

Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities

Draft
Environmental Impact Report

SCH No. 2020110088

Prepared for:

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TABLE OF CONTENTS

Section	Page
ES	EXECUTIVE SUMMARY ES-1
ES.1	Introduction ES-1
ES.2	Environmental Procedures ES-1
ES.3	EIR Format..... ES-2
ES.4	Type and Purpose of EIR ES-3
ES.5	Project Location ES-3
ES.6	Project Summary..... ES-4
ES.7	Summary of Alternatives to the Project ES-4
	ES.7.1 No Project Alternative..... ES-5
	ES.7.2 Reduced Housing Opportunity Alternative..... ES-5
ES.8	Issues to be Resolved..... ES-5
ES.9	Areas of Controversy ES-6
ES.10	Significant Impacts and Mitigation Measures ES-6
1.0	INTRODUCTION..... 1-1
1.1	Project Background..... 1-1
1.2	Scope and Organization of the EIR 1-1
1.3	Environmental Review Process..... 1-3
	1.3.1 Notice of Preparation..... 1-3
	1.3.2 Draft EIR 1-4
	1.3.3 Public Notice/Public Review of Draft EIR 1-4
	1.3.4 Final EIR..... 1-4
	1.3.5 Notice of Determination 1-5
	1.3.6 Mitigation Monitoring and Reporting Program 1-5
2.0	PROJECT LOCATION AND SETTING..... 2-1
2.1	Project Setting..... 2-1
2.2	Geospatial Methodology for Identification of Subject Parcels..... 2-1
2.3	Project Parcels and Surrounding Land Uses 2-2
	2.3.1 Independence Parcel..... 2-2
	2.3.2 Bishop Parcels 2-4
	2.3.3 Lone Pine Parcels 2-4
2.4	General Plan and Zoning Designations 2-5
	2.4.1 General Plan 2-5
	2.4.2 Zoning..... 2-6
2.5	References 2-7
3.0	PROJECT DESCRIPTION..... 3-1
3.1	Project Overview..... 3-1
3.2	Project Purpose..... 3-2
3.3	Project Objectives 3-2
3.4	Project Description 3-2

TABLE OF CONTENTS (cont.)

<u>Section</u>	<u>Page</u>
3.4.1	Independence Parcel..... 3-3
3.4.2	Bishop Parcels 3-3
3.4.3	Lone Pine Parcels 3-4
3.5	Required Permits and Approvals 3-5
3.5.1	Inyo County 3-5
3.5.2	Other Agency Required Approvals and Intended Uses of the EIR 3-5
3.6	References 3-6
4.0	Environmental Impact Analysis..... 4-1
4.1	Aesthetics..... 4.1-1
4.1.1	Environmental Setting..... 4.1-1
4.1.2	Significance Thresholds 4.1-6
4.1.3	Impact Analysis 4.1-7
4.1.4	Cumulative Impacts..... 4.1-11
4.1.5	References..... 4.1-12
4.2	Agriculture and Forestry Resources..... 4.2-1
4.2.1	Environmental Setting..... 4.2-1
4.2.2	Significance Thresholds 4.2-5
4.2.3	Impact Analysis 4.2-5
4.2.4	Cumulative Impacts..... 4.2-6
4.2.5	References..... 4.2-7
4.3	Air Quality 4.3-1
4.3.1	Environmental Setting..... 4.3-1
4.3.2	Methodology 4.3-9
4.3.3	Significance Thresholds 4.3-11
4.3.4	Impact Analysis 4.3-12
4.3.5	Cumulative Impacts..... 4.3-15
4.3.6	References..... 4.3-16
4.4	Biological Resources 4.4-1
4.4.1	Regulatory Framework..... 4.4-1
4.4.2	Methods 4.4-7
4.4.3	Results: Environmental Setting 4.4-8
4.4.4	Special-Status Species 4.4-13
4.4.5	Significance Thresholds 4.4-29
4.4.6	Impact Analysis 4.4-29
4.4.7	Cumulative Impacts..... 4.4-39
4.4.8	References..... 4.4-40
4.5	Cultural Resources 4.5-1
4.5.1	Environmental Setting..... 4.5-1
4.5.2	Significance Thresholds 4.5-26
4.5.3	Impact Analysis 4.5-27
4.5.4	Cumulative Impacts..... 4.5-30
4.5.5	References..... 4.5-31
4.6	Energy 4.6-1
4.6.1	Environmental Setting..... 4.6-1

TABLE OF CONTENTS (cont.)

<u>Section</u>		<u>Page</u>
	4.6.2	Significance Thresholds..... 4.6-5
	4.6.3	Impact Analysis 4.6-6
	4.6.4	Cumulative Impacts..... 4.6-7
	4.6.5	References..... 4.6-8
4.7		Geology and Soils..... 4.7-1
	4.7.1	Environmental Setting..... 4.7-1
	4.7.2	Significance Thresholds..... 4.7-9
	4.7.3	Impact Analysis 4.7-9
	4.7.4	Cumulative Impacts..... 4.7-13
	4.7.5	References..... 4.7-14
4.8		Greenhouse Gas Emissions 4.8-1
	4.8.1	Environmental Setting..... 4.8-1
	4.8.2	Significance Thresholds..... 4.8-10
	4.8.3	Impact Analysis 4.8-11
	4.8.4	Cumulative Impacts..... 4.8-13
	4.8.5	References..... 4.8-13
4.9		Hazards and Hazardous Materials 4.9-1
	4.9.1	Environmental Setting..... 4.9-1
	4.9.2	Significance Thresholds..... 4.9-8
	4.9.3	Impact Analysis 4.9-9
	4.9.4	Cumulative Impacts..... 4.9-14
	4.9.5	References..... 4.9-14
4.10		Hydrology and Water Quality 4.10-1
	4.10.1	Environmental Setting..... 4.10-1
	4.10.2	Significance Thresholds..... 4.10-12
	4.10.3	Impact Analysis 4.10-13
	4.10.4	Cumulative Impacts..... 4.10-18
	4.10.5	References..... 4.10-18
4.11		Land Use and Planning..... 4.11-1
	4.11.1	Environmental Setting..... 4.11-1
	4.11.2	Significance Thresholds..... 4.11-5
	4.11.3	Impact Analysis 4.11-5
	4.11.4	Cumulative Impacts..... 4.11-6
	4.11.5	References..... 4.11-7
4.12		Mineral Resources 4.12-1
	4.12.1	Environmental Setting..... 4.12-1
	4.12.2	Significance Thresholds..... 4.12-5
	4.12.3	Impact Analysis 4.12-5
	4.12.4	Cumulative Impacts..... 4.12-6
	4.12.5	References..... 4.12-6
4.13		Noise 4.13-1
	4.13.1	Environmental Setting..... 4.13-1
	4.13.2	Significance Thresholds..... 4.13-5
	4.13.3	Impact Analysis 4.13-5
	4.13.4	Cumulative Impacts..... 4.13-8

TABLE OF CONTENTS (cont.)

<u>Section</u>	<u>Page</u>
4.13.5	References..... 4.13-9
4.14	Population and Housing..... 4.14-1
4.14.1	Environmental Setting..... 4.14-1
4.14.2	Significance Thresholds..... 4.14-8
4.14.3	Impact Analysis 4.14-8
4.14.4	Cumulative Impacts..... 4.14-10
4.14.5	References..... 4.14-10
4.15	Public Services..... 4.15-1
4.15.1	Environmental Setting..... 4.15-1
4.15.2	Significance Thresholds..... 4.15-8
4.15.3	Impact Analysis 4.15-8
4.15.4	Cumulative Impacts..... 4.15-9
4.15.5	References..... 4.15-9
4.16	Recreation..... 4.16-1
4.16.1	Environmental Setting..... 4.16-1
4.16.2	Significance Thresholds..... 4.16-6
4.16.3	Impact Analysis 4.16-6
4.16.4	Cumulative Impacts..... 4.16-7
4.16.5	References..... 4.16-8
4.17	Transportation 4.17-1
4.17.1	Environmental Setting..... 4.17-1
4.17.2	Significance Thresholds..... 4.17-7
4.17.3	Impact Analysis 4.17-7
4.17.4	Cumulative Impacts..... 4.17-11
4.17.5	References..... 4.17-11
4.18	Tribal Cultural Resources 4.18-1
4.18.1	Environmental Setting..... 4.18-1
4.18.2	Significance Thresholds..... 4.18-5
4.18.3	Impact Analysis 4.18-6
4.18.4	Cumulative Impacts..... 4.18-7
4.18.5	References..... 4.18-8
4.19	Utilities and Service Systems 4.19-1
4.19.1	Environmental Setting..... 4.19-1
4.19.2	Significance Thresholds..... 4.19-10
4.19.3	Impact Analysis 4.19-10
4.19.4	Cumulative Impacts..... 4.19-13
4.19.5	References..... 4.19-14
4.20	Wildfire 4.20-1
4.20.1	Environmental Setting..... 4.20-1
4.20.2	Significance Thresholds..... 4.20-7
4.20.3	Impact Analysis 4.20-7
4.20.4	Cumulative Impacts..... 4.20-12
4.20.5	References..... 4.20-12

TABLE OF CONTENTS (cont.)

<u>Section</u>	<u>Page</u>
5.0 PROJECT ALTERNATIVES	5-1
5.1 Rationale for Alternative Selection	5-1
5.2 Project Objectives and Significant Impacts	5-2
5.3 Alternatives Analysis	5-2
5.3.1 No Project Alternative	5-2
5.3.2 Reduced Housing Opportunity Alternative	5-5
5.3.3 Assumptions and Methodology	5-5
5.4 Comparative Impact Analysis	5-6
5.4.1 No Project Alternative	5-6
5.4.2 Reduced Housing Opportunity Alternative	5-13
5.5 Environmentally Superior Alternative	5-20
5.6 References	5-20
6.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES	6-1
6.1 Land Use Changes that Commit Future Generations	6-1
6.2 Irreversible Damage from Environmental Accidents	6-1
6.3 Large Commitment of Non-Renewable Resources	6-1
7.0 GROWTH INDUCEMENT	7-1
7.1 Growth Inducing Impacts	7-2
7.1.1 Additional Housing Growth	7-2
7.1.2 Additional Economic Growth	7-2
8.0 SIGNIFICANT UNAVOIDABLE IMPACTS	8-1
8.1 Background	8-1
8.2 Project Significant and Unavoidable Impacts	8-1
9.0 LIST OF PREPARERS	9-1

LIST OF TABLES

<u>No.</u>	<u>Title</u>	<u>Page</u>
2-1	Existing and Proposed Land Uses for Project Parcels	2-3
4-1	Inyo County Cumulative Projects List	4-4
4.3-1	Summary of Common Sources and Human Health Effects of Criteria Air Pollutants	4.3-2
4.3-2	Ambient Air Quality Standards	4.3-3
4.3-3	Great Basin Valleys Air Basin Attainment Status	4.3-5
4.3-4	Air Quality Monitoring Data	4.3-8
4.3-5	Construction Equipment Assumptions	4.3-10
4.3-6	Air Pollutant Significance Thresholds	4.3-12
4.3-7	Construction Criteria Pollutant and Precursor Emissions	4.3-13

TABLE OF CONTENTS (cont.)

No.	Title	Page
4.3-8	Operational Criteria Pollutant and Precursor Emissions	4.3-14
4.4-1	Biological Mitigation Measure Requirements by Parcel	4.4-39
4.5-1	Area of Potential Effects.....	4.5-21
4.5-2	Previous Studies Conducted within 0.25 Mile of the APEs	4.5-22
4.5-3	Previously Recorded Cultural Resources within 0.25 Mile of the APEs.....	4.5-23
4.6-1	Construction Energy Use	4.6-6
4.6-2	Operational Net Energy Use	4.6-7
4.7-1	Local Active and Potentially Active Fault Seismicity in Inyo County	4.7-7
4.7-2	Soil Types	4.7-7
4.8-1	Global Warming Potentials and Atmospheric Lifetimes.....	4.8-3
4.8-2	California GHG Emissions by Sector	4.8-9
4.8-3	Construction GHG Emissions	4.8-12
4.8-4	Operational GHG Emissions.....	4.8-12
4.9-1	Distance from Nearest School	4.9-11
4.9-2	Distance from Nearest Airport	4.9-12
4.13-1	2020 Traffic Noise Levels along US 395	4.13-4
4.13-2	Distance from Nearest Airport	4.13-8
4.14-1	Regional Housing Needs (2019 – 2029) – Unincorporated Inyo County	4.14-2
4.14-2	Inyo County Population (1960 – 2020).....	4.14-5
4.14-3	2019 Populations of Census Designated Areas in Inyo County	4.14-5
4.14-4	Inyo County 2019 Housing Units	4.14-6
4.14-5	Inyo County 2019 Housing Units by Type.....	4.14-7
4.14-6	Age of Inyo County Housing Stock.....	4.14-7
4.14-7	Inyo County Employment Characteristics	4.14-8
4.15-1	School Districts in Inyo County	4.15-7
4.16-1	Inyo County Parks	4.16-4
4.19-1	Inyo County Landfills	4.19-9
5-1	Comparison of Project Alternatives.....	5-5

LIST OF APPENDICES

- A Figures
- B Notice of Preparation and Scoping Report
- C Mitigation Monitoring and Reporting Program
- D CalEEMod Output
- E Special-Status Species Lists
- F Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT
- G Native American Consultation and Outreach

ACRONYMS AND ABBREVIATIONS

A	Agriculture
AAQS	Ambient air quality standards
AB	Assembly Bill
ABAG	Associate of Bay Area Governments
ACS	American Communities Survey
ADA	Americans with Disabilities Act
ADOE	Archaeological Determinations of Eligibility
ADT	Average Daily Traffic
ADU	Accessory Dwelling Unit
AF	Acre-feet
AFY	Acre-feet per year
AH	Airport Hazard
amsl	Above mean sea level
APE	Area of Potential Effect
APN	Accessor's Parcel Number
APS	Alternative Planning Strategy
ARPA	Archaeological Resources Protection Act
BCMM	Basic Construction Mitigation Measure
BDU	CAL FIRE San Bernardino/Inyo/Mono Unit
BERD	Built Environment Resources Directory
BLM	Bureau of Land Management
BMP	Best Management Practice
BPPT	Big Pine Paiute Tribe of the Owens Valley
BTU	British Thermal Units
°C	Celsius
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Cal-IPC	California Invasive Plant Council
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALFish	California Fish Website
CalOES	California Governor's Office of Emergency Services
Cal/OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CB	Central Business
CBC	California Building Code
CBD	Central Business District

ACRONYMS AND ABBREVIATIONS (cont.)

CBIA	California Building Industry Association
CBSC	California Building Standards Code
CCR	California Code of Regulations
CDFA	California Department of Food and Agriculture
CDFW	California Department of Fish and Wildlife
CDP	Census-designated place
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	Methane
CHL	California Historic Landmark
CHP	California Highway Patrol
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide Equivalent
County	Inyo County
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CTC	County Transportation Commission
CTP	California Transportation Plan
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWPP	Community Wildfire Protection Plan
dB	Decibel
dBA	Decibel with A-weighting
DOD	U.S. Department of Defense
DPM	Diesel particulate matter
DPR	Department of Parks and Recreation
DTSC	Department of Toxic Substances Control
DU/ac	Dwelling unit/ acre
DWR	California Department of Water Resources
EDR	Environmental Data Resources
EHSD	Environmental Health Services Department

ACRONYMS AND ABBREVIATIONS (cont.)

EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
ESTA	Eastern Sierra Transit Authority
°F	Fahrenheit
FAA	Federal Aviation Administration
FAR	Floor-area-ratio
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FERC	Federal Energy Regulatory Commission
FHSZ	Fire Hazard Severity Zone
FLPMA	Federal Land Policy and Management Act
FMMP	Farmland Mapping and Monitoring Program
FPD	Fire Protection District
FPPA	Farmland Protection Policy Act
FRA	Federal Responsibility Area
FTA	Federal Transit Administration
GBUACPD	Great Basin Unified Air Pollution Control District
GHG	Greenhouse Gas
GSA	Groundwater Sustainability Agencies
GSP	Groundwater Sustainability Plans
GWh	gigawatt hours
GWP	Global Warming Potential
H ₂ S	Hydrogen sulfide
HCD	Housing and Community Development
HFC	Hydrofluorocarbon
HMAP	Hazardous Materials Area Plan
HMBEP	Hazardous Materials Business Emergency Plans
HVAC	Heating, ventilation, and air conditioning
ICC	Inyo County Code
ICIWMD	Inyo County Integrated Waste Management Department
ICSD	Inyo County Sheriff's Department
IPAC	Information for Planning and Consultation
IPCC	United Nations Intergovernmental Panel on Climate Change
IBC	International Building Code
IWM	Inyo Waste Management
JESD	Joint Elementary School District
LADWP	Los Angeles Department of Water and Power

ACRONYMS AND ABBREVIATIONS (cont.)

LCFS	Low Carbon Fuel Standard
LID	Low Impact Development
LORP	Lower Owens River Recreation Use Plan
LOS	Level of Service
LPA	Local Primacy Agency
LRA	Local Responsibility Area
LRMP	Land and Resource Management Plan
LRWQCB	Lahontan Regional Water Quality Control Board
M-2	Light Industrial
MBTA	Migratory Bird Treaty Act
MBtu	Million British Thermal Unit
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
Mg/L	Milligrams per liter
MLD	Most Likely Descendant
MM	Mitigation Measure
MMRP	Mitigation Monitoring and Reporting Program
MMT	Million metric tons
MOU	Memorandum of Understanding
Mpa	Micro-Pascals
mpg	Miles per gallon
mph	Miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MT	Metric tons
MTC	Metropolitan Transportation Commission
MW	Megawatt
MWh	Megawatt hour
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NAWS	Naval Air Weapons Station
NCCP	Natural Community Conservation Plan
NCIC	Eastern Information Center
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NO ₂	Nitrogen dioxide
NOA	Notice of Availability
NOAA	National Oceanic and Atmospheric Administration

ACRONYMS AND ABBREVIATIONS (cont.)

