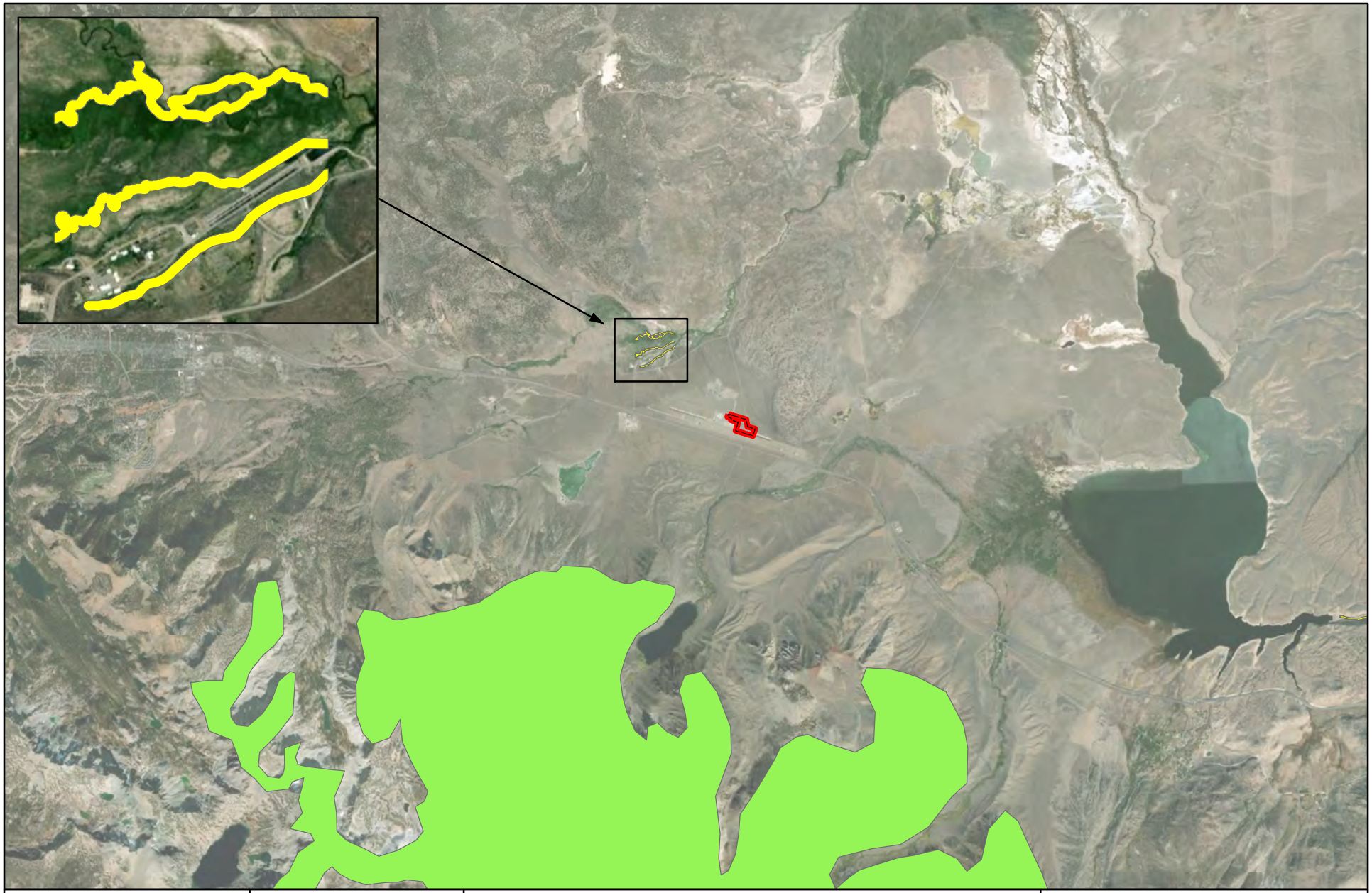


Figure 6

CRITICAL HABITATS MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

5.0 EVALUATION OF SPECIES AND CRITICAL HABITAT

5.1 Status of Species in Action Area

Records from the USFWS along with previous field surveys were used to inform whether endangered, threatened, or candidate species are present on the site or have suitable habitat that could be utilized by the species within the Action Area.

Field assessments of the study area were conducted by Jeff Glazner of Salix Consulting, Inc., on September 16 and 17, 2019, that focused on the proposed terminal development area. The purpose of the survey was to review the findings of previous surveys, to ascertain if conditions had changed since the last field surveys in the area, to determine if habitat was present that could support any of the special-status species, and to determine if any of the species listed above were present.

It was determined that none of the identified 12 federally listed sensitive plant or animal species were present in the areas examined. In addition, As illustrated in Table 2 below, it was also determined that no federally listed species have potential to occur within or adjacent to the Action Area due to the absence of suitable habitat needed for their survival. Species were eliminated from further consideration based on review of appropriate species life history and occurrence literature, state and federal databases, prior studies, and recent site conditions.

Figure 7 following the table shows all the recorded occurrences of federally listed and candidate species (wildlife and plants respectively) within a five (5)- mile radius of the Action Area.

Table 2
Federally Listed Species Known from the Region of the
Mammoth Yosemite Airport Terminal Area Development Project Action Area

Species	Federal Status*	Preferred Habitat	Critical Habitat Present?	Potential for Occurrence
Plants				
Whitebark pine (*Pinus albicaulis*)	C	Upper coniferous forest; subalpine forest	None	None. No forest occurs within the Action Area, or immediately adjacent to the airport property. Action Area occurs below the local elevational range of the species.

Table 2
Federally Listed Species Known from the Region of the
Mammoth Yosemite Airport Terminal Area Development Project Action Area

Species	Federal Status*	Preferred Habitat	Critical Habitat Present?	Potential for Occurrence
Fish				
Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*)	T	Historically found in all cold waters of the Lahontan Basin, including Independence Lake.	None	None. No suitable aquatic habitat occurs within the Action Area.
Owens tui chub (*Siphateles bicolor snyderi*)	E	Three existing natural populations: at the Owens River Gorge, at source springs of CDFW Hot Creek Hatchery, and a pond and ditches at Cabin Bar Ranch near Owens Dry Lake. Other populations have been established with landowners in the region.	±1-mile NW of Action Area (Hot Creek).	None. No suitable aquatic habitat occurs within the Action Area. Critical Habitat in Hot Creek more than one mile northwest of the Action Area.
Owens pupfish (*Cyprinodon radiosus*)	E	Spring pools, sloughs, irrigation ditches, swamps, and flooded pastures in the Owens Valley from Fish Slough in Mono County to Lone Pine in Inyo County. Currently confined to five populations in the Owens Valley.	None	None. No suitable aquatic habitat occurs within the Action Area.
Amphibians and Reptiles				
Sierra Nevada yellow-legged frog (*Rana sierrae*)	E	Associated with streams, lakes, and ponds in montane riparian, lodgepole pine, subalpine conifer and wet meadow habitats. Occurs in the northern and central portions of the Sierra Nevada at elevations above 4,500 feet. Always near water.	None	None. No suitable habitat occurs within the Action Area.

Table 2
Federally Listed Species Known from the Region of the
Mammoth Yosemite Airport Terminal Area Development Project Action Area

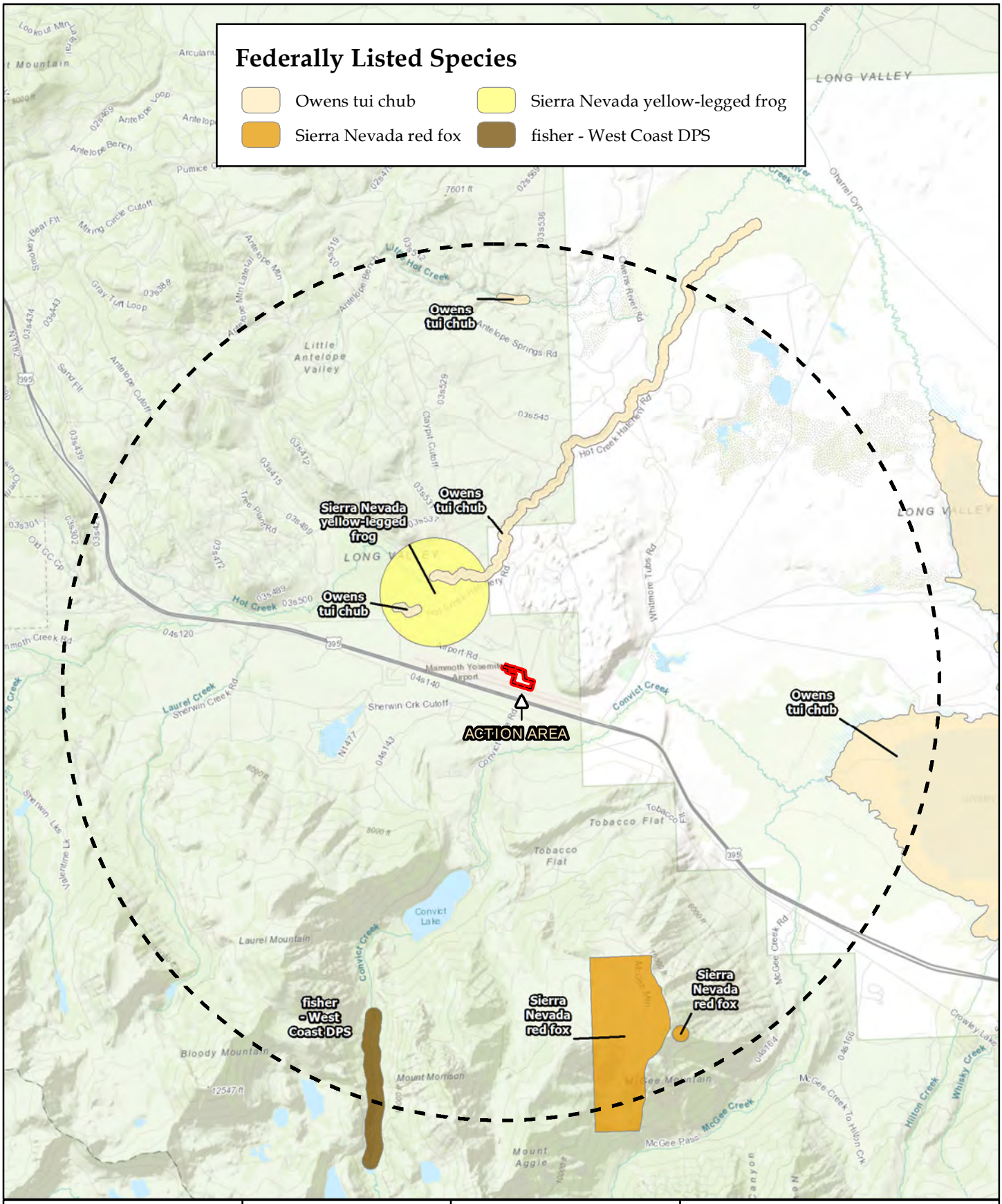
Species	Federal Status*	Preferred Habitat	Critical Habitat Present?	Potential for Occurrence
Yosemite toad (*Anaxyrus canorus*)	T	Endemic to California. Alpine County south to Fresno County at high elevations in the Sierra Nevada mountains. Inhabits wet mountain meadows and the borders of forests. 4,800 - 12,000 ft.	None	None. No suitable habitat occurs within the Action Area.
Insects				
Monarch butterfly *Danaus plexippus*	C	Ranges from southern Canada through northern South America. Eggs are laid singly on underside of a young leaf of milkweed during the spring and summer. Wintering habitat typically provides access to streams, plenty of sunlight, and appropriate roosting vegetation, relatively free of predators	None	None. No suitable habitat for egg-laying or overwintering present within Action Area.
Birds				
Southwestern willow flycatcher *Empidonax traillii extimus*	FE	Uncommon summer resident in upper elevation montane riparian and wet meadow areas, usually with a thick growth of shrubby willow.	None	None. No suitable habitat present within Action Area.
Yellow-billed cuckoo *Coccyzus americanus*	FT	Inhabits riparian forests along the broad, lower floodplains of larger rivers. Nests in thickets of willows and cottonwoods with an understory of blackberry, nettle, or wild grape.	None	None. No suitable habitat present within Action Area.
Mammals				
Sierra Nevada red fox (*Vulpes vulpes necator*)	PE	Occurs in conifer forests and rugged alpine landscape of the Sierra Nevada and Cascade ranges between 4,000 feet and 12,000 feet, most often above 7,000 feet.	None	None. No suitable habitat within or near Action Area.

Table 2
Federally Listed Species Known from the Region of the Mammoth Yosemite Airport Terminal Area Development Project Action Area

Species	Federal Status*	Preferred Habitat	Critical Habitat Present?	Potential for Occurrence
Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*)	E	Typical terrain is rough, rocky and steep; also encompasses alpine meadows, summit plateaus, and hanging meadows fed by springs within escape terrain. Summer range is 10,000-14,000 ft. Winter range typically 5,000-9,000 ft	NE boundary of Critical Habitat is ±2.5 miles south of Action Area	None. No suitable habitat within or near Action Area.
Fisher (*Pekania pennanti*)	E	Occurs in intermediate to large-tree stage coniferous forests and riparian woodlands with a high percent level of canopy closure. .	None	None. No suitable habitat present within or near Action Area.

*Status Codes:

E Federal Endangered
T Federal Threatened
C Federal Candidate Species
PE Federal Proposed Endangered
PT Federal Proposed Threatened
C Federal Candidate Species



Salix consulting, inc.

N

0 4,000 8,000

Feet

Action Area

5-Mile Radius

Figure 7

CNDDB OCCURRENCES MAP

Mammoth Yosemite Airport

Town of Mammoth Lakes, Mono County, CA

5.1.1 Species Discussion

Plants

Whitebark pine *(Pinus albicaulis)* is an important tree species in high-elevation ecosystems of western North America but has suffered widespread mortality throughout its range from the combined effects of mountain pine beetle outbreaks and white pine blister rust infection. Whitebark pine is a small to large evergreen conifer. Tree height typically ranges from 40 to 60 feet at maturity. Whitebark pine is most common on rocky, well-drained sites. Best development occurs on sheltered, north-facing slopes and basins. In the southern Sierra Nevada, whitebark pine is confined to moist north slopes at elevations of 10,000 to 12,100 feet. It is a Candidate species. The Action Area is located below the range of the species in the southern Sierra Nevada, and no suitable habitat is present within the Action Area to support the species.

Fish and Amphibians

Two of the fish or amphibian species in Table 2 above are reported to occur within a 5-mile radius (* below) of the Action Area. Neither of these nor any other of the identified species were determined to have any potential for occurring onsite due to the total absence of suitable aquatic habitat within the Action Area. These species include:

- Owens pupfish (*Cyprinodon radiosus)*
- Lahontan cutthroat trout (*Oncorhynchus clarki henshawi)*
- Owens tui chub (*Siphateles bicolor snyderi)**
- Yosemite toad (*Anaxyrus canorus)*
- Sierra Nevada yellow-legged frog (*Rana sierrae)**

Mammals

Two of the four identified mammalian species in Table 2 above are reported to occur within a 5-mile radius (* below), and all were determined to have no potential for occurring within the Action Area due to the absence of suitable habitats (streams, riparian, forests, rocky terrain). In one case (California wolverine), the Action Area's proximity to human activity also precluded occurrence. These mammals include:

- Sierra Nevada red fox (*Vulpes vulpes necator)**
- Fisher - West Coast DPS (*Pekania pennanti)**
- California wolverine (*Gulo gulo)*
- Sierra Nevada bighorn sheep (*Ovis canadensis sierrae)*

5.1.2 Species That May Be Affected

No identified species were determined to have potential to be present within the Action Area. No species may be affected by the Proposed Action.

6.0 EFFECTS OF THE PROPOSED ACTION

This section describes the effects of the Proposed Action on federally listed species within the Action Area. Activities associated with the Proposed Action could directly or indirectly affect federally listed species and their habitat. These effects are described below.

6.1 Direct Effects

As defined under the federal ESA, direct effects are caused by the Proposed Action and occur at the time of the action. Based on previous studies and review of pertinent literature, all other species identified in the research and listed in Table 2 were determined to have no potential to occur within the Action Area. The Action Area does not include any aquatic habitat or forests to sustain any of the identified species. Thus, no direct effects are anticipated to any of the species listed above within the Action Area.

In addition, no direct disturbance of neighboring critical habitat for either Owens tui chub (to the northeast) or Sierra Nevada big horn sheep (to the south) will occur as a result of the Proposed Action.

6.2 Indirect Effects

As defined under the federal ESA, indirect effects are caused by the Proposed Action and occur later in time and are reasonably certain to occur. Indirect effects may occur outside the area directly affected by the action.

No indirect disturbance of neighboring critical habitat for either Owens tui chub (to the northeast) or Sierra Nevada big horn sheep (to the south) will occur as a result of the Proposed Action, and it is unlikely that critical habitat for either species which is located well beyond the boundaries of the Action Area will be indirectly affected by proposed construction and grading activities that occur within the Action Area

The Proposed Action has been designed to avoid inadvertent alteration of the hydrology of the airport property.

6.3 Critical Habitat

The Action Area occurs approximately one (1) mile southeast of Critical Habitat in Hot Creek for the federally listed Owens tui chub, and approximately 2.5 miles northeast of the northeastern boundary of Critical Habitat for the federally listed Sierra Nevada bighorn sheep. The Action Area does not occur within the boundaries of either of these Critical Habitats (Figure 6), and the Action Area does not occur within the boundaries of Critical Habitat for the federally listed Sierra Nevada yellow-legged frog or the Yosemite toad.

No direct or indirect effects on critical habitat are anticipated as a result of the Proposed Action.

6.4 Cumulative Effects

Cumulative effects are those effects resulting from future state, Tribal, local, or private activities not involving federal activities, that are reasonably certain to occur within the Action Area of a Proposed Action (USFWS and NMFS 1998). Future federal actions that are unrelated to the

Proposed Action are not considered cumulative impacts because they require a separate consultation pursuant to Section 7 of the federal ESA.

No other state, Tribal, local, or private activities are anticipated to occur within the Action Area. Further airport improvements may be proposed in the future.

7.0 CONCLUSION AND DETERMINATION

Based on the Effects of the Proposed Action identified in Section 2.0, along with the implementation of conservation measures identified in Section 2.5, this document concludes that the expected outcome of the Proposed Action includes the following:

- Because habitat is not present to support any of the 10 identified species within the Action Area, the Proposed Action will result in no direct or indirect effects to those species, and the Action will result in *no effect* to the following federally species.
    - Fisher (*Pekania pennanti*) (E)
    - North American Wolverine (*Gulo gulo luscus*) (PT)
    - Sierra Nevada bighorn sheep (*Ovis canadensis sierrae*) (E)
    - Sierra Nevada red fox (*Vulpes vulpes necator*) (PE)
    - Yosemite toad (*Anaxyrus canorus*) (T)
    - Sierra Nevada yellow-legged frog (*Rana sierrae*) (E)
    - Lahontan cutthroat trout (*Oncorhynchus clarkii henshawi*) (T)
    - Owens tui chub (*Siphateles bicolor snyderi*) (E)
    - Owens pupfish (*Cyprinodon radiosus*) (E)
    - Whitebark pine *(Pinus albicaulis*) (C)
- The Proposed Action will result in no disturbance to either neighboring Critical Habitats for federally listed Owens tui chub and for the federally listed Sierra Nevada bighorn sheep (as discussed in Section 6.3). Additionally, Conservation Measures specified in Section 2.5 will be implemented to further ensure no direct or indirect impacts. Therefore, the Proposed Action will result in *no effect* to the Critical Habitat for either species.

8.0 REFERENCES AND LITERATURE CITED

Advantage Consulting, LLC. 2015. Mammoth Yosemite Airport Wildlife Hazard Assessment. Hodgson, Ann B. and Exner, Gary, preparers. January 12, 2015.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, editors. 2012. The Jepson manual: vascular plants of California, second edition. University of California Press, Berkeley.

California Department of Fish and Wildlife, California Wildlife Habitat Relationships Program. 2008. Complete List of Amphibians, Reptiles, Birds, and Mammals in California. Sacramento, California.

California Department of Fish and Wildlife, Wildlife and Habitat Data Analysis Branch. 2021. Natural Diversity Data Base Report (CNDDB). Sacramento, California.

California Department of Transportation, District 9 (Caltrans). 2016. Feasibility Study Report for Wildlife Vehicle Collision Reduction in Caltrans District 9. October 2016.

CaliforniaHerps.com. A Guide to the Amphibians and Reptiles of California. Updated 2019. Found online: http://www.california.herps.com

Federal Register. 2020. Endangered and Threatened Wildlife and Plants; Withdrawal of the Proposed Rule for the North American Wolverine. https://www.federalregister.gov/documents/2020/10/13/2020-19538/endangered-and-threatened-wildlife-and-plants-withdrawal-of-the-proposed-rule-for-the-north-american.

Fix, David and Andy Bezener. 2000. Birds of Northern California. Lone Pine Publishing. Renton, Washington.

Jameson, E.W., Jr. and H.J. Peeters. 2004. Mammals of California. University of California Press. Berkeley, California.

Jennings, Mark R. and Marc P. Hayes. 1994. Amphibian and Reptile Species of Special Concern in California.

Mono County. 2010. Mono County Master Environmental Assessment. Prepared by Mono County CDD Planning Department Staff.

National Wildlife Federation. 2021. Monarch butterfly. https://www.nwf.org/Educational-Resources/Wildlife-Guide/Invertebrates/Monarch-Butterfly.

Paulus, Jim. 2014. Biological Assessment: Unincorporated Communities of Mono County DRAFT.

Salix Consulting, Inc. 2020. Biological Resources Assessment for the ±24-acre Mammoth Yosemite Airport Terminal Area Development Plan Study Area.

Sibley, D.A. 2003. The Sibley Field Guide to Birds of Western North America. Alfred A. Knopf. New York.

Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Company. Boston, Massachusetts.

Town of Mammoth Lakes. 2002. Final Supplement to Subsequent Environmental Impact Report. Mammoth Yosemite Airport Expansion Project. Mammoth Yosemite Airport. March 2002. Section III. 3.3.

_____. 2011. Addendum to the Final Supplement to the Subsequent Environmental Impact Report for the Mammoth Yosemite Airport Expansion Project. July 21, 2011.

URS. 2010. Mammoth Yosemite Airport United Air Service Final EA.

U.S. Department of Agriculture. U.S. Forest Service. 2002. Fire Effects Information System (FEIS), Species Account for White Bark Pine. https://www.fs.fed.us/database/feis/plants/tree/pinalb/all.html#Introductory. Accessed 08-10-20

U.S. Fish and Wildlife Service. 2021. IPaC Trust Resources Report generated for the Mammoth Airport study area, Mono County.

Wallace Environmental Consulting. 2015. Biological Assessment for the Mammoth Yosemite Airport Wildlife Hazard Management Plan, Town of Mammoth Lakes and Mono County, California. September 2015

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1988. California's Wildlife, Volume I. Amphibians and Reptiles. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990a. California's Wildlife, Volume II: Birds. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White. 1990b. California's Wildlife, Volume III: Mammals. State of California, the Resources Agency, Department of Fish and Game, Sacramento, California.

Appendix A
Potentially Occurring Special-Status Species
Results of USFWS IPaC Query Request

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
Phone: (775) 861-6300 Fax: (775) 861-6301
http://www.fws.gov/reno/

In Reply Refer To:
Consultation Code: 08ENVD00-2021-SLI-0217
Event Code: 08ENVD00-2021-E-00634
Project Name: Mammoth Airport

March 24, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The attached species list indicates threatened, endangered, proposed, and candidate species and designated or proposed critical habitat that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act of 1973, as amended (ESA, 16 U.S.C. 1531 *et seq*.), for projects that are authorized, funded, or carried out by a Federal agency. Candidate species have no protection under the ESA but are included for consideration because they could be listed prior to the completion of your project. Consideration of these species during project planning may assist species conservation efforts and may prevent the need for future listing actions. For additional information regarding species that may be found in the proposed project area, visit http://www.fws.gov/nevada/es/ipac.html.

The purpose of the ESA is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 *et seq*.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or

designated or proposed critical habitat. Guidelines for preparing a Biological Assessment can be found at: http://www.fws.gov/midwest/endangered/section7/ba_guide.html.

If a Federal action agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at: http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF.

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this species list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally listed, proposed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally, as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation, for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the attached list.

The Nevada Fish and Wildlife Office (NFWO) no longer provides species of concern lists. Most of these species for which we have concern are also on the Animal and Plant At-Risk Tracking List for Nevada (At-Risk list) maintained by the State of Nevada’s Natural Heritage Program (Heritage). Instead of maintaining our own list, we adopted Heritage's At-Risk list and are partnering with them to provide distribution data and information on the conservation needs for at-risk species to agencies or project proponents. The mission of Heritage is to continually evaluate the conservation priorities of native plants, animals, and their habitats, particularly those most vulnerable to extinction or in serious decline. In addition, in order to avoid future conflicts, we ask that you consider these at-risk species early in your project planning and explore management alternatives that provide for their long-term conservation.

For a list of at-risk species by county, visit Heritage's website (http://heritage.nv.gov). For a specific list of at-risk species that may occur in the project area, you can obtain a data request form from the website (http://heritage.nv.gov/get_data) or by contacting the Administrator of Heritage at 901 South Stewart Street, Suite 5002, Carson City, Nevada 89701-5245, (775) 684-2900. Please indicate on the form that your request is being obtained as part of your coordination with the Service under the ESA. During your project analysis, if you obtain new information or data for any Nevada sensitive species, we request that you provide the information to Heritage at the above address.

Furthermore, certain species of fish and wildlife are classified as protected by the State of Nevada (http://www.leg.state.nv.us/NAC/NAC-503.html). You must first obtain the appropriate license, permit, or written authorization from the Nevada Department of Wildlife (NDOW) to

take, or possess any parts of protected fish and wildlife species. Please visit http://www.ndow.org or contact NDOW in northern Nevada (775) 688-1500, in southern Nevada (702) 486-5127, or in eastern Nevada (775) 777-2300.

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq*.), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the Service's wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

The Service's Pacific Southwest Region developed the *Interim Guidelines for the Development of a Project Specific Avian and Bat Protection Plan for Wind Energy Facilities* (Interim Guidelines). This document provides energy facility developers with a tool for assessing the risk of potential impacts to wildlife resources and delineates how best to design and operate a bird- and bat-friendly wind facility. These Interim Guidelines are available upon request from the NFWO. The intent of a Bird and Bat Conservation Strategy is to conserve wildlife resources while supporting project developers through: (1) establishing project development in an adaptive management framework; (2) identifying proper siting and project design strategies; (3) designing and implementing pre-construction surveys; (4) implementing appropriate conservation measures for each development phase; (5) designing and implementing appropriate post-construction monitoring strategies; (6) using post-construction studies to better understand the dynamics of mortality reduction (*e.g.*, changes in blade cut-in speed, assessments of blade "feathering" success, and studies on the effects of visual and acoustic deterrents) including efforts tied into Before-After/Control-Impact analysis; and (7) conducting a thorough risk assessment and validation leading to adjustments in management and mitigation actions.

The template and recommendations set forth in the Interim Guidelines were based upon the Avian Powerline Interaction Committee's Avian Protection Plan template (http://www.aplic.org/) developed for electric utilities and modified accordingly to address the unique concerns of wind energy facilities. These recommendations are also consistent with the Service's wind energy guidelines. We recommend contacting us as early as possible in the planning process to discuss the need and process for developing a site-specific Bird and Bat Conservation Strategy.

The Service has also developed guidance regarding wind power development in relation to prairie grouse leks (sage-grouse are included in this). This document can be found at: http://www.fws.gov/southwest/es/Oklahoma/documents/te_species/wind%20power/prairie%20grouse%20lek%205%20mile%20public.pdf.

Migratory Birds are a Service Trust Resource. Based on the Service's conservation responsibilities and management authority for migratory birds under the Migratory Bird Treaty Act of 1918, as amended (MBTA; 16 U.S.C. 703 *et seq*.), we recommend that any land clearing or other surface disturbance associated with proposed actions within the project area be timed to avoid potential destruction of bird nests or young, or birds that breed in the area. Such destruction may be in violation of the MBTA. Under the MBTA, nests with eggs or young of migratory birds may not be harmed, nor may migratory birds be killed. Therefore, we recommend land clearing be conducted outside the avian breeding season. If this is not feasible,

we recommend a qualified biologist survey the area prior to land clearing. If nests are located, or if other evidence of nesting (*i.e.*, mated pairs, territorial defense, carrying nesting material, transporting food) is observed, a protective buffer (the size depending on the habitat requirements of the species) should be delineated and the entire area avoided to prevent destruction or disturbance to nests until they are no longer active.

Guidance for minimizing impacts to migratory birds for projects involving communications towers (*e.g.*, cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

If wetlands, springs, or streams are are known to occur in the project area or are present in the vicinity of the project area, we ask that you be aware of potential impacts project activities may have on these habitats. Discharge of fill material into wetlands or waters of the United States is regulated by the U.S. Army Corps of Engineers (ACOE) pursuant to section 404 of the Clean Water Act of 1972, as amended. We recommend you contact the ACOE's Regulatory Section regarding the possible need for a permit. For projects located in northern Nevada (Carson City, Churchill, Douglas, Elko, Esmeralda, Eureka, Humboldt, Lander, Lyon, Mineral, Pershing, Storey, and Washoe Counties) contact the Reno Regulatory Office at 300 Booth Street, Room 3060, Reno, Nevada 89509, (775) 784-5304; in southern Nevada (Clark, Lincoln, Nye, and White Pine Counties) contact the St. George Regulatory Office at 321 North Mall Drive, Suite L-101, St. George, Utah 84790-7314, (435) 986-3979; or in California along the eastern Sierra contact the Sacramento Regulatory Office at 650 Capitol Mall, Suite 5-200, Sacramento, California 95814, (916) 557-5250.

We appreciate your concern for threatened and endangered species. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

The table below outlines lead FWS field offices by county and land ownership/project type. Please refer to this table when you are ready to coordinate (including requests for section 7 consultation) with the field office corresponding to your project, and send any documentation regarding your project to that corresponding office. Therefore, the lead FWS field office may not be the office listed above in the letterhead.

Lead FWS offices by County and Ownership/Program

County	Ownership/Program	Species	Office Lead*
Alameda	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Alameda	All ownerships but tidal/estuarine	All	SFWO
Alpine	Humboldt Toiyabe National Forest	All	RFWO

Alpine	Lake Tahoe Basin Management Unit	All	RFWO
Alpine	Stanislaus National Forest	All	SFWO
Alpine	El Dorado National Forest	All	SFWO
Colusa	Mendocino National Forest	All	AFWO
Colusa	Other	All	By jurisdiction (see map)
Contra Costa	Legal Delta (Excluding ECCHCP)	All	BDFWO
Contra Costa	Antioch Dunes NWR	All	BDFWO
Contra Costa	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Contra Costa	All ownerships but tidal/estuarine	All	SFWO
Del Norte	All	All	AFWO
El Dorado	El Dorado National Forest	All	SFWO
El Dorado	LakeTahoe Basin Management Unit		RFWO
Glenn	Mendocino National Forest	All	AFWO
Glenn	Other	All	By jurisdiction (see map)
Humboldt	All except Shasta Trinity National Forest	All	AFWO
Humboldt	Shasta Trinity National Forest	All	YFWO
Lake	Mendocino National Forest	All	AFWO
Lake	Other	All	By jurisdiction (see map)
Lassen	Modoc National Forest	All	KFWO
Lassen	Lassen National Forest	All	SFWO
Lassen	Toiyabe National Forest	All	RFWO
Lassen	BLM Surprise and Eagle Lake Resource Areas	All	RFWO

Lassen	BLM Alturas Resource Area	All	KFWO
Lassen	Lassen Volcanic National Park	All (includes Eagle Lake trout on all ownerships)	SFWO
Lassen	All other ownerships	All	By jurisdiction (see map)
Marin	Tidal wetlands/marsh adjacent to Bays	Salt marsh species, delta smelt	BDFWO
Marin	All ownerships but tidal/estuarine	All	SFWO
Mendocino	Russian River watershed	All	SFWO
Mendocino	All except Russian River watershed	All	AFWO
Modoc	Modoc National Forest	All	KFWO
Modoc	BLM Alturas Resource Area	All	KFWO
Modoc	Klamath Basin National Wildlife Refuge Complex	All	KFWO
Modoc	BLM Surprise and Eagle Lake Resource Areas	All	RFWO
Modoc	All other ownerships	All	By jurisdiction (See map)
Mono	Inyo National Forest	All	RFWO
Mono	Humboldt Toiyabe National Forest	All	RFWO
	All ownerships but tidal/estuarine	All	SFWO
Napa			
Napa	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Nevada	Humboldt Toiyabe National Forest	All	RFWO
Nevada	All other ownerships	All	By jurisdiction (See map)

Placer	Lake Tahoe Basin Management Unit	All	RFWO
Placer	All other ownerships	All	SFWO
Sacramento	Legal Delta	Delta Smelt	BDFWO
Sacramento	Other	All	By jurisdiction (see map)
San Francisco	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Francisco	All ownerships but tidal/estuarine	All	SFWO
San Mateo	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
San Mateo	All ownerships but tidal/estuarine	All	SFWO
San Joaquin	Legal Delta excluding San Joaquin HCP	All	BDFWO
San Joaquin	Other	All	SFWO
Santa Clara	Tidal wetlands/marsh adjacent to San Francisco Bay	Salt marsh species, delta smelt	BDFWO
Santa Clara	All ownerships but tidal/estuarine	All	SFWO
Shasta	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Shasta	Hat Creek Ranger District	All	SFWO
Shasta	Bureau of Reclamation (Central Valley Project)	All	BDFWO
Shasta	Whiskeytown National Recreation Area	All	YFWO

Shasta	BLM Alturas Resource Area	All	KFWO
Shasta	Caltrans	By jurisdiction	SFWO/AFWO
Shasta	Ahjumawi Lava Springs State Park	Shasta crayfish	SFWO
Shasta	All other ownerships	All	By jurisdiction (see map)
Shasta	Natural Resource Damage Assessment, all lands	All	SFWO/BDFWO
Sierra	Humboldt Toiyabe National Forest	All	RFWO
Sierra	All other ownerships	All	SFWO
Siskiyou	Klamath National Forest (except Ukonom District)	All	YFWO
Siskiyou	Six Rivers National Forest and Ukonom District	All	AFWO
Siskiyou	Shasta Trinity National Forest	All	YFWO
Siskiyou	Lassen National Forest	All	SFWO
Siskiyou	Modoc National Forest	All	KFWO
Siskiyou	Lava Beds National Volcanic Monument	All	KFWO
Siskiyou	BLM Alturas Resource Area	All	KFWO
Siskiyou	Klamath Basin National Wildlife Refuge Complex	All	KFWO
Siskiyou	All other ownerships	All	By jurisdiction (see map)
Solano	Suisun Marsh	All	BDFWO
Solano	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Solano	All ownerships but tidal/estuarine	All	SFWO
Solano	Other	All	By jurisdiction (see map)

Sonoma	Tidal wetlands/marsh adjacent to San Pablo Bay	Salt marsh species, delta smelt	BDFWO
Sonoma	All ownerships but tidal/estuarine	All	SFWO
Tehama	Mendocino National Forest	All	AFWO
Tehama	Shasta Trinity National Forest except Hat Creek Ranger District (administered by Lassen National Forest)	All	YFWO
Tehama	All other ownerships	All	By jurisdiction (see map)
Trinity	BLM	All	AFWO
Trinity	Six Rivers National Forest	All	AFWO
Trinity	Shasta Trinity National Forest	All	YFWO
Trinity	Mendocino National Forest	All	AFWO
Trinity	BIA (Tribal Trust Lands)	All	AFWO
Trinity	County Government	All	AFWO
Trinity	All other ownerships	All	By jurisdiction (See map)
Yolo	Yolo Bypass	All	BDFWO
Yolo	Other	All	By jurisdiction (see map)
All	FERC-ESA	All	By jurisdiction (see map)
All	FERC-ESA	Shasta crayfish	SFWO
All	FERC-Relicensing (non-ESA)	All	BDFWO

***Office Leads:**

AFWO=Arcata Fish and Wildlife Office

BDFWO=Bay Delta Fish and Wildlife Office

KFWO=Klamath Falls Fish and Wildlife Office

RFWO=Reno Fish and Wildlife Office

YFWO=Yreka Fish and Wildlife Office

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

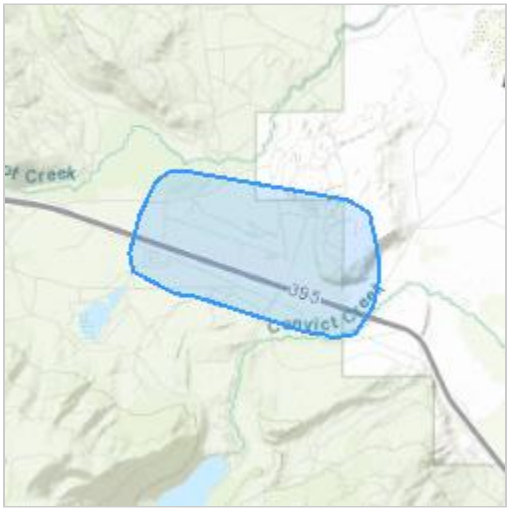
Reno Fish And Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147
(775) 861-6300

Project Summary

Consultation Code: 08ENVD00-2021-SLI-0217
Event Code: 08ENVD00-2021-E-00634
Project Name: Mammoth Airport
Project Type: TRANSPORTATION
Project Description: Proposed Airport Terminal Area development project, approx. 24 acres. No estimated time of implementation.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.627826850000005,-118.84543299485003,14z



Counties: Mono County, California

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. 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.

Mammals

NAME	STATUS
Fisher *Pekania pennanti* Population: SSN DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3651	Endangered
Sierra Nevada Bighorn Sheep *Ovis canadensis sierrae* Population: Sierra Nevada There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3646	Endangered

Birds

NAME	STATUS
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **proposed** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Amphibians

NAME	STATUS
Sierra Nevada Yellow-legged Frog *Rana sierrae* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/9529	Endangered
Yosemite Toad *Anaxyrus canorus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7255	Threatened

Fishes

NAME	STATUS
Lahontan Cutthroat Trout *Oncorhynchus clarkii henshawi* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3964	Threatened
Owens Pupfish *Cyprinodon radiosus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4982	Endangered
Owens Tui Chub *Gila bicolor ssp. snyderi* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7289	Endangered

Insects

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Conifers and Cycads

NAME	STATUS
Whitebark Pine *Pinus albicaulis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1748	Proposed Threatened

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Owens Tui Chub *Gila bicolor ssp. snyderi* https://ecos.fws.gov/ecp/species/7289#crithab	Final

USFWS National Wildlife Refuge Lands And Fish Hatcheries

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 OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

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.

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1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

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
Bald Eagle *Haliaeetus leucocephalus* 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	Breeds Dec 1 to Aug 31
Brewer's Sparrow *Spizella breweri* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9291	Breeds May 15 to Aug 10

NAME	BREEDING SEASON
Golden Eagle *Aquila chrysaetos* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680	Breeds Dec 1 to Aug 31
Green-tailed Towhee *Pipilo chlorurus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9444	Breeds May 1 to Aug 10
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Olive-sided Flycatcher *Contopus cooperi* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3914	Breeds May 20 to Aug 31
Pinyon Jay *Gymnorhinus cyanocephalus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9420	Breeds Feb 15 to Jul 15
Sage Thrasher *Oreoscoptes montanus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9433	Breeds Apr 15 to Aug 10
White Headed Woodpecker *Picoides albolarvatus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9411	Breeds May 1 to Aug 15
Willow Flycatcher *Empidonax traillii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/3482	Breeds May 20 to Aug 31

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.

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.

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.

▪ probability of presence ▪ breeding season | survey effort – no data

SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC



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

Migratory Birds FAQ

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.

Wetlands

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.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1A
- PEM1B
- PEM1C
- PEM1F
- PEM1Cx

FRESHWATER POND

- PABKx
- PUBHh
- PUBKx
- PUSKx

FRESHWATER FORESTED/SHRUB WETLAND

- PSSA
- PSSC
- PSSCx

RIVERINE

- R5UBF
- R2UBH

Appendices B1 and B2
Potentially Occurring Special-Status Species
CNDDB Query Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Old Mammoth (3711868) OR Whitmore Hot Springs (3711867) OR Convict Lake (3711857) OR Watterson Canyon (3711866) OR Toms Place (3711856))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Mammoth Airport animals - 5-quad

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter gentilis northern goshawk	ABNKC12060	None	None	G5	S3	SSC
Anaxyrus canorus Yosemite toad	AAABB01040	Threatened	None	G2G3	S2S3	SSC
Aplodontia rufa californica Sierra Nevada mountain beaver	AMAFA01013	None	None	G5T3T4	S2S3	SSC
Bombus morrisoni Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Catostomus fumeiventris Owens sucker	AFCJC02090	None	None	G3G4	S3	SSC
Centrocercus urophasianus greater sage-grouse	ABNLC12010	None	None	G3G4	S2S3	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Empidonax traillii willow flycatcher	ABPAE33040	None	Endangered	G5	S1S2	
Erethizon dorsatum North American porcupine	AMAFJ01010	None	None	G5	S3	
Falco mexicanus prairie falcon	ABNKD06090	None	None	G5	S4	WL
Gulo gulo California wolverine	AMAJF03010	None	Threatened	G4	S1	FP
Hygrotus fontinalis travertine band-thigh diving beetle	IICOL38050	None	None	G1	S1	
Lepus townsendii townsendii western white-tailed jackrabbit	AMAEB03041	None	None	G5T5	S3?	SSC
Martes caurina sierrae Sierra marten	AMAJF01014	None	None	G4G5T3	S3	
Ochotona princeps schisticeps gray-headed pika	AMAEA0102L	None	None	G5T4	S2S4	
Oncorhynchus clarkii henshawi Lahontan cutthroat trout	AFCHA02081	Threatened	None	G5T3	S1	
Pekania pennanti pop. 2 Fisher - Southern Sierra Nevada ESU	AMAJF01022	Endangered	Threatened	G5T1	S1	SSC

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Picoides arcticus black-backed woodpecker	ABNYF07090	None	None	G5	S2	
Pyrgulopsis wongi Wong's springsnail	IMGASJ0360	None	None	G2	S2	
Rana sierrae Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G1	S1	WL
Rhinichthys osculus ssp. 2 Owens speckled dace	AFCJB3705F	None	None	G5T1T2Q	S1S2	SSC
Rhinichthys osculus ssp. 5 Long Valley speckled dace	AFCJB3705E	None	None	G5T1	S1	SSC
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Siphateles bicolor snyderi Owens tui chub	AFCJB1303J	Endangered	Endangered	G4T1	S1	
Sorex lyelli Mount Lyell shrew	AMABA01020	None	None	G3G4	S3S4	SSC
Strix nebulosa great gray owl	ABNSB12040	None	Endangered	G5	S1	
Vulpes vulpes necator Sierra Nevada red fox	AMAJA03012	Proposed Endangered	Threatened	G5T1T2	S1	

Record Count: 28

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Old Mammoth (3711868) OR Whitmore Hot Springs (3711867) OR Convict Lake (3711857) OR Watterson Canyon (3711866) OR Toms Place (3711856))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Mammoth Airport Plants - 5-quad

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus johannis-howellii Long Valley milk-vetch	PDFAB0F4H0	None	Rare	G2	S1	1B.2
Astragalus lemmonii Lemmon's milk-vetch	PDFAB0F4N0	None	None	G2	S2	1B.2
Astragalus monoensis Mono milk-vetch	PDFAB0F5N0	None	Rare	G2	S2	1B.2
Atriplex pusilla smooth saltbush	PDCHE041P0	None	None	G4	SH	2B.1
Boechera bodiensis Bodie Hills rockcress	PDBRA06240	None	None	G3	S3	1B.3
Boechera cobrensis Masonic rockcress	PDBRA06080	None	None	G5	S3	2B.3
Boechera dispar pinyon rockcress	PDBRA060F0	None	None	G3	S3	2B.3
Botrychium ascendens upswept moonwort	PPOPH010S0	None	None	G3G4	S2	2B.3
Botrychium crenulatum scalloped moonwort	PPOPH010L0	None	None	G4	S3	2B.2
Botrychium minganense Mingan moonwort	PPOPH010R0	None	None	G4G5	S3	2B.2
Calochortus excavatus Inyo County star-tulip	PMLIL0D0F0	None	None	G2	S2	1B.1
Carex scirpoidea ssp. pseudoscirpoidea western single-spiked sedge	PMCYP03C85	None	None	G5T4	S2	2B.2
Claytonia megarhiza fell-fields claytonia	PDPOR030A0	None	None	G5	S2	2B.3
Crepis runcinata fiddleleaf hawksbeard	PDAST2R0K0	None	None	G5	S3	2B.2
Draba cana canescent draba	PDBRA110M0	None	None	G5	S2	2B.3
Draba lonchocarpa spear-fruited draba	PDBRA111F0	None	None	G5	S2S3	2B.3
Draba praealta tall draba	PDBRA11210	None	None	G5	S3	2B.3
Elymus scribneri Scribner's wheat grass	PMPOA2H170	None	None	G5	S3	2B.3

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eremothera boothii ssp. boothii Booth's evening-primrose	PDONA03052	None	None	G5T4	S3	2B.3
Eremothera boothii ssp. intermedia Booth's hairy evening-primrose	PDONA03056	None	None	G5T3T4	S3	2B.3
Helodium blandowii Blandow's bog moss	NBMUS3C010	None	None	G4	S2	2B.3
Hulsea vestita ssp. inyoensis Inyo hulsea	PDAST4Z073	None	None	G5T2T3	S1S2	2B.2
Ivesia kingii var. kingii alkali ivesia	PDROS0X092	None	None	G4T3Q	S2	2B.2
Kobresia myosuroides seep kobresia	PMCYP0F010	None	None	G5	S2	2B.2
Lupinus duranii Mono Lake lupine	PDFAB2B1E0	None	None	G2	S2	1B.2
Mentzelia torreyi Torrey's blazing star	PDLOA031S0	None	None	G4	S2	2B.2
Micromonolepis pusilla dwarf monolepis	PDCHE0F020	None	None	G5	S3?	2B.3
Orobanche ludoviciana var. arenosa Suksdorf's broom-rape	PDORO04073	None	None	G5T5	S2	2B.3
Parnassia parviflora small-flowered grass-of-Parnassus	PDSAX0P0A0	None	None	G5?	S2	2B.2
Pedicularis crenulata scalloped-leaved lousewort	PDSCR1K0A0	None	None	G4	S1	2B.2
Phacelia gymnoclada naked-stemmed phacelia	PDHYD0C1X0	None	None	G4	S2	2B.3
Phacelia inyoensis Inyo phacelia	PDHYD0C2F0	None	None	G2	S2	1B.2
Sabulina stricta bog sandwort	PDCAR0G0U0	None	None	G5	S3	2B.3
Salix brachycarpa var. brachycarpa short-fruited willow	PDSAL02531	None	None	G5T5	S2	2B.3
Salix nivalis snow willow	PDSAL024K0	None	None	G5	S2	2B.3
Sphaeromeria potentilloides var. nitrophila alkali tansy-sage	PDAST8S061	None	None	G5T4?	S2	2B.2
Stuckenia filiformis ssp. alpina slender-leaved pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Thelypodium integrifolium ssp. complanatum foxtail thelypodium	PDBRA2N062	None	None	G5T4T5	S2	2B.2
Trichophorum pumilum little bulrush	PMCYP0Q250	None	None	G5	S3	2B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Triglochin palustris marsh arrow-grass	PMJCG02040	None	None	G5	S2	2B.3
Viola purpurea ssp. aurea golden violet	PDVIO04420	None	None	G5T2	S2	2B.2

Record Count: 41

APPENDIX D
CULTURAL RESOURCE REPORT AND AB 52 LETTERS

CULTURAL RESOURCES INVENTORY AND EFFECTS ASSESSMENT FOR THE MAMMOTH-YOSEMITE AIRPORT TERMINAL AREA DEVELOPMENT PLAN, TOWN OF MAMMOTH LAKES, MONO COUNTY, CALIFORNIA

Prepared For:

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USGS 7.5-Minute Quadrangle: Whitmore Hot Springs 1994

Positive Cultural Resources Survey; P-26-007973 (CA-MNO-5763);
Town of Mammoth Lakes, Mono County

September 20, 2019
Revised October 28, 2019

Archaeological and traditional property locations are considered confidential and should not be disclosed to the general public or unauthorized persons. This document contains sensitive information regarding the nature and location of archaeological sites. Public access to information regarding the location, character, or ownership of a cultural or heritage resource is restricted by law per Section 304 of the National Historic Preservation Act; Section 9(a) of the Archaeological Resources Protection Act; Executive Order 13007; and is exempt from the California Public Records Act under Government Code Section 6254.10.

ABSTRACT

Purpose and Scope: Natural Investigations Company, Inc. was retained to provide cultural resources services for the Mammoth Yosemite Airport Terminal Area Development Plan (TADP or Project) in the Town of Mammoth Lakes (Town), southwestern Mono County, California. The Town is the owner and operator of the Airport and proposes to construct a passenger terminal, aircraft parking apron, related infrastructure, and Aircraft Rescue and Fire Fighting-Snowplow building as elements of the TADP.

The services by Natural Investigations include literature review, Sacred Lands File search, Native American outreach, an intensive-level survey of the proposed Area of Potential Effects (APE), and a Project effects assessment with this report. This study was completed in compliance with Section 106 of the National Historic Preservation Act. The Federal Aviation Administration (FAA) is the Federal Lead Agency for the undertaking.

Dates of Investigation: The literature search was completed by the Eastern Information Center (EIC) on October 24, 2018, and a Sacred Lands File search by the Native American Heritage Commission on October 18, 2018. The Commission indicated their search was negative. Natural Investigations conducted an intensive-level pedestrian survey of the 17.91-acre APE on August 13, 2019.

Investigation Constraints: Ground visibility outside existing hardscape was moderate to excellent depending on the vegetation cover density and height, or the lack thereof.

Findings of the Investigation: Prior cultural work entails 30 prior studies within a 1.5-mile search radius, four of which overlapped portions of the APE. While no cultural resources have been previously recorded within the APE, 15 resources (11 prehistoric, 2 historic-era, 2 multi-component) are mapped within a 0.5-mile radius. Additionally, although not on file at the EIC, extant Airport buildings and structures near but outside the APE were previously determined ineligible for National Register inclusion.