NOC	Notice of Completion
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NO _x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU	Noise-sensitive land use
NWPR	Navigable Waters Protection Rule
O ₃	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OHWM	Ordinary High-Water Mark
OS	Open Space
OSHA	Occupational Safety and Health Administration
OVGA	Owen's Valley Groundwater Authority
OVLMP	Owens Valley Land Management Plan
P	Public
Pb	Lead
PF	Public Service Facilities
PFC	Perfluorocarbon
PG&E	Pacific Gas & Electric
PM	Particulate Matter
PM ₁₀	Coarse PM, 10 micrometers or less in diameter
PM _{2.5}	Fine PM, 2.5 micrometers or less in diameter
PP	Precise Plan
PPB	Parts Per Billion
PPM	Parts Per Million
PPV	Peak particle velocity
PRC	Public Resources Code
PWWS	Public Works Water Systems
R-1	Single Family Residential
R-2	Duplex
R-3	Multiple Family Residential
RC	Retail Commercial
RCNM	Roadway Construction Noise Model
RCRA	Resource Conservation and Recovery Act
REGPA	Renewable Energy General Plan Amendment
RH	Residential High Density
RHNA	Regional Housing Needs Assessment

ACRONYMS AND ABBREVIATIONS (cont.)

RM	Residential Medium Density
RMH	Residential Medium-High Density
ROG	Reactive organic gas
ROW	Right-of-Way
RPS	Renewables Portfolio Standard
RR	Residential Ranch
RR-1.0	Rural Residential
RWQCB	Regional Water Quality Control Board
RTP	Regional Transportation Plan
SAFE	Safer Affordable Fuel-Efficient
SAR	Second Assessment Report
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SO ₂	Sulfur dioxide
SF ₆	Sulfur Hexafluoride
SGMA	Sustainable Groundwater Management Act
SHPO	State Historic Preservation Offices
SLF	Sacred Lands File
SMARA	Surface Mining and Reclamation Act of 1975
SPL	Sound pressure level
SR	State Route
SRA	State Responsibility Area
SSC	Species of Special Concern
STIP	State Transportation Improvement Program
SWAMP	State Surface Water Ambient Monitoring Program
SWIS	Solid Waste Information System
SWMP	Stormwater Management Plan
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TCR	Tribal Cultural Resource
TDM	Transportation Demand Management
TDS	Total Dissolved Solids
THPO	Tribal Historic Preservation Officer
TIS	Transportation Impact Study
TMDL	Total Maximum Daily Load
TNM	Traffic Noise Model
UBC	Uniform Building Code

ACRONYMS AND ABBREVIATIONS (cont.)

UNFCCC	United Nations Framework Convention on Climate Change
US	United States
USACE	US Army Corps of Engineers
USC	United States Code
USEPA	US Environmental Protection Agency
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
USGS	US Geological Survey
UWMP	Urban Water Management Plan
VdB	Velocity decibels
VHFHSZ	Very high fire hazard severity zone
VMT	Vehicle miles traveled
VOC	Volatile organic compounds
WUI	Wildland-Urban Interface
WM	Water Management
WQC	Water Quality Certification
WRCC	Western Regional Climate Center

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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This summary presents an overview of the proposed Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities Project, herein referred to as “project” or “proposed project”. This section also summarizes the alternatives to the proposed project, identifies issues to be resolved, areas of controversy, and conclusions of the analysis contained in Sections 4.1 through 4.20, of this Environmental Impact Report (EIR). For a complete description of the proposed project, please see Section 3.0, Project Description, of this EIR. For a discussion of Project Alternatives, please see Section 5.0, Project Alternatives.

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

This EIR has been prepared pursuant to the requirements of CEQA and the CEQA Guidelines to determine if project approval could have a significant impact on the environment. Inyo County, as the Lead Agency, has reviewed and revised as necessary submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable County technical personnel and review of all technical reports. Information for this EIR was obtained from on-site field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data, and similar literature in the public domain; and specialized environmental assessments (e.g., air quality, biological resources, cultural resources, greenhouse gas emissions, hydrology, noise, transportation, and water supply).

ES.2 ENVIRONMENTAL PROCEDURES

This EIR has been prepared to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. The main objectives of this document as established by CEQA Section 15002(a) are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities.
- Identify the ways that environmental damage can be avoided or significantly reduced.
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

An EIR is the most comprehensive form of environmental documentation identified in the CEQA statute and in the CEQA Guidelines. It provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts. An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts, if any, and alternatives, and adopt a Statement of Overriding Considerations if the proposed project would result in significant impacts that cannot be avoided.

ES.3 EIR FORMAT

This EIR is organized into the following chapters:

- **Executive Summary:** Consistent with Section 15123 of the CEQA Guidelines, this section provides a brief summary of the proposed project and identifies environmental impacts and mitigation measures in a summary matrix.
- **Section 1.0 – Introduction:** This section presents an overview of the overall project background, describes the intended use of the EIR (CEQA Guidelines Section 15124(d)), as well as the environmental review process.
- **Section 2.0 – Project Location and Setting:** This section includes a description of the physical environmental conditions in the vicinity of the project site as they existed at the time the NOP was published, and which have been updated based on current conditions during preparation of this EIR, consistent with Section 15125 of the CEQA Guidelines.
- **Section 3.0 – Project Description:** This section provides a detailed description of the proposed project characteristics and objectives as well as the required discretionary approvals consistent with Section 15124 of the CEQA Guidelines.
- **Section 4.0 – Environmental Impact Analysis:** This section contains a comprehensive analysis of impacts to each environmental factor evaluated in this EIR, the appropriate, feasible measures to minimize or mitigate those impacts consistent with Section 15126.4 of the CEQA Guidelines, and evaluates cumulative impacts resulting from the combination of the proposed project together with other projects causing related impacts consistent with Section 15130 of the CEQA Guidelines.
- **Section 5.0 – Project Alternatives:** Consistent with Section 15126.6 of the CEQA Guidelines, this section evaluates 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. Alternatives other than the proposed project evaluated in this document include: (1) the No Project Alternative in which the proposed project would not be implemented; (2) Reduced Housing Opportunity Alternative in

which the project would eliminate the Independence (Mazourka Canyon) parcel and the General Plan land use designation and zoning of the Independence Parcel would not be amended.

- **Section 6.0 – Significant Irreversible Environmental Changes:** Consistent with Section 15126.2(d) of the CEQA Guidelines, this section outlines the significant irreversible changes anticipated to occur as a result of the project.
- **Section 7.0 – Growth Inducement:** Consistent with Section 15126.2(e) of the CEQA Guidelines, this section describes potential growth-inducing impacts associated with the proposed project.
- **Section 8.0 – Significant and Unavoidable Impacts:** Consistent with Section 15126.2(c) of the CEQA Guidelines, this section describes any significant impacts identified, including those which can be mitigated but not reduced to a level of insignificance.
- **Section 9.0 – List of Preparers:** This section lists all authors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation.

ES.4 TYPE AND PURPOSE OF THIS EIR

This EIR has been prepared in accordance with the CEQA Guidelines and Inyo County as the Lead Agency. This EIR assesses potential environmental consequences of implementing the proposed project and identifies mitigation measures and alternatives to the proposed project that would avoid or reduce significant impacts where necessary. This EIR is intended to inform County decision makers, other responsible agencies, and the general public as to the nature of the proposed project’s potential environmental impacts.

ES.5 PROJECT LOCATION

The proposed project is comprised of eight (8) parcels being evaluated for General Plan and zoning amendments. Of the eight project parcels, one is located in the community of Independence; three are located adjacent to and outside the City of Bishop city limits; and four parcels are located in the community of Lone Pine. The project parcels range in size from 0.2 acre up to 16.9 acres, and the combined acreage of the eight project parcels is 32.0 acres.

The undeveloped Independence parcel is 16.9 acres and located in the community of Independence in western Inyo County along Mazourka Canyon Road, east of Edwards Street. The project parcel is identified as Assessor’s Parcel Number (APN): 002-160-08. The project parcel lies in Section 17 of Township 13S of the US Geological Survey (USGS) 7.5-minute “Independence, California” quadrangle map.

The undeveloped Bishop parcels are 14.3 acres combined and located adjacent but outside the City of Bishop city limits in northwestern Inyo County. The three Bishop parcels are identified by the following APNs: 008-240-01; 008-240-02; and 008-190-01. Two of the Bishop parcels (APNs 008-240-01 and -02) are adjacent to the south and west of the City of Bishop city limits, southwest of the intersection of S. Main Street (also US 395) and Jay Street, and the other Bishop parcel (APN 008-190-01) is adjacent to the south and east of the City of Bishop city limits, southeast of the intersection of E. South Street and S. 3rd Street. The project parcels lie in Section 7 of Township 7S of the USGS 7.5-minute “Bishop, California” quadrangle map.

The Lone Pine parcels are 0.8 acres combined and are located in the community of Lone Pine in western Inyo County, north of E. Mountain View Street and between N. Hay Street and N. Lone Pine Avenue. The four Lone Pine parcels are located adjacent to each other and identified by the following APNs: 005-072-06; 005-072-07; 005-072-24; and, 005-072-30. These parcels are developed and used as a County road yard, but residential land uses surround the four project parcels to the north, south, east, and west. The project parcels lie in Section 28 of Township 15S of the USGS 7.5-minute “Lone Pine, California” quadrangle map.

ES.6 PROJECT SUMMARY

The County proposed to amend the General Plan land use designation and zoning for eight (8) vacant parcels throughout the County to promote increased housing opportunities. The County conducted a vacant lands inventory and public outreach campaign, and zoning review to identify lands that may be appropriate for General Plan land use and zoning changes to promote housing opportunities, primarily by increasing allowable residential density. The proposed project would allow for a combined maximum of 492 residential Dwelling Units (DUs) on the eight project parcels proposed for General Plan land use designation and zoning changes.

The Independence Parcel (APN 002-160-08) is proposed for a General Plan land use designation change and includes a zoning amendment to rezone the parcel from Rural Residential, 1.0 acre minimum (RR-1.0) to Multiple Family residential (R-3). The General Plan land use designation change would allow for a maximum of 128 DUs to be developed. The entire 16.9 acres would be disturbed during site preparation and grading, and any trees on the parcel would be removed.

Two of the Bishop parcels (APNs 008-240-01 and -02) are proposed for a General Plan land use designation change and includes a zoning amendment to rezone these two Bishop parcels from Public (P) and Light Industrial - Precise Plan Overlay (M2-PP) to Central Business (CB). One Bishop parcel (APN 008-190-01) is proposed for a General Plan land use designation change and includes a zoning amendment to rezone the one Bishop parcel from Single-Family Residential (R-1) to R-3. Combined, the three Bishop parcels would allow for a total of 344 DUs to be developed. The entire 14.3 acres would be disturbed during site preparation and grading, and any trees on the parcel would be removed.

Four Lone Pine parcels (APNs 005-072-06; 005-072-07; 005-072-24; and 005-072-30) are proposed for a General Plan land use designation change and includes a zoning amendment to rezone the parcels from P and Duplex (R-2) to R-3. Combined, the four Lone Pine Parcels would allow for a maximum of approximately 20 DUs to be developed. The entire 0.8-acre area would be disturbed, and any trees on the parcel would be removed.

Per Section 15124 of the CEQA Guidelines, the following objectives for the proposed project were identified by the county:

- Provide for increased housing opportunities in Inyo County by processing General Plan land use designation and zoning changes for select parcels within existing and established communities to allow for residential or higher density residential uses;
- Focus future housing opportunities to vacant land located adjacent to existing public transit stops and public utilities and services;

- Minimize direct and indirect impact from increased housing opportunities on the physical, biological, cultural, political, and socioeconomic environments; and
- Identify zone changes to be consistent with General Plan land use designations to maximize density.

ES.7 SUMMARY OF ALTERNATIVES TO THE PROJECT

ES.7.1 No Project Alternative

Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, under the No Project Alternative, eight vacant project parcels would be developed to the maximum extent allowable under the existing land use. The Independence Parcel would allow for one single-family dwelling on the entire 16.9 acre parcel, with the remainder of the parcel used for orchards, vegetable and field crops, nurseries, and gardens. One Bishop Parcel (APN 008-240-01) would allow for one public building up to 0.9 FAR and ancillary infrastructure on the entire 5.8 acre parcel. One Bishop Parcel (APN 008-240-02) would allow for development of agriculturally oriented service up to 0.25 FAR and ancillary infrastructure on the entire 3.3 acre parcel. One Bishop Parcel (APN 008-190-01) would allow for one single-family dwelling on a lot, including single-family mobile homes subject to the requirements of Section 18.78.350 of the County's code, and garden or orchard field crops where no building is involved as principal permitted uses, on the entire 5.2 acre parcel. Three of the Lone Pine parcels (APNs 005-072-07, 005-072-24, and 005-072-30) would allow for one public building up to 0.9 FAR and ancillary infrastructure on the combined 0.6 acre parcels. The 0.2 acre Lone Pine Parcel (APN 005-072-06) would allow for one single-family dwelling on a lot or two separate single-family dwellings (including single-family mobile homes subject to the requirements of Section 18.78.350 of the County's code), duplex (including two-family mobile homes subject to the requirements of Section 18.78.350), and garden, orchard, field crop where no building is involved as principal permitted uses.

ES.7.2 Reduced Housing Opportunity Alternative

Under the Reduced Housing Opportunity Alternative, the project would eliminate the Independence (Mazourka Canyon) parcel, proposing General Plan land use designation and zoning changes to seven project parcels located within the community of Lone Pine and adjacent to and outside the City of Bishop city limits. The General Plan land use designation and zoning of the Independence Parcel would not be amended, and the parcel would remain vacant. The seven remaining project parcels range in size from 0.2-acre up to 5.8 acres, for a combined total of 15.1 acres under this alternative. The Reduced Housing Opportunity Alternative would allow for a combined maximum of 364 dwelling units (DU) on the seven project parcels proposed for General Plan land use designation and zoning changes. With an average household size of 2.18 persons per household in Inyo County (US Census 2019), this alternative would provide additional housing to accommodate approximately 794 persons (US Census 2019).

ES.8 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines require that an EIR identify issues to be resolved, including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by Inyo County, as Lead Agency, related to:

- Whether this Draft EIR adequately describes the environmental impacts of the proposed project.
- Whether the project is compatible with the character of the existing area.
- Whether the identified mitigation measures should be adopted or modified.
- Whether there are other mitigation measures that should be applied to the proposed project besides those identified in the Draft EIR.
- Whether there are any alternatives to the proposed project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic objectives.

ES.9 AREAS OF CONTROVERSY

Inyo County issued a Notice of Preparation (NOP) for the Draft EIR on November 5, 2020 and held a virtual public scoping meeting on Wednesday November 18, 2020 to receive agency and public comments. The scoping period for this EIR started on November 5, 2020 and ended on December 4, 2020, during which time responsible agencies and interested members of the public were invited to submit comments as to the scope and content of the Draft EIR. The comments received focused primarily on transportation. Comments received during the public scoping meeting are included in Appendix A of this EIR.

To the extent that these issues have environmental impacts and to the extent that analysis is required under CEQA, they are addressed in Sections 4.0 through 8.0 of this EIR.

ES.10 SIGNIFICANT IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant impact on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the proposed project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance.

The proposed project has the potential to generate significant environmental impacts in a few areas. Table ES-1 summarizes the conclusions of the environmental analysis contained in this EIR and presents a summary of impacts and mitigation measures identified. It is organized to correspond with the environmental issues discussed in Sections 4.1 through 4.20. The table is arranged in four columns: 1) environmental impacts, 2) significance prior to mitigation, 3) mitigation measures, and 4) significance after mitigation. For a complete description of potential impacts, please refer to the specific discussions in Sections 4.1 through 4.20.