A segment of a previously recorded road (P-26-007973, CA-MNO-5763) was identified within the APE, recorded, and the resource found ineligible for National Register listing. The sensitivity is very low for discovery of archaeological deposits in the previously disturbed APE, which is underlain by older Pleistocene alluvium.

Recommendations: Construction monitoring of ground-disturbing activity is not recommended as the potential for discovery of cultural resources is very low. In the event resources are discovered during Project activities, work in the immediate area must be halted and a qualified archaeologist (36 CFR Part 61) notified, who will then evaluate the resource and consult with the Town, FAA, and any other relevant regulatory agency, as appropriate.

Disposition of Data: This report will be filed with Wallace Environmental Consulting; Eastern Information Center, University of California, Riverside; and Natural Investigations Company, Sacramento, California. All field notes and other documentation related to the study are on file at the Sacramento office of Natural Investigations.

TABLE OF CONTENTS

Abstract ..... **ii**
Introduction **1**
Project Description 1
Area of Potential Effects (APE) 1
Regulatory Setting 3
Report Preparation 4
Environmental Setting **4**
Geology, Hydrology, and Soils 4
Current Land Uses 5
Climate and Flora/Fauna 6
Cultural Setting **6**
Prehistoric Overview 6
PaleoIndian (~13,000–10,000 B.P.) 7
Early Archaic (10,000–6,00 B.P.) 7
Middle Archaic (6,000–2,500 B.P.) 7
Late Archaic (2,500 B.P. – Historic Era) 8
Ethnography 9
Historic Overview 10
Local History 10
Mammoth Yosemite Airport History 12
Pre-field Research **13**
Records Search by the Eastern Information Center 13
Prior Studies 13
Previously Recorded Resources 15
Other Cultural Resources Information Sources 17
Native American Sacred Lands File Search and Outreach 17
Field Survey Methods **18**
Field Survey Results **18**
Summary 18
Description of Surveyed Area 18
Update to P-26-007973 (CA-MNO-5763) (Convict Lake Road) 20
Description of Convict Lake Road 20
Significance of Convict Lake Road 21
Determination Of Effects **22**
Regulatory Requirements 22
Determination of Effects 23
Sensitivity for Discovery of Buried Resources 23
Recommendations 24
No Construction Monitoring 24
Inadvertent Discoveries 24
Human Remains 24
References Cited **25**

LIST OF TABLES

Table 1. Major Cultural Periods of the Western Great Basin 6
Table 2. Prior Cultural Resource Studies Mapped within Search Radius 14
Table 3. Cultural Resources Previously Recorded within Search Radius 16

LIST OF FIGURES

Figure 1. Project Location and APE Map (USGS quadrangle) 2
Figure 2. Project Components and APE Map (aerial)..... 3

LIST OF PHOTOGRAPHS

Photograph 1. Overview of APE toward air terminal (view to west) 19
Photograph 2. Overview of APE toward water tank at eastern edge (view to east) 19
Photograph 3. Overview toward leach field in APE north of terminal parking lot (view to north)..... 20
Photograph 4. Abandoned road, fence and water tank along eastern edge of APE (view to north) 20
Photograph 5. Transmission towers near southeast extent of APE for new access road (view to south)..... 20
Photograph 6. Segment of Convict Lake Rd (P-26-07973) in APE (view to south) 21

LIST OF APPENDICES

APPENDIX A: EIC Record Search Summary (File No. ST-MNO-4917)
APPENDIX B: Sacred Lands File Search and Outreach
APPENDIX C: Resource Record (DPR Forms)

INTRODUCTION

Natural Investigations Company, Inc. (Natural Investigations) was retained by Wallace Environmental Consulting to provide cultural resources services for the Mammoth Yosemite Airport (MMH or Airport) Terminal Area Development Plan (TADP or Project) in the Town of Mammoth Lakes (Town), southwestern Mono County, California. The Town is the owner and operator of MMH and proposes to construct a passenger terminal, aircraft parking apron, related infrastructure, and Aircraft Rescue and Fire Fighting-Snowplow building as elements of the TADP.

The Town is preparing a National Environmental Policy Act (NEPA) Environmental Assessment (EA) for the Project for consideration by the Federal Aviation Administration (FAA), the Federal Lead Agency for the undertaking. The Town has received an Airport Improvement Program grant from the FAA to conduct a NEPA EA.

The cultural resources services by Natural Investigations include a literature review, Sacred Lands File search and Native American outreach, an intensive-level pedestrian survey of the 17.91-acre Area of Potential Effects (APE), and a Project effects assessment with this report. This study was completed in compliance with Section 106 of the National Historic Preservation Act (NHPA) and in support of the EA.

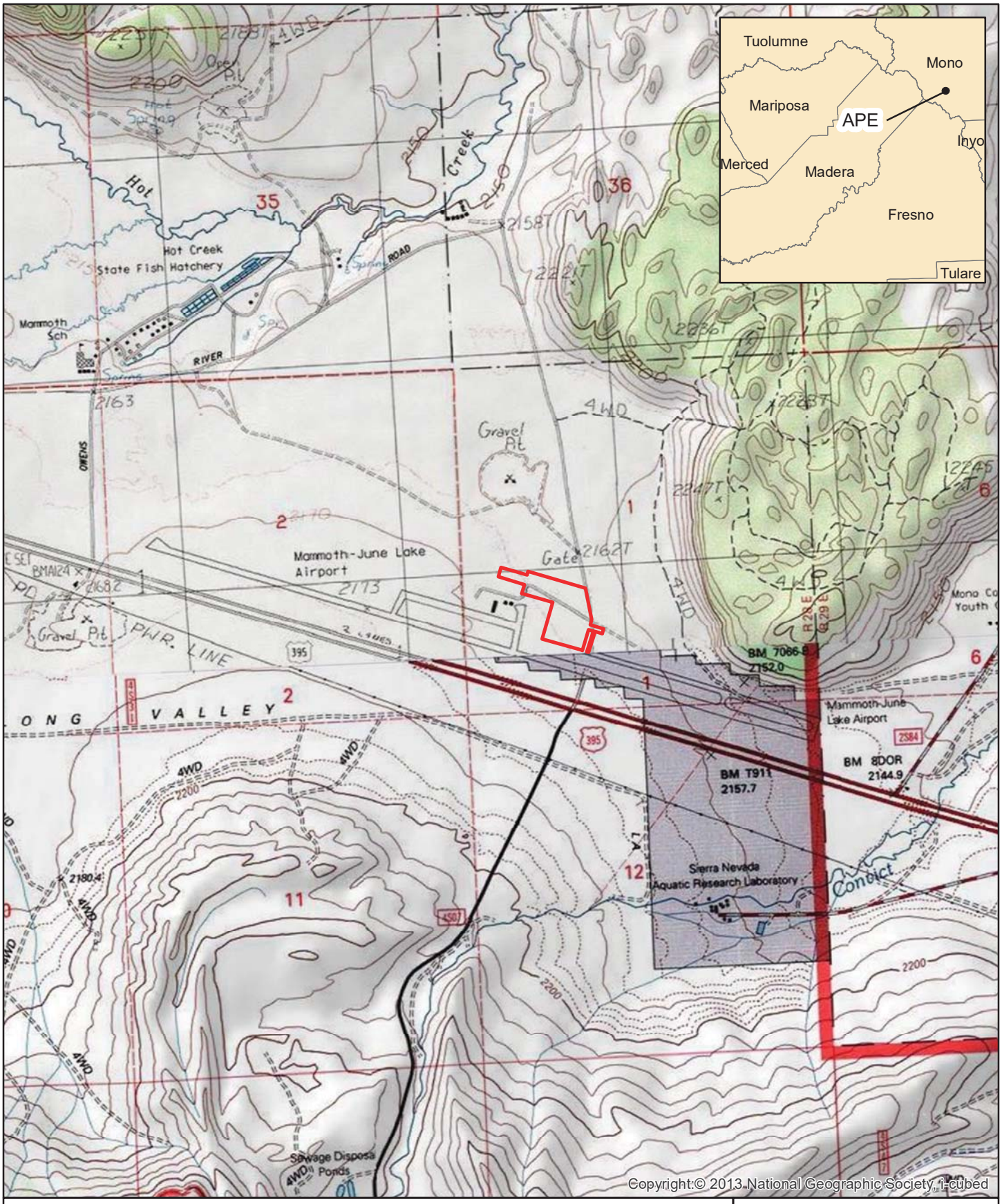
PROJECT DESCRIPTION

The Project has been identified in the Airport Capital Improvement Program (ACIP) as submitted to the FAA and as adopted by the Town Council. The proposed new facilities would be located at Mammoth Yosemite Airport (MMH). MMH is located approximately 7 miles east of the main portion of Town on Airport Road adjacent to US Highway 395 (US 395) (Figures 1 and 2). The proposed Project would include two major components: a new up to 40,000 square foot, three-gate passenger terminal and an associated aircraft parking apron of approximately 130,500 square feet. The TADP completed by the Town in 2017 describes the current proposed passenger terminal and associated landside improvements in detail (Brandley 2017). The improvements associated with the TADP would include an automobile parking lot, aircraft de-icing apron, new taxiways, Airport Road extension, service road realignment, package wastewater treatment plant and wastewater disposal field, new electrical service, and an Aircraft Rescue and Fire Fighting-Snowplow building (ARFF) with new vehicle parking apron and access road.

There are many constraints to the location available for terminal area development on the Airport without major disruption to existing facilities. The proximity of US 395 on the entire south side of the Airport, Doe Ridge on the northeast side, and US Forest Service land surrounding MMH also constrain development. The preferred location alternative described in the TADP (Site “B”) is entirely on Airport property and is between the existing temporary terminal building and Doe Ridge to the east. All work for the Project will take place within Airport property. Access for the Project will be via Airport Road, the main access to MMH off US 395.

AREA OF POTENTIAL EFFECTS (APE)

The APE within which the direct and indirect impacts of the proposed Project may have an effect on cultural resources totals 17.91 acres (Figures 1 and 2). The APE is located in Section 1 of Township 4 South, Range 28 East, as depicted on the 1994 Whitmore Hot Springs USGS 7.5-minute topographic map (Mount Diablo Base and Meridian) (Figure 1). The anticipated vertical APE for the undertaking is a maximum depth of 5 feet (1.5 meters) for the waste disposal lines, with most ground disturbance at 2 feet (0.6 meter) or less.



APE

0 0.5 1 Kilometers

0 0.5 1 Miles

1:24,000

Mammoth Lakes Airport
Figure 1 - APE

Natural Investigations Company

Map Date 9/20/2019

Whitmore Hot Springs 1994 Quadrangle:Township 4S, Range 28E, Section 1



Source: Wallace Environmental Consulting 2019

Figure 2. Project Components and APE Map (aerial)

REGULATORY SETTING

The current study was completed under the provisions of Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended) (36 Code of Federal Regulations [CFR] 800). Cultural resources are considered during federal undertakings chiefly under Section 106 of the NHPA through one of its implementing regulations, 36 CFR 800 (Protection of Historic Properties), as well as the National Environmental Policy Act (NEPA). Properties of traditional religious and cultural importance to Native Americans are considered under Section 101(d)(6)(A) of NHPA.

Section 106 of the NHPA (16 United States Code [USC] 470f) requires federal agencies to take into account the effects of their undertakings on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment on such undertakings (36 CFR 800.1). Under Section 106, the significance of any adversely affected cultural resource is assessed and mitigation measures are proposed to reduce any impacts to an acceptable level. Significant cultural resources are those resources that are listed in, or are eligible for listing on the NRHP per the criteria listed at 36 CFR 60.4 (Advisory Council on Historic Preservation 2000) below.

The quality of *significance* in American history, architecture, archaeology, engineering and culture is present in districts, sites, buildings, structures, and objects that possess *integrity* of location, design, setting, materials, workmanship, feeling and association and that:

A. Are associated with events that have made a significant contribution to the broad patterns of our history; or

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

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP are considered a significant effect on the environment. Impacts to significant cultural resources from the proposed Project are thus considered significant if the Project physically destroys or damages all or part of a resource, changes the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance, or introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

REPORT PREPARATION

Nancy E. Sikes, Ph.D. was the Principal Investigator for this cultural resources Project and co-authored this report with Dylan Stapleton, M.A., and Cindy Arrington, M.S. Dr. Sikes and Ms. Arrington each have more than 20 years of archaeological experience in California and exceed all requirements of the *Secretary of Interior's Qualifications Standards* (36 CFR Part 61; National Park Service 1983). Mr. Stapleton, who performed the pedestrian survey, has over 10 years of experience in California archaeology.

The format of this report follows the *Archaeological Resource Management Reports: Recommended Contents and Format* by the Office of Historic Preservation (1990).

ENVIRONMENTAL SETTING

GEOLOGY, HYDROLOGY, AND SOILS

Long Valley is located in the western margin of the Basin and Range geomorphic province, which is east of the Sierra Nevada geomorphic province (Norris and Webb 1990). An ancient volcano, known as the Long Valley Caldera, forms the topographical shape for Long Valley as a large elongated oval, measuring 20 miles long (east/west) by 11 miles wide (north/south). The caldera formed as a result of the Bishop Tuff eruption 767,000 years ago, after which Long Valley Lake persisted throughout much of the middle Pleistocene (Bailey 1989a, 1989b; Hildreth and Fierstein 2016). It is one of the largest Quaternary rhyolitic volcanic centers in North America. Long Valley deposits attain as much as 300-meter thickness in drill holes and are estimated to range in age from about 700,000 years ago to when Pleistocene Long Valley Lake drained between 100,000 and 50,000 years ago. The Bishop Tuff is thousands of feet thick and is cut by the Owens River Gorge, formed during the Pleistocene when the lake overtopped its southern rim. Crowley Lake in the Owens River Gorge, approximately 3 miles east of the Airport, is a modern reservoir and is not a remnant of the Pleistocene lake.

Volcanic activity in this region began about 3.6 million years ago when flows covered a 1,500-square-mile area. The volcanic activity created a several obsidian sources that were quarried by native peoples at Bodie Hills, Mono Craters, Glass Mountain, Queen, and Casa Diablo in Mono County (Bettinger 1982a). Obsidian was also obtained at Sugarloaf Mountain in the Coso Range south of Owens Valley in Inyo County. The Inyo-Mono volcanic chain remains one of the most active volcanic regions in North American, with numerous eruptions during the latest Pleistocene and Holocene. The chain contains dozens of Holocene-age volcanic centers that extend more than 34 miles from near the south shore of Mono Lake to the southern end of the Long Valley caldera (Meyer et al. 2010:117).

The flat APE at MMH within Long Valley has an elevation at 7,134.8 feet (2,174.7 meters) above mean sea level. Geologic maps indicate the APE is underlain by Older Pleistocene alluvium (Qoa) with an estimated age of 200,000–11,000 years (Bailey 1989a). The alluvium includes most late Pleistocene glacial outwash and related periglacial sediments, and the stream deposits continue to undergo erosion and dissection. This alluvium was deposited mainly prior to evidence for human occupation in this region.

The Long Valley watershed, in which the Project is located, is approximately 380 square miles and includes the upper reaches of the Owens River above Crowley Lake. Streams within the watershed generally flow eastward to the Owens River, which is approximately 5 miles east of the Airport. Major creeks within 2 miles of the Airport include Mammoth Creek to the west, Hot Creek to the northwest, and Convict Creek to the south and east. Convict and Hot creeks both ultimately discharge into Crowley Lake in the Owens River Gorge. Crowley Lake was impounded by construction of Long Valley Dam on the Owens River in 1941 and presently is a trout fishery (Lahontan RWQCB 2005:2.4a). Another fish hatchery is located on Hot Creek, approximately 1.25 miles northwest of the Project.

The Flood Insurance Rate Map published by the Federal Emergency Management Agency (FEMA) for the Project vicinity indicates that no part of the MMH property is located within a floodplain. The APE is located approximately 1 and 1.75 miles from narrow 100-year floodplains (Zone A) associated with Hot Creek to the north and Convict Creek to the east, respectively (FEMA 2011a, 2011b).

Soils within the APE are the very deep, well-drained Watterson series that formed in mixed alluvium influenced by volcanic ash and in some small areas by granitic alluvium (California Soil Resource Lab 2019; Soil Survey Staff 2019). The typical pedon for these weakly developed soils has a thick layered sandy loam to very gravelly sandy loam A horizon (0–35 inches) over a sand C horizon (35-60 inches). These soils are mainly suited for livestock grazing and wildlife habitat. The profile does not contain any buried soils representing former landscapes.

CURRENT LAND USES

The Town of Mammoth Lakes is the owner and operator of MMH, which is located in Long Valley approximately 7 miles east of the main portion of the Town on Airport Road adjacent to and north of US 395. The primary airfield components consist of runways, taxiways, and parking aprons. MMH has one east-west oriented runway (9/27) with a parallel and connecting taxiway system. Runway 9/27 is paved with asphalt and is 7,000 feet long by 100 feet wide. The full parallel taxiway, 50 feet in width, with all aircraft parking aprons is located north of the runway/taxiway complex. Existing buildings and structures at MMH built between 1972 and 2011 include an interim terminal building, temporary terminal annex, fixed base operator (FBO) office and pilots' lounge, 94 private and public use hangars, and an airport water system (Brandley 2017:1.1-1.4; Town of Mammoth Lakes 2000; URS 2008, 2010).

Commercial airline service has been provided at the Airport over the past 45 years. The commercial service between the early 1970s and 2008 was relatively modest, with regularly scheduled commercial airline service beginning in December of 2008. Local areas served by MMH include northern Inyo County, Mono County, and the Town of Mammoth Lakes. The most recent has been regular service provided by Alaska Airlines and United Airlines, beginning in 2010 (Brandley 2017:1.1-1.4). Alaska provided year-round service from Los Angeles and seasonal service from San Diego. In 2017, Alaska Airlines discontinued service. United Airlines provides daily service from Los Angeles.

The Airport is surrounded by federally-owned public lands. Land to the north, northwest, and south of MMH are within the Inyo National Forest. The lands northeast of MMH are administered by the Bureau of Land Management (BLM) and are undeveloped. Eastern portions of MMH, including lands under a portion of the runway, are owned by the Los Angeles Department of Water and Power (LADWP). The Town of

Mammoth Lakes currently leases this land (URS 2010:4-2). There are no residential areas in the immediate vicinity of MMH.

CLIMATE AND FLORA/FAUNA

Mammoth Lakes has a warm summer Mediterranean climate. It is characterized by warm, dry summers and cold, wet winters. Most of the precipitation falls as snow during the winter months. Snowfall is particularly heavy from December through March, averaging 206 inches per season. On average, there are 21 days of 80-degree Fahrenheit (°F) highs, 21 days of highs less than 32°F, and 5 nights with lows less than 0°F annually.

MMH is located within the East of the Sierra Nevada Region of the Great Basin Floristic Province (Jepson Flora Project 2018). This region, entirely south of Lake Tahoe, extends along the eastern edge of the Sierra Nevada to the southern limit of Owens Valley and the White and Inyo mountain ranges. The region supports primarily a mosaic of sagebrush steppe, pinyon/juniper woodland, and cottonwood-dominated riparian vegetation. There are also extensive areas of Jeffrey-pine forest in the Mono Craters area 20 miles northwest of MMH, subalpine fir/pine forest on Glass Mountain 12 miles northeast of MMH, and alpine vegetation at the top of the Sweetwater Mountains 60 miles northwest of MMH. The vegetative community in the vicinity of MMH is dominated by big sagebrush (*Artemesia tridentata*). Much of this community has been previously disturbed by grazing, as well as by construction and maintenance of the Airport facilities, roads, and highways in the area (URS 2010:4-33).

Common fauna and birds in this region include mule deer, pronghorn, coyote, fox, bobcat, pygmy rabbit, sage grouse, and bald eagle (Jameson and Peeters 2004). A variety of unique species and subspecies of fish exist in the Owens River watershed, including the Owens sucker, Lahontan cutthroat trout, and endangered Owens tui chub.

This mosaic of ecological communities would have provided a very productive environment. Based on the ethnographic descriptions of the Owens Valley Paiute who historically occupied this region, their hunting-gathering economy was supported by a variety of large and small mammals, edible plant species, fish, and birds (Kroeber 1925; Liljeblad and Fowler 1986; Steward 1933, 1938).

CULTURAL SETTING

PREHISTORIC OVERVIEW

The prehistoric cultural chronology for the Project vicinity in the western Great Basin along the east slope of the Sierra Nevada combines the results of numerous archaeological investigations conducted since the 1940s, with revisions in the chronological sequence based on research endeavors conducted during the last five decades. The four major cultural periods identified for this region, discussed below, are outlined in Table 1.

Table 1. Major Cultural Periods of the Western Great Basin

Archaeological Period*	Approximate Timeframe	Relative Era/Climate
PaleoIndian	~13,000 – 10,000 B.P.	Late Pleistocene
Early Archaic	10,000 – 6,000 B.P.	Early Holocene
Middle Archaic	6,000 – 2,500 B.P.	Middle Holocene and Neoglacial
Late Archaic (Western Basin)	2,500 B.P. – Historic Era	Neoglacial through Modern Times

* The chronological sequence in the eastern Great Basin differs from 5,000 BP through the Historic Era, as the Late Archaic, Fremont, and Late Prehistoric periods (see e.g., Simms 2008: Figure 1.9).

PaleoIndian (~13,000–10,000 B.P.)

Little is known about the human occupation of this region during the Late Pleistocene. Initial occupation during the Terminal Pleistocene/Early Holocene transition, possibly as early as 13,000 years ago, occurred during a gradual warming and drying trend when the large pluvial lakes that characterized this region were in recession. In the Great Basin and California, sites are often found in association with former strandlines of ancient pluvial lakes and marshlands, and sometimes in association with streams, springs, ponds, river terraces, or high mountain passes. Lakes along the eastern edge of the Sierra Nevada Mountains were arranged as a chain, and during times of high precipitation and glacial melt, each lake would fill up to its overflow point and spill downriver to the next lake in the chain. Lake Russell (which encompassed the present-day Mono Lake) was the farthest north in the chain (Grayson 1993). To the south, Long Valley Lake had overtopped its southern rim between 100,000 and 50,000 years ago, re-incising the Owens River Gorge, and then gradually decreasing in size (Hildreth and Fierstein 2016).

In the greater Inyo-Mono area, archaeological evidence of sparse occupation during the PaleoIndian period includes Great Basin Stemmed or fluted/concave-based projectile points, some Pinto-series points, formalized flake tools (scrapers, gravers), and bifaces (Basgall 1987 and 1989). The archaeology suggests these highly nomadic peoples were practicing a broad-spectrum subsistence strategy that exploited a wide range of habitats and resources (Willig and Aikens 1988). The rarity of milling equipment or ground stone tools indicates the use of plant resources was minimal. The presence of exotic raw materials in tool assemblages and the technological organization inferred from lithic assemblages indicate people practiced a high degree of residential mobility.

Early Archaic (10,000–6,00 B.P.)

Native peoples inhabiting the southwestern Great Basin were profoundly affected by environmental changes during the gradual Pleistocene-Holocene transition. Temperatures became warmer but remained cooler and moister than today, and the region became marked by shallow lakes and marshes that were biologically very productive, surrounded by desert vegetation typical of later time periods (Grayson 1993:199). Some low-elevation locales retained juniper and sagebrush habitats. By the early Holocene, warmer temperatures, reduced precipitation, and the eventual dehydration of the pluvial lakes likely led to irregularities in the distribution and abundance of resources (Sutton et al. 2007:237).

Archaeological evidence of early Holocene human occupation of the greater Inyo-Mono area is scarce. Representative assemblages have been identified at the Komodo site in Long Valley (Basgall 1987), and a basal component at CA-INY-30 near Lone Pine (Basgall and McGuire 1988). Surveys of the Long Valley Caldera and Owens Valley indicate that residential base camps were located adjacent to rivers, while temporary field camps for hunting and gathering were on upland, desert scrub zones (e.g., Bettinger 1975, 1977, 1982b).

The continued use of Pinto-series points characterizes the Early Archaic (e.g., Basgall and McGuire 1988; Bettinger 1991; Elston 1986; Gilreath 1995). While tool assemblages are similar to the PaleoIndian period, there is an increase in milling equipment that indicates there was a related increase in the use of plant resources. Warren (1986) relates this shift to a broadening of subsistence patterns resulting from declining environmental conditions.

Middle Archaic (6,000–2,500 B.P.)

The climate throughout the Middle Holocene underwent multiple oscillations between wetter and drier conditions. Although the lakes and marshes of the early Holocene had receded, springs and streams from nearby mountain ranges appear to have provided enough water to sustain human activity, albeit at low densities (e.g., Basgall 2000; Sutton 1996). As vegetation communities that supported large game animals

became more limited and water sources changed, settlement patterns adapted and shifted to more upland settings.

Diagnostic Middle Archaic projectile points include the Elko and Humboldt series, and tools included scraper-planes and choppers. There is also anotable increase in the use and abundance of milling equipment, particularly prepared basins. Archaeological sites in the Inyo-Mono area include structures and domestic features. Sites also contain resources from desert, lacustrine, and mountain ecological zones, and suggest specific task groups explored the upland areas. These characteristics indicate the settlement system was mobile with a greater frequency in the direction and range of seasonal movements within a smaller territorial area (Basgall and McGuire 1988; Bettinger 1989; Delacorte 1990).

The latter part of the Middle Archaic was punctuated by a cool and moist interval around 3800 B.P., when several hydrographically closed lakes (e.g., Mono, Pyramid, and likely Owens) reached their Holocene high stands (Stine 2003). Middle Archaic sites are rare in the Long Valley Caldera and other upland areas. Bettinger (1975, 1977) has suggested that exploitation of the high upland areas became more difficult as the climate became cooler and moister during the Neoglacial interval, while resource productivity in the Mono Basin and Owens Valley lowlands likely increased.

During the Middle Archaic, the trans-Sierran exchange of obsidian reached its peak. Evidence of this is found by an increase in quarry production and biface manufacture at several eastern California sources and an increase in the frequency of obsidian in sites west of the Sierra Nevada (Gilreath and Hildebrandt 1997; Goldberg et al. 1990). It is hypothesized that the more regularized settlement pattern that emerged during this interval allowed for more predictable interaction among neighboring populations.

Late Archaic (2,500 B.P. – Historic Era)

The late Holocene climate approximated that of today, with cooler and moister conditions than the middle Holocene but drier than the early Holocene. Plant communities took on their modern distribution, but as in the middle Holocene, the climate was highly variable, and many lake levels fluctuated, at times dramatically, throughout the period. Increases in population, trade, and social complexity accompanied the more favorable climate, and evidence of restricted seasonal movement and larger settlements appears early in this period (Bettinger 1999; Sutton et al. 2007).

The Late Archaic tool assemblage includes Rose Spring and Eastgate series projectile points and the introduction of the bow and arrow. There is an increase in the use of milling equipment coupled with a decreased diversity of flaked stone material. Evidence for resource intensification is prevalent, complementing a pattern of increased settlement centralization. Also noted have been high-cost extractive and storage strategies for pine nuts, ricegrass, and other seeds; selective hunting of certain small mammals and birds; and intensive use of previously marginal habitats such as the Owens Lake shoreline (Basgall 1989; Basgall and Delacorte 2012; Basgall et al. 1995; Basgall and McGuire 1988; Bettinger 1989, 1999).

New settlement types were established based on the expanded procurement practices, such as piñon camps, alpine villages, and previously minimally used lowland occupation areas. The presence of marine shell ornaments, coupled with the localized trading of finely crafted chert bifaces manufactured and distributed between groups in northern Owens, Deep Springs, and other valleys, suggests increasingly complex intra- and inter-regional interaction (Bettinger 1989; Delacorte 1991, 1999; Gilreath 1995).

During the Late Archaic, there is notable decrease in obsidian production. The increased territoriality may have raised the cost of acquiring obsidian and complicated the exchange of obsidian by restricting movement across the landscape. The introduction of the bow and smaller arrow points would have also reduced the importance of obsidian and other toolstone (Basgall et al. 1995; Gilreath and Hildebrandt 1997; Goldberg et al. 1990).

After 650 B.P., Cottonwood and Desert Side-notched projectile points and Owens Valley Brown Ware pottery characterize Late Archaic sites. There is also an increased emphasis on local subsistence resources coupled with the establishment larger, more sedentary populations. Utilized resources included shellfish, water fowl, tule seeds within the riparian and lacustrine settings in Owens Valley, pine nuts in the intermediate zones, and root crops and small mammals in the alpine zones (Basgall and Delacorte 2012; Gilreath 1995; Bettinger 1976).

ETHNOGRAPHY

The Project is located at the northern extent of the lands historically occupied by the Owens Valley Paiute, the southernmost branch of the Northern Paiute. Their territory extended from the Sierra Nevada on the west, to the Inyo Mountains on the east, north to the Benton Range and Long Valley, and south to the southern shore of Owens Lake. They spoke dialects of the Mono language, a division of the Western Numic segment of the Numic Branch of the Uto-Aztecan language family (Liljeblad and Fowler 1986). They have been identified as the Eastern Mono by Kroeber (1925:584-586) and as the Owens Valley Paiute, by Steward (1933:235; 1938:50).

In contrast to the neighboring Northern Paiute in the Mono Lake Basin and Western Shoshone groups to the east and south, the Owens Valley Paiute can be characterized as more sedentary and logistically organized. Each band had a chief, whose duties were to direct seasonal movements into the mountains for pine nut harvesting, animal drives, irrigation, fall festivals, and mourning ceremonies (Steward 1938:55). Population density of the Owens Valley Paiute was also higher than neighboring Great Basin groups, with population estimates before contact ranging between 1,000 and 2,000 people (Chalfant 1922; Liljeblad and Fowler 1986:414-415; Steward 1933). Semi-permanent villages in the lowlands were distributed along water courses, with the highest number of villages near major water sources. The villages were typically occupied by 25 to 250 individuals and were inhabited throughout much of the year.

As with most Native California groups, the Owens Valley Paiute settlement system was intricately tied to their seasonal subsistence round. As their territory extended through different environmental zones, a wide variety of seeds, plants, and roots were part of their diet. Pine nuts (also piñon), the seeds from *Pinus monophylla*, were a dietary staple (Liljeblad and Fowler 1986:416-419; Steward 1938:52). Families traveled during the fall to gather and process the seeds in pine nut-rich areas in the Inyo and White mountains. If pine nuts were scarce, they were processed in the lowland villages (Bettinger 1975:61-62). When available, acorns were preferred over pine nuts, and were also part of the regional trade network. Every second year, the caterpillars of the pandora moth were gathered in large quantities from the Jeffrey pine forests on the Sierra Nevada slopes.

In addition to pine nuts, acorns, and other seeds from some 40 varieties of grasses, weedy annuals, and certain wood shrubs, the Owens Valley Paiute consumed numerous species of fruits, berries, bulbs and edible roots, such as wild onion, sego lily, wild hyacinth, and yellow nutgrass (Steward 1938:19). Ethnographic studies and archaeological investigations also indicate that in Owens Valley and Round Valley, the Owens Valley Paiute practiced irrigation of wild plants, specifically hydrophytic species. Irrigation during spring and summer months increased water flow to areas that were naturally flooded. Streams were diverted to plots where underground tubers occurred naturally of groundnut (*Brodiaea capitata*) and spikerush (*Heleocharis sp.*). This practice appears to have been in place long before historic contact (e.g., Bettinger 1975:61; Liljeblad and Fowler 1986:417).

Each band practiced individual and communal hunting, but considering the scarcity of large animal herds, large game was of relatively minor importance to the diet (Liljeblad and Fowler 1986:418-419; Steward 1938:33-37). Deer were hunted by individuals or small groups of men using stalking or ambush tactics along migration routes or near reliable water sources. Mountain sheep, which roamed the rugged uplands,

were taken with difficulty, pursued by hunters who often used dogs. Communal hunts drove antelope along V-shaped, brush fence lines into wooden corrals where they were killed by archers. As with neighboring Great Basin groups, rabbits were the most common game, taken with bow and arrow, snares on game trails, or communal jackrabbit drives. In addition to providing meat, the animal's skins were essential for weaving blankets or robes, the single most important winter garment.

Fish were not a principal dietary source due to the relative size of native species although they were procured by both men and women along the Owens River and its tributaries (Liljeblad and Fowler 1986:418; Steward 1933:251-252, 1938:40-44). Native species included a sucker, Owens tui chub, black minnow, and spotted pursy minnow. Typically, fishing was an individual effort, but communal groups also built weirs and captured large quantities of fish in open-twined baskets or with the aid of poison and spears in the spring, drying them for winter use. A small brine fly that is common in Mono and Owens lakes was also an important source of food.

The Owens Valley Paiute processed and cooked food resources with a variety of tools, including baskets, grinding slabs and handstones, bedrock mortars, and pottery. Pottery was used for cooking and boiling foods, and ceramic items may also have served as storage vessels (Liljeblad and Fowler 1986:419-422). This notable technology was apparently adopted during the mid-seventeenth century and was employed for some 200 years, disappearing by the late 1920s (McCarthy and Johnson 2002:33).

In addition to acorns, the Owens Valley Paiute traded rabbit-skin blankets, tobacco, baskets, buckskins, salt, pine nuts and other seeds, and obsidian for shells, acorns, baskets, and manzanita berries (Steward 1933, 1938). This regional trade network across the Sierra Nevada occurred between Owens Valley Paiute and Western Mono peoples, and between the inhabitants of Mono Lake and the Miwok. After contact, glass beads replaced shell beads as a prime exchange item.

The earliest contact between Owens Valley Paiute and European Americans dates to the early 1800s with the passing of fur trappers through the valley (Hoover et al. 2002:221). In 1855, during a survey of the lands south of Mono Lake, A.W. von Schmidt characterized Long Valley and Round Valley as being "splendid land for any purpose" (Chalfant 1922:73). With permanent European American settlement by cattle ranchers in Round Valley and Owens Valley in 1861, the disturbance of piñon groves and meadowlands resulted in a number of skirmishes (Liljeblad and Fowler 1986:429-431). In 1862, Camp Independence was established as a military outpost. By 1863, more than 900 Paiute, including some Yokuts, were marched from Camp Independence to a reservation near Fort Tejon. The Paiute soon returned to Owens Valley and mainly worked as laborers in the newly formed towns, mining camps, and ranches.

After 1900, small tracts were reserved for the purpose of establishing reservations near Lone Pine, Independence, Bishop, and Big Pine. By the early 1930s, most of the land within Owens Valley had been purchased by the City of Los Angeles, and the Paiute found themselves without work as the ranches and farms were abandoned. In 1937, Congress approved an agreement between the U.S. Department of the Interior and Los Angeles involving a series of land exchanges for relocating the Bishop, Lone Pine, and Big Pine reservations, an exchange approved by the majority of the native people. The Fort Independence Reservation established in the valley in 1915/1916 remained unchanged (Liljeblad and Fowler 1986:429--431).

HISTORIC OVERVIEW

Local History

The first American trapper to enter California, Jedediah Smith, explored along the Sierra Nevada in 1826. It remains uncertain, but he may have crossed at Sonora Pass where present-day Mono County meets Alpine and Tuolumne counties. The Sonora Trail later crossed at this pass and in 1841, the Bidwell-Bartleson

emigrant party arrived in what is now Mono County (Hoover et al. 2002:221). In 1848, gold was discovered at Sutter's Mill on the American River in Coloma and by 1849, nearly 90,000 people had journeyed to the gold fields. In 1850, largely as a result of the Gold Rush, California became the thirty-first state.

The California Gold Rush sparked exploration of the Project region, which increased conflicts with Native peoples. In 1852, Lieutenant Tredwell Moore pursued Chief Tenaya and a band of Yosemite Miwok through Yosemite, over Mono Pass and down Bloody Canyon to Mono Basin. Moore failed to find Chief Tenaya, but he did find gold (Hoover et al. 2002:198). Back in Mariposa County, after Moore showed off the gold, prospectors crossed the Sierra Nevada Mountains and begin mining in Mono Basin. In 1859, the next discovery of gold at Monoville led to intensive exploitation of minerals, soils, and rangeland in the Mono Basin that lasted nearly to the end of the century (Hoover et al. 2002:222).

By 1861, the population of miners in the region had grown large enough that the new county of Mono was established from territory removed from Calaveras and Fresno counties. In 1864, portions of the county were moved to Alpine and Inyo counties. The county seat was moved to Bridgeport in 1863 where it remains today. The name "Mono" was first applied to Mono Lake and then the county, named after the Paiute group who lived in the east of the Sierra Nevada and north of Owens Lake (Hoover et al. 2002:220-221).

Gold was discovered at Mammoth in 1877. By the following year, the mining camp of Mammoth City at Mineral Hill had a population of 1,500. The greatest amount of mining activity occurred in 1879 and 1880. A mill was built and a 54-mile trail constructed from Fresno Flats (now Oakhurst, to the southwest in Madera County) but little was produced and the place closed by early 1881 (Hoover et al. 2002:224-225). Mill City and the 9,000-foot high Old Mammoth Mine are southwest of the Town of Mammoth Lakes off Old Mammoth Road.

At the foot of Mammoth Mountain, Mammoth Lakes is the only incorporated town in the county. The community was informally established in the early 1900s near Mammoth Creek, with an economy based on logging and tourism (Reed 1994). The first post office was established at Mammoth Lakes in 1923 (Durham 1998). The Town was incorporated in 1984.

Tourism grew in the Mammoth Lakes, June Lake, and Mono Lake region during the 1920s when summer camping gained in popularity and El Camino Sierra (now US 395) first linked southern California to Lake Tahoe. The route was first included in an early road atlas of the United States in 1918 (Automobile Blue Book 1918:21). Less than two decades later, US 395 was first marked in California on the 1936/1937 state road map. Inyo NF, established in 1907, includes over 2 million acres. Approximately 2 miles south of the Airport, the Convict Lake recreational area includes an Inyo NF campground and the Convict Lake Resort. Initially known as Raymer's Camp, the resort was officially established as Convict Lake Camp in 1929. The lake and creek were renamed from Mt. Diablo to Convict after local posse members were killed in 1871 trying to capture a group of convicts that had escaped from Carson City, Nevada (Convict Lake Resort 2019; Evans 2008).

In 1913, water flowed through a completed aqueduct from the Owens Valley to the City of Los Angeles. By the 1930s, Los Angeles succeeded in purchasing land and water rights along the five principal tributaries of Mono Lake (Walker, Parker, Rush, Lee Vining, and Mill creeks) and littoral rights along the shore of Mono Lake. In 1941, LADWP began to divert water from Mono Basin, and also built the Long Valley Dam near the natural outlet of Long Valley in the Owens River Gorge. The dam impounded Crowley Lake, located approximately 3 miles east of the Airport, as storage for the Los Angeles Aqueduct and for flood control (Lahontan RWQCB 2005).

Two fish hatcheries are located near MMH. Approximately 3 miles east of the APE on the Owens River, Crowley Lake was impounded 1941 and is presently a trout fishery. At the Hot Creek Fish Hatchery along Hot Creek approximately 1.5 miles northwest of the Airport, the first attempt to rear fish was by the Rainbow Club of Bishop in 1928. The current hatchery was constructed in 1941 by the California Department of Fish and Game (now Department of Fish and Wildlife; CDFW 2019). Downstream of the Hot Creek Ranch Fish Hatchery, the Hot Creek Ranch, a privately-owned fly-fishing camp approximately 1 mile north of the Airport, has been in operation since 1948 (Hot Creek Ranch 2019).

The Sierra Nevada Aquatic Research Laboratory (SNARL), located on Mount Morrison Road less than 1 mile southeast of the Project, was established in 1975 as part of the Natural Reserve System, which was founded by the Regents of the University of California in 1965. SNARL serves as a major center for research for the eastern Sierra Nevada and Owens Valley (UCNRS 2019). In 1989, SNARL began leasing from the City of Los Angeles the building at the northeast corner of US 395 and Benton Crossing Road, just north of their main facility. The building was built in 1954 and formerly housed the High Sierra Community Church. Known locally as the "Green Church," the building was built by local Presbyterians when the population of the area was more evenly distributed up and down Long Valley. It was used for religious purposes until the mid-1980s when the Presbyterian congregation relocated to the Town following a similar shift in the area's population. The building is currently used by SNARL for classroom and lecture hall facilities (Town of Mammoth Lakes 2000).

Recreation and tourism have continued to gain importance in the local economy. Downhill skiing has become a backbone of tourism. In 2015, Mammoth Mountain Ski Area, which begun with one rope tow in 1938, was the largest single employer in the county (BPES 2015:4.7-3). Also, within an hour's drive of MMH are a number of additional regionally and nationally known tourist and recreation destinations, including Yosemite National Park, Devils Postpile National Monument, Inyo NF, and Convict Lake, among many others.

Mammoth Yosemite Airport History

MMH was originally constructed by the U.S. Army for use as an auxiliary landing strip during World War II. The original dimensions of the landing strip were less than 4,000-feet long by 30-feet wide. Mono County acquired part of the airfield from the U.S. Army after the war and renamed it Long Valley Field. The runway was an unpaved dirt strip and the Airport was a seasonal facility closed by winter snows until it was paved in 1959 (Brandley 2017:1.1).

In 1965, to accommodate the future widening of US 395, the runway was relocated 300 feet to the north on USFS land and also extended to 5,000 feet and widened to 100 feet. Renamed Mammoth Lakes Airport, private interests operated the airfield. In 1971, Mammoth Sky Lodge Corporation, then the Airport operator, extended the runway to 6,500 feet. A terminal building and an Airport office, currently used as a FBO office and pilots' lounge, were constructed in 1972. The Airport became formally known as Mammoth-June Lakes Airport and in 1973, Sierra Pacific Airlines initiated service and served Mammoth Lakes until 1980 (Brandley 2017:1.1).

In 1978, Mono County entered into an agreement with Mammoth Sky Lodge Corporation to acquire all Airport property from the USFS. The acquisition was consummated in 1980 and the County reestablished public operation of the Airport. In 1983, the County began an airfield improvement program and using funds received under the FAA's Airport Improvement Program a new 7,000-foot by 100-foot runway was constructed (Brandley 2017:1.1).

In September 1992, the Town of Mammoth Lakes acquired the Airport from the County. Commercial air service was provided by United Express and Trans World Express until 1995. Royal West Airlines provided service in 1987 and United Express in 1992 and 1993. Under a new airport development plan proposed in

1997, 94 private and public use hangars and an airport water system were constructed. In 2000, the Town changed the name of the airport to Mammoth Yosemite Airport (Brandley 2017:1.2; URS 2008, 2010).

In 2000, an Environmental Assessment for a proposed Airport Expansion Project was completed. That proposal included a longer and wider runway, a new passenger terminal building, and related infrastructure (Town of Mammoth Lakes 2000). The proposed project was enjoined in federal court in 2003 and abandoned in 2005. The injunction was lifted in 2016 (Brandley 2017:1.2).

In 2008 the entire runway/taxiway complex at the Airport was reconstructed. The existing Airport maintenance garage was also remodeled and is now the interim terminal building Also in 2008, Horizon Air/Alaska Airlines initiated commercial air service at the Airport. Additional regular air service by United Airlines was added in 2010. Due to overcrowding, the Airport subsequently erected a temporary sprung structure in 2011 as a temporary hold room (Brandley 2017:1.2-1.4; URS 2008).

PRE-FIELD RESEARCH

RECORDS SEARCH BY THE EASTERN INFORMATION CENTER

A cultural resources literature search was completed on October 24, 2018, by the Eastern Information Center (EIC) of the California Historical Resources Information System (CHRIS) at the University of California, Riverside. The records search was conducted to determine if prehistoric or historic cultural resources were previously recorded within the proposed APE, the extent to which the APE had been previously surveyed, and the number and type of cultural resources within a 0.5-mile radius of the APE. The record search summary (EIC File No. ST-MNO-4917) is attached as Appendix A. The areal extent of the proposed APE indicated at the time of the EIC search in 2018 was much larger than the APE delineated in 2019 for the Project. The archival search by the EIC of the archaeological and historical records, national and state databases, and historic maps included:

- National Register of Historic Places: listed properties
- California Register of Historical Resources: listed resources
- Historic Property Data File (HPDF) and Archaeological Determinations of Eligibility (ADOE) for Mono County (2012)
- California Inventory of Historic Resources (1976)
- California Historical Landmarks (1996 and updates)
- California Points of Historical Interest (1992 and updates)
- 1953 Mt. Morrison USGS 15-minute quadrangle
- 1956 Topaz Lake USGS 15-minute quadrangle

Prior Studies

The EIC records search indicates that a total of 30 prior cultural resources studies have been completed within a 1.5-mile radius of the APE (Table 2). Of these, four surveys completed between 1982 and 2000 covered portions of the APE; three additional studies within a 0.5-mile radius of the APE were completed between 1995 and 2008 for other MMH-related projects. Of the remainder, 16 studies were conducted within a 0.5-mile radius of the APE, four with 0.5–1 mile of the APE, and three within 1–1.5 miles of the APE.

Report No. MN-524 by Eric Wohlgemuth of Far Western Anthropological Research Group covers a survey in July 1995 of a large area that had been proposed for Airport development but was not carried out. Report No. MN-995 by Jay Pawlek and Leslie Fryman of Jones & Stokes covers a survey in June 2000 of the built-environment (architectural) resources at MMH plus approximately 300 acres at the eastern end of the

current facility for the proposed Airport Expansion Project, for which an Environmental Assessment was completed in 2000 (Town of Mammoth Lakes 2000).

Table 2. Prior Cultural Resource Studies Mapped within Search Radius

EIC Report No. MN-	Study	Author/year	Proximity to APE
0024	Archaeological/Cultural Resources Survey, Known Geothermal Resources Area Inyo National Forest And Benton Planning Unit, Mono County	Kuhn and Jersey 1976	<0.5 mi
0040	Proposed Expansion Of Mammoth Lakes/ June Lake Airport	Taylor 1980	Within APE
0079	Archaeological Survey Report For A Proposed Material Site Location, 09-Mno-395, Pm 20.00	Proctor 1980	0.5-1 mi
0160	Archaeological Reconnaissance Report - Interagency Mineral Materials Sites	Farrell 1981	<0.5 mi
0185	Archaeological Reconnaissance Report - Convict Water Trough Relocation	Taylor 1979	<0.5 mi
0216	Cultural Resource Reconnaissance Of The Convict Lake Hydroelectric Project, Mono County	Crist 1982	<0.5 mi
0247	Archaeological Reconnaissance Report - Airport Access Road	Burton 1982	Within APE
0253	Archaeology Of The Chance Well Site (Ca-Mno-458/630), Mono County	Burton 1985	1-1.5 mi
0363	Archaeological Reconnaissance Report - Hydro Tiltmeter	Reynolds 1985	<0.5 mi
0404	Cultural Resources Of The Doe Ridge Project Area, Mono County	Burton et al. 1986	Within APE
0419	Results Of The 1985 Field Season, Cultural Resources Survey For The Historic And Archaeological Preservation Plan For Eastern Sierra Hydroelectric Projects In Mono County: Lee Vining (FERC #1388) And Rush Creek (Ferc #1389)	White 1988	<0.5 mi
0420	Evaluation Of Twenty-One Archaeological Sites On The Lee Vining Creek, Rush Creek, And Lundy Hydroelectric Projects, Mono And Inyo Counties	York 1990	<0.5 mi
0449	Archaeological Reconnaissance Report: Contel - Hot Creek	Reynolds 1987	<0.5 mi
0450	Archaeological Reconnaissance Report: S.U.P. Amendment, Contel Service Route Relocation To Sierra Way Quarry	Woolfenden 1988	1-1.5 mi
0475	Archaeological Survey Of The Contel Mammoth To Bishop Fiber Optics Line, Mono And Inyo Counties	Burton 1990	<0.5 mi
0514	Archaeological Reconnaissance Report: Mammoth/June Airport Gravel Pit	Faust 1990	<0.5 mi
0523	Archaeological Reconnaissance Report: Hot Creek Range Improvement Project	Woolfenden 1991	<0.5 mi
0524	Letter Report: Mammoth Lakes/June Lakes Airport	Wohlgemuth 1995	0.5-1 mi
0569	Cultural Resources Report: Mammoth/June Airport Gravel Pit Cleanup (Addendum #1)	Mclean 1991	<0.5 mi
0574	Archaeological Monitoring Of Twenty-Four Sites Associated With Southern California Edison's Rush Creek Hydro Project, Inyo And Mono Counties	Clay 1992	<0.5 mi
0690	Negative Archaeological Survey Report--Proposal To Remove And Place Cattle Guard And Barbed Wire Fence	Laylander 1995	<0.5 mi
0702	Archaeological Survey Report For Convict Creek Material Site (#135), Long Valley, Mono County; 09-Mno-395, P.M. 19.9, 911100	Laylander 1997	0.5-1 mi
0941	Archaeological Survey Of The Doe Ridge And Crowley Lake Fuel Reduction Parcels, Mono County, California BLM Project No. Ca-170-08-37 Forest Service Report No. 2008-05-04-01330	King 2009	<0.5 mi

Table 2. Prior Cultural Resource Studies Mapped within Search Radius			
EIC Report No. MN-	**Study**	**Author/year**	**Proximity to APE**
0963	Management Plan For Historic And Archaeological Resources Associated With The Rush Creek Hydroelectric Project (FERC Project No. 1398), Mono And Inyo Counties	White 1990	<0.5 mi
0995	Mammoth Lakes Airport Improvement Project, Mono County	Pawlek and Fryman 2000	Within APE
1032	Heritage Resources Report: Mammoth Airport Utility Underground Project	West 2008	<0.5 mi
1096	Archaeological Survey For The SCE Co.'s Replacement Of 17 Deteriorated Power Poles	Switalski 2009	0.5-1 mi
1151	Archaeological Survey Report For The Convict Lake Road (Forest Highway 199/County Road 2018) Improvement Project, Inyo National Forest, Mono County	Whitaker et al. 2014	<0.5 mi
1164	Heritage Resource Inventory For The Southern Of 19 Deteriorated Power Poles, Inyo National Forest, Inyo And Mono Counties	Switalski et al. 2008	1-1.5 mi
1262	Heritage Resource Report: Airport Reclamation Plan	Mclean 2000	<0.5 mi

Previously Recorded Resources

The EIC records search indicates there are 15 previously recorded cultural resources within a 0.5-mile radius of the APE, none of which are mapped within the APE (Table 3). The recorded resources outside the APE within 0.5 miles include four prehistoric lithic scatters, one of which also includes milling features, seven isolated lithics, one historic-era debris scatter, one road, and two multi-component sites with prehistoric lithic scatters and historic debris. The records search also indicates that within 0.5–1 mile of the APE, there are an additional five prehistoric lithic scatters, one lithic isolate, and one water conveyance system. A further prehistoric lithic scatter is mapped within 1.5 miles of the APE.