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Aesthetics			
AES-1: The proposed project would have a substantial adverse effect on a scenic vista.	Less than significant	N/A	N/A
AES-2: The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.	Less than significant	N/A	N/A
AES-3: The proposed project would degrade the existing visual character or quality of public views (public views are those that are experienced from publicly accessible vantage point) of the site and its surroundings in a non-urbanized area.	Less than significant	N/A	N/A
AES-4: The proposed project would not expose people on- or off-site to substantial light or glare which would adversely affect day or nighttime views in the area.	Less than significant	N/A	N/A
AES-5: The proposed project would not result in a significant cumulative impact with respect to aesthetics.	Less than significant	N/A	N/A
Agriculture and Forestry Resources			
AG-1: The proposed project would not convert Important Farmland to non-agricultural use.	No Impact	N/A	N/A
AG-2: The proposed project would not conflict with existing zoning for agricultural use or a Williamson Act Contract.	Less than significant	N/A	N/A
AG-3: The proposed project would not conflict with existing zoning of forest land, timberland, or timberland zoned for Timber Production.	No Impact	N/A	N/A

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
AG-4: The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.	No Impact	N/A	N/A
AG-5: The proposed project would not result in a significant cumulative impact with respect to agriculture and forestry resources.	No Impact	N/A	N/A
Air Quality			
AQ-1: The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.	Less than significant	N/A	N/A
AQ-2: The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.	Less than significant	N/A	N/A
AQ-3: The proposed project would not expose sensitive receptors to substantial pollutant concentrations.	Less than significant	N/A	N/A
AQ-4: The proposed project would not result in substantial emissions of odors adversely affecting a substantial number of people.	Less than significant	N/A	N/A
AQ-5: The proposed project would not contribute to a cumulatively considerable impact on regional air quality.	Less than significant	N/A	N/A
Biological Resources			
BIO-1: The proposed project may result in a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially significant	<p>BIO-1: Rare Plant Surveys</p> <p>BIO-1: Floristically appropriate botanical surveys shall be conducted to determine the presence or absence of special-status plant species on the proposed Independence project parcel prior to commencement of construction. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the blooming period of regionally occurring special-status plant</p>	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>species (generally March through August, with a peak in April and May). Surveys shall be conducted to determine the status of these species in the project parcel. If special-status plants are not found during the focused surveys, then no further action is required.</p> <ul style="list-style-type: none"> • If special-status plants are documented on the parcel, a report shall be submitted to CNDDDB to document the status of the species on the parcel. If the project is designed to avoid impacts to special-status plant individuals and habitat, no further mitigation for these species would be necessary. • If special-status plants are documented on the parcel and project impacts to these species are anticipated, consultation with CDFW shall be conducted to develop a mitigation strategy. The proponent shall notify CDFW, providing a complete description of the location, size, and condition of the occurrence, and the extent of proposed direct and indirect impacts to it. The project proponent shall comply with any mitigation requirements imposed by CDFW. Mitigation requirements could include but are not limited to, development of a plan to relocate the special-status plants (seed) to a suitable location outside of the impact area and monitoring the relocated population to demonstrate transplant success or preservation of this species or its habitat at an on or offsite location. <p>BIO-2: Owens Valley Vole Surveys</p> <p>BIO-2: Owens Valley vole have the potential to burrow and forage within all of the proposed Bishop parcels. The following mitigation shall be implemented for Owens Valley vole:</p>	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<ul style="list-style-type: none"> • Prior to construction at all Bishop parcels, small mammal trapping shall be conducted in order to assess the presence/absence of Owens Valley vole. Traps are to be opened only at night for 3 nights and set up along a standard 100 X 100-m grid with traps at 10-m intervals. Large (7.6 X 8.9 X 22.cm) Sherman live-traps shall be used and baited with plain rolled oats and peanut butter. All captured animals are to be identified to species, sexed, measured, marked, and released. Surveys of Owens Valley vole sign (burrowing, feces, grass clippings, grazing, and runways) shall also be used to obtain additional information on Owens Valley vole distribution. Sign that may have been attributable to other small mammal species (i.e. burrows and grazing) shall only be considered if associated with sign distinctly characteristic of Owens Valley vole activity (i.e. runways and feces). Owens Valley vole fecal pellets were readily distinguishable from those of other small mammal species by their large size, crescent shape, and coarse texture. If Owens Valley vole are not found during the focused surveys, then a letter report should be prepared to document the survey, and no additional measures are recommended. • If Owens Valley vole are present on or within 100 feet of the proposed project footprint, then avoidance and mitigation measures, such as relocation, shall be developed in coordination with CDFW. <p>BIO-3: Special-Status Fish Avoidance Measures</p> <p>BIO-3: Owens sucker and Owens speckled dace have the potential to occur in the drainage ditches on the three Bishop parcels or from the project vicinity downstream to the Bishop Creek Canal.</p>	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>The following mitigation shall be implemented for these special-status fish species:</p> <ul style="list-style-type: none"> •Measures to Reduce Impacts to Water Quality <ul style="list-style-type: none"> • Activities conducted in or near Bishop Creek Canal and the active drainage ditches shall be limited to the winter months (generally November – March) when flows are lowest. • All disturbed soils shall undergo erosion control treatment prior to October 15 and/ or immediately after construction is terminated. Erosion control blankets shall be installed on any disturbed soils on a 2:1 slope or steeper. • Standard construction BMPs shall be implemented throughout construction to avoid and minimize adverse effects to water quality within Bishop Creek Canal and the active drainage ditches in and adjacent to the project site. Appropriate erosion control measures shall be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from the project site. The integrity and effectiveness of the BMPs shall be inspected daily. Corrective actions and repairs shall be carried out immediately. • No construction shall occur within the wetted portion of waterways, including access by construction equipment or personnel. If work in the wetted portion of waterways is unavoidable, the work area shall be dewatered and the flow diverted around the work area. The flow shall be diverted only once the construction of the diversion is completed. • Construction activities and ground disturbance within the waterways in the project site shall be confined to the minimal area necessary to facilitate construction 	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>activities. To ensure that construction equipment and personnel do not affect sensitive aquatic habitat in Bishop Creek Canal and the active drainage ditches up and downstream of the project site, orange barrier fencing shall be erected to clearly define the habitat to be avoided. This shall delineate the Environmentally Sensitive Area (ESA) on the project. The integrity and effectiveness of ESA fencing shall be inspected daily. Corrective actions and repairs shall be carried out immediately for fence breaches.</p> <ul style="list-style-type: none"> • Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials shall not be allowed to enter streams or other waters. A plan for the emergency clean-up of any spills of fuel or other materials shall be available when construction equipment is in use. • Construction vehicles and equipment shall be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Leaking vehicles and equipment shall be removed from the site. • Equipment shall be re-fueled, washed, and serviced at the designated construction staging area or off-site. All construction and fill materials shall be stored and contained in a designated area that is located away from Bishop Creek Canal and the active drainage ditches to prevent transport of materials into these waterways. Equipment maintenance and storage, and materials storage shall be 100 feet or more away from waterways. In addition, a silt fence shall be installed around the staging and materials storage areas to collect any discharge, and adequate materials should be available for spill clean-up and during storm events. • No litter, debris, or sidecast shall be dumped or permitted to enter Bishop Creek Canal and the active 	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>drainage ditches. Trash and debris shall be removed from the site regularly. Following construction, all trash and construction debris shall be removed from work areas.</p> <ul style="list-style-type: none"> • Building materials storage areas containing hazardous or potentially toxic materials such as herbicides and petroleum products shall be located outside of the 100-year flood zone, have an impermeable membrane between the ground and the hazardous material, and shall be bermed to prevent the discharge of pollutants to ground water and runoff water. • Worker education and awareness training regarding sensitive habitats (e.g., aquatic and riparian habitats) and special-status species shall be conducted for all construction personnel. The contractor will ensure that all new personnel shall receive the mandatory training before starting work. <p>•Fish Salvage Measures</p> <ul style="list-style-type: none"> • If dewatering is required, the contractor shall prepare a creek dewatering plan that complies with all applicable permit conditions. Water diversion activities shall be conducted under the supervision of a qualified biologist. The biologist shall survey the area to be dewatered immediately after installation of the dewatering device and prior to the continuation of dewatering activities. The approved biologist shall use a net to capture trapped fish present in the area to be dewatered. Captured native organisms shall be released into the creek/ditch up or downstream of the construction zone. • If dewatering the work area in the creek is necessary, and it would be dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters to prevent fish from entering the pump 	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the soil substrate.</p> <p>BIO-4: Swainson’s Hawk Surveys</p> <p>BIO-4: Pre-construction surveys shall be conducted to determine if there are nesting Swainson’s hawk within 0.5-mile of all of Bishop parcels. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. Prior to initiation of construction activities during the Swainson’s hawk breeding season (March 1 through September 15), the applicant shall determine the presence of active Swainson’s hawk nests in and within 0.5 mile of the Bishop parcels using the most recent published survey protocols (i.e., 3 surveys by a qualified biologist in each of the two periods preceding the construction start date; SHTAC 2000). If an active Swainson’s hawk nest is discovered, the applicant shall initiate consultation with CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected would depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. If no active nests are discovered, no further action is required.</p> <p>BIO-5: Nesting Bird Surveys</p> <p>BIO-5: If project activities such as vegetation removal activities commence during the avian breeding season (February 1 through August 31), a qualified biologist should conduct a pre-</p>	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>construction nesting bird survey no more than 7 days prior to initiation of project activities. The survey area should include suitable raptor nesting habitat within 500 feet of the project boundary (inaccessible areas outside of the project parcels can be surveyed from the parcel or from public roads using binoculars or spotting scopes). Pre construction surveys are not required in areas where project activities have been continuous since prior to February 1, as determined by a qualified biologist. Areas that have been inactive for more than 14 days during the avian breeding season must be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the following measure should be implemented:</p> <ul style="list-style-type: none"> • A suitable buffer (e.g., 500 feet for Cooper’s hawk and white-tailed kite; 300 feet for common raptors; 100 feet for non-raptors) should be established by a qualified biologist around active nests and no construction activities within the buffer should be allowed until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer should be monitored by a qualified biologist to determine whether nesting birds are being impacted. 	
BIO-2: The proposed project may result in a substantial adverse effect on a sensitive natural community.	Potentially significant	See MM BIO-6	Less than significant
BIO-3: The proposed project may result in a substantial adverse effect on State or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) or other waters of the U.S. and State	Potentially significant	<p>BIO-6: Jurisdictional Waters</p> <p>BIO-6: Prior to any impacts to any of the Bishop parcels, a formal jurisdictional delineation shall be conducted. The U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board</p>	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
through direct removal, filling, hydrological interruption, or other means.		(RWQCB), and CDFW shall be contacted prior to commencement of any construction activity that would impact jurisdictional waters and permits shall be obtained as required. Impacts to jurisdictional waters shall be mitigated in accordance with agency requirements to ensure no net loss of acreage or value to waters of the U.S. and/or waters of the state. The loss of jurisdictional waters shall be mitigated for at a minimum ratio of 1:1 (i.e., 1 acre created per 1 acre impacted) to ensure no net loss of acreage or value to waters of the U.S. and/or waters of the state, except where exempted by regulation. The 1:1 mitigation must be replaced in-kind. This may be accomplished by purchasing credits in a mitigation bank approved by the USACE, RWQCB, and CDFW, or creation/preservation/or enhancement of waters in the project parcels or off-site reserves.	
BIO-4: The proposed project would not interfere substantially with the movement of native resident wildlife species or with established native resident or migratory wildlife corridors.	Less than significant	N/A	N/A
BIO-5: The proposed project may conflict with local policies or ordinances protecting biological resources.	Less than significant	N/A	N/A
BIO-6: The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.	Less than significant	N/A	N/A
BIO-7: The proposed project would not result in a significant cumulative impact with respect to biological resources.	Potentially significant	See Impact BIO-1 and BIO-3 mitigation measures BIO-1 through BIO-6	Less than significant
Cultural Resource			
CUL-1: The proposed project may cause a substantial change in the significance of a	Potentially significant	CUL-1: Inadvertent Discovery of Cultural Resources	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
historical resource pursuant to Section 15064.5.		<p>CUL-1: In the event that cultural resources are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards shall then be retained to evaluate the resource’s significance under CEQA. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and shall be discussed in consultation with the County.</p> <p>CUL-2: Cultural Resources Investigations</p> <p>CUL-2: Inyo County shall ensure that potentially impacted prehistoric and historic archaeological sites be assessed to determine if they qualify as historical resources as defined in CEQA Guidelines Section 15064.5(a). Per CEQA Guidelines Section 15064.5(c), archaeological sites that fail to qualify as historical resources under CEQA must also be assessed to determine if they qualify as unique archaeological resources as defined in PRC Section 21083.2(g). Impacts to those sites found to be significant, either as historical resources or as unique archaeological resources, shall be mitigated to below the level of significance through a Phase III data recovery program. Resources found to be not significant shall not require mitigation.</p> <p><i>Phase II Evaluations</i></p> <p>One historic-era site (P-14-0013447) and one multicomponent site (P-14-0013447) shall be assessed for significance through the implementation of Phase II investigations prior to the initiation of construction activities in those areas where the sites are located. This may require some or all of the following:</p> <ul style="list-style-type: none"> • Development of a research design that guides assessments of site significance and scientific potential. 	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<ul style="list-style-type: none"> • Mapping and systematic collection of a representative sample of surface artifacts • Subsurface investigation through shovel test pits, surface scrapes, or 1 by 1 meter excavation units; a combination of such methods; or equivalent methods • Analysis of recovered material to determine significance pursuant to the State CEQA Guidelines • Preparation of a report, including an evaluation of site significance, and recommendations for mitigation, if appropriate • Appropriate curation of collected artifacts <p><i>Phase III</i></p> <p>A Phase III data recovery effort, in accordance with CEQA Guidelines, shall be implemented by Inyo County for those sites determined to be significant through Phase II testing and evaluation. Inyo County shall ensure that data recovery conducted to the level that reduces impacts to below the level of significance has been completed prior to project implementation for any area containing a site determined to be significant and for which it can be demonstrated that consequential scientific information can be recovered. The Phase III data recovery program shall include:</p> <ul style="list-style-type: none"> • Development of a comprehensive research design to answer questions addressed during the Phase II on a broader regional level and to provide a procedural framework for the collection of data at sites determined to be significant • Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size • Subsurface investigation through methods, such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When 	

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>applicable, other techniques, such as geophysical testing methods, may also be used</p> <ul style="list-style-type: none"> • Analysis of recovered material through visual inspection and chemical analysis when applicable • Preparation of a report • Appropriate curation of collected artifacts 	
CUL-2: The proposed project may cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5	Potentially significant	See Impacts CUL-1 for MM CUL-1 and CUL-2	Less than significant
CUL-3: The proposed project may disturb human remains, including those interred outside of formal cemeteries	Potentially significant	<p>CUL-3: Human Remains.</p> <p>CUL-3: The discovery of human remains is always a possibility during a project. If such an event did occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, must be followed:</p> <ol style="list-style-type: none"> 1. All excavation activities within 60 feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker to ensure that no additional disturbance occurs. 2. The project owner or their authorized representative will contact the Inyo County Coroner. 3. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours. 4. NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being 	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		granted access to the location of the remains to inspect them and make recommendations for their treatment. Work will be suspended in the area of the find until the County approves the proposed treatment of human remains.	
CUL-6: The proposed project may result in cumulative impacts to cultural resources.	Potentially significant	See Impacts CUL-1 for MM CUL-1 and CUL-2.	Less than significant
Energy			
ENE-1: The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.	Less than significant	N/A	N/A
ENE-2: The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	Less than significant	N/A	N/A
ENE-3: The proposed project would not contribute to significant cumulative impacts on regional energy supplies and sources.	Less than significant	N/A	N/A
Geology and Soils			
GEO-1: The proposed project may directly or indirectly cause potential substantial adverse effects involving rupture of known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction or landslides.	Potentially significant	GEO-1: Site-Specific Geotechnical Investigation. GEO-1: Prior to issuance of a grading permit for each site included in the proposed project, a geotechnical firm with local expertise in geotechnical investigation shall prepare a site-specific geotechnical report. The report shall be prepared by a California-licensed geotechnical engineer or engineering geologist and be submitted to the County building department for approval prior to the issuance of a grading permit. This report shall be based on data collected from subsurface exploration, laboratory testing of samples of surface mapping, and address the potential for surface fault rupture, ground shaking, slope failure, expansive soils, and unstable cut or fill slopes and make recommendations based on those findings. The developer shall implement recommendations identified in the site-specific geotechnical report.	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
GEO-2: The proposed project would not result in substantial soil erosion or loss of topsoil.	Less than significant	N/A	N/A
GEO-3: The project may 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 the on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.	Potentially significant	See GEO-1 for MM GEO-1	Less than significant
GEO-4: The proposed project may be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1194) and would not create substantial direct or indirect risks to life or property.	Less than significant	N/A	N/A
GEO-5: The proposed project would not require the use of septic tanks or an alternative wastewater disposal system.	No Impact	N/A	N/A
GEO-6: The proposed may directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially significant	<p>GEO-2: Avoid and Minimize Impacts to Paleontological Resources.</p> <p>GEO-2: In the event a paleontological or other geologically sensitive resource (such as fossils or fossil formations) are identified during any phase of project construction, all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The paleontologist shall notify the appropriate representative at the County of Inyo who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the County shall implement those measures which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code Section 21083.2.</p>	Less than significant
GEO-7: The proposed project would not result in a significant cumulative impact with respect to geology and soils.	Less than significant	N/A	N/A

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Greenhouse Gas Emissions			
GHG-1: Implementation of the project would not generate GHG emissions that may have a significant impact on the environment.	Less than significant	N/A	N/A
GHG-2: Implementation of the project would not conflict with or obstruct implementation of applicable GHG reduction plans, policies, or regulations.	Less than significant	N/A	N/A
GHG-3: The proposed project would not contribute to a significant cumulative impact to regional and State GHG emissions.	Less than significant	N/A	N/A
Hazards and Hazardous Materials			
HAZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials.	Less than significant	N/A	N/A
HAZ-2: The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Less than significant	N/A	N/A
HAZ-3: The proposed project would not emit hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	No Impact	N/A	N/A
HAZ-4: The proposed project is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the California Government Code and, as a result, would not create a significant hazard to the public or the environment.	No Impact	N/A	N/A

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
HAZ-5: The proposed project, which is not within an airport land use plan or within two miles of a public airport or public use airport, would not result in a safety hazard or excessive noise for people residing or working in the project area.	Less than significant	N/A	N/A
HAZ-6: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than significant	N/A	N/A
HAZ-7: The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.	Less than significant	N/A	N/A
HAZ-8: The proposed project would not contribute to a significant cumulative impact with respect to hazards and hazardous substances.	Less than significant	N/A	N/A
Hydrology and Water Quality			
HYD-1: The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Potentially significant	<p>HYD-1: Stormwater Quality Protection.</p> <p>HYD-1: The project applicant shall file an NOI to comply with the Construction General Permit with the Lahontan RWQCB prior to each phase of construction. Individual SWPPPs shall be prepared for each NOI and shall detail the treatment measures and BMPs to control pollutants that shall be implemented and complied with during the construction and post-construction phases of the project. The SWPPPs are subject to approval by the Lahontan RWQCB, which makes the final determination on which BMPs are required for the project. The construction contracts for each project phase shall include the requirement to implement the BMPs in accordance with the SWPPPs, and proper implementation of the specified BMPs is subject to inspection by the Lahontan RWQCB staff. Example BMPs may include practices such as: designation of restricted-entry zones, sediment tracking</p>	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		control measures (e.g., crushed stone or riffle metal plate at construction entrance), truck washdown areas, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, provision mulching for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area. The SWPPPs will also prescribe treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds.	
HYD-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than significant	N/A	N/A
HYD-3: The project may alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows.	Less than significant	N/A	N/A
HYD-4: The project would not risk release of pollutants due to project inundation due to flood hazards, tsunamis, or seiches.	Less than significant	N/A	N/A
HYD-5: The proposed project would not conflict with or obstruct implementation of a	Less than significant	N/A	N/A