Of the 23 resources listed in the table, the ADOE lists one prehistoric lithic scatter as having been determined eligible for NRHP listing (P-26-002427, CA-MNO-2427) and the historic-era debris scatter as being ineligible for NRHP inclusion (P-26-002423, CA-MNO-2423). The site records for one multi-component site (P-26-000703, CA-MNO-703/H) and one prehistoric lithic scatter (P-26-002247, CA-MNO-2247) indicate these resources were determined ineligible for NRHP listing pursuant to Section 106 without review by the State Historic Preservation Officer (SHPO) (status code 6U). The eight isolated lithics do not meet the criteria for NRHP listing; the remaining 11 resources have not been evaluated. The majority of the 23 resources are located on land in the Inyo National Forest (n=18), with five on lands administered by the BLM (n=4) or owned by the City of Los Angeles (n=1).

The Environmental Assessment for the proposed Airport Expansion Project completed in 2000 included an examination of the existing built-environment (architectural) resources at MMH plus the structure known locally as the “Green Church” (High Sierra Community Church), which is located at the northeast corner of US 395 and Benton Crossing Road, approximately 1 mile southeast of the APE for the current Project (Pawlek and Fryman 2000; Town of Mammoth Lakes 2000). The architectural evaluation determined neither the “Green Church” built in 1954 (see Historic Overview) nor any of the buildings or structures on Airport property are eligible for listing on the NRHP. Two subsequent environmental documents prepared for approval of air service, but no changes to MMH facilities (URS 2008, 2010), have relied on the prior architectural determination and survey reports completed in 1995 and 2000 (Pawlek and Fryman 2000; Wohlgemuth 1995). No records for the individual architectural resources are on file at the EIC.

Table 3. Cultural Resources Previously Recorded within Search Radius					
Primary No.	**Trinomial**	**Age**	**Brief Description**	**Recorded by/year**	**Proximity to APE**
P-26-000703	CA-MNO-703/H	Multi-component	Locus A prehistoric lithic scatter and historic debris near and in rockshelter; Loci B-D prehistoric lithic scatters	Multiple recordings 1976-2008	<0.5 mi
P-26-001662	CA-MNO-1662	Prehistoric	Lithic scatter, milling features	Crist 1981; Woolfenden 1994; Berg et al. 2014	<0.5 mi
P-26-002247	CA-MNO-2247	Prehistoric	Lithic scatter	Burton 1986; Berg 2008	<0.5 mi
P-26-002423	CA-MNO-2423	Historic	Debris scatter (sheepherder's camp?)	Brown et al. 1985; White 1985, 1986	<0.5 mi
P-26-002427	CA-MNO-2427	Prehistoric	Lithic scatter	White and Weisbord 1988; Clay 1992	0.5-1 mi
P-26-002665	CA-MNO-2665/H	Multi-component	Prehistoric lithic scatter; historic debris	Shannon and Faust 1990	<0.5 mi
P-26-003081	CA-MNO-3025	Prehistoric	Lithic scatter	Laylander 1996	0.5-1 mi
P-26-003295	CA-MNO-3234	Prehistoric	Lithic scatter	Schultze et al. 1996	<0.5 mi
P-26-004206	CA-MNO-3751	Historic	Water conveyance system	Burton et al. 2003	0.5-1 mi
P-26-004248	n/a	Prehistoric	Isolated obsidian flake	White and Weisbord 1985	0.5-1 mi
P-26-004796	CA-MNO-4262	Prehistoric	Lithic scatter	Spears and Alvarez 2006	1.5 mi
P-26-005070	n/a	Prehistoric	Isolated obsidian flake	Burton 1986	<0.5 mi
P-26-005072	n/a	Prehistoric	Isolated obsidian flake	Burton 1986	<0.5 mi
P-26-005073	n/a	Prehistoric	Isolated obsidian flake	Burton 1986	<0.5 mi
P-26-005074	n/a	Prehistoric	Isolated obsidian flake	Burton 1986	<0.5 mi
P-26-005075	n/a	Prehistoric	Isolated obsidian flake	Burton 1986	<0.5 mi
P-26-005085	n/a	Prehistoric	Isolated obsidian and basalt flakes	Burton 1986	<0.5 mi
P-26-005119	CA-MNO-4484	Prehistoric	Lithic scatter	King 2008	0.5 mi
P-26-005120	CA-MNO-4485	Prehistoric	Lithic scatter	King 2008	0.5-1 mi
P-26-005121	CA-MNO-4486	Prehistoric	Lithic scatter	King 2008	0.5-1 mi
P-26-005594	n/a	Prehistoric	Isolated obsidian point base fragment	Farrell and Giansanti 1981	0.5 mi
P-26-005615	n/a	Prehistoric	Lithic scatter, secondary deposit	Taylor 1980	0.5-1 mi
P-26-007973	CA-MNO-5763	Historic	Convict Lake Road	Whitaker et al. 2014	<0.5 mi

OTHER CULTURAL RESOURCES INFORMATION SOURCES

In addition to the material provided by EIC, Natural Investigations staff reviewed the series of historic maps and aerial photographs listed below. We also reviewed the cultural resources sections of environmental documents prepared during the past two decades for the Airport Expansion Project and for approval of additional air service, but no changes to MMH facilities (Town of Mammoth Lakes 2000; URS 2008, 2010). The results of these reviews are incorporated in the discussions in the sections on Prior Studies and Previously Recorded Resources, and in the Historic Overview.

- 1857 General Land Office (GLO) plat for Township 4 South, Range 28 East
- 1914 Mt. Morrison USGS 1:125,000 map
- 1936-1937 Road Map of the State of California, California Department of Public Works, Division of Highways (1:1,463,040)
- 1947 Mariposa USGS 1:125,000 map
- 1983 Convict Lake USGS 7.5-minute quadrangle
- 1983 and 1994 Old Mammoth USGS 7.5-minute quadrangles
- 1983 Whitmore Hot Springs USGS 7.5-minute quadrangle
- historic aerials for 1993, 1998, and 2005; modern aerials for 2009-2016

NATIVE AMERICAN SACRED LANDS FILE SEARCH AND OUTREACH

Natural Investigations contacted the Native American Heritage Commission (NAHC), requesting a search of their Sacred Lands File for traditional cultural resources within or near the Project area. The reply by the NAHC, dated October 18, 2018, states that their search did not identify any sacred sites in the Project vicinity.

By letter dated August 21, 2019, Natural Investigations contacted the Native American tribes provided by the NAHC, requesting any information regarding sacred lands or other heritage sites that might be impacted by the proposed Project. If no response to the letter was received, follow-up telephone calls were made by Natural Investigations staff on September 9, 2019. To date, the following responses have been received from the contact list, and messages have been left on voice mail.

- Big Pine Paiute Tribe of the Owens Valley, Genevieve Jones, Chairperson: A voice mail was left on September 9, 2019, for the Tribe's current Chairperson, James Rambeau, who was unavailable.
- Big Pine Paiute Tribe of the Owens Valley, Danelle Gutierrez, Tribal Historic Preservation Officer (THPO): Mr. Gutierrez was unavailable on September 9, 2019; left voice mail.
- Big Pine Paiute Tribe of Owens Valley, Sally Manning, Environmental Director: Ms. Manning was unavailable on September 9, 2019; left voice mail.
- Bishop Paiute Tribe, Bill Vega, Chairperson: On September 9, 2019, spoke with Gloriana Bailey, who is currently receiving all project-related notifications for the Tribe, and who relayed that Mr. Vega and Mr. Rogers (email provided by NAHC) are no longer with the Tribe. A copy of the project information letter and map was mailed to Ms. Bailey the same day.
- Bishop Paiute Tribe, Raymond Andrews, THPO: Received email on September 11, 2019, from Stacey Dewey (Assistant to Mr. Monty Bengochia, current THPO) attaching a letter dated August 10, 2019, from the THPO. The letter from the THPO requested information and consultation on the project. As of September 9, 2019, the phone number listed by the NAHC for Mr. Andrews had been disconnected.

- Bridgeport Paiute Indian Colony, John Glazier, Chairperson: A voice mail was left on September 9, 2019, for the Tribe's current Chairperson, Herbert Glazier, who was unavailable. Mr. John Glazier is deceased.
- Mono Lake Indian Community, Charlotte Lange, Chairperson: Ms. Lange was unavailable on September 9, 2019; left voice mail.
- Southern Sierra Miwuk Nation, William Leonard, Chairperson: Mr. Leonard was unavailable on September 9, 2019; left voice mail.
- Utu Utu Gwaitu Tribe of the Benton Paiute Reservation, Tina Braitewaite, Chairperson: Ms. Braitewaite was unavailable on September 9, 2019; left voice mail.

All correspondence and a tracking sheet are included as Appendix B.

FIELD SURVEY METHODS

An intensive-level pedestrian survey within the 17.91-acre APE was conducted by Natural Investigations archaeologist, Dylan Stapleton, on August 13, 2019. Survey transects outside the few paved access roads within the APE were spaced apart at intervals no greater than 15 meters. During the survey, all visible non-built ground surface within the APE was carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics). Ground disturbances (e.g., small animal burrows, embankment, dirt road, etc.) were visually inspected. A digital camera was used to take photographs, a Munsell® Soil Color Chart used to record soil color, and a handheld BE-3300GSP global positioning system (GPS) unit with sub-meter accuracy used to record locational data.

The information for one previously recorded resource was updated on California Department of Parks and Recreation (DPR) series 523 forms, provided as Appendix C of this report.

FIELD SURVEY RESULTS

SUMMARY

A 0.18-mile linear segment of historic-era Convict Lake Road, previously recorded as P-26-007973 (CA-MNO-5763), was identified within the APE and the site record updated. The resource is described fuller below. No archaeological or other built-environment resources were newly identified or documented during survey of the APE.

DESCRIPTION OF SURVEYED AREA

The 16.5-acre APE is accessed from the west via Airport Road. The primary airfield components (runway, taxiways, and parking aprons) are south of the APE, with the Airport buildings and parking areas to the west and south, and the aircraft hangars to the east and west. The APE is surrounded by rural grazing land to the north, east, and west in a semi-arid, open field dominated by big sagebrush (Photograph 1).

The APE includes the paved terminus of Airport Road at the existing terminal, two paved access roads trending eastward from the Airport terminal area, and a 25,000-gallon stainless steel water tank at the eastern edge (Photograph 2). The proposed leach field in the APE between Airport Road and the terminal parking area is presently undeveloped land (Photograph 3). The Airport water system, including the stainless-steel tank in the APE, was constructed in the late 1990s. The entire runway/taxiway complex at the Airport was also reconstructed in 2008. There is also an abandoned, mainly paved road trending north-

south along the eastern edge of the APE. Known as Convict Lake Road, it is also crossed by the proposed new access road and new ARFF building and is adjacent to the water tank on the eastern edge of the APE (Photograph 4). Large boulders placed across the road block vehicular access. The road is atop a 3-4 feet high raised berm lined with large cobbles with a drainage channel along the west side of the roadbed. The abandoned road terminates at the south at the MMH taxiway, just north of which there are three small transmission towers mounted into the roadbed (Photograph 5). A modern, metal post, three-strand, barbed wire livestock fence parallel to the runway and approximately 200 feet south of the water tank terminates near the eastern extent of the APE past Convict Lake Road (Photograph 4).

Vegetation cover in the APE outside the existing roads was low-lying sagebrush steppe dominated by big sagebrush and non-native grasses (Photographs 1-5). Some parts of the terrain were void of vegetation, with small pockets of bare dirt. Ground visibility at the time of survey was moderate to excellent (50-100%) outside of the roadways due to the varying density and height of the vegetation, or the lack thereof.

Soils within the relatively flat APE (slope <1%), visible in rodent burrows and the bare dirt areas, are a brown (10YR 4/2) very gravelly sandy loam with abundant subrounded and subangular pebble-sized inclusions and moderate amount of cobble-sized inclusions. The soil is consistent with the Watterson series that formed in mixed alluvium.



Photograph 1. Overview of APE toward air terminal (view to west)



Photograph 2. Overview of APE toward water tank at eastern edge (view to east)



Photograph 3. Overview toward leach field in APE north of terminal parking lot (view to north)



Photograph 4. Abandoned road, fence and water tank along eastern edge of APE (view to north)



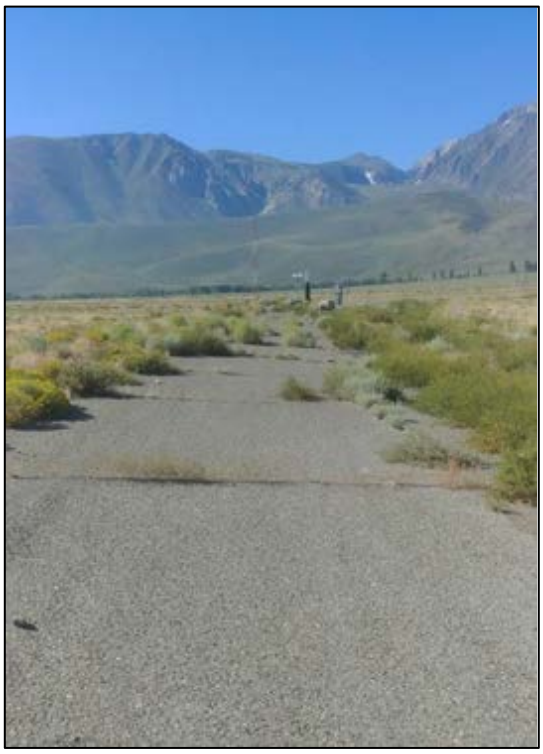
Photograph 5. Transmission towers near southeast extent of APE for new access road (view to south)

UPDATE TO P-26-007973 (CA-MNO-5763) (CONVICT LAKE ROAD)

Description of Convict Lake Road

Historic-era Convict Lake Road was recorded as P-26-07973 (CA-MNO-5763) in 2014 by J. Berg of Far Western Anthropological Research Group. Starting in the early 20th century, as shown on historic maps (USGS Mt. Morrison 1914, 1934, and 1950), the road provided access from the El Camino Sierra (now US 395) south to the Convict Lake area. It was reported as being a gravel road in the late 1920s and, by 1934, the historic alignment was extended further south along the eastern lake shore to its current termination. This alignment was further improved between the late 1960s and the early 1980s, straightening and adding a bypass route around the Convict Lake Resort. No features were found in association with the road south of US 395, which is currently well maintained with two-lanes (25-feet in width) and in good condition. The road has not been formally evaluated for NRHP listing (status code 7), although the site record notes that the "development of recreational facilities around the road has altered the original setting, design and materials of the road from an unimproved narrow gravel road to a heavily traveled road for vehicles, bicyclists, and pedestrians" (Berg 2014).

A 0.18-mile linear segment of Convict Lake Road was identified within the APE for the current Project (Photograph 6). This segment of the road has been separated from the previously recorded southern alignment by widening of US 395 and the construction and expansion of the airport runway and its relocation 300 feet north in 1965. The segment terminates on the south at the Airport taxiway. No historic-era features or artifacts were found in association with the segment of the road within the APE. The alignment continues north, outside of the current APE, as a dirt road as indicated by aerial imagery.



Photograph 6. Segment of Convict Lake Rd (P-26-07973) in APE (view to south)

The majority of the road segment within the APE is paved, with some gravel overlaying a portion of it. It is unknown when this segment was paved and if there were alterations made to the grade or alignment prior to or since its initial paving. The road is a standard 25-feet wide but has no visible dividing lines along the center of the roadway. It is atop an approximately 3-4 feet high raised berm lined with large cobbles. A drainage channel is present along the western portion of the roadbed. The northern end of the segment (approximately 300 feet) is unpaved.

The segment of Convict Lake Road within the APE has been previously disturbed and is in poor condition. It is bisected by a gateless, barbed wire livestock fence separating the runway area from the remainder of MMH. The segment has been disused for some time, as evident by large boulders placed across the road south of the fence as a vehicle barrier. The asphalt is cracked and overgrown with vegetation in places. There are three small MMH transmission towers mounted into the roadbed near the taxiway. Near the north end of the segment, a modern stainless-steel water tank, part of the Airport water system constructed in the late 1990s, appears to be either directly adjacent to the west side of the original alignment or partially built over the western portion of the alignment. The asphalt surface ends just north of the water tank for the final approximately 300 feet within the APE.

The segment of P-26-07973 (CA-MNO-5763), Convict Lake Road, within the APE was recorded on DPR series 523 forms, provided as Appendix C to this report.

Significance of Convict Lake Road

This historic-era road provides access to the Convict Lake Resort, Inyo NF campground, and recreational fishing at Convict Lake. It is connected to the growth of tourism in the Mammoth Lakes region during the 1910s when El Camino Sierra (now US 395) first linked southern California to Lake Tahoe. The unimproved road is shown on the 1914 USGS Mt. Morrison 1:125,000 quadrangle, surveyed in 1911-1912, extending from El Camino Sierra south to Convict Lake and north to another unimproved road along Hot Creek. By production of the 1953 Mt. Morrison USGS 15-minute quadrangle, it is shown as a light-duty road, extending from Convict Lake directly to Hot Creek Ranch. Convict Lake Resort was established a few years earlier than 1929 as Raymer's Camp and the fly-fishing camp known as Hot Creek Ranch opened in 1948, although the earlier road along Hot Creek connected to a network of roads leading to other ranches in Long Valley.

The 1983 Convict Lake and 1994 Whitmore Hot Springs USGS 7.5-minute quadrangles, which were compiled from aerial photographs taken in 1976 and 1979, and field checked in 1980, clearly show the road crossing US 395 east of the end of the Airport runway and connecting to present-day Hot Creek Hatchery Creek Road. In 1965, to accommodate the future widening of US 395, the MMH runway had been relocated 300 feet to the north. The 1983 maps show US 395 as a divided highway, two lanes in each direction. When the MMH runway was extended eastward in 1983, an approximately 700-foot long segment of Convict Lake Road north of US 395 was destroyed, as depicted on the earliest available aerial photograph dating from 1993.

Although the modern alignment of Convict Lake Road appears to follow the historic route between Convict Lake and US 395 and north from MMH to Hot Creek Hatchery Road, it does not meet the significance requirements under Criterion A. Although the historic-era alignment was connected to the growth of tourism in the region when summer camping gained in popularity during the 1910s/1920s, the road is not associated with events that have made a significant contribution to the broad patterns of our nation's, California's, or local history.

The road does not pertain to other significance criteria. Convict Lake Road is not associated under Criterion B with the lives of persons significant in our past. As a common and ordinary road that is very similar to many such roadways throughout the region and California, it does not have any distinct characteristics to be considered eligible under Criterion C. The road it is not likely to yield any additional information important in history under Criterion D.

The roadway has not retained any integrity of design, setting, materials, workmanship, feeling, or association. The majority of the historic alignment was paved and further improved south of US 395 between the late 1960s and the early 1980s. The road was also impacted by improvements to El Camino Sierra and since the 1930s, to US 395. Then in 1983, a 700-foot long section of the road was destroyed by expansion of the Airport, separating the route into segments north and south of US 395. The 0.18-mile linear, disused segment of Convict Lake Road within the APE has been further impacted by the construction of three MMH transmission towers and a large water tank. Continued development of recreational facilities around the segment of the road south of US 395 and of the Airport north of US 395 has altered its original setting, design, feeling, and association.

Based on these considerations and lack of integrity, P-26-07973 (CA-MNO-5763) is found ineligible through survey evaluation for listing in the NRHP per the criteria listed at 36 CFR 60.4 (status code 6Z). Convict Lake Road therefore does not qualify as a historic property. No further work or protection is recommended for this NRHP-ineligible resource.

DETERMINATION OF EFFECTS

REGULATORY REQUIREMENTS

As mandated by Section 106 of the NHPA, federal agencies must take into account the effects of their undertakings on historic properties and seek ways to avoid, minimize, or mitigate adverse effects on such properties [36 CFR 800.1(a)]. If a cultural resource is determined eligible for listing in the NRHP, the provisions of Section 106 require the lead agency to determine whether or not the proposed undertaking will have an effect, pursuant to 36 CFR 800.4(d)(1-2), upon that historic property.

According to federal regulations, "*Effect* means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register" (36 CFR 800.16[i]). The criteria of adverse effect listed at 36 CFR 800.5(a)(1) are:

> "an adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative."

DETERMINATION OF EFFECTS

The proposed Project will have No Effect on historic properties, as there are no documented historic properties present within the APE surveyed for the proposed Project. Historic-era Convict Lake Road (P-26-07973, CA-MNO-5763), including the segment identified within the APE, is found ineligible through survey evaluation for listing in the NRHP and does not qualify as a historic property. Implementation of the Project will have no effect on the segment since the road is not a historic property.

SENSITIVITY FOR DISCOVERY OF BURIED RESOURCES

Based on the results of the records search, review of historic maps and aerial imagery, areal geology and soils, field survey, and assessment of potential direct or indirect Project impacts, the potential for the discovery of buried archaeological materials within the APE is considered to be very low. No cultural resources were identified during a survey conducted within the APE, and no cultural resources have been previously recorded within the APE despite four prior surveys that covered portions of the APE. During the historic period, the region around the Airport was disturbed by mining, logging, and recreational activities and a related network of unimproved or paved roadways. One of these roads, Convict Lake Road, crossed through the APE for the proposed Project, initially a dirt road in the 1920s, later improved with asphalt paving, and now partially destroyed by Airport runway expansion. To the south of MMH, improvements were made to El Camino Sierra as it morphed into US 395 between 1918 and 1936, and then by subsequent improvements near the turn of the 21st century to turn US 395 into a divided highway. While MMH was originally constructed alongside US 395 during World War II, the APE for the proposed Project was not directly impacted by Airport construction until the runway was extended in 1971, and the extant buildings, structures, access roads, parking lots, and landscaping were built between 1972 and 2011 immediately adjacent to or within the APE.

Due to age, the potential of discovery of buried archaeological deposits in the older Pleistocene alluvial deposits (200,000–11,000 years) underlying the APE is extremely unlikely. As discussed in recent geoarchaeological studies, including one covering US 395 in Mono County, the discovery of buried archaeological sites depends on site-specific variables, such as distance to watercourses, micro-topographic variation (e.g., the presence of buried stream channels, former sloughs, springs, or natural levees), the stability of landscape features, and the geomorphic context of known buried archaeological deposits (e.g., Meyer 2013:117-121; Meyer and Rosenthal 2008:162; Meyer et al. 2010:139-141). Places that were once covered by Pleistocene lakes present a unique challenge to assessing archaeological sensitivity, which then depends largely on reconstructing the size of the paleolakes, including their high and low stands, in relation to the earliest known human occupation of a region. Areas with volcanic activity also present a challenge to assessing archaeological sensitivity. For example, older archaeological sites within the Long Valley Caldera, if present, were likely buried by Mono-Inyo Craters tephra or associated debris flows, such as occurred during a highly eruptive period in the Latest Holocene (2000–500 BP) (Meyer et al. 2010:124-125).

As currently projected, the anticipated depth of ground-disturbing activities is a maximum of 5 feet (1.5 meters) for the waste disposal lines, with most ground disturbance at 2 feet (0.6 meter) or less, all within the typical extent of weakly developed Watterson soils. Based on these site-specific variables—presence of a paleolake and likely burial of any older sites by volcanic activities, age of underlying Pleistocene alluvium, weakly developed soil, prior disturbance, lack of evidence for prehistoric or historic-era archaeological sites, and the relatively shallow depth projected for the majority the work—the potential for discovery of archaeological deposits, including buried archaeological deposits, materials, or features, by implementation of this Project is considered very low.

RECOMMENDATIONS

No Construction Monitoring

Construction monitoring of ground-disturbing activity is not recommended within the APE for the Project. The probability that intact, buried prehistoric, ethnohistoric, or historic-era archaeological sites remain within the extensively disturbed, discontinuous APE is considered to be very low.

Inadvertent Discoveries

In the event that cultural resources are inadvertently discovered during Project activities, work must be halted in that area within 50 feet (15 meters) of the find and a qualified archaeologist (36 CFR Part 61) must be immediately notified. Work must remain halted to allow the qualified archaeologist to assess the significance of the find. Construction activities could continue in other areas, but not resume in the vicinity of the find until the Town of Mammoth Lakes, FAA, or other relevant regulatory agency provides written permission. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and would be discussed in consultation with the Town of Mammoth Lakes, FAA, and any other relevant regulatory agency, as appropriate.

Human Remains

Although unlikely, the discovery of human remains is always a possibility. Procedures of conduct following the discovery of human remains on non-federal and non-tribal lands in California have been mandated by Health and Safety Code §7050.5, Public Resources Code §5097.98, and the California Code of Regulations, Title 14, Chapter 3, §15064.5(e). According to these requirements, should human remains be encountered, all work in the immediate vicinity of the burial must cease, and any necessary steps to ensure the integrity of the immediate area must be taken. The Mono County Coroner will be immediately notified. If the Coroner determines the remains are of Native American origin, the Coroner has 24 hours to notify the NAHC, which will determine and notify a Most Likely Descendent (MLD). Further actions will be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.