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
water quality control plan or sustainable groundwater management plan.			
HYD-6: The proposed project would not contribute to a significant cumulative impact with respect to hydrology and water quality resources.	Less than significant	N/A	N/A
Land Use and Planning			
LUP-1: The proposed project would not physically divide an established community.	No Impact	N/A	N/A
LUP-2: The proposed project would not conflict with any land use plan, policy, or regulation.	Less than significant	N/A	N/A
LUP-3: The proposed project would not contribute to a significant cumulative impact with respect to land use and planning.	Less than significant	N/A	N/A
Mineral Resources			
MIN-1: The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.	No Impact	N/A	N/A
MIN-2: The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.	No Impact	N/A	N/A
MIN-3: The proposed project would not result in a significant cumulative impact with respect to mineral resources.	No Impact	N/A	N/A
Noise			
NOI-1: The proposed project may result in a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County Noise Ordinance.	Potentially significant	NOI-1: Construction Noise Reduction Measures NOI-1: If project development would occur within 500 feet of a residence or other noise sensitive receptor, the following	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
		<p>measures shall be implemented to reduce construction noise to the extent feasible:</p> <ul style="list-style-type: none"> • Whenever feasible, electrical power will be used to run air compressors and similar power tools. • Equipment staging areas will be located as far as feasible from occupied residences or schools. • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers. • Stationary equipment shall be placed such that emitted noise is directed away from sensitive noise receptors. • Stockpiling and vehicle staging areas shall be located as far as practical from occupied dwellings. 	
NOI-2: The proposed project would not result in the generation of excessive groundborne vibration levels.	Potentially Significant	<p>NOI-2: Construction Vibration Limits</p> <p>NOI-2: The County shall ensure that, during project construction activities, all vibratory rollers are used in static mode only (no vibrations) when operating within 20 feet of any occupied structure. If construction activity is to be performed by contractors, the County shall specify the vibratory roller use limitations on contract documents.</p>	Less than significant
NOI-3: The proposed project would not expose people residing or working in the project area to excessive noise levels from public use airports or private airstrips.	Less than significant	N/A	N/A
NOI-4: The proposed project would not contribute to a cumulatively considerable impact on ambient noise levels in the County.	Potentially significant	See Impact NOI-1 for MM NOI-1	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Population and Housing			
POP-1: The proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly.	Less than significant	N/A	N/A
POP-2: The proposed project would not displace existing people or housing or necessitate the construction of replacement housing elsewhere.	No Impact	N/A	N/A
POP-3: The proposed project would not result in a significant cumulative impact with respect to population and housing.	Less than significant	N/A	N/A
Public Services			
PS-1: The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities in order to maintain acceptable service ratios, response times or other performance objectives for any public services including fire protection, police protection, schools, parks, or other public facilities.	Less than significant	N/A	N/A
PS-2: The proposed project would not result in a significant cumulative impact with respect to public services.	Less than significant	N/A	N/A
Recreation			
REC-1: 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	No Impact	N/A	N/A
REC-2: The proposed project would not include recreational facilities or require the construction or expansion of recreational	No Impact	N/A	N/A

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
facilities, resulting in an adverse physical impact on the environment.			
REC-3: The proposed project would not result in a significant cumulative impact with respect to recreation.	Less than significant	N/A	N/A
Transportation			
TRA-1: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system including transit, roadway, bicycle, and pedestrian facilities.	Less than significant	N/A	N/A
TRA-2: The proposed project would be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).	Potentially significant	TRA-1: Ensure VMT Reduction TRA-1: In order to ensure the reduction of total VMT in the County, Inyo County shall require that applicants seeking to develop residential units on the parcels included in the proposed project to demonstrate that the proposed development would have a residential density equal to or greater than 4.5 dwelling units per acre prior to the issuance of a grading permit.	Less than significant
TRA-3: The proposed project would not substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than significant	N/A	N/A
TRA-4: The proposed project would not result in inadequate emergency access.	Less than significant	N/A	N/A
TRA-5: The proposed project would not contribute to a significant cumulative impacts with respect to transportation.	Significant and unavoidable impact	N/A	N/A
Tribal Cultural Resources			
TCR-1: The proposed project may cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public	Potentially significant	TCR-1: Inadvertent Discovery of TCRs	Less than significant

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
Resources Code section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 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).		TCR-1: In the event that tribal cultural resources are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior’s Professional Qualifications Standards shall then be retained to evaluate the resource’s significance under CEQA. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and shall be discussed in consultation with the County.	
TCR-2: The proposed project may cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Potentially significant	See Impacts TCR-1 for MM TCR-1.	Less than significant
TCR-3: The proposed project may result in a cumulative impact with respect to tribal cultural resources.	Potentially significant	See Impacts TCR-1 for MM TCR-1.	Less than significant
Utilities and Service Systems			
UTIL-1: The proposed project may require or result in the relocation or construction of	Less than significant	N/A	N/A

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.			
UTIL-2: The proposed project would not have a significant impact on water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Potentially significant	<p>UTL-1: Demonstrate Adequate Water Supply</p> <p>UTL-1: Future project applicants would be required to demonstrate that adequate water supply exists to serve the planned development project. Applicants must provide the County with a water supply study demonstrating adequate water supply to serve the development prior to County approval of the grading plans.</p>	Less than significant
UTIL-3: The proposed project would result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than significant	N/A	N/A
UTIL-4: The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Less than significant	N/A	N/A
UTIL-5: The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than significant	N/A	N/A
UTIL-6: The proposed project would result in a significant cumulative impact with respect to utilities.	Potentially significant	See impact UTL-2 for MM UTL-1.	Less than significant
Wildfire			

Significant Impact	Significance Without Mitigation	Mitigation Measures	Significance with Mitigation
FIRE-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.	Less than significant	N/A	N/A
FIRE-2: Due to slope, prevailing winds, and other factors, the project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Less than significant	N/A	N/A
FIRE-3: The proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Less than significant	N/A	N/A
FIRE-4: The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Less than significant	N/A	N/A
FIRE-5: The proposed project would be located in a State Responsibility Area but would not contribute to a significant cumulative impact with respect to wildfire.	Less than significant	N/A	N/A

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1.0 INTRODUCTION

Pursuant to Section 21080(a) of the California Environmental Quality Act (CEQA) and Section 15378(a) of the CEQA Guidelines, the Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities Project is considered a “project” subject to environmental review because its approval is “an action [involving the issuance to a person of a permit by a public agency], which has the potential for resulting in either a direct physical change in the environment or a reasonably foreseeable indirect physical change in the environment.” This Environmental Impact Report (EIR) provides an assessment of the potential environmental impacts that may result from implementation of the Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities Project, herein referred to as “project” or “proposed project.” Inyo County (County) is the CEQA Lead Agency for the proposed project. This EIR is intended to inform the County’s decision-makers, responsible and trustee agencies, and the public-at-large of the nature of the proposed project and its potential effect on the environment. This EIR is also intended to fulfill CEQA for future discretionary permit applications for residential development on the project parcels evaluated in this EIR as appropriate.

1.1 PROJECT BACKGROUND

Senate Bill (SB) 2, the Building Homes and Jobs Act, is aimed at addressing the State’s housing shortage and high housing costs and was approved by Governor Brown in 2017. The SB 2 Planning Grants Program provides financial support to local governments to update planning documents to streamline the housing approval process and accelerate housing production. Funding could be used to update a variety of planning documents, including but not limited to: targeted general plan updates; community plans and specific plans; zoning updates and by-right zoning for housing; objective design standards; accessory dwelling unit regulations; streamlined environmental analyses; and, process updates to improve and expedite local permitting.

The County sought and received funding under the SB 2 Planning Grants Program, administered by the Department of Housing and Community Development (HCD), to confront the lack of available housing stock for its current and projected future residents by streamlining housing approvals to foster housing production and reduce population emigration. In an effort to increase residential housing opportunities, the County has identified vacant parcels that are eligible for General Plan land use designation changes and “upzoning” to increase the density of residential units allowed and streamline the housing approval process on select parcels. This EIR evaluates the environmental impacts associated with the land use designation changes and upzoning proposed for eight project parcels identified by the County and considered in this EIR.

1.2 SCOPE AND ORGANIZATION OF THE EIR

Sections 15120 through 15132 of the CEQA Guidelines present the required content for Draft and Final EIRs. An EIR must include a brief summary of the proposed action and its consequences, a description of the proposed project, a description of the environmental setting, an environmental impact analysis, mitigation measures proposed to minimize potentially significant effects, alternatives to the proposed project, significant irreversible environmental changes, growth inducement, effects found not to be significant, effects found to be significant and unavoidable, organizations and persons consulted, and cumulative impacts.

In accordance with CEQA, this EIR: (1) identifies the potential significant effects of the proposed project on the environment and indicates the manner in which those significant effects can be avoided or mitigated; (2) identifies unavoidable adverse impacts that cannot be mitigated; and, (3) analyzes reasonable alternatives to the proposed project. Although the EIR does not control the final decision on the proposed project, the Lead Agency shall consider the information in the EIR and respond to each significant effect identified in the EIR.

As the CEQA Lead Agency, the County identified the following issues areas to be analyzed in detail in this EIR:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

This EIR is organized in the following chapters:

- **Executive Summary:** Consistent with Section 15123 of the CEQA Guidelines, this chapter provides a brief summary of the proposed project and identifies environmental impacts and mitigation measures in a summary matrix.
- **Chapter 1.0 – Introduction:** This chapter presents an overview of the project background, describes the intended use of the EIR (CEQA Guidelines Section 15124(d)), as well as the environmental review process.
- **Chapter 2.0 – Project Setting and Location:** This chapter includes a description of the physical environmental conditions in the vicinity of the project site as they existed at the time the Notice of Preparation (NOP) was published, and which have been updated based on current conditions during preparation of this EIR, consistent with Section 15125 of the CEQA Guidelines.
- **Chapter 3.0 – Project Description:** This chapter provides a detailed description of the proposed project characteristics and objectives as well as the required discretionary approvals consistent with Section 15124 of the CEQA Guidelines.
- **Chapter 4.0 – Environmental Impact Analysis:** This chapter contains a comprehensive analysis of the potential impacts to each environmental factor evaluated in this EIR, feasible measures that could minimize or mitigate those impacts consistent with Section 15126.4 of the CEQA Guidelines, and cumulative impacts resulting from the combination of the proposed project together with other County plans causing related impacts consistent with Section 15130 of the State CEQA Guidelines.
- **Chapter 5.0 – Project Alternatives:** Consistent with Section 15126.6 of the CEQA Guidelines, this chapter evaluates 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. Alternatives other than the proposed project evaluated in this document include: (1) No Project Alternative; and (2) Reduced Housing Opportunity Alternative.

- **Chapter 6.0 – Significant Irreversible Environmental Changes:** Consistent with Section 15126.2(d) of the State CEQA Guidelines, this chapter outlines the significant irreversible changes anticipated to occur as a result of the proposed project.
- **Chapter 7.0 – Growth Inducement:** Consistent with Section 15126.2(e) of the State CEQA Guidelines, this chapter describes potential growth-inducing impacts associated with the proposed project.
- **Chapter 8.0 – Significant and Unavoidable Impacts:** Consistent with Section 15126.2(c) of the State CEQA Guidelines, this chapter describes any significant impacts identified, including those which can be mitigated but not reduced to a level of insignificance.
- **Chapter 9.0 – List of Preparers:** This chapter lists all authors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation.
- **List of Appendices:**
 - Appendix A – Figures**
 - Appendix B – NOP and Scoping Report**
 - Appendix C – Mitigation Monitoring and Reporting Program**
 - Appendix D – CalEEMod and OFFROAD2017 Emissions Inventory Outputs**
 - Appendix E – Special-Status Species Lists**
 - Appendix F – Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT**

1.3 ENVIRONMENTAL REVIEW PROCESS

The preparation, review, and certification process for the EIR involves the following steps:

1.3.1 Notice of Preparation

After deciding that an EIR is required, the Lead Agency must file an NOP soliciting input on the scope of the EIR with the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (CEQA Guidelines Section 15082; Public Resources Code [PRC] Section 21092.2). The NOP must be posted in the County Clerk’s office for 30 days.

The NOP for this EIR was circulated for a 30-day agency and public review period that started on November 5, 2020 and ended on December 4, 2020. A virtual public hearing to receive comments on the scope of the EIR was held on Wednesday, November 18, 2020, at 6:00 p.m. via Zoom™. The NOP and scoping process solicited comments from identified responsible and trustee agencies, as well as interested parties regarding the scope of the EIR. **Appendix B** of this EIR includes the NOP, comments received in response to the circulation of the NOP, and the scoping report.

1.3.2 Draft EIR

The Draft EIR must contain information required by CEQA Guidelines Sections 15122 through 15131, including: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing, and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and, h) discussion of irreversible changes.

1.3.3 Public Notice/Public Review of Draft EIR

The principal objectives of CEQA require that: (1) the environmental review process provides for public participation, and (2) the EIR serves as an informational document to inform members of the general public, responsible and trustee agencies, and the decision-makers of the physical impacts associated with a proposed project.

Upon completion of the Draft EIR, the Lead Agency must file a Notice of Completion (NOC) with the State Clearinghouse and prepare a public Notice of Availability (NOA) of a Draft EIR. The NOA must be posted in the County Clerk's office for 30 days (PRC Section 21092), and the Lead Agency must send a copy of the NOA to anyone who has requested it (CEQA Guidelines Section 15087). Additionally, a public NOA of a Draft EIR must be provided through at least one of the following procedures: a) publication in a newspaper of local circulation; b) posting on and off the project site; or c) direct mailing to owners and occupants of contiguous properties. The Lead Agency must solicit input from other agencies and the public and respond in writing to all comments received (PRC Sections 21104 and 21253).

This Draft EIR will be available for review by the public and interested parties, agencies, and organizations for a 45 day comment period beginning on December 1, 2022 and ending January 16, 2023. During the comment period, the public is invited to submit written or email comments on the Draft EIR to the Inyo County Planning Department.

Written comments on this Draft EIR should be submitted to:

Cathreen Richards, Planning Director
Inyo County Planning Department
168 N. Edwards Street
Independence, California 93526
Email: inyoplanning@inyocounty.us

1.3.4 Final EIR

Following the conclusion of the 45 day public review period for the Draft EIR, the County will review all comments received and prepare written responses to comments on environmental issues. A Final EIR will then be prepared, which contains all of the comments received, responses to comments raising environmental issues, and any changes to the Draft EIR (if necessary). The Final EIR will then be presented to the Planning Commission for consideration and Board of Supervisors for certification. All agencies, organizations, and individuals who commented on the Draft EIR will be notified of the availability of the Final EIR and the date of the public hearings before the Planning Commission and Board of Supervisors.

Responses to comments submitted on the Draft EIR by public agencies will be provided to those agencies at least 10 days prior to certification of the EIR. Public input is encouraged at all public hearings before the County. The Board of Supervisors will also make findings regarding each significant environmental impact of the proposed project as identified in the Final EIR. For each significant impact of the project identified in the EIR, the Lead Agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (CEQA Guidelines Section 15091). If an agency approves a project with unavoidable significant environmental impacts, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.

The Final EIR will need to be certified by the County as having been prepared in compliance with CEQA prior to deciding to approve or deny the proposed project. After the Board of Supervisors certifies the Final EIR, it may then consider whether to approve the Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities Project. The Board of Supervisors will adopt and make conditions of project approval all feasible mitigation measures identified in the EIR.

1.3.5 Notice of Determination

The Lead Agency must file a Notice of Determination (NOD) after deciding to approve a project for which an EIR is prepared (CEQA Guidelines Section 15094). A local agency must file the NOD with the County Clerk within 5 working days after approval of the project by the Lead Agency. If the project requires discretionary approval from any State agency, then the local Lead Agency shall also file a copy of the NOD with the State Clearinghouse within 5 working days after project approval. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30 day statute of limitations on CEQA legal challenges (PRC Section 21167[c]).

1.3.6 Mitigation Monitoring and Reporting Program

PRC Section 21081.6 requires that the Lead Agency adopt a mitigation monitoring and reporting program (MMRP) for any project for which it has adopted mitigation measures. The MMRP (**Appendix C**) is intended to ensure compliance with the adopted mitigation measures during project implementation.

2.0 PROJECT SETTING AND LOCATION

2.1 PROJECT SETTING

Inyo County is located on the east side of the Sierra Nevada, in the east central part of California. It is bordered by Mono County to the north, Fresno and Tulare Counties to the west, and Kern and San Bernardino Counties to the south. The eastern boundary of the County is the California state line with Nevada. Inyo County is approximately 10,200 square miles and is largely undeveloped. The County's lone incorporated city, the City of Bishop, is located in the north central area of the County. The County is located within the Great Basin region of the United States (US) which is noted for its arid climate and basin and range topography. This area is characterized by broad valleys traversed by streams, rivers, and washes, giving rise to mountain ranges of low hills and jagged peaks. The County's western boundary follows the east side of the Sierra Nevada.

The majority of the County is publicly owned; in fact, 92 percent is federally-managed, 2.4 percent is managed by the State, 3.9 percent is owned by the City of Los Angeles, and the remaining 1.7 percent is privately or County-owned land or tribal land. Sixty percent of the land in the County is federally designated as wilderness – much of which is in Death Valley National Park – which means that those lands are not open to exploration or development of resources. Approximately 12 percent of the land in the County is National Forest managed by the US Forest Service (USFS), and the remainder of the federal land in the County is managed by either the Department of Defense (DOD) and/or the Bureau of Land Management (BLM) for multiple uses. As a result of public land ownership, the County is largely rural in character and characterized by vast expanses of unspoiled vistas and arid resources. Most of the County's population lives in Bishop or in the immediately surrounding areas along US Highway 395 (US 395). The rest of the County's population lives in small towns and census-designated places (CDP), the majority of which are concentrated along the US 395 corridor in the Owens Valley. The project parcels evaluated in this EIR are located in the unincorporated communities of Independence and Lone Pine and surrounding the City of Bishop.

2.2 GEOSPATIAL METHODOLOGY FOR IDENTIFICATION OF SUBJECT PARCELS

Spatial information was gathered and analyzed with ESRI's ArcGIS™ software to assist the County in identifying an initial draft of parcels to include for evaluation in this EIR. HELIX Environmental Planning, Inc. (HELIX) evaluated all parcels in the County using land ownership, existing fire protection districts, existing water and sanitary districts, and Inyo County approved General Plan Land Use Designation as parameters for inclusion. The first draft inventory of the parcels to be included was developed targeting parcels that: 1) are vacant, 2) are privately owned or owned by Los Angeles Department of Water and Power (LADWP) and listed in their Tier 1 Divestment schedule, 3) intersect with a local fire protection district, 4) intersect with a water and/or sewer sanitary service district, and 5) are classified with a General Plan Land Use residential designation and are larger than 0.5 acre or designated Commercial Business District. Several priority parcels from the recent Housing Element were also included in the initial draft of the vacant lands inventory. The target parcels were evaluated for their existing and potential land use designation to quantify the increased housing unit capacity. The initial vacant lands inventory included 48 parcels located in or near the communities of Bishop, Big Pine, Independence, Lone Pine, and Tecopa Hot Springs. Subsequently, County staff refined the vacant lands inventory list to include those that best conformed to the existing General Plan.

2.3 PROJECT PARCELS AND SURROUNDING LAND USES

Eight (8) project parcels are being evaluated for General Plan and zoning amendments, and the project parcels are located in unincorporated communities of Independence and Lone Pine and surrounding the City of Bishop. The project parcels range in size from 0.2 acre up to 16.9 acres, and the combined acreage of the eight project parcels is 32.0 acres. Of the eight project parcels, one is located in the community of Independence; three are located adjacent to and outside the City of Bishop city limits; and four parcels are located in the community of Lone Pine. See Figure 2-1 for a Regional Location map of the project area and general location of project parcels. (All figures are located in Appendix A).

Table 2-1, Existing and Proposed Land Uses for Project Parcels, presents a summary of the location, size, proposed land use changes, and proposed densities for the project parcels evaluated in this EIR. Below is a detailed discussion of the project parcels, setting, and surrounding land uses by community.

2.3.1 Independence Parcel

The undeveloped Independence parcel is 16.9 acres and located in the community of Independence in western Inyo County along Mazourka Canyon Road, east of Edwards Street. The project parcel is identified as Assessor's Parcel Number (APN): 002-160-08. The project parcel lies in Section 17 of Township 13S of the US Geological Survey (USGS) 7.5-minute "Independence, California" quadrangle map (Figure 2-2). Figure 2-3 depicts the Independence parcel on a recent aerial photograph.

The Independence parcel is proposed for a General Plan land use designation of Residential Medium Density (RM) but is currently designated for Residential Ranch (RR). The proposed project also includes a zoning amendment to rezone the parcel from Rural Residential, 1-acre minimum (RR-1.0) to Multiple Family Residential (R-3).

Undeveloped, open space land uses surround the project parcel adjacent to the north, south, east, and west, and public facility land uses are also west of the project parcel. A substation is located just north of the project parcel, and two perpendicular utility easements for power lines running southwest to northeast across the parcel and an access road to the substation running southeast to northwest transect the center of the parcel.

Refer to Figures 2-4 and 2-5 for the existing and proposed General Plan land use designation and zoning changes, respectively, for the Independence parcel and surrounding land uses.

**TABLE 2-1
EXISTING AND PROPOSED LAND USES FOR PROJECT PARCELS**

No.	APN	Location	Existing GP Designation	Existing Zoning	Proposed GP Designation	Proposed Zoning	Parcel Size (acres)	Proposed Minimum Units	Proposed Maximum Units
1	002-160-08	Independence	RR	RR-1.0	RM	R-3	16.9	79	128
2	008-240-01	Bishop	PF	P	CBD	CB	5.8	45	139
3	008-240-02	Bishop	A	M2-PP	CBD	CB	3.3	26	79
4	008-190-01	Bishop	RC	R-1	RH	R-3	5.2	78	126
5	005-072-06	Lone Pine	RMH	R-2	RH	R-3	0.2	3	5
6	005-072-07	Lone Pine	PF	P	RH	R-3	0.2	3	5
7	005-072-24	Lone Pine	PF	P	RH	R-3	0.2	3	5
8	005-072-30	Lone Pine	PF	P	RH	R-3	0.2	3	5
Total							32.0	240	492

Sources: Inyo County 2001; 2021.

Acronyms:

APN = Assessor's Parcel Number

GP = General Plan

General Plan Designations:

RR = Residential Ranch, PF = Public Service Facilities, A = Agriculture, RC = Retail Commercial, RMH = Residential Medium-High Density, RM = Residential Medium Density, CBD = Central Business District, and RH = Residential High Density.

Zoning Designations:

RR-1.0 = Rural Residential, 1-acre minimum, P = Public, M2-PP = Light Industrial - Precise Plan Overlay, R-1 = Single Family Residential, R-2 = Duplex, R-3 = Multiple Family Residential, and CB = Central Business.

2.3.2 Bishop Parcels

The undeveloped Bishop parcels are 14.3 acres combined and located adjacent but outside the City of Bishop city limits in northwestern Inyo County. The three Bishop parcels are identified by the following APNs: 008-240-01; 008-240-02; and 008-190-01. Two of the Bishop parcels (APNs 008-240-01 and -02) are adjacent to the south and west of the City of Bishop city limits, southwest of the intersection of S. Main Street (also US 395) and Jay Street, and the other Bishop parcel (APN 008-190-01) is adjacent to the south and east of the City of Bishop city limits, southeast of the intersection of E. South Street and S. 3rd Street. The project parcels lie in Section 7 of Township 7S of the USGS 7.5-minute “Bishop, California” quadrangle map (Figures 2-6a and 2-6b). Figures 2-7a and 2-7b depict the west and east Bishop parcels, respectively, on recent aerial photographs.

Two Bishop parcels (APNs 008-240-01 and -02) are proposed for a General Plan land use designation of Central Business District (CBD) but are currently designated for Public Service Facilities (PF) and Agriculture (A). The proposed project also includes a zoning amendment to rezone these two Bishop parcels from Public (P) and Light Industrial - Precise Plan Overlay (M2-PP) to Central Business (CB). Surrounding land uses for these two Bishop parcels include commercial, light industrial, and public facility uses to the north; commercial to the east; agricultural, open space, and public facility uses to the south; and agricultural and open space uses to the west. A utility easement borders both parcels to the north, and a utility easement borders APN 008-240-01 to the west.

One Bishop parcel (APN 008-190-01) is proposed for a General Plan land use designation of Residential High Density (RH) but is currently designated for Retail Commercial (RC). The proposed project also includes a zoning amendment to rezone this Bishop parcel from Single-Family Residential (R-1) to R-3. Surrounding land uses for this parcel include residential uses to the north; agricultural and open space uses to the east; agricultural, open space, and rural residential uses to the south; and open space and commercial uses to the west. A drainage ditch borders the southern boundary of the parcel, and the Bishop Creek Canal is adjacent to the east of the parcel.

Refer to Figures 2-8 and 2-9 for the existing and proposed General Plan land use designation and zoning changes, respectively, for the Bishop parcels and surrounding land uses.

2.3.3 Lone Pine Parcels

The Lone Pine parcels are 0.8 acre combined and located in the community of Lone Pine in western Inyo County, north of E. Mountain View Street and between N. Hay Street and N. Lone Pine Avenue. The four Lone Pine parcels are located adjacent to each other and identified by the following APNs: 005-072-06; 005-072-07; 005-072-24; and, 005-072-30. These parcels are developed and used as a County road yard, but residential land uses surround the four project parcels to the north, south, east, and west. The project parcels lie in Section 28 of Township 15S of the USGS 7.5-minute “Lone Pine, California” quadrangle map (Figure 2-10). Figure 2-11 depicts the Lone Pine parcel on a recent aerial photograph.

Four Lone Pine parcels are proposed for a General Plan land use designation of Residential High Density (RH) but are currently designated for PF and Residential Medium-High Density (RMH). The proposed project also includes a zoning amendment to rezone the parcel from P and Duplex (R-2) to R-3.

Refer to Figures 2-12 and 2-13 for the existing and proposed General Plan land use designation and zoning changes, respectively, for the Lone Pine parcels and surrounding land uses.

2.4 GENERAL PLAN AND ZONING DESIGNATIONS

2.4.1 General Plan

Existing General Plan designations for the project parcels being evaluated are Residential Ranch (RR), Public Service Facilities (PF), Agriculture (A), Retail Commercial (RC), and Residential Medium-High Density (RMH). The purpose and intent of these General Plan land use designations are summarized below (Inyo County 2001):

- *Residential Ranch (RR)*: The RR land use designation provides for very large-lot single-family housing in rural residential neighborhoods, public and quasi-public uses, and similar and compatible uses. Residential densities shall be a maximum of 1 dwelling unit (DU) per 10 acres. This designation is to be used in rural areas where the open characteristics of an area are to be maintained and where services are minimal. The designation can also be used for areas located on the fringes of communities that are to be held as urban reserve areas for future long-term expansion of the community. Individual water wells and individual sewage disposal systems are allowed.
- *Public Service Facilities (PF)*: The PF land use designation provides for areas owned by public agencies such as County or State agencies and local districts, or by quasi-public organizations, that serve as significant public facilities such as schools, airports, hospitals, solid waste facilities, correctional facilities, cemeteries, and similar and compatible uses. The FAR shall not exceed 0.90.
- *Agriculture (A)*: The A land use designation provides for agricultural uses on land that is suited by soils and water resources to the production of food and fiber on a regular and sustained basis, limited agricultural support services, agriculturally oriented services, agricultural processing facilities, public and quasi-public uses, and certain compatible nonagricultural activities. Residential uses associated with the agricultural use are allowed at a maximum density of 1 DU/40 acres. The FAR for nonresidential uses shall not exceed 0.10 with the following exceptions: the FAR for agriculturally oriented services (e.g., stables, feed stores, silos, etc.) shall not exceed 0.25.
- *Retail Commercial (RC)*: The RC land use designation provides for retail and wholesale commercial uses, service uses, offices, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.40. Residential uses in this designation shall be subject to discretionary review and approval. Residential densities shall be in the range of 7.6 to 24 DU per net acre.
- *Residential Medium-High Density (RMH)*: The RMH land use designation provides for single-family and multi-family residential units, group quarters, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 7.6 to 15 DU per net acre. If development occurs at the lower end of the density range, access and project design shall provide for ultimate development at the maximum permitted density. Connection to both an acceptable sewer and water system is mandatory.

Proposed General Plan designations for the project parcels are Residential Medium Density (RM), Central Business District (CBD), and Residential High Density (RH).

- *Residential Medium Density (RM)*: The RM land use designation provides for single-family residential neighborhoods within urban areas, public and quasi-public uses, and similar and compatible uses.

Residential densities shall be in the range of 4.6 to 7.5 DU per net acre. Connection to both an acceptable sewer and water system is mandatory for new subdivisions.

- *Central Business District (CBD)*: The CBD land use designation provides for commercial uses such as small retail sales and personal service shops; offices; food services; travel and transportation services such as hotels/motels and gas stations; entertainment centers; recreation facilities; medical centers and services including convalescent hospitals; multi-family residential uses (including single units that are part of a commercial entity); public and quasi-public uses; and similar and compatible uses in the central areas of communities along main thoroughfares. The FAR shall not exceed 1.00. Residential densities shall be in the range of 7.6 to 24 DU per net acre.
- *Residential High Density (RH)*: The RH land use designation provides for single-family and multi-family residential units, group quarters, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 15.1 to 24 DU per net acre. If development occurs at the lower end of the density range, access and project design shall provide for ultimate development at the maximum permitted density. Connection to both an acceptable sewer and water system is mandatory.

2.4.2 Zoning

Existing zoning designations for the project parcels being evaluated are Rural Residential, 1-acre minimum (RR-1.0), Public (P), Light Industrial - Precise Plan Overlay (M2-PP), Single Family Residential (R-1), and Duplex (R-2). The purpose and intent of these zoning districts are summarized below (Inyo County 2021):

- *Rural Residential (RR-1.0)*: The primary purpose of the RR zone district is to provide suitable areas and appropriate environments for low density, single family rural residential and estate type uses where certain agricultural activities can be successfully maintained in conjunction with residential uses on relatively large parcels. The RR zone district is intended to be applied to the areas outside the urban communities of the County which are generally without fully developed services and where individual residences are expected to be largely self-sustaining, particularly for water and sewage disposal.
- *Public (P)*: The primary purpose of the P zone district is to provide regulations that implement those goals, objectives, and policies of the General Plan and to assure the availability and adequacy of lands suitable for future public, quasi-public, and institutional facilities, uses and activities.
- *Light Industrial – Precise Plan (M2-PP)*: The primary purpose of the M-2 zone district is to provide a zone for suitable and appropriate areas for light, less intense, small scale manufacturing activities which normally take place within structures. Limited amount of outdoor storage or activities are acceptable, provided they are clearly accessory and incidental to the main use. There is an established combined land use district known as a PP zone district. The PP zone district consists of those regulations set forth for the PP zone district together with the specific regulations in the M-2 district. The purpose of the PP zone district is to assure that yards, open space, structures, parking, loading facilities, landscaping, streets, and similar uses and developments of land within the district will be located in accordance with an approved precise plan providing for compatible developments within the district and a compatible relationship with developments in adjoining districts.

- *Single Family Residential (R-1)*: The primary purpose of the R-1 zone district is to protect established neighborhoods of single-family dwellings, and to provide space in suitable locations for additional development of this kind, with appropriate community facilities.
- *Duplex (R-2)*: The primary purpose of the R-2 zone district is to protect established neighborhoods of such dwellings and to provide space suitable in appropriate locations for additional housing development of single-family dwelling units as well as duplexes.

Proposed zoning designations for the project parcels are Multiple Family Residential (R-3) and Central Business (CB).

Multiple Family Residential (R-3): The primary purpose of the R-3 zone district is to provide a zone classification for those areas designated for multiple residential developments beyond that permitted by the R-2 zone district. This zone district is intended to provide locations for multiple-housing developments such as apartments, townhouses, condominiums, and mobile home parks with enhanced amenities, such as common open space.

Central Business (CB): The purpose of the CB zone district is intended to provide maximum flexibility by allowing combinations of commercial and multiple family residential uses on the same parcel of land. However, the primary land use in the CB zone district is to provide for a variety of small commercial retail, service, and office uses. This zone district is generally reserved for properties located in the County's downtown areas.

2.5 REFERENCES

Inyo County. 2021. Inyo County Code: Title 18 Zoning. Current through Ordinance 1264, effective March 21, 2021. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

3.0 PROJECT DESCRIPTION

This chapter describes the proposed project, including project overview, purpose, objectives, project description, and discretionary actions needed for approval.

3.1 PROJECT OVERVIEW

The County is proposing to amend the General Plan land use designation and zoning for eight vacant parcels throughout the County to promote increased housing opportunities. The parcel assessment process included a County-wide vacant lands inventory and zoning review for properties with the following characteristics: classified as vacant according to County assessor's data; located within a local fire protection district; located within or adjacent to a water and/or sanitary sewer service district; and, designated as private, County, or under City of Los Angeles ownership. The vacant lands inventory and zoning review also focused on commercial zones for opportunities for infill (residential) development; properties near public transportation and other services were considered prime candidates to be included in the proposed project. This information was used to identify land that may be appropriate for General Plan land use and zoning changes to promote housing opportunities, primarily by increasing allowable residential density.

Although not included as part of the proposed project and not evaluated as part of this EIR, the County is encouraging the construction of Accessory Dwelling Units (ADU) as an effective way to provide more housing in infill communities without changing the existing character of residential neighborhoods. ADU is a catch-all term for a secondary home on a residential lot and are inherently less expensive homes that can meet the needs of low- to moderate-income families without the need for public subsidy. Ways to encourage more ADUs for permanent housing that the County may consider include allowing for two ADUs per parcel, not allowing additional ADUs to be used for short-term rentals, removing all parking requirements for ADUs, and relaxing front-yard setback requirements for ADUs.

To further the goals of SB 2, the County is also encouraging the development of more mobile home parks throughout the County. Mobile homes are consistently the most affordable housing type in Inyo County, but the development of mobile home parks currently require a Conditional Use Permit (CUP). Ways the County could streamline the mobile home approval process and create more mobile home opportunities include changing the Multiple Family Residential (R-3) zoning to allow for mobile home and/or recreational vehicle parks by right (no CUP required), changing some open-space zoning to R-3, especially in the more rural areas, and finding infrastructure opportunities to put large septic tanks in certain rural areas to help promote mobile home park development. This may result in changes from single-family to multi-family and changes to ministerially allow for mobile home parks, as well as allowing for multi-family residential uses in certain commercial zones without requiring discretionary approval.

Another approach to increase housing opportunities in the County is to encourage "missing middle" zoning. "Missing middle" describes multi-unit housing that fits within the scale of existing neighborhoods. While this term is sometimes used to refer to affordable housing for middle income households, in this discussion, the "missing middle" is referring to the housing type (duplexes, triplexes, fourplexes, townhomes, courtyard apartments, and bungalow courts) often absent in Inyo County's unincorporated communities. Missing middle housing types are less expensive to develop than large apartment buildings, tend to become affordable rental housing as they age, provide sufficient density to

support the retail and transit that are associated with walkable neighborhoods, and are usually compatible with the character of single-family neighborhood. Ways to consider for creating more missing middle zoning include zoning changes from single-family residential neighborhoods to multi-family (2 units) and multi-family (3 units and above) residential.

Ultimately, the County identified the eight project parcels for proposed land use changes to increase the allowable residential density; the environmental impacts associated with the General Plan land use designation changes and up-zoning to multi-family residential uses are evaluated in detail in this EIR.