REFERENCES CITED

Automobile Blue Book

1918 *Automobile Blue Book–Standard Road Guide of America*. Volume 8. The Automobile Blue Book Publishing Company, New York.

Bailey, Roy A.

1989a *Geologic Map of Long Valley Caldera, Mono-Inyo Craters Volcanic Chain, and Vicinity, Eastern California*. U.S. Geologic Survey.

1989b Geologic Map of Long Valley Caldera, Mono-Inyo Craters Volcanic Chain, and Vicinity, Eastern California. Pamphlet to Accompany Map 233. *U.S. Geologic Survey 1989-233-091*. U.S. Government Printing Office, Washington, D.C.

Basgall, Mark E.

1987 Paleoindian Occupation in Central-Eastern California: The Komodo Site. *Current Research in the Pleistocene* 4:50-54.

1989 Obsidian Acquisition and Use in Prehistoric Central-Eastern California: A Preliminary Assessment. In *Current Directions in California Obsidian Studies*, edited by Richard E. Hughes, pp.11-126. Contributions of the University of California Archaeological Research Facility 48, Berkely California.

2000 The Structure of Archaeological Landscapes in the North-Central Mojave Desert. In *Archaeological Passages: A Volume in Honor of Claude Nelson Warren*, edited by J. S. Schneider, R. M. Yohe, II and J. K. Gardner, pp. 123-138. Western Center for Archaeology and Paleontology, Hemet, California

Basgall, Mark E., and Michael G. Delacorte

2012 Middle Archaic Cultural Adaptations in the Eastern Sierra Nevada: Data Recovery Excavations at CA-INY-1384/H, INY6249/H, INY-6250, and INY-6251/H. *Archaeological Research Center, California State University, Sacramento*. Submitted to California Department of Transportation, Bishop.

Basgall, Mark E., Mark A. Giambastiani, and Michael G. Delacorte

1995 *Prehistoric Use of a Marginal Environment: Continuity and Change in Occupation of the Volcanic Tablelands, Mono and Inyo Counties, California*. Center for Archaeological Research at Davis, No. 12, University of California, Davis.

Basgall, Mark E., and Kelly R. McGuire

1988 *The Archaeology of CA-INY-30: Prehistoric Culture Change in the Southern Owens Valley, California*. Report submitted to California Department of Transportation, District 9, Bishop.

Bauer Planning & Environmental Services, Inc. (BPES)

2015 *Draft Environmental Impact Report for County of Mono Regional Transportation Plan & General Plan Update*. SCH #2014061029. 31 July 2015. Prepared for Mono County Community Development Department.

Berg, John

2014 Primary record for P-26-07973 (CA-MNO-5763). On file, Eastern Information Center, University of California, Riverside.

Bettinger, Robert L.

1975 *The Surface Archaeology of Owens Valley, Eastern California: Prehistoric Man-Land Relationships in the Great Basin*. Ph.D. dissertation, University of California, Riverside.

1976 The Development of Pinyon Exploitation in Central Eastern California. *Journal of California Anthropology* 3(1):81-85.

1977 The Surface Archaeology of the Long Valley Caldera, Mono County, California. *University of California, Archaeological Research Unit Monograph 1*. Riverside.

1982a Aboriginal Exchange and Territoriality in Owens Valley, California. In *Contexts for Prehistoric Exchange*, edited by Jonathon E. Ericson and Timothy K. Earle, pp. 103-127. Academic Press, New York.

1982b Archaeology East of the Range of Light: Aboriginal Human Ecology of the Inyo-Mono Region, California. *Monographs in California and Great Basin Anthropology 1*. Davis, California.

1989 The Archaeology of Pinyon House, Two Eagles, and Crater Middens: Three Residential Sites in Owens Valley, California. *Anthropological Papers of the American Museum of Natural History 67*. New York.

1991 Aboriginal Occupations at High Altitude: Alpine Villages in the White Mountains of Eastern California. *American Anthropologist* 93:656-679.

1999 From Traveler to Processor: Regional Trajectories of Hunter-Gatherer Sedentism in the Inyo-Mono Region, California. In *Fifty Years since Viru: Theoretical Advances and Contributions of Settlement Pattern Studies in the Americas*, edited by B. R. Billman and G. M. Feinman, pp. 39-55. Smithsonian Institution Press, Washington, D.C.

Brandley, Reinard W.

2017 *Mammoth Yosemite Airport Terminal Area Development Plan*. Prepared for the Town of Mammoth Lakes, California. Available at https://www.townofmammothlakes.ca.gov/442/Airport-Planning-Narratives, accessed August 1, 2019.

California Department of Fish and Wildlife (CDFW)

2019 *The History of Hot Creek Fish Hatchery*. Available at https://www.wildlife.ca.gov/Fishing/Hatcheries/Hot-Creek/History, accessed August 15, 2019.

California Soil Resource Lab

2019 *SoilWeb: An Online Soil Survey Browser*. University of California, Davis Soil Resource Laboratory. Available online at http://casoilresource.lawr.ucdavis.edu/drupal/node/902, accessed August 1, 2019.

Chalfant, Willie A.

1922 *The Story of Inyo*. Published by author, Chicago.

Convict Lake Resort

2019 *About Us*. Available at https://convictlake.com/our-resort/about/, accessed August 15, 2019.

Delacorte, Michael G.

1990 *Prehistory of Deep Springs Valley, Eastern California: Adaptive Variation in the Western Great Basin*. Ph.D. dissertation, Department of Anthropology, University of California, Davis.

1991 Room to Move: Environment, Demography and Adaptation in the Mono-Inyo Region of Eastern California. In *Natural History of Eastern California and High-Altitude Research*, edited by C.A. Hall, Jr., V. Doyle-Jones, and B. Widawski, pp. 342-355. White Mountain Research Station Symposium Vol. 3, University of California, Los Angeles.

1999 *The Changing Role of Riverine Environments in the Prehistory of the Central-Western Great Basin: Data Recovery Excavations at Six Prehistoric Sites in Owens Valley, California*. Report submitted to California Department of Transportation, District 9, Bishop.

Durham, David L.
1998 *California's Geographic Names: A Gazetteer of Historic and Modern Names of the State.* Word Dancer Press, Clovis, California.

Elston, Robert G.
1986 Prehistory of the Western Area. In *Great Basin*, edited by Warren d'Azevedo, pp. 135-148. Handbook of North American Indians Vol. 11, William G. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Evans, Jeremy
2008 Convict Lake has a colorful history. *Tahoe Daily Tribune*. 22 October 2008. Available at https://www.tahoedailytribune.com/sports/convict-lake-has-a-colorful-history/, accessed August 15, 2019.

Federal Emergency Management Agency (FEMA)
2011a *Flood Insurance Rate Map for Mono County, California*. Map No. 0651C1425D. February 18, 2011. Available at https://msc.fema.gov/portal/home, accessed August 8, 2019.

2011b *Flood Insurance Rate Map for Mono County, California*. Map No. 0651C1650D. February 18, 2011. Available at https://msc.fema.gov/portal/home, accessed August 8, 2019.

Gilreath, Amy J.
1995 *Archaeological Evaluations of Thirteen Sites for the Ash Creek Project, Inyo County, California*. Far Western Anthropological Research Group, Inc., Davis, California. Report submitted to California Department of Transportation, District 9, Bishop.

Gilreath, Amy J., and William R. Hildebrandt
1997 *Prehistoric Use of the Coso Volcanic Field*. Contributions of the University of California Archaeological Research Facility No. 56. University of California, Berkeley.

Goldberg, S.K., E.J. Skinner, and J. F. Burton
1990 *Archaeological Excavations at Sites CA-MNO-574, -577, -578, -833: Stoneworking in Mono County, California*. Report submitted to the California Department of Transportation, Sacramento.

Grayson, Donald K.
1993 *The Desert's Past: A Natural Prehistory of the Great Basin*. Smithsonian Institution Press, Washington, D.C.

Hildreth, Wes, and Judy Fierstein
2016 Long Valley Caldera Lake and Reincision of Owens River Gorge. U.S. Geological Survey Scientific Investigations Report 2016-5120.

Hoover, Mildred B., Hero E. Rensch, Ethel G. Rensch, and William N. Abeloe
2002 *Historic Spots in California*. 5th ed., revised by Douglas E. Kyle. Stanford University Press, Stanford, California.

Hot Creek Ranch
2019 *About Hot Creek Ranch*. Available at https://hstrial-hotcreekranch.homestead.com/About-Us.html, accessed August 15, 2019.

Jameson, Everett W., Jr., and Hans J. Peeters
2004 *California Mammals*. Revised edition. University of California Press, Berkeley, CA.

Jepson Flora Project (eds.)
2018 *Jepson eFlora*. Available at http://ucjeps.berkeley.edu/IJM.html, accessed August 7, 2019.

Kroeber, Alfred J.
1925 *Handbook of the Indians of California*. Bulletin 78, Bureau of American Ethnology, Smithsonian Institution. Government Printing Office, Washington, D.C. Reprinted 1976 by Dover Publications, Inc., New York.

Lahontan Regional Water Quality Control Board (RWQCB)
2005 *Watershed Management Initiative Chapter*. Available at https://www.waterboards.ca.gov/lahontan/water_issues/programs/watershed_management/, accessed August 1, 2019.

Liljeblad, Sven, and Catherine S. Fowler
1986 Owens Valley Paiute. In *Great Basin*, edited by Warren d'Azevedo, pp. 412-434. Handbook of North American Indians Vol. 11, William G. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

McCarthy, H., and L. Johnson
2002 Ethnography and Ethnohistory: Owens Valley Paiute. In *Final Report on Phase II Investigations at 26 Archaeological Sites for the Aberdeen-Blackrock Four-Lane Project on Highway 395, Inyo County, California Volume I: Appendix A,* by David W. Zeanah and Anastasia T. Leigh. Pacific Legacy, Inc., Cameron Park, California and Archaeological Research Center, California State University, Sacramento. Report submitted to California Department of Transportation, Central California Cultural Resources Branch, Fresno, CA.

Meyer, Jack
2013 *A Geoarchaeological Overview and Assessment of Northeast California: Cultural Resources Inventory of Caltrans District 2 Rural Conventional Highways–Lassen, Modoc, Plumas, Shasta, Siskiyou, Tehama, and Trinity Counties*. Report prepared by Far Western Anthropological Research Group, Davis, California, for California Department of Transportation, District 2, Redding, CA.

Meyer, Jack, and Jeffrey S. Rosenthal
2008 *A Geoarchaeological Overview and Assessment of Caltrans District 3: Cultural Resources Inventory of Caltrans District 3 Rural Conventional Highways*. Report prepared by Far Western Anthropological Research Group, Davis, California, for California Department of Transportation, District 3, Marysville, CA.

Meyer, Jack, D. Craig Young, and Jeffrey S. Rosenthal
2010 *A Geoarchaeological Overview and Assessment of Caltrans Districts 6 and 9: Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways*. Report prepared by Far Western Anthropological Research Group, Davis, California, for California Department of Transportation, District 6, Fresno, CA.

National Park Service (NPS)
1983 *Archaeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines: Professional Qualifications Standards.* Available online, http://www.cr.nps.gov/local-law/arch_stnds_9.htm

Norris, Robert M., and Robert W. Webb
1990 *Geology of California*. 2nd Edition. John Wiley and Sons, Inc., New York.

Office of Historic Preservation
1990 *Archaeological Resource Management Reports (ARMR): Recommended Contents and Format.* Department of Parks and Recreation, Office of Historic Preservation, Sacramento, California.

Pawlek, Jay, and Leslie Fryman
2000 *Mammoth Lakes Airport Improvement Project, Mono County, California*. Prepared by Jones & Stokes for the Town of Mammoth Lakes. On file, Eastern Information Center, University of California, Riverside. Report No. MN-995.

Reed, Adele
1994 *Old Mammoth–Mammoth Lakes, California*. Second printing. Genny Smith Books, distributed by University of Nevada Press, Reno.

Simms, Steven R.
2008 *Ancient Peoples of the Great Basin and the Colorado Plateau*. Left Coast Press, Walnut Creek, California

Soil Survey Staff
2019 *Official Soil Series Descriptions*. Natural Resources Conservation Service, United States Department of Agriculture. Available online at http://soils.usda.gov/technical/classification/osd/index.html, accessed August 1, 2019.

Steward, Julian H.
1933 Ethnography of the Owens Valley Paiute. *University of California Publications in American Archaeology and Ethnology* 33:233-350. Berkeley.

1938 Basin-Plateau Aboriginal Socio-Political Gro*ups. Bureau of American Ethnology Bulletin 120*. Smithsonian Institution, Washington, D.C.

Stine, Scott
2003 Environmental History of Late Holocene Owens Lake. In *Lacustrine Lifestyles Along Owens Lake: NRHP Evaluation of 15 Prehistoric Sites for the Olancha/Cartago Four-Lane Project, US Route 395, Inyo County, California*. Report submitted to California Department of Transportation, District 09, Bishop.

Sutton, Mark Q.
1996 The Current Status of Archaeological Research in the Mojave Desert. *Journal of California and Great Basin Anthropology* 18(2):221-257.

Sutton, Mark Q., Mark E. Basgall, Jill K. Gardner, and Mark W. Allen
2007 Advances in Understanding Mojave Desert Prehistory. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 229-245. Alta Mira, Lanham, Maryland.

Town of Mammoth Lakes
2000 *Final Report: Environmental Assessment*. December 14, 2000. Prepared for Mammoth Yosemite Airport Expansion Project. Available at https://www.townofmammothlakes.ca.gov/622/Environmental-Review---Airport, accessed August 1, 2019.

UCNRS
2019 *Sierra Nevada Aquatic Research Laboratory*. Available at https://ucnrs.org/reserves/sierra-nevada-aquatic-research-laboratory/, accessed August 9, 2019.

URS Corporation
2008 *Final Environmental Impact Statement for Operations Specifications Amendment by Horizon Air to Provide Scheduled Air Service to Mammoth Yosemite Airport, Mammoth Lakes, Mono County, California*. Prepared for Town of Mammoth Lakes, CA. Available at https://www.townofmammothlakes.ca.gov/622/Environmental-Review---Airport, accessed August 1, 2019.

2010 *Proposed Operations Specifications Amendment Approval Related to the Scheduled Commercial Air Service into Mammoth Yosemite Airport by United Airlines Final Environmental Assessment*. Prepared for Town of Mammoth Lakes, CA. Available at https://www.townofmammothlakes.ca.gov/622/Environmental-Review---Airport, accessed August 1, 2019.

Warren, Claude N.
1986 *Early Holocene Cultural Adaptation in the Mojave Desert, California*. Paper presented at the World Archaeological Congress, Southampton, England.

Willig, Judith A. and C. Melvin Aikens
1988 The Clovis-Archaic Interface in Far Western North America. In *Early Human Occupation in Far Western North America: The Clovis-Archaic Interface*, edited by Judith Willig et al. Nevada State Museum Anthropological Papers No. 21, Carson City, NV.

Wohlgemuth, Eric
1995 *Letter Report: Mammoth Lakes/June Lakes Airport*. Prepared by Far Western Anthropological Research Group, Davis, CA for the Town of Mammoth Lakes. On file, Eastern Information Center, University of California, Riverside. Report No. MN-524.

APPENDIX A:
EIC Record Search Summary (File No. ST-MNO-4917)

EASTERN INFORMATION CENTER

California Historical Resources Information System
Department of Anthropology, University of California, Riverside, CA 92521-0418
(951) 827-5745 - eickw@ucr.edu
Inyo, Mono, and Riverside Counties

October 24, 2018
CHRIS Access and Use Agreement No.: 255
ST-MNO-4917

Cindy Arrington
Natural Investigations Company
3104 O Street, #221
Sacramento Ca 95816

Re: Cultural Resources Records Search for the Mammoth Lakes Airport, Project # 504

Dear Mrs. Arrington:

We received your request on October 17, 2018, for a cultural resources records search for the Mammoth Lakes Airport, Project #504 located in multiple sections, T.4S, R., MDBM, in the Mammoth Lakes Airport area. We have reviewed our site records, maps, and manuscripts against the location map you provided.

Our records indicate that 31 cultural resources studies have been conducted within a half-mile radius of your project area. Eight of these studies involved the project area. Three additional studies provide overviews of cultural resources in the general project vicinity. All of these reports are listed on the attachment entitled Detail," and are available upon request at 15¢/page plus $40/hour for hard copies.

Our records indicate that 23 cultural resources properties have been recorded within a half-mile radius of your project area. Two of these properties involved the project area. PDF copies of the records are included for your reference. All of these resources are listed on the attachment entitled*:* "Eastern Information Center Resource Detail."

The above information is reflected on the enclosed maps. Areas that have been surveyed are highlighted in yellow. Numbers marked in blue ink refer to the report number MN. Cultural resources properties are marked in red; numbers in black refer to Trinomial designations, those in green to Primary Number designations. National Register properties are indicated in light blue.

Additional sources of information consulted are identified below.

National Register of Historic Places: No properties are listed.

Office of Historic Preservation (OHP), Archaeological Determinations of Eligibility (ADOE): Two properties (26-2423 [CA-MNO-2423], 26-2427 [CA-MNO-2427]) are listed. One property (26-2423 [CA-MNO-2423]) is ineligible

for inclusion on the National Register of Historic Places. One Property (26-2427 [CA-MNO-2427]) is determined eligible for inclusion on the National Register of Historic Places. The applicable portion of this directory is enclosed for your study needs.

Office of Historic Preservation (OHP), Directory of Properties in the Historic Property Data File (HPD): No properties are listed for inclusion on the National Register of Historic Places.

A copy of the relevant portions of the 1956 USGS Topaz Lake 15' and 1953 USGS Mt. Morrison 15' topographic maps are included for your reference.

As the Information Center for Riverside County, it is necessary that we receive a copy of all cultural resources reports and site information pertaining to this county in order to maintain our map and manuscript files. Confidential information provided with this records search regarding the location of cultural resources outside the boundaries of your project area should not be included in reports addressing the project area.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the California Historical Resources Information System (CHRIS) Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by the IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Sincerely,

Sabrina Fajardo
Information Officer

Enclosures

APPENDIX B:
Sacred Lands File Search and Outreach

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710

October 18, 2018

Cindy Arrington
Natural Investigations Company

Sent by E-mail: cindy@naturalinvestigations.com

RE: Proposed Mammoth Lakes Airport (Project 507) Project, Community of Mammoth Lakes; Convict Lake and Whitmore Hot Springs USGS Quadrangles, Mono County, California

Dear Ms. Arrington:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

Attached is a list of tribes culturally affiliated to the project area. I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton

Gayle Totton, M.A., Ph.D.
Associate Governmental Program Analyst
(916) 373-3714

CONFIDENTIALITY NOTICE: This communication with its contents may contain confidential and/or legally privileged information. It is solely for the use of the intended recipient(s). Unauthorized interception, review, use or disclosure is prohibited and may violate applicable laws including the Electronic Communications Privacy Act. If you are not the intended recipient, please contact the sender and destroy all copies of the communication.

Native American Heritage Commission
Native American Contact List
Mono County
10/18/2018

Utu Utu Gwaitu Tribe of the Benton Paiute Reservation
Tina Braitewaite, Chairperson
555 Yellow Jacket Road — Paiute
Benton, CA, 93572
Phone: (760) 933 - 2321
Fax: (760) 933-2412

Big Pine Paiute Tribe of the Owens Valley
Genevieve Jones, Chairperson
P. O. Box 700 — Paiute-Shoshone
Big Pine, CA, 93513
Phone: (760) 938 - 2003
Fax: (760) 938-2942
j.paydon@bigpinepaiute.org

Big Pine Paiute Tribe of the Owens Valley
Danelle Gutierrez, Tribal Historic Preservation Officer
P.O. Box 700 — Paiute-Shoshone
Big Pine, CA, 93513
Phone: 7609382003,e x-t228
Fax: (760) 938-2942
d.gutierrez@bigpinepaiute.org

Big PinePaiute Tribe of Owens Valley
Sally Manning, Environmental Director
P. O. Box 700 — Paiute-Shoshone
Big Pine, CA, 93513
Phone: (760) 938 - 2003
s.manning@bigpinepaiute.org

Bishop Paiute Tribe
Raymond Andrews, Tribal Historic Preservation Officer
50 Tu Su Lane — Paiute-Shoshone
Bishop, CA, 93514
Phone: (760) 873 - 8435
Fax: (760) 873-4143
gwest@ovcdc.com

Bishop Paiute Tribe
Bill Vega, Chairperson
50 Tu Su Lane — Paiute-Shoshone
Bishop, CA, 93514
Phone: (760) 873 - 3584
Fax: (760) 873-4143
deston.rogers@bishoppaiute.org

Bridgeport Paiute Indian Colony
John Glazier, Chairperson
P.O. Box 37 — Paiute
Bridgeport, CA, 93517
Phone: (760) 932 - 7083
Fax: (760) 932-7846
chair@bridgeportindiancolony.com

Mono Lake Indian Community
Charlotte Lange, Chairperson
P.O. Box 117 — Mono
Big Pine, CA, 93513 — Paiute
Phone: (760) 938 - 1190
char54lange@gmail.com

Southern Sierra Miwuk Nation
William Leonard, Chairperson
P.O. Box 186 — Miwok
Mariposa, CA, 95338 — Northern Valley Yokut
Phone: (209) 628 - 8603 — Paiute

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 Mammoth Lakes Airport Project, Mono County.

Natural Investigations Company

August 21, 2019

RE: Mammoth-Yosemite Terminal Area Development Plan Project, Mono County

Dear Sir/Madman:

I am writing in regards to a cultural resources investigation that we are conducting for a project located in Mono County, California. The Town of Mammoth Lakes is proposing to construct a passenger terminal, aircraft parking apron, related infrastructure, and Aircraft Rescue and Fire Fighting-Snowplow building as elements of the Terminal Area Development Plan (Project) at the Mammoth-Yosemite Airport.

The improvements associated with the Project would include a three-gate passage terminal, a new aircraft parking apron (space to park three commercial aircraft), automobile parking lots, aircraft de-icing pad, new taxiways, airport road extension, service road realignment, package wastewater treatment plant and wastewater disposal field, new electrical service, and an Aircraft Rescue and Fire Fighting-Snowplow building with new apron and access road.

The Project is located in Township 4-South, Range 28-East, Section 1, as depicted on the Whitmore Hot Springs USGS 7.5-minute quadrangles (Mount Diablo Base and Meridian) (Figure 1).

Natural Investigations conducted a California Historical Resources Information System (CHRIS) records search with a 0.50-mile radius of the proposed project area at the Eastern Information Center (EIC), located in Riverside, CA. The CHRIS record search shows that four prior studies are mapped within the project area and an additional twelve prior studies have been completed within the 0.50-mile search radius. The records search indicates no cultural resources have been previously recorded within the project area however; 15 previously recorded cultural resources are mapped within the 0.50-mile search radius.

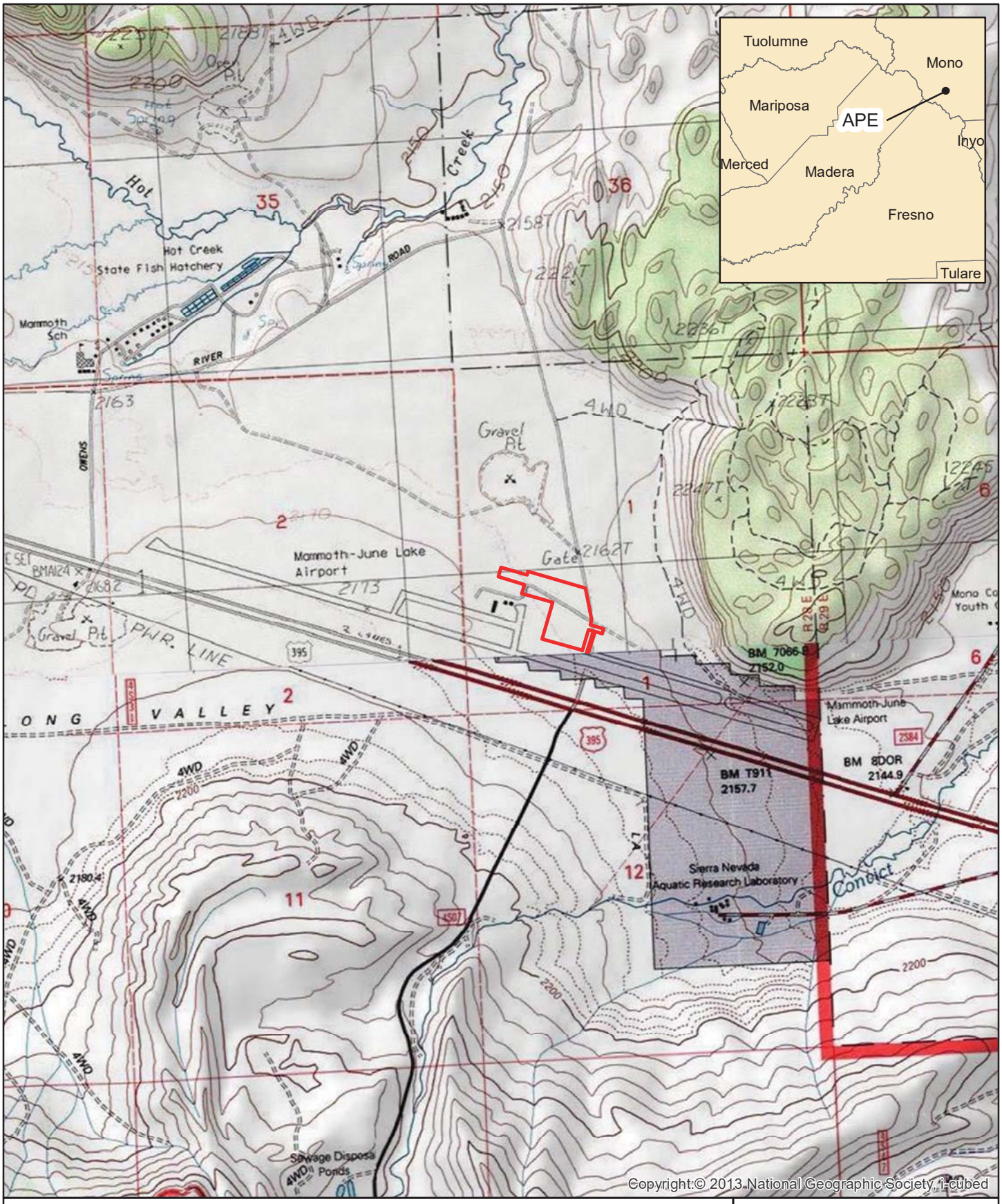
The Native American Heritage Commission (NAHC) to a request for a search of their Sacred Lands File, stating that their search *does not indicate* the presence of Native American cultural resources in the vicinity of the project areas. The NAHC also provided a list of tribes and individuals that may have knowledge of traditional lands or cultural places located within or near the project, and recommended that we contact you, among others.