3.2 PROJECT PURPOSE

Inyo County is California's second largest county by acreage yet more than 98 percent of its landmass is managed by federal, State, or municipal entities. Consequently, the County has struggled to maintain an adequate housing stock and meet its affordable housing requirements. Accordingly, the County sought and received funding under the SB 2 Planning Grants Program, administered by the HCD, to confront the issue of housing stock and affordability for its current and future residents. The County has identified that several factors contribute to this issue, including but not limited to: lack of available vacant private property for development; infrastructure and services constraints; lack of developer interest in family-wage or affordable housing development; State subdivision regulations that prohibit subdivision of areas outside Community Service District Boundaries (Fire); and, outdated zoning. The goal of the proposed project is to streamline the housing approval process for key parcels identified for increased residential dwelling capacity to accelerate housing production and reduce population emigration through processing General Plan land use designation and zoning changes for the proposed project parcels.

3.3 PROJECT OBJECTIVES

Per Section 15124 of the CEQA Guidelines, the County identified the following objectives for the proposed project:

- Provide for increased housing opportunities in Inyo County by processing General Plan land use designation and zoning changes for select parcels within existing and established communities to allow for residential or higher density residential uses;
- Focus future housing opportunities to vacant land located adjacent to existing public transit stops and public utilities and services;
- Minimize direct and indirect impact from increased housing opportunities on the physical, biological, cultural, political, and socioeconomic environments; and
- Identify zone changes to be consistent with General Plan land use designations to maximize density.

3.4 PROJECT DESCRIPTION

Per the SB 2 grant provided by HCD, the County conducted a vacant lands inventory and public outreach campaign to seek input from community members and is seeking amendments to the County General Plan and zoning ordinance for eight parcels in the County to increase the allowable housing density on

those select parcels. The combined acreage of the eight project parcels is 32-acres, and the project parcels are located in or near the communities of Independence, Bishop, and Lone Pine.

The proposed project would allow for a combined maximum of 492 residential DUs on the eight project parcels proposed for General Plan land use designation and zoning changes. The average household size in Inyo County is 2.18 persons per household, and the proposed project could provide additional housing to accommodate approximately 1,073 persons (US Census 2019). The current median water use for indoor residential water use is 48 gallons per capita per day (gpcd) (DWR 2021). Assuming the proposed project would accommodate 1,073 persons, the water demand would be approximately 18.8 million gallons (or 57.7 acre-feet) of water per year. The project description identifies the maximum number of DUs that could be developed in each community in accordance with the proposed General Plan land use designation and zoning changes. See below for a detailed discussion by community.

3.4.1 Independence Parcel

The Independence parcel is proposed for a General Plan land use designation change to Residential Medium Density (RM) but is currently designated for Residential Ranch (RR). The proposed project also includes a zoning amendment to rezone the parcel from Rural Residential, 1.0 acre minimum (RR-1.0) to Multiple Family Residential (R-3).

The proposed project would include amending the General Plan to change the land use designation for the Independence parcel to RM. Allowable density for RM is between 4.6 to 7.5 DUs per acre (du/ac), and the Independence parcel is 16.9-acres. Therefore, the General Plan land use designation change would allow for a maximum of 128 DUs to be developed on the Independence parcel (Inyo County 2001).

As noted above, the proposed project would include rezoning the Independence parcel to R-3, and the R-3 zone district allows for multiple-family dwelling units as a principal permitted use. The maximum building height for the principal structure would be three stories or up to 40 feet tall. The front and rear yard setbacks would be 15 feet, and side yard setbacks would be 5 feet for each story (Inyo County 2021). The off-street parking requirement for the R-3 zone district is two designated spaces plus one guest parking space for each four dwelling units. The proposed project would provide for a total of 288 off-street parking spaces to accommodate parking for the proposed 128 DUs to be developed on the Independence parcel.

The proposed project assumes maximum buildout of the parcel as allowed by the General Plan land use designation and zoning. The entire 16.9 acres would be disturbed during site preparation and grading, and any trees on the parcel would be removed.

3.4.2 Bishop Parcels

Two Bishop parcels (APNs 008-240-01 and -02) are proposed for a General Plan land use designation of Central Business District (CBD) but are currently designated for Public Service Facilities (PF) and Agriculture (A). The proposed project also includes a zoning amendment to rezone these two Bishop parcels from Public (P) and Light Industrial - Precise Plan Overlay (M2-PP) to Central Business (CB). One Bishop parcel (APN 008-190-01) is proposed for a General Plan land use designation of Residential High Density (RH) but is currently designated for Retail Commercial (RC). The proposed project also includes a zoning amendment to rezone this Bishop parcel from Single-Family Residential (R-1) to R-3. The

proposed project would include amending the General Plan to change the land use designation for two Bishop parcels (APNs 008-240-01 and -02) to CBD. Allowable density for CBD is between 7.6 to 24 du/ac. The proposed project would change the General Plan land use designation to a total of 9.1 acres in Bishop to CBD which would allow for a maximum of approximately 218 DUs to be developed on those two parcels in Bishop combined (Inyo County 2001). The proposed project would include amending the General Plan to change the land use designation for one Bishop parcel (APN 008-190-01) to RH. Allowable density for RH is between 15.1 to 24 du/ac. The proposed project would change the General Plan land use designation to a total of 5.2 acres near Bishop to RH which would allow for a maximum of approximately 126 DUs to be developed on that parcel near Bishop (Inyo County 2001). When combined, the proposed project would allow for a total of 344 DUs to be developed on those three parcels just outside of the Bishop city limits.

As noted above, the proposed project would include rezoning two of the Bishop parcels (APNs 008-240-01 and -02) to CB. The CB zone district allows for multiple-family dwellings as a conditional use. The maximum building height for the principal structure would be three stories or up to 40 feet tall. This zone district allows for front, rear, and side yard setbacks to be zero feet. Allowable density in this zone district is also between 7.6 and 24 du/ac (Inyo County 2021). The off-street parking requirement for the CB zone district is one parking space for each four hundred square feet of usable floor area (which typically applies to commercial development), or as determined by the planning director. Since the proposed project is a residential project, the parking required will be determined by the planning director during the conditional use permit process, and parking would be located on-site, except as approved by the planning director.

The proposed project would also include rezoning one Bishop parcel (APN 008-190-01) to R-3. The R-3 zone district allows for multiple-family dwelling units as a principal permitted use. The maximum building height for the principal structure would be three stories or up to 40 feet tall. The front and rear yard setbacks would be 15 feet, and side yard setbacks would be 5 feet for each story (Inyo County 2021). The off-street parking requirement for the R-3 zone district is two designated spaces plus one guest parking space for each four dwelling units. The proposed project would provide for a total of 284 off-street parking spaces to accommodate parking for the proposed 126 DUs to be developed on this parcel.

The proposed project assumes maximum buildout of the parcels as allowed by the General Plan land use designations and zoning. The entire 14.3 acres would be disturbed during site preparation and grading, and any trees on the parcel would be removed.

3.4.3 Lone Pine Parcels

Four Lone Pine parcels are proposed for a General Plan land use designation change to Residential High Density (RH) but are currently designated for PF and Residential Medium-High Density (RMH). The proposed project also includes a zoning amendment to rezone the parcel from P and Duplex (R-2) to R-3.

The proposed project would include amending the General Plan to change the land use designation for the Lone Pine parcels to RH. Allowable density for RH is between 15.1 to 24 du/ac. The proposed project would change the General Plan land use designation to a total of 0.8-acre in Lone Pine to RH which would allow for a maximum of approximately 20 DUs to be developed on those four parcels in Lone Pine combined (Inyo County 2001).

As noted above, the proposed project would include rezoning the Lone Pine parcels to R-3. The R-3 zone district allows for multiple-family dwelling units as a principal permitted use. The maximum building height for the principal structure would be three stories or up to 40 feet tall. Because these parcels are adjacent to parcels within the R-2 zone, the front yard setbacks would be 25 feet unless the adjacent property has a nonconforming structure. If the project parcel(s) is adjacent to a nonconforming structure, then the front yard setback would be the same as the adjacent developed property. The rear yard setbacks would be 15 feet, and side yard setbacks would be 5 feet for each story (Inyo County 2021). The off-street parking requirement for the R-3 zone district is two designated spaces plus one guest parking space for each four dwelling units. The proposed project would provide for a total of 45 off-street parking spaces to accommodate parking for the proposed 20 DUs to be developed on the Lone Pine parcels combined.

The entire 0.8-acre area is disturbed, and any trees on the parcel would be removed.

3.5 REQUIRED PERMITS AND APPROVALS

A listing and brief description of the permits and approvals that may be required to implement the proposed project is provided below. Additional permits and approvals may also be required. This environmental document is intended to address the environmental impacts associated with all of the following decision actions and approvals:

3.5.1 Inyo County

Inyo County has the following discretionary powers related to the proposed project:

- **General Plan Amendments.** The County is seeking General Plan amendments to change the land use designation for the Independence parcel to Residential Medium Density (RM), Bishop parcels to Central Business District (CBD) and Residential High Density (RH), and Lone Pine parcels to Residential High Density (RH).
- **Zoning Amendments.** The County is seeking zoning amendments to rezone the Independence and Lone Pine parcels to Multiple Family Residential (R-3) and Bishop parcels to Central Business (CB) and R-3.
- **Adoption and certification of the environmental document.** The County Board of Supervisors has authority to determine if the environmental document is adequate under CEQA.
- **Approval of project.** The County Board of Supervisors will consider approval of the project.

3.5.2 Other Agency Required Approvals and Intended Uses of the EIR

- **California Department of Fish and Wildlife (CDFW):** If jurisdictional waters cannot be avoided, then prior to the start of construction, the project applicant shall secure any required aquatic resources permits for impacts to jurisdictional waters of the State from CDFW.
- **California Department of Transportation (Caltrans):** An encroachment permit may be required from Caltrans for proposed improvements or development within public right-of-way associated with US Highway 395.

- **Lahontan Regional Water Quality Control Board (RWQCB):** A National Pollutant Discharge Elimination System (NPDES) General Permit to Discharge Storm Water Associated with Construction Activity (Construction General Permit) would be required for construction of the proposed project. If jurisdictional waters cannot be avoided, then prior to the start of construction, the project applicant shall secure any required aquatic resources permits for impacts to jurisdictional waters of the State from the Lahontan RWQCB.
- **United States Army Corps of Engineers (USACE):** If jurisdictional waters cannot be avoided, then prior to the start of construction, the project applicant shall secure any required aquatic resources permits for impacts to jurisdictional waters of the U.S. from USACE.

3.6 REFERENCES

California Department of Water Resources (DWR). 2021. Public Review Draft Report to the Legislature on Results of the Indoor Residential Water Use Study. Water Use Efficiency. Accessed on September 3, 2021 and available at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/AB-1668-and-SB-606-Conservation/IRWUS-Public-Review-Draft-ReportPA07May21-v1.pdf>.

Inyo County. 2021. Inyo County Code: Title 18 Zoning. Current through Ordinance 1264, effective March 21, 2021. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

US Census Bureau. 2019. American Community Survey 5-Year Estimates. Table S1101: Household and Families, Inyo County. Accessed April 30, 2021 and available at: <https://data.census.gov/cedsci/table?text=s1101&g=0500000US06027&tid=ACSST5Y2019.S1101>.

4.0 ENVIRONMENTAL IMPACT ANALYSIS

CHAPTER ORGANIZATION

This chapter of the EIR is made up of 20 sections which evaluate the direct, indirect, and cumulative environmental impacts anticipated from approval of the proposed project. The following sections describe the format of the environmental analysis, significance thresholds, and the methodology of the cumulative impact analysis.

FORMAT OF ENVIRONMENTAL ANALYSIS

This EIR examines all of the environmental issue areas identified in Appendix G of the CEQA Guidelines and through comments received on the NOP and public scoping meetings. The potential environmental impacts of the proposed project are analyzed for potential significant impacts in the following 20 environmental issue areas, which are organized with the listed abbreviations:

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

Each environmental impact is addressed in the following format:

- **Regulatory Framework:** A discussion of the federal, State, and local regulations relevant to the proposed project.
- **Existing Conditions:** A discussion of the existing conditions and physical environment of the project parcels, providing a baseline against which the potential impacts of the proposed project can be compared.
- **Significance Thresholds:** A discussion of the thresholds of significance according to the State CEQA Guidelines (Appendix G). It explains the quantitative or qualitative standards, performance levels, or criteria used to evaluate the existing setting with and without the proposed project to determine whether the impact is significant.
- **Impact Analysis:** A discussion of the potential impacts from the proposed project and explains why impacts are found to be significant or less than significant prior to mitigation. This subsection also includes a discussion of cumulative impacts related to the proposed project. Impacts and mitigation measures are numbered consecutively within each topical analysis and begin with an acronym or abbreviated reference to the impact section.

SIGNIFICANCE THRESHOLDS

Significance criteria are identified before the impact analysis subsection, under the subsection, “Significance Thresholds.” For each impact identified, a level of significance is determined using the following classifications:

- *Potentially Significant* impacts include a description of the circumstances where an established or defined threshold would be exceeded.
- *Less than significant* impacts include effects that are noticeable, but do not exceed established or defined thresholds, or can be mitigated below such thresholds.
- *No impact* describes circumstances where there is no adverse impact on the environment.

For each impact identified as being significant, the EIR identifies mitigation measures to reduce, eliminate, or avoid the adverse impact. If one or more mitigation measure(s) would reduce the impact to a less than significant level successfully, this is stated in the EIR. *Significant and unavoidable* impacts are described where mitigation measures would not diminish these impacts to less than significant levels.

CUMULATIVE IMPACT ANALYSIS

CEQA Guidelines Section 15130 requires an EIR to discuss the cumulative impacts of a project when the project’s incremental impact is “cumulatively considerable.” Used in this context, cumulatively considerable means that the incremental impacts of an individual project are considerable when viewed in connection with the impacts of past projects, the impacts of other current projects, and the impact of probable future projects.

Where the incremental impact of a project is not “cumulatively considerable,” a Lead Agency need not consider that impact significant but must briefly describe its basis for concluding that the incremental impact is not cumulatively considerable. Where the cumulative impact caused by the project’s incremental impact and the impacts of other reasonably foreseeable projects is not significant, the EIR must briefly indicate why the cumulative impact is not significant.

The cumulative impact discussions in Sections 4.1 through 4.20 explain the geographic scope of the area affected by each cumulative impact (e.g., immediate project areas, Countywide, air or groundwater basin). The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing aesthetic impacts, the pertinent geographic study area is the area from which a new development can be publicly viewed and may contribute to a significant cumulative visual impact. In assessing macro-scale air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and basin-wide projections of emissions is the best tool for determining the cumulative impact.

CEQA Guidelines Section 15130 permits two different methodologies for completion of the cumulative impact analysis:

- The ‘list’ approach permits the use of a list of past, present, and probable future projects producing related or cumulative impacts, including projects both within and outside the County; or
- The ‘projections’ approach allows the use of a summary of projections contained in an adopted plan or related planning document, such as a regional transportation plan, or in an EIR prepared for such a plan. The projections may be supplemented with additional information such as regional modeling.

This analysis is based on a combination of the list and plan/projections approaches. As shown in Table 4-1, the County has identified twelve pending projects in the County at the time that the NOP for this EIR was issued for consideration in the cumulative analysis. See Figure 4-1 for the locations of the twelve pending projects considered in the cumulative analysis in relation to the proposed project.

**Table 4-1
INYO COUNTY CUMULATIVE PROJECTS LIST**

No.	Project Name/Location	APN	Distance from nearest Project Parcel	Project Type	Project Size	Status
1	Inyo County Housing Element Update Countywide	n/a	Countywide	Housing Element Update	n/a	IS/ND underway
2	Downtown Bishop Specific Plan and Mixed-Use Overlay City of Bishop, CA	n/a	400 feet west of Bishop parcel (APN 008-190-01)	Specific Plan	218 acres	EIR underway
3	Commercial Airline Service at Bishop Airport Bishop Airport, Inyo County, CA	n/a	1.3 miles northeast of Bishop parcel (APN 008-190-01)	Airline Service	403 acres	IS/ND/EA complete; SCH No. 2021030132
4	7/11 Materials 475 Airport Road, City of Bishop CA	010-270-13	1.3 miles northeast of Bishop parcel (APN 008-190-01)	General Plan and Zoning Amendment	n/a	CEQA exempt
5	Reginal Cook Hemp Cultivation 1 Hidden Valley Ranch Road, Lone Pine CA	026-070-09	1.7 miles southwest of Lone Pine parcels	Hemp Cultivation	Less than 1 acre	IS/ND approved June 17, 2021
6	Mojave Precious Metals Conglomerate Mesa Mountain Peak Keeler, CA	Federal Lands (BLM)	18 miles southeast of Lone Pine parcels	Exploratory Drilling	12.2 acres of surface disturbance	NEPA EA underway
7	Chief Farms Cannabis Cultivation 50 W. Nine Mile Canyon Rd, Pearsonville, CA	037-203-05	50+ miles south of Lone Pine parcels	Cannabis Cultivation	Less than 1 acre	IS/ND complete; SCH No. 2021030564
8	Robbie Barker Solar Trona, CA	038-330-47; 038-330-48	65+ miles south of Lone Pine parcels	Solar	10 acres	IS/MND complete
9	Desert Green Cannabis Dispensary Charleston View, CA	048-391-07	120+ miles southeast of Lone Pine parcels	Cannabis Dispensary	Less than 1 acre	IS/ND complete
10	Desert Green Cannabis Cultivation Charleston View, CA	048-392-10	120+ miles southeast of Lone Pine parcels	Cannabis Cultivation	Less than 1 acre	IS/ND complete
11	Inyo Face Cannabis Retail Charleston View, CA	048-391-05	120+ miles southeast of Lone Pine parcels	Cannabis Retail	Less than 1 acre	IS/MND complete; SCH No. 2020120074
12	Inyo Face Cannabis Cultivation Charleston View, CA	048-391-12	120+ miles southeast of Lone Pine parcels	Cannabis Cultivation	Less than 1 acre	IS/MND complete; SCH No. 2020120075

Source: Inyo County

The following provides a summary of the basis for the cumulative impact analysis for each impact area:

- **Aesthetics:** The cumulative setting for the visual analysis includes areas from which the proposed project could be publicly viewed and the impacts of the proposed project together with other cumulative projects in the County.
- **Agriculture and Forestry Resources:** The cumulative setting for agriculture and forestry resources addresses the impacts of the proposed project and other cumulative projects in the City of Bishop and Lone Pine area. Cumulative impacts would occur when a series of projects or developments leads to a loss of agricultural resources, which occurs when agricultural lands are converted to non-agricultural uses.
- **Air Quality:** The cumulative air quality setting is the Great Basin Unified Air Pollution Control District and its anticipated growth.
- **Biological Resources:** The geographic scope of the cumulative analysis for biological resources is the area surrounding the proposed project parcels together with other cumulative projects in the County.
- **Cultural Resources:** Cumulative impacts to cultural resources occur when a series of actions, including the proposed and cumulative projects, leads to the loss of a substantial type of archaeological, historic, or cultural site, building, or resource.
- **Energy:** The cumulative setting for energy includes the electricity and natural gas supplies and facilities in the service areas of both Los Angeles Department of Water & Power (LADWP) and Southern California Edison (SCE).
- **Geology and Soils:** The cumulative analysis for geology, soils, mineral resources, and paleontological resources impacts is generally site-specific and depends on past, present, and future uses and existing soil and conditions.
- **Greenhouse Gas Emissions:** Greenhouse gas (GHG) emissions are inherently a cumulative concern, in that the significance of GHG emissions is determined based on whether such emissions would have a cumulatively considerable impact on global climate change. Although the geographic scope of cumulative impacts related to GHG emissions is global, this analysis focuses on the State, the region, and the proposed project's direct and/or indirect generation or offset of GHG emissions.
- **Hazards and Hazardous Materials:** The cumulative setting for hazards and hazardous materials impacts is generally site-specific and depends on past, present, and future uses and existing soil, sediment, and conditions.
- **Hydrology and Water Quality:** The cumulative analysis for hydrology and water quality considers the impacts of the proposed project when combined with other cumulative projects the County.
- **Land Use and Planning:** The cumulative analysis for land use and planning considers the impacts of the proposed project when considered along with other cumulative projects in the County.