Should you have questions or comments, please respond directly to me at the address below, or email me at cindy@naturalinvestigations.com, or call at 916-765-9381.

Respectfully submitted,

Cindy Arrington, M.S., RPA
Principal
Natural Investigations Company
3104 O Street, #221
Sacramento, CA 95816

Attachments: Figure 1



APE

0 0.5 1 Kilometers

0 0.5 1 Miles

1:24,000

Mammoth Lakes Airport
Figure 1 - APE

Natural Investigations Company

Map Date 9/20/2019

Whitmore Hot Springs 1994 Quadrangle:Township 4S, Range 28E, Section 1

NATURAL INVESTIGATIONS COMPANY

Native American Contact Tracking Sheet
Mammoth-Yosemite Airport Terminal Area Development
Mono County, CA

Contact Name	Date Letter Sent	Date of Follow Up	Comments/Concerns/ Recommendations
Utu Utu Gwaitu Tribe of the Benton Paiute Reservation Tina Braitewaite, Chairperson 555 Yellow Jacket Road Benton, CA, 93572 Phone: (760) 933 - 2321	8-21-2019	9-9-2019	Ms. Braitewaite was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Bishop Paiute Tribe Bill Vega, Chairperson 50 Tu Su Lane Bishop, CA, 93514 Phone: (760) 873 - 3584 deston.rogers@bishoppaiute.org	8-21-2019	9-9-2019	Mr. Vega and Mr. Rogers (email provided by NAHC) is no longer with the Tribe. Ms. Gloriana Bailey is currently receiving all project related notifications. I spoke with Ms. Bailey and sent her a copy of the project information letter and map.
Big Pine Paiute Tribe of the Owens Valley Genevieve Jones, Chairperson P. O. Box 700 Big Pine, CA, 93513 Phone: (760) 938 - 2003 j.paydon@bigpinepaiute.org	8-21-2019	9-9-2019	Ms. Jones is no longer the Chairperson. The new Chairperson is James Rambeau. Mr. Rambeau was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Bridgeport Paiute Indian Colony John Glazier, Chairperson P.O. Box 37 Bridgeport, CA, 93517 Phone: (760) 932 - 7083 chair@bridgeportindiancolony.com	8-21-2019	9-9-2019	Mr. John Glazier is deceased. Mr. Herbert Glazier is now the Chairperson. Mr. Herbert Glazier was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Big Pine Paiute Tribe of the Owens Valley Danelle Gutierrez, Tribal Historic Preservation Officer P.O. Box 700 Big Pine, CA, 93513 Phone: 760-938-2003 ext: 228 d.gutierrez@bigpinepaiute.org	8-21-2019	9-9-2019	Mr. Gutierrez was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.

Contact Name	Date Letter Sent	Date of Follow Up	Comments/Concerns/ Recommendations
Mono Lake Indian Community Charlotte Lange, Chairperson P.O. Box 117 Big Pine, CA, 93513 Phone: (760) 938 - 1190 char54lange@gmail.com	8-21-2019	9-9-2019	Ms. Lange was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Big PinePaiute Tribe of Owens Valley Sally Manning, Environmental Director P. O. Box 700 Big Pine, CA, 93513 Phone: (760) 938 - 2003 s.manning@bigpinepaiute.org	8-21-2019	9-9-2019	Ms. Manning was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Southern Sierra Miwuk Nation William Leonard, Chairperson P.O. Box 186 Mariposa, CA, 95338 Phone: (209) 628 - 8603	8-21-2019	9-9-2019	Mr. Leonard was not available. A voice message was left asking if the Tribe had any questions or concerns regarding the project and if so, to please contact Natural Investigations.
Bishop Paiute Tribe Raymond Andrews, Tribal Historic Preservation Officer 50 Tu Su Lane Bishop, CA, 93514 Phone: (760) 873 - 8435 gwest@ovcdc.com	8-21-2019	9-9-2019 9-11-2019	The number listed on the contact list is disconnected. No other phone number is provided. Received an email from Stacey Dewey (Assistant to Mr. Monty Bengochia, Tribal Historical Preservation Officer). The Tribe is requesting AB 52 consultation on the Mammoth Lakes Airport project.

APPENDIX C:
Resource Record (DPR Forms)

☐ Continuation ■ Site Update

*Originally Recorded By: J. Berg. Far Western Anthropological Research Group *Date: 5/16/2014

1. Impacts Observed Since Site Formation/Use:
☐ Constructed trail ☐ Wildlife path ☐ Grading ☐ Recreational Use by Humans (campfire ring, etc.) ☐ Fire
■ Erosion ☐ Vandalism/Pothunting/Artifact Collection ■ New vegetation growth ☐ Modern trash deposits
☐ Fire break ■ Construction ☐ Vegetation removal ☐ None ☐ Other (explain)

Currently, the newly identified segment of Convict Lake Road north of US 395 on airport property is not in regular use and is bisected by the barbed wire security fence separating the runway area from the remainder of the airport. Road is cracked in places and overgrown vegetation is present on a portion of the road.

2. Is the site location narrative accurate?
☐ Yes ■No (explain)

This is an additional segment of the road located on airport property, north of US 395 and north of the previously recorded segment. The majority is paved; the section on the runway side has been disused for some time, as evident by boulders (used as vehicle barrier), a fence and vegetation growing out of cracks in a portion of the road on the north side of the fence.

3. Is the site description narrative accurate?
■ Yes ☐ No (explain)

Yes, except the condition of this segment north of US 395 is not the same as south.

4. Were new photos taken?
■ Yes (attach Photograph Record) ☐ No (explain)

5. Date of Site Revisit: 08/13/2019

6. Revisited by: D. Stapleton, Natural Investigations Company, 3104 O Street, #221, Sacramento, CA 95816

7. Reason for Revisit:
☐ Collect GPS data/Impact Mapping ☐ Change in project area conditions ☐Evaluation of Eligibility ■Other (explain)

Intensive-level cultural survey north of US 395 on Mammoth-Yosemite Airport property for project area of potential effects (APE).

8. Report Citation:

N.E. Sikes, D. Stapleton, C. Arrington. 2019. Cultural Resources Inventory and Effects Assessment for the Mammoth-Yosemite Airport Terminal Area Development Plan, Mammoth Lakes, Mono County, California.

9. Were UTM coordinates gathered? Location data obtained from aerial photography and USGS quadrangle maps.
UTMs: ■ Yes ☐ No Aerial Photography: ☐ Yes ☐ No USGS Quadrangle Maps: ☐ Yes ☐ No

10. Remarks:

This segment of the road has been separated from the previously recorded southern alignment by widening of US 395 and the construction and expansion of the airport runway and its relocation 300 feet north in 1965. The road is a standard 25 feet wide with no visible dividing lines along the center of the roadway. This segment measures approximately 0.18 miles in length, terminates on the south at the taxiway, and is on a raised berm lined with large cobbles approximately 3-4 feet high. A drainage channel is present along the western portion of the roadbed possibly explaining the raised roadbed. There are three small transmission towers used for the airport mounted into the roadbed on the runway side of the fence. The alignment continues north, outside of the current project APE. Except for the north ~300 feet, the road within the APE is paved with some gravel overlaying a portion of it. It is unknown when this segment was paved and if there were alterations made to the grade or alignment prior to or since its initial paving. The segment is in poor condition. There is a modern stainless-steel water tank on the recorded segment that appears to be either directly adjacent to the original alignment on the west side or partially built over the western portion of the alignment the paving ends at the tank and slightly curves to the east around it before becoming a dirt road.

The road is found through survey evaluation to be ineligible for National Register listing (status code 6Z). It does not meet the significance requirements under Criterion A (events), does not pertain to other significance criteria, and has not retained integrity of design, setting, materials, workmanship, feeling, or association.



Photograph 1. Overview of southern edge of road segment on airport property. Shows three small transmission towers mounted into the roadbed. View to south toward airport runway area and US 395.



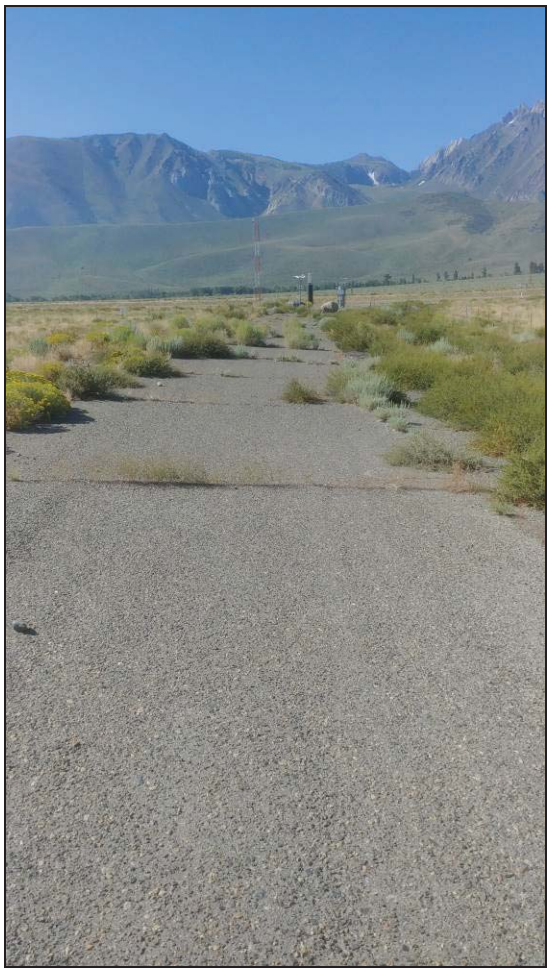
Photograph 2. Overview of road segment on airport property. Airport barbed wire security/livestock fence and boulder barriers across road in foreground. Airport water tank in background at west edge of road. View to north.



Photograph 3. Overview of road segment from northern end, with line of boulders across road. View to south.



Photograph 4. Overview of northern edge of road segment, showing location of modern airport water tank. View to north.



Photograph 5. Overview of road segment on airport property north of US 395. View to south toward airport runway area.


Tuolumne Tuolumne
Mariposa
Mono
Site Location
Madera
Inyo
Fresno
Update Location
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
P-26-07973 Update Segment
0 0.5 1 Kilometers
0 0.5 1 Miles
N
W E
S
Whitmore Hot Springs 1994 Quadrangle:Township 4S, Range 28E, Section 1
1:24,000
P-26-07973
Update Aerial Map
NATURAL INVESTIGATIONS COMPANY

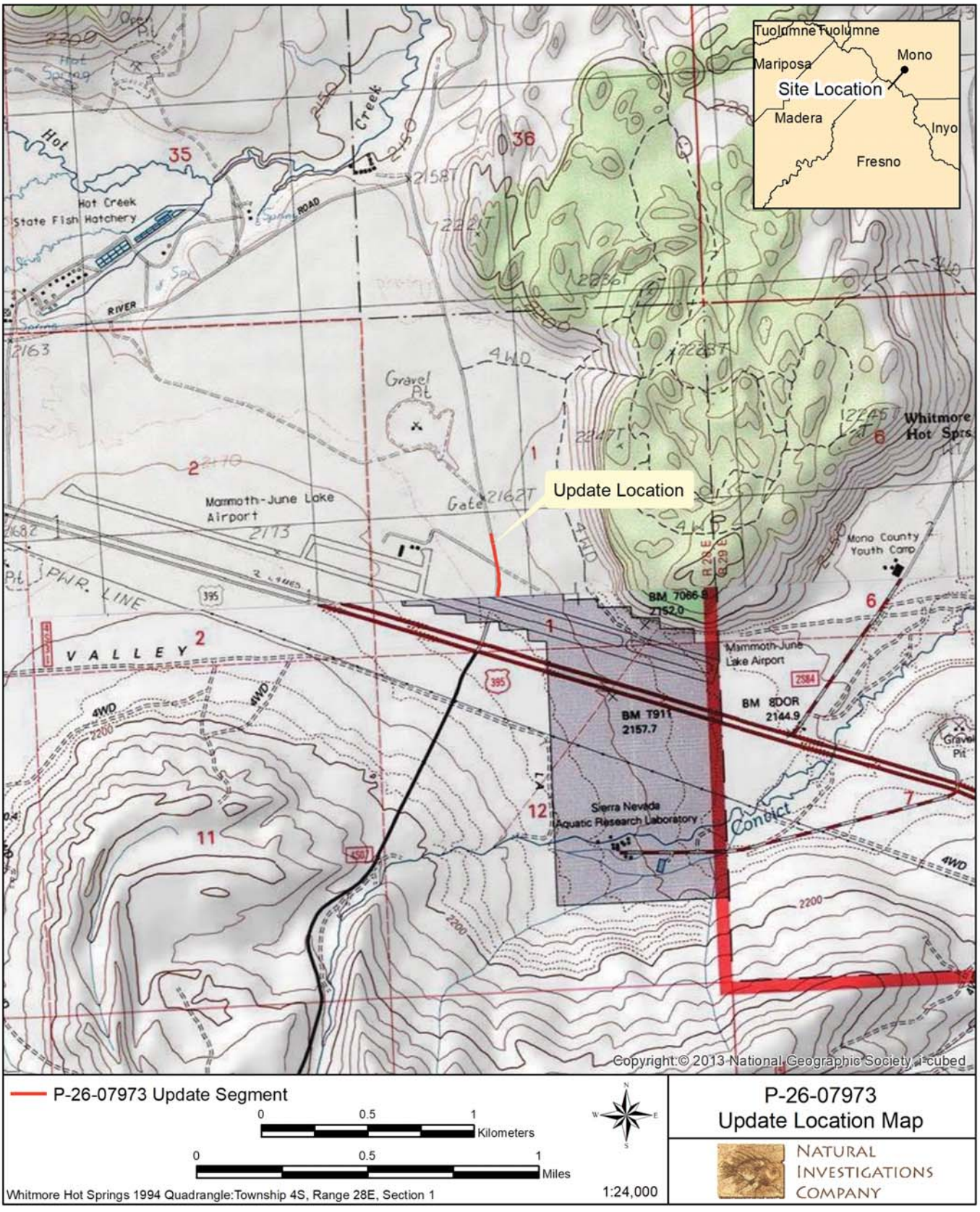
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-26-07973
HRI #
Trinomial # CA-MNO-5763 UPDATE

Page 6 **of** 6 ***Resource Name or #:** Convict Lake Road

***Map Name:** Whitmore Hot Springs ***Scale:** 1:24,000 ***Date of Map:** 1994



26-07973

CA-MNO-5763

ALSO SEE

26-7955

26-1677 , CA-MNO-1677

26-4795 , CA-MNO-4261

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary # 26-07973
HRI #
Trinomial CA-MNO-5763
NRHP Status Code 7
Other Listings
Review Code _____ Reviewer _____ Date _____

*Resource Name or #: FS 05-04-52-2391; CL-1

P1. Other Identifier: Convict Lake Road; FS Road 4S07

* P2. Location: ☑ Not for Publication ☐ Unrestricted *a. County: Mono

* USGS Quad(s): Convict Lake (1994)

NW ¼ of Sec. 12, T4S R28E
SW ¼ of Sec. 12, T4S R28E
NE ¼ of SE ¼ of Sec. 11, T4S R28E
NE ¼ of Sec. 14, T4S R28E
SE ¼ of Sec. 14, T4S R28E
NE ¼ of Sec. 14, T4S R28E
SW ¼ of SE ¼ of Sec. 14, T4S R28E
SE ¼ of SW ¼ of Sec. 1, T4S R28E
NW ¼ of NE ¼ of Sec. 23, T4S R28E
SW ¼ of NE ¼ of Sec. 23, T4S R28E

c. Address:

d. UTM (NAD 83): Zone 11 ; 337640 mE 4165535 mN North end
Zone 11 ; 336281 mE 4161852 mN South end

e. Other Locational Data:

Convict Lake Road originates at Highway 395 across from the Mammoth Lakes Airport, about 7.7 miles southeast of the town of Mammoth Lakes.

* P3a. Description:

This is the historic two-lane paved road to Convict Lake that provides access to the Convict Lake Resort (FS 05-04-52-02303), campground, and to recreational fishing at the lake. Portions of the Convict Lake Road alignment can be seen on early historic-era maps (USGS Mt. Morrison 1914, 1934, 1950). It was reported as a gravel road in the late 1920s, and by 1934 the alignment was extended to the present day end point. Between the late 1960s and early 1980s, Convict Lake Road was improved, which including straightening the route and adding a bypass route around the Convict Lake Resort. The current bridge at the lake outflow was built, and is date-stamped, 1991. The road has no associated historic-era features. The development of recreational facilities around the road has altered the original setting, design and materials of the road from an unimproved narrow gravel road to a heavily traveled road for vehicles, bicyclists, and pedestrians.

* P3b. Resource Attributes: AH07(Roads/trails/railroad grades)

* P4. Resources Present: ☐ Building ☐ Structure ☐ Object ☑ Site ☐ District ☐ Element of District ☐ Other (isolates, etc.)

* P5. Photo or Drawing: None

* P6. Date Constructed/Age & Sources: ☑ Historic ☐ Prehistoric ☐ Both

* P7. Owner and Address: Inyo National Forest

* P8. Recorded by: J. Berg, Far Western Anthropological Research Group, Inc.

* P9. Date Recorded: 5/16/2014

* P10. Survey Type: Intensive Pedestrian Survey and Test Probes

* P11. Citation: Whitaker, A., L. Leach-Palm, and J. Berg, (2014) Archaeological Survey Report for the Convict Lake Road Improvement Project, Inyo National Forest, Mono County, California.

* Attachments: ☐ None ☑ Location Map ☑ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☑ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other:

RECEIVED IN
OCT 0 1 2014
EIC

*Required Information

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LINEAR FEATURE RECORD

Primary # 26-07973
HRI #
Trinomial CA-MNO-5763

*Resource Name or #: FS 05-04-52-2391; CL-1

L1. Historic and/or Common Name: Convict Lake Road; FS Road 4S07

L2a. Portion Described: ☑ Entire Resource ☐ Segment ☐ Point Observation **Designation:**

L2b. Location of Point or Segment:
Convict Lake Road originates at Highway 395 across from the Mammoth Lakes Airport, about 7.7 miles southeast of the town of Mammoth Lakes.

L3. Description:
This resource is a two-lane paved road. At its terminus at the lake, it widens to allow for parking and a turn-around.

L4. Dimensions:
- **a. Top Width:** 25 ft
- **b. Bottom Width:** n/a
- **c. Height or Depth:** n/a
- **d. Length of Segment:** 2.7 miles

L5. Associated Resources:
Convict Lake Resort (FS 05-04-52-02303)

L4e. Sketch of Cross-Section: **Facing:**

L6. Setting:
The road travels up from the bottom of the Long Valley caldera on the gently sloping alluvial formation to glacial terminal moraines; then winds through them to drop down into the lake basin at the base of the Sierra Nevada.

L7. Integrity Considerations:
Road is maintained and in good condition but the development of recreational facilities around the road has altered the original setting, design, and materials from an unimproved narrow gravel road to a heavily traveled road for vehicles, bicyclists, and pedestrians.



L8b. Description of Photo/Map/Drawing:
Convict Lake Road - Mammoth Lakes Airport in background. (View: North)

L9. Remarks:

L10. Form Prepared By:
J. Berg

L11. Date: 5/16/2014



Folder: 1741 2014 05 13-16 - Optio 20 - Copy File: IMGP3193
Convict Lake Road. Sierras in background. (View: South)



Folder: 1741 2014 05 13-16 - Optio 20 - Copy File: IMGP3200
Convict Lake Road bridge over lake outlet - Dated 1991. (View: Southeast)



Folder: 1741 2014 05 13-16 - Optio 20 - Copy File: IMGP3202
Convict Lake road bridge (View: West Northwest)



Folder: 1741 2014 05 13-16 - Optio 20 - Copy File: IMGP3203
Convict Lake Road - Convict Lake Resort to right. (View: South)

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

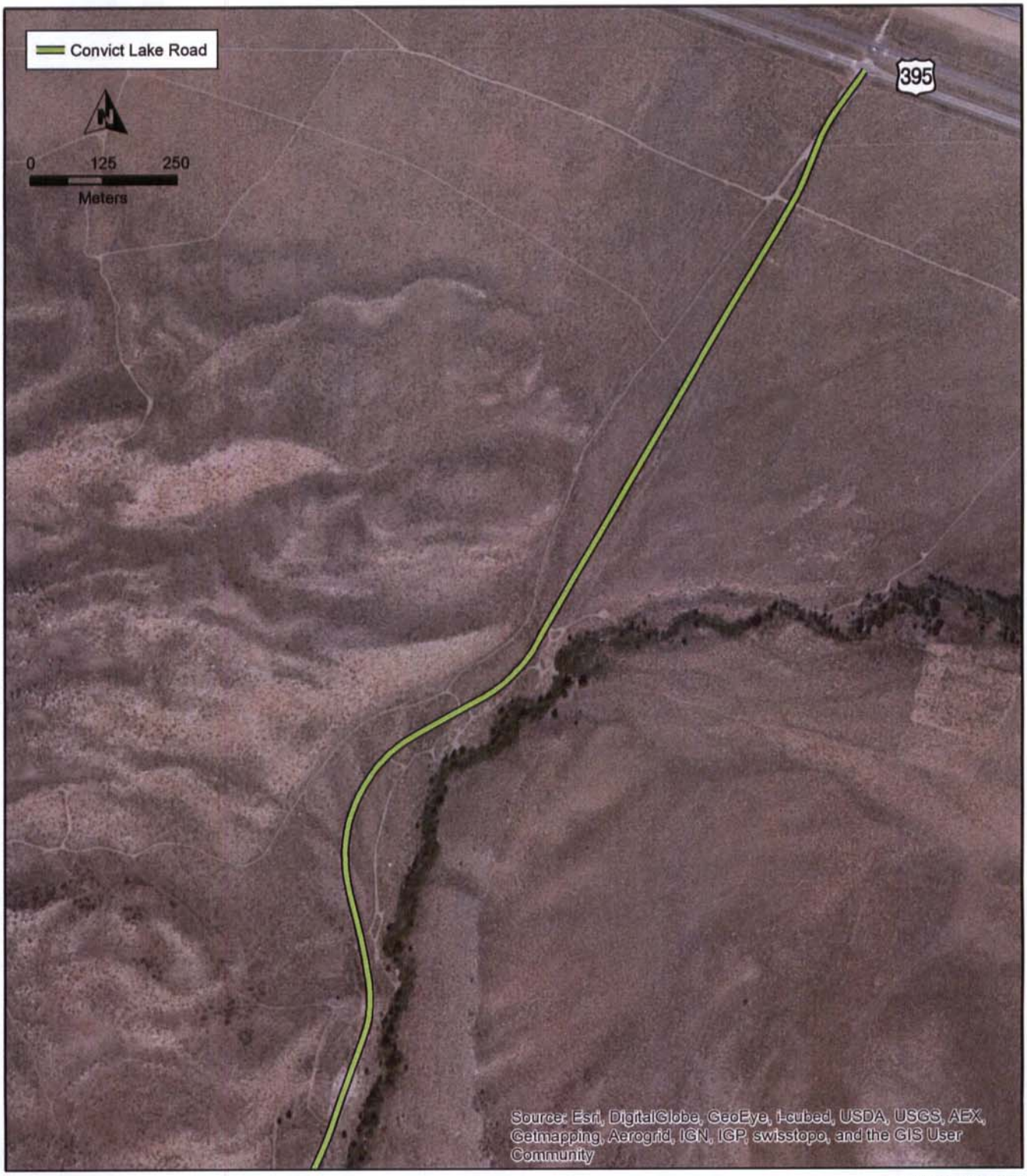
SKETCH MAP

Primary # 26-07973
HRI #
Trinomial CA-MNO-5763

*Resource Name or #: FS 05-04-52-2391; CL-1

*Drawn by: Far Western

*Date: 5/16/2014



jill 7/15/2014 11:36:10 AM

*Required Information

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

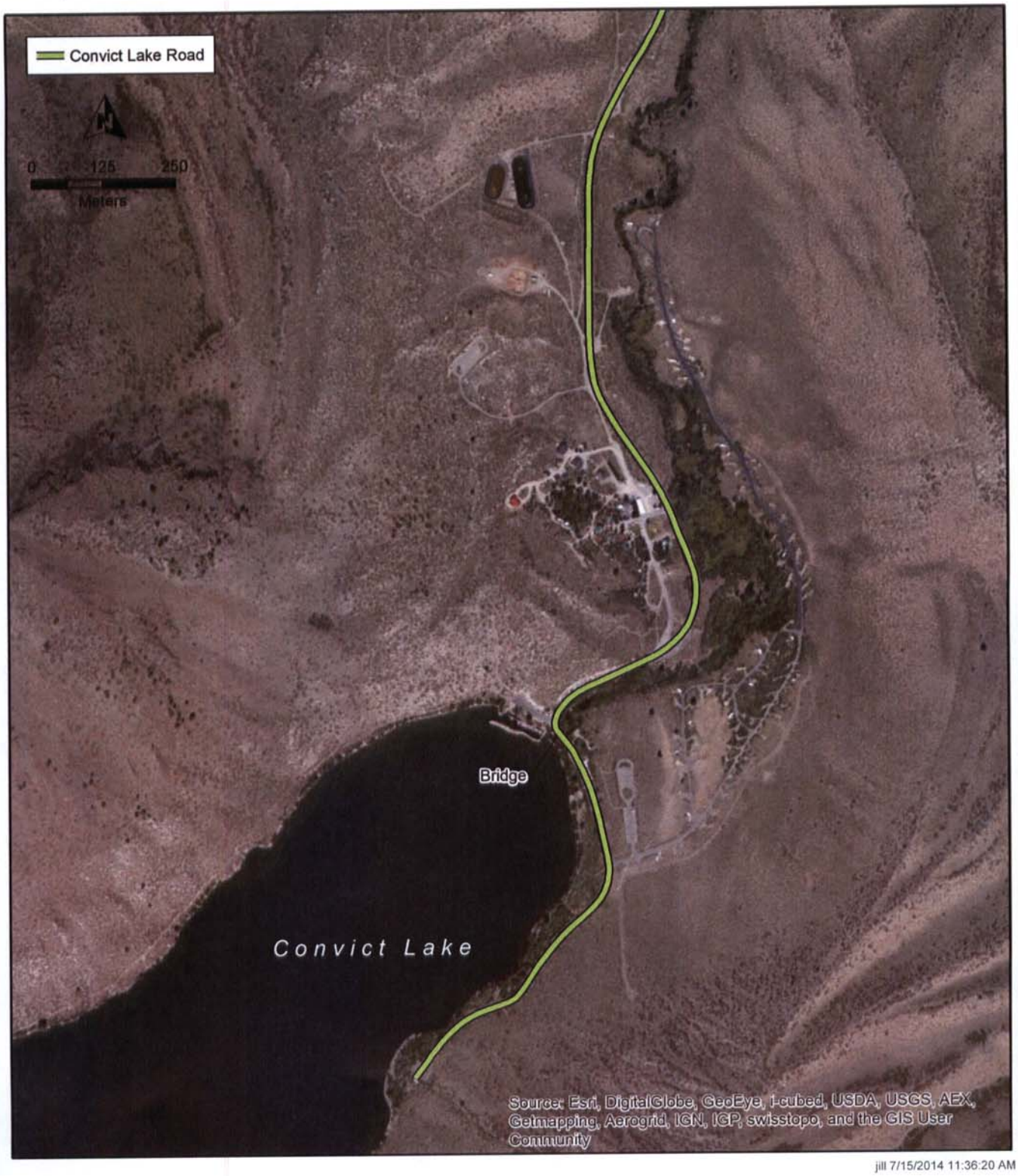
SKETCH MAP

Primary # 26-07973
HRI #
Trinomial CA-MNO-5763

*Resource Name or #: FS 05-04-52-2391; CL-1

*Drawn by: Far Western

*Date: 5/16/2014



jill 7/15/2014 11:36:20 AM

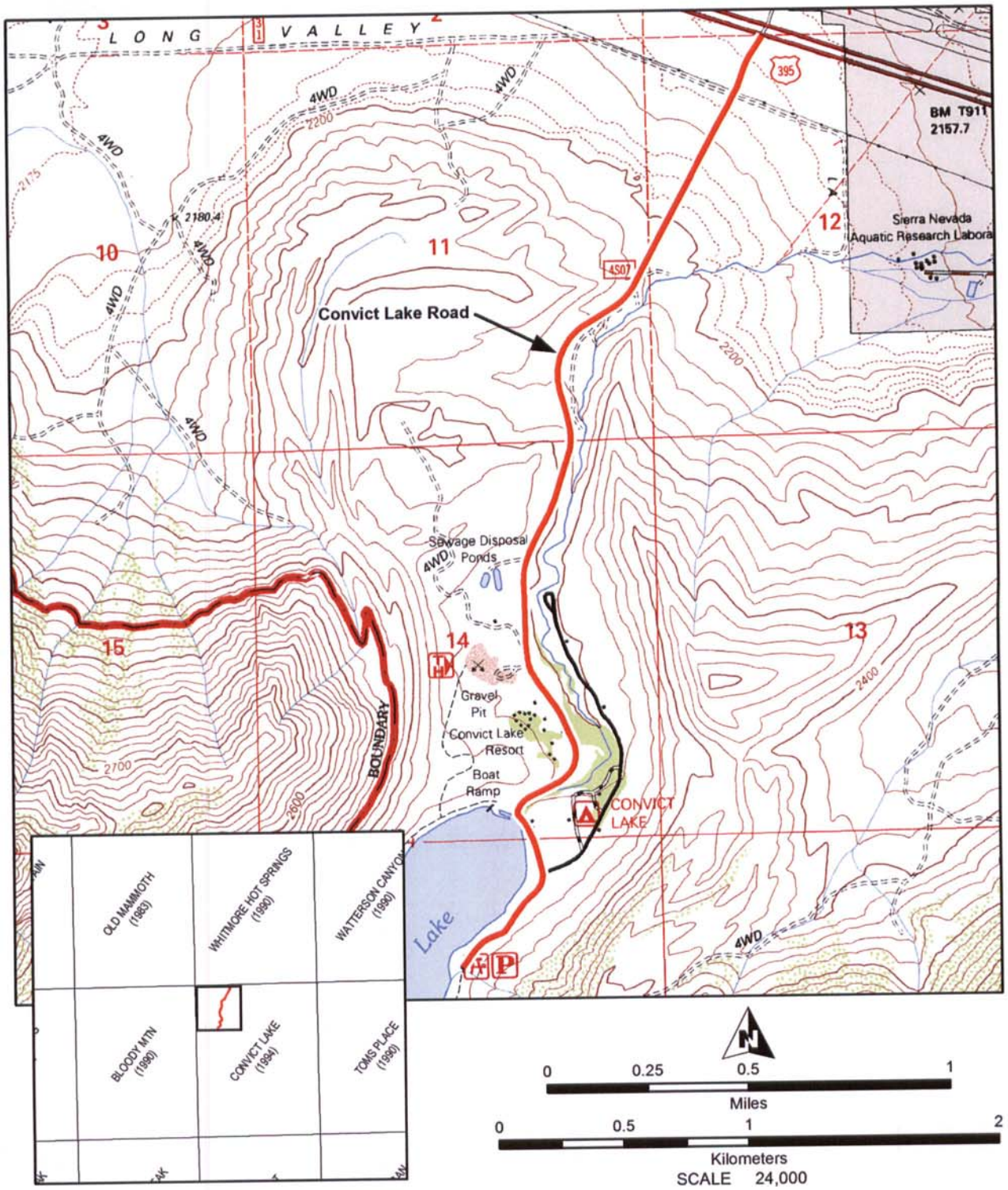
*Required Information

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # 26-07973
HRI #
Trinomial CA-MNO-5763

*Resource Name or #: FS 05-04-52-2391; CL-1



jill 6/24/2014 5:58:32 PM

*Required Information

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT
P.O. Box 1609, Mammoth Lakes, CA 93546
Phone: (760) 965-3630 Fax: (760) 934-8608
www.townofmammothlakes.ca.gov

October 11, 2019

Danielle Gutierrez, Tribal Historic Preservation Officer
Big Pine Band of Owens Valley THPO
P.O. Box 700
Big Pine, CA 93513

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Officer Gutierrez:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

The Town proposes improvements and additions to the passenger terminal area at the existing Mammoth-Yosemite Airport (MMH). MMH is located approximately six miles east of the main portion of the Town on Airport Road adjacent to US Highway 395 (US 395). The proposed project would include two major components: a new approximately 40,000 square foot, three-gate passenger terminal and an associated aircraft parking apron of approximately 130,500 square feet capable of parking three commercial aircraft. The TADP describes the proposed passenger terminal and associated landside improvements in detail. The improvements associated with the TADP would include automobile parking lots, aircraft de-icing apron, new taxiways, Airport Road extension, service road realignment, package wastewater treatment plant and wastewater disposal field, new electrical service, and an Aircraft Rescue and Fire Fighting-Snowplow building (ARFF) with new vehicle parking apron and access road.

The Town has prepared a Cultural Resources Inventory and Effects Assessment for the project. The Area of Potential Effect (APE), within which the direct and indirect impacts of the proposed Project may have an effect on cultural resources, totals 17.91 acres. The APE is located in Section 1 of Township 4 South, Range 28 East, as depicted on the 1994 Whitmore Hot Springs USGS 7.5-minute topographic map (Mount Diablo Base and Meridian). The anticipated vertical APE for the undertaking is a maximum depth of 5 feet (1.5 meters) for the waste disposal lines, with most ground disturbance at 2 feet (0.6 meter) or less. Native American consultations were conducted with the Native American Heritage Commission and nine tribes in August-September 2019 during the preparation of the cultural resources study.

The Point of Contact for the Town is:

Kim Cooke, Associate Planner
Town of Mammoth Lakes
Community and Economic Development Department
P.O. Box 1609

437 Old Mammoth Road, Suite R
Mammoth Lakes, CA 93546
Telephone: 760-965-3630
Fax: 760-934-8608
Email: kcooke@townofmammothlakes.ca.gov

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request, in writing, consultation with the Town regarding the Mammoth-Yosemite Airport Terminal Area Development Plan. If you choose to request consultation, please designate the tribe's lead contact person along with contact information. If you have any questions, please contact me as shown above.

Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

Enclosures
Project Site Maps

Town of Mammoth Lakes
P.O. Box 1609
437 Old Mammoth Road, Suite R (FedEx, UPS, and courier)
Mammoth Lakes, CA 93546
Ph: (760) 965-3638
Fax: (760) 934-7493
kcooke@townofmammothlakes.ca.gov

COMMUNITY AND ECONOMIC DEVELOPMENT DEPARTMENT
P.O. Box 1609, Mammoth Lakes, CA 93546
Phone: (760) 965-3630 Fax: (760) 934-8608
www.townofmammothlakes.ca.gov

October 11, 2019

Shannon Romero, Chairperson
Big Pine Paiute Tribe of the Owens Valley
P.O. Box 700
Big Pine, CA 93513

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Romero:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

The Town proposes improvements and additions to the passenger terminal area at the existing Mammoth-Yosemite Airport (MMH). MMH is located approximately six miles east of the main portion of the Town on Airport Road adjacent to US Highway 395 (US 395). The proposed project would include two major components: a new approximately 40,000 square foot, three-gate passenger terminal and an associated aircraft parking apron of approximately 130,500 square feet capable of parking three commercial aircraft. The TADP describes the proposed passenger terminal and associated landside improvements in detail. The improvements associated with the TADP would include automobile parking lots, aircraft de-icing apron, new taxiways, Airport Road extension, service road realignment, package wastewater treatment plant and wastewater disposal field, new electrical service, and an Aircraft Rescue and Fire Fighting-Snowplow building (ARFF) with new vehicle parking apron and access road.

The Town has prepared a Cultural Resources Inventory and Effects Assessment for the project. The Area of Potential Effect (APE), within which the direct and indirect impacts of the proposed Project may have an effect on cultural resources, totals 17.91 acres. The APE is located in Section 1 of Township 4 South, Range 28 East, as depicted on the 1994 Whitmore Hot Springs USGS 7.5-minute topographic map (Mount Diablo Base and Meridian). The anticipated vertical APE for the undertaking is a maximum depth of 5 feet (1.5 meters) for the waste disposal lines, with most ground disturbance at 2 feet (0.6 meter) or less. Native American consultations were conducted with the Native American Heritage Commission and nine tribes in August-September 2019 during the preparation of the cultural resources study.

The Point of Contact for the Town is:

Kim Cooke, Associate Planner
Town of Mammoth Lakes
Community and Economic Development Department
P.O. Box 1609

437 Old Mammoth Road, Suite R
Mammoth Lakes, CA 93546
Telephone: 760-965-3630
Fax: 760-934-8608
Email: kcooke@townofmammothlakes.ca.gov

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request, in writing, consultation with the Town regarding the Mammoth-Yosemite Airport Terminal Area Development Plan. If you choose to request consultation, please designate the tribe's lead contact person along with contact information. If you have any questions, please contact me as shown above.

Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

Enclosures
Project Site Maps

Town of Mammoth Lakes
P.O. Box 1609
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October 11, 2019

Raymond Andrews, THPO
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear THPO Andrews:

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Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

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October 11, 2019

Gerald Howard, Chairperson
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Howard:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

Enclosures
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October 11, 2019

John L. Glazier, Chairperson
Bridgeport Paiute Indian Colony
P.O. Box 37
Bridgeport, CA 93517

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Glazier:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

Enclosures
Project Site Maps

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October 11, 2019

Charlotte Lange, Chairperson
Mono Lake Indian Community
P.O. Box 117
Big Pine, CA 93513

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Lange:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

Enclosures
Project Site Maps

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October 11, 2019

Judy Elaine Bethel-Fink, Chairperson
North Fork Rancheria of Mono Indians
P.O. Box 929
North Fork, CA 93643

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Bethel-Fink:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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Sincerely,

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Town of Mammoth Lakes

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October 11, 2019

William Leonard, Chairperson
Southern Sierra Miwuk Nation
P.O. Box 186
Mariposa, CA 95338

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

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Town of Mammoth Lakes

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October 11, 2019

Michael Mirelez, Chairperson
Torres Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Mirelez:

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Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

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October 11, 2019

Tina Braitewaite, Chairperson
Utu Utu Gwaitu Tribe of the Benton Pauite Reservation
555 Yellow Jacket Road / 25669
Highway 6, PMB 1
Benton, CA 93512

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson Braitewaite:

The Town of Mammoth (Town) is initiating CEQA environmental review of its 2017 Mammoth Yosemite Airport Terminal Area Development Plan (TADP) project. Below please find a description of the project, maps showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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The Town has prepared a Cultural Resources Inventory and Effects Assessment for the project. The Area of Potential Effect (APE), within which the direct and indirect impacts of the proposed Project may have an effect on cultural resources, totals 17.91 acres. The APE is located in Section 1 of Township 4 South, Range 28 East, as depicted on the 1994 Whitmore Hot Springs USGS 7.5-minute topographic map (Mount Diablo Base and Meridian). The anticipated vertical APE for the undertaking is a maximum depth of 5 feet (1.5 meters) for the waste disposal lines, with most ground disturbance at 2 feet (0.6 meter) or less. Native American consultations were conducted with the Native American Heritage Commission and nine tribes in August-September 2019 during the preparation of the cultural resources study.

The Point of Contact for the Town is:

Kim Cooke, Associate Planner
Town of Mammoth Lakes

Community and Economic Development Department
P.O. Box 1609
437 Old Mammoth Road, Suite R
Mammoth Lakes, CA 93546
Telephone: 760-965-3630
Fax: 760-934-8608
Email: kcooke@townofmammothlakes.ca.gov

Pursuant to PRC § 21080.3.1 (b), you have 30 days from the receipt of this letter to request, in writing, consultation with the Town regarding the Mammoth-Yosemite Airport Terminal Area Development Plan. If you choose to request consultation, please designate the tribe's lead contact person along with contact information. If you have any questions, please contact me as shown above.

Sincerely,

Kimberly Cooke
Associate Planner
Town of Mammoth Lakes

Enclosures
Project Site Maps

Town of Mammoth Lakes
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October 11, 2019

Melanie McFalls, Chairperson
Walker River Reservation
P.O. Box 220
Schurz, NV 89427

Subject: Town of Mammoth Lakes, Terminal Area Development Plan Project, Mammoth Yosemite Airport Formal Notification of Agency Decision to Undertake CEQA Environmental Review of the Project, Tribal Consultation Opportunity pursuant to AB 52 (Public Resources Code § 21080.3.1)

Dear Chairperson McFalls:

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APPENDIX E
GROUNDWATER HYDROLOGY TECHNICAL MEMORANDUM

Technical Memorandum for Mammoth Yosemite Airport: Groundwater

Mammoth Yosemite Airport is located in the southwestern portion of the Long Valley Caldera on middle Pleistocene age alluvium deposits composed of unconsolidated stream deposits, glacial outwash, terrace gravels, low-relief alluvial-fan deposits and possible lacustrine deposits. The airport is bounded on the west and north by a basalt flow, on the east by the rhyolite flow of Doe Ridge, and on the south by the Convict Creek glacial deposit. The eastern Sierra front is located about 2.5 miles south of the airport.

Surface outcrops of the basalt flows are located approximately 1,200 feet west of the airport's runway and are likely buried under the western portion of the airport. These basalt flows, which are exposed along Hot Creek, continue north and east to intersect the Hot Creek rhyolite flow named Doe Ridge, approximately 2,600 feet north of the airport. The Doe Ridge, Hot Creek Rhyolite flow is a north trending flow with the present day toe of the ridge 200 to 300 feet north of the east end of the Runway 9-27 (Figure 1).

U.S. Geologic Survey Professional Paper 1812 provides an accurate location of the basalt flow immediately west of the airport and the glacial moraine deposits trending north from Convict Lake. The basalt flow is an important leaky barrier preventing most westward groundwater flow from the airport from reaching the Hot Creek canyon. The glacial moraine deposit is important; it provides much of the shallow permeable material that resulted in the topographic high in the central portion of the airport and contributes to the eastwardly flow of shallow groundwater.

The dominating feature south of the runway is the Convict Creek undivided glacial deposit (moraine). The northerly surface outcrop of this deposit is approximately 1,600 feet south of the runway. Exposures of late Pleistocene age glacial outwash from Convict Creek are reported as thick as 33 feet in quarries north and west of the airport; thus confirming their presence under the airport.

The Hilton Creek Fault trace runs from the east end of the runway northwest through a quarry north of the airport as shown in Figure 1. The fault, and its splays which cross eastern portions of the airport property, are normal faults with maximum surface displacement of about 3-feet.

Groundwater Hydrology

For the purposes of this technical memorandum, useful subsurface lithologic data were derived from the following well logs; the location of each well is shown on Figure 1:

- "409 Well" located near the airport's highest topographic point may have drilled as a water supply well but was never used as a water supply; it is abandoned.

- Drinking water wells: Two wells serve as the airport's potable water supply and are located in the eastern portion of the airport.
- Monitoring Wells: Eight shallow (Maximum 60-feet deep) monitoring wells were installed to monitor potential hydrocarbon contamination associated with underground storage tanks; all the monitoring wells are abandoned.
- Sierra Materials Well: Located southwest of airport property near the intersection of Hot Creek Hatcher Road and U.S. Highway 395.
- California Division and Mines Well: Located west of the airport was drilled as part of a geothermal investigation.

409-Well: A 409-foot deep well (409-Well) was drilled on the airport near a topographic high which acts as the surface divide between Hot Creek on the west and Convict Creek on the east. The 409-Well lithologic log indicates that from the existing ground surface to a depth of 150- feet the stratigraphic profile is composed of gravel and thin clay layers. No cobbles or large gravel indicating permeable glacial material is noted; no groundwater was noted above the 150-foot depth

A 120-foot thick clay unit is recorded in the 409-Well's lithologic log from depths of 150-feet to 270–feet. Groundwater is first encountered at 270 feet where the well encountered "soft broken grayish rock". After completing the well, the static water level rose to 63-feet below the existing ground surface indicating artesian conditions where the 120-foot thick clay layer acts as a confining layer. The lack of cobbles and larger gravel, the presence of clay, no shallow water encountered, and the relative proximity to the basalt flow indicates a low potential for shallow groundwater west of the runway. No other subsurface lithologic information is available between the 409-Well and the basalt formation where the buried contact is likely less than 1,000 feet west of the 409-Well.

Drinking Water Wells: Two water supply wells were drilled in the eastern portion of the airport. The wells are about 200-feet apart; each was drilled to a depth of about 143-feet. Based on lithologic logs the two water wells are completed in sand and cobbles deposits with minor clay to depths of about 135 feet. The wells penetrated a clay layer at 135-feet and were completed at a depth of 143, having drilled ten-feet into the clay unit. The depth of the clay unit correlates with the clay unit in the 409-Well and indicates that a clay layer probably underlies the airport and creates a confining layer for groundwater bearing units below 270-feet.

Monitoring Wells: The GAMA Groundwater Information System provided a groundwater investigation report dated 2004 that includes well logs for eight abandoned shallow monitoring wells near the airport terminal. The GAMA report and logs were useful to confirm an eastwardly groundwater gradient in the eastern portion of the airport. Additionally, the logs report of sand and large cobbles to 65 feet provided additional evidence of the presence of glacial moraine deposits.

Sierra Materials Well: The lithologic well log from the Sierra Materials quarry approximately 1,500 feet south of the west end of the airport encountered hard rock, logged as andesite, at 10–feet below the existing round surface. Hard basalt is logged from 35 to 125-feet varying from hard to broken. Because this well is located approximately 1,200 feet east of the mapped basalt contact the possibility of a shallow to moderate dip angle to the east is indicated. A similar dip angle would place the basalt under the airport property and near the 409-Well.

California Department of Mines and Geology Well: Hole #1 of the Mines and Geology, OFR 82-5 report indicates basalt was encountered at 29-feet below the existing ground surface. The first few feet were highly fractured and perched groundwater was encountered at 38- feet. This well is approximately 400 feet west of the basalt contact in alluvial material. The first 28-feet were mostly sand and gravel; the basalt continued to 99-feet below the ground surface. The basalt varied from very hard to broken. Below 99-feet the boring went back into a sand and gravel formation with minor clay. The log notes the "basalt seems to be composed of three or more separate flows". The drill rates increased in these areas indicating more fractured rock. This well confirmed that the basalt flows were deposited on alluvial deposits west of the airport and east of Hot Creek.

CONCULSION

Available lithologic data from on-site and off-site wells indicates that the eastern two-thirds of the Mammoth Yosemite Airport is underlain by permeable sand and gravel terrace deposits, stream gravels, and large 3-4 inch cobbles deposited as the Convict Creek Glacial Moraine. There is likely a continuous clay layer at between 135 and 150-feet below the existing ground surface. This 120-foot thick clay layer act as a confining layer for water bearing units below about 270-feet. When the clay layer is penetrated, the underling units exhibit artesian characteristics, as observed in 409-Well.

Throughout the airport, groundwater in the unconfined upper water bearing units was encountered from 35 to 50 feet below existing ground surface. Currently, only the two water supply wells are available for groundwater measurements; the static water level in these wells has not been monitored. The two wells are in close proximity thus making any potential determinations of accurate flow directions questionable. The only accurate determination of water levels and flow directions were performed on the eight monitoring wells in 2004.

Based on the potentiometer surface measured in the eight monitoring wells, and an interpretation of the lithology from well logs, the local groundwater gradient is likely west to east – towards Convict Creek. The eight monitoring wells are clustered near the terminal building (Figure 3). The monitoring wells were surveyed and water levels

accurately measured. The eastwardly flow direction is considered accurate and conforms to the topography and geology used to determine the easterly groundwater flow. These monitoring wells and the 409 foot well have been abandoned.

The topography and geology of the airport indicate there is a small potential for low flows of groundwater to the west. The basalt semi-confining barrier underlies the west end of the runway and extends over 3,000 feet to near Hot Creek. Any groundwater flow that might reach Hot Creek would be a very low yield having migrated through over 3,000 feet of fractured rock between basalt flows.

References

Eruptive History of Mammoth Mountain and its Mafic Periphery, California
By Wes Hildreth and Judy Fierstein
USGS Professional Paper 1812 2016

California Division of Mines and Geology Open File Report 82-5.
Drill-Hole Logs and Logging Procedures for the Mammoth Lakes-Long Valley Microearthquake Project, Mono County, California 1981

Geologic Map of California, Mariposa Sheet
California Division of Mines and Geology, 1967

State Water Resources Control Board
GeoTracker Mammoth Yosemite Airport (T0605100046)
Monitoring Well Logs and water survey by Team Engineering, Mammoth Lakes

Lithologic Well Logs provided by Town of Mammoth Lakes for the two drinking water wells and the 409 well.

Lithologic Well log for Sierra Materials Quarry, Kile's Well Drilling, 1979