- **Mineral Resources:** The cumulative analysis for mineral resources considers the impacts of the proposed project when considered along with other cumulative projects in the County.
- **Noise:** The analysis of potential cumulative noise impacts attributable to construction and stationary sources considers the proposed project along with other cumulative projects in the County area due to the localized nature of noise impacts.
- **Population and Housing:** The cumulative setting for population and housing considers the impacts of the proposed project along with other cumulative projects in the County.
- **Public Services:** The cumulative setting for public services considers the impacts of the proposed project when considered along with other cumulative projects in the County.
- **Recreation:** The cumulative setting for recreation considers the impacts of the proposed project when considered along with other cumulative projects in the County.
- **Transportation:** The cumulative analysis for transportation, vehicle miles traveled (VMT), and circulation addresses the impact of the proposed project when considered along with other cumulative projects in the County. The cumulative analysis also addresses the project's potential transportation impacts in comparison with the projections provided in the County's 2019 Regional Transportation Plan.
- **Tribal Cultural Resources:** Cumulative impacts to tribal cultural resources occur when a series of actions, including the proposed and cumulative projects, leads to the loss of a substantial type of tribal cultural resources.
- **Utilities and Service Systems:** Cumulative impacts are considered in the context of the growth from the proposed project combined with the estimated growth in the service areas of each utility's service area.
- **Wildfire:** The areas considered for cumulative impacts related to wildfire are the State Responsibility Areas (SRAs) in which the project parcels and cumulative projects are located. Projects within the City of Bishop are also considered for cumulative impacts with respect to wildfire.

4.1 AESTHETICS

This section describes the regulatory framework and existing conditions related to aesthetic resources, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.1.1 Environmental Setting

4.1.1.1 Overview of Visual Resources Concepts

Aesthetic/visual resources are defined as the natural and man-made elements and features of the landscape that contribute to the visual character and quality of a setting. Because a viewer observes the visual environment as a whole and not one object at a time, the viewer's perception of that environment is based on the visual character of objects and the relationships between them. Visual character is descriptive; it is the order and combination of patterns that are created by visual elements in a scene. The fundamental pattern elements used to describe visual character are form (in terms of bulk, mass, size, and shape), line, color, and texture, and the appearance of a landscape is described according to the dominance of these elements.

Visual quality is evaluated according to the vividness, intactness, and unity present in the viewshed. These criteria for evaluating visual quality can be defined as follows:

- **Vividness** is the visual power or memorability of landscape components as they combine in distinctive visual patterns.
- **Intactness** is the visual integrity of the natural and man-made landscape and its freedom from encroaching elements.
- **Unity** is the visual coherence and compositional harmony of the landscape considered as a whole.

An individual's perception and enjoyment of a view can vary with each individual. The visual experience of the viewer is a combination of the visual resources in the landscape and the viewer's response to what is seen. Viewer response, or awareness, is composed of two elements: viewer sensitivity and viewer exposure. Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Viewer exposure is the degree to which viewers are exposed to a view or visual resource. Viewer exposure varies based on the physical location of the viewer and the distance and position of the viewer in relation to the resource, the number of viewers of the resource, and the duration and frequency of the view. A viewer's response is also affected by the degree to which he/she is receptive to the visual details, character, and quality of the surrounding landscape.

Visual Character and Quality

Visual character, visual quality, form, line, texture, and other terms are used throughout this discussion to assess the visual impacts of the proposed project. These terms, as defined by the U.S. Department of Transportation, are briefly discussed below.

Visual Character: The description of the visible attributes of a scene or object typically using artistic terms such as form, line, color, and texture.

Visual Quality: What viewers like and dislike about visual resources that compose the visual character of a particular scene. Different viewers may evaluate specific visual resources differently based on their interests in natural harmony, cultural order, and project coherence. Neighbors and travelers may, in particular, have different opinions on what they like and dislike about a scene. The rating for visual quality is described below:

- High – Views are perceived to be harmonious, orderly, or coherent and desirable visual resources are a dominant component of the view.
- Moderately High – Views may be perceived as largely harmonious, orderly, or coherent. Undesirable visual resources may be present but are few in number. Desirable visual resources are generally present and may be a dominant component of the view.
- Moderate – Views may be perceived as fairly harmonious, orderly, or coherent. Undesirable visual resources may be present but do not dominate the view. Desirable visual resources may also be present.
- Low – Views may be perceived as inharmonious, disorderly, or incoherent and undesirable visual resources are generally present.

Natural Harmony: What viewer likes and dislikes about the natural environment. The viewer labels the visual resources of the natural environment as being either harmonious or inharmonious. Harmony is considered desirable; disharmony is undesirable.

Cultural Order: What a viewer likes and dislikes about the cultural environment. The viewer labels the visual resources of the cultural environment as being either orderly or disorderly. Orderly is considered desirable; disorderly is undesirable.

Viewer Sensitivity: The degree to which viewers are sensitive to changes in the visual character of visual resources. It is the consequence of two factors, viewer exposure and viewer awareness.

Viewer Exposure: Viewer exposure is a measure of proximity (the distance between viewer and the visual resource being viewed), the extent (the number of viewers viewing), and duration (how long a time visual resources are viewed). The greater the exposure, the more viewers will be concerned about visual impacts.

Viewer Awareness: Viewer awareness is a measure of attention (level of observation based on routine and familiarity), focus (level of concentration), and protection (legal and social constraints on the use of visual resource). The greater the attention, the more viewers will be concerned about visual impacts.

Form: The unified mass or shape of an object that often has an edge or outline and can be defined by surrounding space. For example, a high-rise building would have a highly regular, rectangular form, whereas a hill would have an organic, mounded form.

Line: Perceived when there is a change in form, color, or texture, and where the eye generally follows this pathway because of the visual contrast. For example, a city's high-rises can be seen silhouetted against the blue sky and be seen as a skyline, a river can have a curvilinear line as it passes through a landscape, or a hedgerow can create a line where it is seen rising up against a flat agricultural field.

Texture: The perceived coarseness of a surface that is created by the light and shadow relationship over the surface of an object. For example, a rough surface texture (e.g., a rocky mountainside) would have many facets resulting in a number of areas in light and shadow, and gradual gradations between light and shadow.

Project Coherence: What a viewer likes and dislikes about the project environment. The viewer labels the visual resources of the project environment as being either coherent or incoherent. Coherent is considered desirable; incoherent is undesirable.

Light and Glare

Light pollution refers to all forms of unwanted light in the night sky including glare, light trespass, sky glow, and over-lighting. Views of the night sky can be an important part of the natural environment, particularly in communities surrounded by extensive open space, such as may of the communities in Inyo County. Excessive light and glare can also be visually disruptive to humans and nocturnal animal species. Electric lighting also increases night sky brightness and is the human-made source of sky glow. Sky glow is highly variable depending on immediate weather conditions, quantity of dust and gas in the atmosphere, amount of light directed skyward, and the direction from which it is viewed.

4.1.1.2 Regulatory Framework

The proposed project is subject to a number of regulations applicable to the protection of visual resources, as well as plans and policies that ensure adequate consideration is given to preserving and/or enhancing the visual qualities of an area.

Federal Regulations

Most of the land within Inyo County is held in the public trust and managed by public agencies with approximately 92 percent managed by federal agencies, including the National Parks Service (NPS), the Bureau of Land Management (BLM), U.S. Forest Service (USFS), Department of Defense (DOD), and the Bureau of Indian Affairs (BIA). Tribal reservations/lands within the BIA areas include those belonging to the Bishop Paiute Tribe, Big Pine Paiute Tribe of the Owens Valley, Fort Independence Community of Paiute, Lone Pine Paiute Shoshone Reservation, and the Timbisha Shoshone Tribe.

National Scenic Byways Program

The National Scenic Byways program is part of the U.S. Department of Transportation, Federal Highway Administration. The program was established under the Intermodal Surface Transportation Efficiency Act of 1991 and was reauthorized in 1998 under the Transportation Equity Act for the 21st Century. Under the program, the U.S. Secretary of Transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities.

State Regulations

California Scenic Highway Program

In 1963, the State Legislature established the California Scenic Highway Program through Senate Bill 1467. It is managed by the California Department of Transportation (Caltrans) Landscape Architecture

Division. The intent of the program is to establish the State's responsibility for the protection and enhancement of California's natural scenic beauty by identifying those portions of the State highway system which, together with adjacent scenic corridors, require special conservation treatment. Scenic corridors consist of land that is visible from, adjacent to, and outside of the highway right-of-way, and is comprised primarily of scenic and natural features. The designation provides benefits to scenic resources along the highway, some of which include protection from incompatible uses, mitigation of activities within the designated corridor that detract from the highway's scenic quality, and preservation of hillsides. Topography, vegetation, viewing distance, and/or jurisdictional lines determine the corridor boundaries. Under the significance criteria established by CEQA, projects are evaluated for visibility from state scenic highways.

California Building Code

The State of California provides a minimum standard for building design and outdoor lighting standards through Title 24 of the California Code of Regulations. The California Building Code is located in Part 2 of Title 24 (Inyo County 2021). The California Building Code is updated every three years, and the current 2019 California Building Code went into effect in January 2020. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. The California Building Code has been adopted for use by Inyo County pursuant to the Inyo County Municipal Code Chapter 14.08.

Local Regulations

Inyo County General Plan

Visual resources are addressed within the Conservation/Open Space and Circulation Elements of the General Plan (Inyo County 2001). Section 8.8, Visual Resources, of the Conservation/Open Space Element contains the following goals and policies to protect visual resources within the County:

- **Goal VIS-1:** Preserve and protect resources throughout the County that contribute to a unique visual experience for visitors and quality of life for County residents.
 - **Policy VIS-1.1: Historic Character.** The County shall preserve and maintain the historic character of communities within the County.
 - **Policy VIS-1.2: Community Design.** The County will encourage and assist in the establishment and maintenance of design themes within existing communities.
 - **Policy VIS-1.3: Grading Impacts.** Man-made slopes should be treated to reflect natural hillside conditions in the surrounding area.
 - **Policy VIS-1.4: Equipment Screening.** Within communities, building equipment shall be screened from public view.
 - **Policy VIS-1.6: Control of Light and Glare.** The County shall require that all outdoor light fixtures including street lighting, externally illuminated signs, advertising displays, and billboards use low energy, shielded light fixtures which direct light downward (i.e., lighting shall not emit higher than a horizontal level) and which are fully shielded.

Where public safety would not be compromised, the County shall encourage the use of low-pressure sodium lighting for all outdoor light fixtures.

- **Policy VIS-1.7: Street Lighting.** Street lighting shall only be utilized where needed to protect public safety related to traffic movement.

Section 7.3, Scenic Highways, of the Circulation Element contains following goals and policies to establish, maintain, expand, and protect scenic routes within the County:

- **Goal SH-1:** Maintain a system of scenic routes that will preserve and enhance the quality of life for present and future generations.
 - **Policy SH-1.1: Protect the Natural Qualities of Designated Scenic Routes.** The natural qualities of designated scenic routes should be protected.

4.1.1.3 Methodology

Because scenic corridors are a key part of this analysis and because roadways are a publicly accessible location for the local viewshed, the aesthetic analysis generally utilized terminology and steps outlined in the publication, Guidelines for the Visual Impact Assessment of Highway Projects (U.S. Department of Transportation 2015).

The steps outlined below were followed to assess visual impacts:

1. Establish the study area
2. Examine visual quality
3. Analyze impacts on visual quality
4. Determine mitigation and enhancement measures

To analyze the aesthetic impact of the proposed project, a qualitative approach was taken to determine the current visual quality and character of the project site and surrounding areas and to identify any impacts that may result from implementation of the proposed project.

4.1.1.4 Existing Conditions

Regional Visual Character

Inyo County encompasses approximately 6.5 million acres of land on the east side of the Sierra Nevada and includes vast areas of designated wilderness and recreation areas in a mountainous, high desert setting. While it is the second largest county in California, it has a population of only 18,039 (ACS 2019) residing in small towns and one incorporated city, the City of Bishop. The majority of the County's residents are located on the western side of the County in small communities along US 395, with several other small communities scattered throughout the County. Much of the County remains undeveloped open space. Because of its low population in comparison to its large land area and federal and wilderness lands, the character of the County is rural.

The visual environment of Inyo County is primarily characterized by its abundant and diverse natural resources and mountainous scenery. The County contains the highest point in the continental United

States at Mount Whitney (14,505 feet above mean sea level) and the lowest point in the US at Badwater Basin in Death Valley (282 feet below mean sea level). The County contains portions of the Sierra Nevada; Owens Valley; Death Valley National Park; numerous water bodies, valleys, and mountain ranges; forest land within the Inyo National Forest; historic sites; ranches; agriculture areas; and volcanic outcrops and volcanic cones.

The Sierra Nevada provides a prominent, consistent visual backdrop along the western edge of the County with steep granitic peaks that comprise the western horizon view. The jagged and often snow-capped peaks and forested slopes emerge from and contrast with the floor of Owens Valley to the east. Owens Valley is a long, north-south trending valley that lies between the Sierra Nevada and the Inyo Mountains. The Owens Valley contains creeks and riparian areas, broad grasslands, US 395, and small rural towns along US 395. The Inyo and White Mountains divide the Owens Valley to the west and Death Valley to the east. Death Valley and the surrounding Panamint and Eureka Valleys on the eastern edge of the County contain diverse and stark desert features and landforms, while the smaller valleys in the southeastern portion of the County comprise a more uniform high desert setting. Death Valley National Park, the largest national park in the continental U.S., occupies a large area of the County and contains a diverse desert environment of salt flats, sand dunes, badlands, valleys, canyons, and mountains.

Inyo County also has an abundance of cultural and historical resources that contribute to the County's scenic value and visual environment. The Valley is the historic and current home of the Paiute and Shoshone people. Burial grounds, artifacts, petroglyphs, and landscapes with cultural significance are located throughout the County. Historical resources from early Euro-American settlers such as mining, ranching, and railroad artifacts, as well as old cabins and buildings are also present.

Scenic Highways

There are three officially designated state scenic highways in Inyo County, including portions of US 395, SR 168 and SR 190. A 20-mile segment of US 395 between Fort Independence and Fish Springs Road cuts through the Owens River Valley with the mountain ridges of the Eastern Sierras as a backdrop to the west. The 16-mile segment of SR 168 west of Bishop from Camp Sabrina to Brockman Lane is also a designated state scenic highway. SR 190 extends 82 miles through Death Valley National Park and provides views of a desert setting that contrasts the lowest elevation in North America with the mountain ridges along the valley. Figure 4.1-1 shows the portions of US 395 and SR 168 that are designated as scenic highways in relation to the parcels that make up the proposed project.

Existing Viewer Sensitivity, Viewer Groups, Viewer Exposure, and Viewer Awareness

The viewer groups in the project vicinity are residents, cyclists, motorists, and recreationists. For residents, viewer sensitivity is high due to their long-term, constant presence in the area and the moderate to high visual quality of the surrounding scenery. It is also presumed that these viewer groups were drawn to the project area, in part, because of the viewshed, although motorists/cyclists may travel the project area's roadways solely to reach a destination and generally experience the scenery in the short term.

4.1.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have significant aesthetic impacts if the project would:

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

4.1.3 Impact Analysis

AES-1 The proposed project would not have a substantial adverse effect on a scenic vista.

Scenic vistas are defined as expansive views of highly valued landscapes from publicly accessible viewpoints. Future development under the project would have the potential to affect scenic vistas if new or intensified development blocked views of areas that provide or contribute to such vistas. Potential effects could include blocking views of a scenic vista from such publicly accessible vantage points or the alteration of the overall scenic vista itself. Such alterations could be positive or negative, depending on the characteristics of individual future developments and the subjective perception of observers. The County's General Plan describes scenic areas including creeks and rivers, Owens Lake, mountain ranges and valleys, expansive ranches and agricultural areas, volcanic outcrops and cones, and Death Valley National Park.

Construction activities on the eight parcels throughout the County could be visible from adjacent roadways and development. Views of the project sites are generally average within the context of the surrounding development or open space. Many views in these locations do not present distinctive features that provide a scenic vista. Although construction schedules for each site are not known at this time, construction activities would be temporary in nature. Therefore, construction activities would not have an adverse effect on a scenic vista in the location and the impact here would be less than significant.

Future development of the proposed project would be concentrated on vacant sites. In addition, development would occur in close proximity to existing development, where future development would have less impact on scenic vistas. Implementation of the proposed project would include zoning and land use designation changes on selected parcels which may result in increased development intensities and increased building height. Because of the more intense development and increases in proposed building heights, potential new development under the project could block views of the mountains, ridgelines, and other scenic resources from several vantage points. However, due to the natural topography and location of the proposed development, the far-field views of these scenic resources would not likely be affected by new development in the County and scenic vistas would be preserved. None of the project components in Chapter 3.0, Project Description, would result in the allowance of new development in sensitive areas. The proposed General Plan amendments and zoning changes are primarily to facilitate new uses in certain areas in order to promote higher-density residential development. Future development would continue to be subject to design and development standards which establish basic building parameters. Therefore, this impact would be less than significant.

Significance without Mitigation: Less than significant.

AES-2 The proposed project would not substantially damage scenic resources such as trees, rock outcroppings, and historic buildings within a State scenic highway.

There are two State scenic highways located in proximity to the proposed project: the portion of SR 168 between Inyo National Forest and the City of Bishop and the portion of US 395 that begins south of Big Pine through Independence (see Figure 4.1-1). The Bishop parcels would be in the viewshed of the scenic portion of SR 168, while the Independence parcel would be in the viewshed of the scenic portion of US 395. The Lone Pine parcels are not located within the viewshed of an existing or proposed scenic highway. While the project sites are within the viewsheds of the scenic highways, they would not substantially damage scenic resources. The parcels included in the proposed project are vacant parcels within or adjacent to existing communities.

The Independence parcel is located on the southern boundary of the community of Independence and is surrounded by undeveloped open spaces. The proposed project includes a change in this parcel's General Plan land use designation from Residential Ranch (RR) to Residential Medium Density (RM) and a change in its zoning from Rural Residential, 1-acre minimum (RR-1.0) to Multiple Family Residential (R-3). Under the R-3 zone, the maximum building height would be three stories or forty feet. This parcel is located approximately 0.25 miles to the east of US 395. Buildings developed as a result of the proposed project may be visible from the scenic portion of US 395; however, the buildings and trees currently present adjacent to US 395 would partially obscure views of any new buildings. The buildings would be consistent with the existing foreground views in Independence and would not obscure views of the mountain ranges to the east.

The three Bishop parcels are undeveloped parcels on the outskirts of the City of Bishop. Two of the parcels (APNs 008-240-01 and -02) are proposed to change their General Plan land use designation from Public Service Facilities (PF) and Agriculture (A), respectively, to Central Business District (CBD) and their zoning from Public (P) and Light Industrial (M2-PP), respectively, to Central Business (CB). The CB zone district allows for multiple-family dwellings to be developed as a conditional use. Therefore, development of multi-family residential units on these two parcels would require a conditional use permit.

These two parcels are located approximately 1.9 miles southeast of the intersection of SR 168 and Brockman Lane, which marks the beginning of the designated scenic highway portion of SR 168. The other Bishop parcel (APN 008-190-01) is also undeveloped and proposed for a General Plan land use designation change from Retail Commercial (RC) to Residential High Density (RH) and rezone from Rural Residential, 1-acre minimum (R-1) to Multiple Family Residential (R-3). This parcel is located approximately 2.25 miles southeast of the intersection of SR 168 and Brockman Lane. Multiple-family dwellings up to three stories or forty feet tall are permitted with a conditional use permit in the CB zone and are permitted by right in the R-3 zone. Depending on their height, buildings developed as a result of the proposed project may be visible from the scenic portion of SR 168. However, due to the distance of the proposed project from SR 168 and the existing trees and buildings located in between the highway and the site of the proposed project it is unlikely that the proposed project would meaningfully alter views from the scenic highway. Furthermore, the development that would be allowed under the proposed project would be consistent with the existing residential and commercial development

surrounding the project parcels and would be consistent with the existing visual character of the community of Bishop.

The development that may result from implementation of the proposed project would be located in proximity to two designated scenic highways; however, given that the development would be consistent with the visual character of the communities surrounding the project sites the proposed project would not substantially damage scenic resources within a State scenic highway. The impact would be less than significant.

Significance without Mitigation: Less than significant.

AES-3 The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings in a non-urbanized area.

Construction

Construction of individual developments implemented under the project would involve clearing and grading in areas where new structures would be built and trenching for placement of utility connections. Equipment and materials would be stored throughout the area during construction, with the location dependent on where construction is occurring. Construction activities and equipment would likely be visible to some motorists, residents, employees, tourists, and/or recreationists. Construction activities would add more unnatural elements to views that could contrast with and encroach on natural elements; however, these activities would occur in pockets throughout the County as individual projects are built and would be temporary. This would limit the number of viewers of any particular active construction area. The temporary and small-scale nature of construction that could result from implementation of the project would ensure that impacts during construction would be less than significant.

Projected Development

Implementation of the proposed project would facilitate development that would permanently alter the nature and appearance of each individual project site. Although design plans would be drafted as each site is developed, it can be assumed that project structures would be, at a minimum, partially visible from surrounding residents, as well as surrounding commercial uses and those traveling along local roadways. Residential and commercial viewers would have longer-duration views with a higher degree of sensitivity, while users of the roadways would have limited-duration views of the project due to speed and the focus on the roadway ahead. Many of the parcels proposed for new dwelling units would be infill development throughout the County, within areas that currently include views of those surrounding developments. As such, concentrating new slightly higher-density residential development adjacent to existing residential, commercial, and institutional uses would result in development that is consistent with the existing surroundings. Infill development, as proposed at many sites, is better suited for visual compatibility than the same development placed in undeveloped or underdeveloped areas where existing residential development is sparse, and the natural environment is pristine and minimally disturbed.

Depending on the location of the project site, potential changes that degrade the character or quality of the existing site could be considerable. Development on each parcel would adhere to the County zoning

code and General Plan policies related to land use. Consistency with the zoning code and General Plan would ensure that at each dwelling unit site, the new development would respect and enhance essential design characteristics that make it attractive and livable. The individual projects would be required to respond to and complement the setting, while protecting the County's natural features and scenic qualities, especially views of ridgelines, mountain ranges, and natural terrain. Compliance with the zoning code and General Plan would also ensure the use of building materials, colors, and textures that blend with the natural landscape. Individual development applications must be consistent with these guidelines in order to be approved by the County. This would ensure that the new development would result in the same high-quality design and to promote complementary uses and appearances. Each development proposal would be reviewed by the County's Development Review Committee to ensure that proposed development projects are designed in ways that are harmonious and compatible with the existing landscape and surrounding development. Adherence to the standards and guidelines would ensure consistency with zoning or other regulations governing scenic quality, resulting in less than significant impacts.

Significance without Mitigation: Less than significant.

AES-4 The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The amount of lighting in the County differs greatly between the regions and different parts of the County. In urbanized areas, light pollution and glare are prominent, while rural and rural transition areas have dark skies with little light pollution from urban areas, making these areas ideal locations for astronomical viewing. An increase in permitted heights and development intensities, as proposed under the project, would result in increases in light and glare throughout the County.

Construction

Short-term light and glare impacts associated with construction activities facilitated by implementation of the project would likely be limited to nighttime lighting (for security purposes) in the evening/nighttime hours. In accordance with Section 14.12.020 of the Inyo County Code, construction activities within five hundred feet of residential or commercial occupancies are permitted only between the hours of seven a.m. and seven p.m. Monday through Friday, with Saturday and Sunday operations between nine a.m. and five p.m. Therefore, future construction activities may require minimal hours of evening/nighttime construction lighting, which would cease by seven p.m. In the event that project construction lighting becomes a nuisance to surrounding uses, the County would ensure construction-related lighting would be oriented away from adjacent residential areas, if necessary, and consist of the minimal wattage necessary to provide safety at the construction site. Construction-related lighting impacts would be short-term and would cease generally by seven p.m. Therefore, short-term light and glare impacts associated with future construction activities would be less than significant.

Operation

The amendments to the zoning and General Plan land use designations would modify land uses, zoning, and density in certain areas throughout the County, which in turn would intensify related lighting sources and light spillage onto adjacent land uses. These light sources would generally be new because the development would take place on parcels currently categorized as vacant. In addition to new

lighting sources the proposed project would result in new buildings that could result in new sources of glare. Despite the new and expanded sources of nighttime illumination and glare, the proposed project is not expected to generate a substantial increase in light and glare.

Upon development of the project parcels, new sources of lighting would include new security lighting and lighting that would originate from the interior of proposed residential uses. New sources of glare could include light reflections from vehicles and building materials such as reflective glass and polished surfaces. Glare can create hazards to motorists and be a nuisance for bicyclists and pedestrians and other sensitive viewers. Currently, the specific types of building materials and glass surfaces of the proposed buildings are unknown. In addition, any proposed lighting would be required to comply with Inyo County and California Building Code, Title 24 lighting codes. The project would also comply with Policy VIS-1.6 of the General Plan, which requires that all outdoor light fixtures use low-energy, shielded light fixtures which direct light downward to minimize spillover. Lighting impacts would vary, depending on the location of the project sites. Because all the project sites are in existing communities, some ambient nighttime lighting currently exists. The small increases of building intensity as a result of the project, combined with the fact that the sites are not concentrated in one particular area, but rather located throughout the County, would result in only a minor change to existing communities. Development of the proposed project would be required to comply with Inyo County Code and the California Building Code, as well as the policies of the Inyo County General Plan, and therefore the impacts would be less than significant.

Significance without Mitigation: Less than significant.

4.1.4 Cumulative Impacts

AES-5 The proposed project would not result in a significant cumulative impact with respect to aesthetics.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly have a substantial adverse effect on a scenic vista, substantially damage scenic resources, degrade existing character or public views, or create a new source of substantial light or glare. The analysis of cumulative impacts is based on impacts of the proposed project and the other cumulative projects in the County as listed in Table 4-1, Inyo County Cumulative Projects List. As discussed above, the proposed project will not have a significant impact on scenic vistas, scenic resources, existing character or public views, or create a new source of light or glare.

Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp cultivation, dispensaries, and/or retail projects that are less than 1-acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels). Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. The projects located at greater distances from the proposed project are not anticipated to have a cumulatively considerable impact on aesthetics due to their distance from the parcels included in the proposed project. The projects that are located in proximity to the proposed

project, including the Countywide and City of Bishop land use and planning projects, would take place within the existing developed areas of Inyo County and would be consistent with the existing visual character of these areas. Therefore, this project, in combination with the projects considered in this cumulative analysis, would not have a cumulatively considerable impact on scenic vistas, scenic resources, public views, or light and glare.

Significance without Mitigation: Less than significant impact.

4.1.5 References

American Communities Survey (ACS). 2019. Annual Estimates of the Resident Population of Inyo County, California. Accessed June 2, 2021 and available at:

<https://data.census.gov/cedsci/table?q=Inyo%20County%202019%20population&tid=PEPP0P2019.PEPANNRES>.

Inyo County. 2021. Inyo County Code: Title 18 Zoning. Current through Ordinance 1264, effective March 21, 2021. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

U.S. Department of Transportation. 2015. Guidelines for the Visual Impact Assessment of Highway Projects. Accessible at:

https://www.environment.fhwa.dot.gov/env_topics/other_topics/VIA_Guidelines_for_Highway_Projects.aspx.

4.2 AGRICULTURE AND FORESTRY RESOURCES

This section describes the environmental setting and regulatory framework for agriculture and forestry resources and analyzes the potential impacts on agriculture and forestry resources that would result from implementation of the project. The potential effects on agriculture and forestry resources were evaluated according to Appendix G of the CEQA Guidelines to determine their level of significance.

4.2.1 Environmental Setting

4.2.1.1 Regulatory Framework

Federal Regulations

Farmland Protection Policy Act (Public Law 97-98, 7 USC Section 4201)

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that to the extent possible federal programs are administered to be compatible with state, local units of government, and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every two years.

The FPPA does not authorize the federal government to regulate the use of private or non-federal land or, in any way, affect the property rights of owners. Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency, or with assistance from a federal agency.

For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland or other land, but not water or developed land. The Natural Resource Conservation Service (NRCS) uses a land evaluation and site assessment system to establish a farmland conversion impact rating score on proposed sites of federally funded and assisted projects. This score is used as an indicator for the project sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the recommended allowable level (NRCS 2021).

Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) of 1976 was passed to establish policy for managing BLM-administered public lands, including the long-term stability and use of BLM-administered public lands by the livestock industry. The FLPMA authorized 10 year grazing permits and required a 2 year notice of cancellation. The FLPMA also directed grazing advisory boards (formed under the Taylor Grazing Act) to guide the BLM in developing allotment management plans and allocating range betterment funds.

Unlike the Taylor Grazing Act, the FLPMA does not distinguish between grazing permits and leases. In Sections 401 through 403 of the FLPMA, which deals with grazing management on the public lands, the term “permit or lease” appears over 25 times together and never as only “permit” or “lease.” The clear intent of Congress is that BLM’s grazing administration on all public lands be consistent for both permits and leases.

The BLM's grazing regulations were changed in July 1978 to eliminate separate sections addressing administration of Section 3 permits and Section 15 leases. This made the regulations consistent with the language of the FLPMA in that no distinction is made between permits and leases.

BLM's Bishop field office manages 20 allotments within the County. Of those allotments, 19 are actively used. Two are split between Inyo and Mono Counties. BLM's Ridgecrest field office manages 6.5 allotments within the County. All of the allotments are actively being used by cattle leases. One of the allotments is split between Inyo and Mono Counties.

State Regulations

California Department of Conservation, Division of Land Resource Protection

California Public Resources Code Section 21060.1 defines agricultural land for the purposes of assessing environmental impacts using the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). The Department of Conservation applies the NRCS soil classifications to identify designated agricultural lands. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and monitor the conversion of these lands. Pursuant to the FMMP, designated agricultural lands are included in Important Farmland Maps used in planning for California's agricultural land resources. No land within Inyo County has been identified as Important Farmland under the FMMP. Because of budget constraints and the lack of published soil surveys, potentially important farmlands in Inyo County have not been identified.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is promulgated in California Government Code Section 51200-51297.4, and is applicable to specific land parcels within the State of California. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments.

The Williamson Act program is administered by the Department of Conservation in conjunction with local governments, which administer the individual contract arrangements with landowners. The landowner commits the parcel to a 10-year period within which no conversion out of agricultural use is permitted. Each year, the contract automatically renews unless a notice of non-renewal or cancellation is filed. In return, the land is taxed at a rate based on the actual use of the land for agricultural purposes, as opposed to its unrestricted market value. Participation in the Williamson Act program is dependent on County adoption and implementation of the program and is voluntary for landowners. Inyo County does not currently offer a Williamson Act Program.

California Public Resource Code

The California Public Resources Code governs forestry, forests, and forest resources within the state. "Forest land" is defined by Public Resources Code Section 12220(g) as "land that can support 10 percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits." Timberland is defined by Public Resources Code Section 4526 as "land, other than land owned by the federal government..., which is

available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees.”

California Government Code

Chapter 6.7 of the California Government Code (Sections 51100–51155) regulates timberlands within the state. A timberland production zone is defined in Section 51104(g) as an area that has been zoned pursuant to Government Code Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses. In this context, “compatible uses” include any use that “does not significantly detract from the use of the property for, or inhibit, growing and harvesting timber” (Government Code Section 51104(h)).

Local Regulations

1997 Memorandum of Understanding

A Memorandum of Understanding (MOU) was established in 1997 between LADWP, Inyo County, CDFW, SLC, the Sierra Club and the Owens Valley Committee to provide for resolution of conflict over the Lower Owens River Project (LORP) and other provisions of LADWP’s 1991 EIR. The MOU emphasizes the need to maintain sustainable levels of agriculture and livestock grazing in the valley.

Owens Valley Land Management Plan

The Owens Valley Land Management Plan (OVLMP) is a resource management guide for LADWP-owned non-urban lands in Inyo County, excluding the LORP area. The Final OVLMP was released in April 2010. The OVLMP provides a framework for implementing management prescriptions through time, monitoring resources, and adaptively managing changed land and water conditions. A primary aspect of the OVLMP is grazing management aimed at implementing sustainable practices, balancing agricultural needs and other resource needs based on the carrying capacity of the land. Grazing management has been implemented through a series of LADWP-administered grazing leases to private parties.

Inyo County General Plan

The General Plan (Inyo County 2001) contains policies intended to protect and promote agricultural pursuits within its jurisdiction. The Land Use Element defines the general distribution and intensity of uses of the land for housing, business, industry, open space, education, public buildings and grounds, and other categories of public and private uses, including agriculture. The Conservation/Open Space Element presents goals, policies, and implementation measures for multiple resources in the County, including agricultural resources. The agricultural goals and policies that are contained within the General Plan are listed below.

Government Element

- **Goal GOV-6:** Preservation of Agricultural Resources.
 - **Policy GOV-6.1: Agricultural Policies.** It is the policy of the County to protect agricultural land and promote the continuation of agricultural pursuits. The County seeks to ensure all of the following:

- a) Those opportunities for agriculture on federal and state land shall be continued, or expanded at levels consistent with historical custom and culture and the protection of equitable property rights, and sound management practices.
- b) Federal and state governments shall not unreasonably obstruct agricultural opportunities on lands managed by them.
- c) Federal and state land managing agencies coordinate with the County on all matters affecting agriculture on all federal and state managed lands.
- d) Land leased from Los Angeles for agriculture be expanded.

Conservation/Open Space Element

- **Goal S-1:** Maintain the productivity of Inyo County's soils.
 - **Policy S-1.1: Soil Conservation for Agriculture.** Encourage the conservation of agricultural soils to provide a base for agricultural productivity and the County's economy.
- **Goal AG-1:** Provide and maintain a viable and diverse agricultural industry in Inyo County.
 - **Policy AG-1.2: Continue Agricultural Production.** Support and encourage continued agricultural production activities in the County.
 - **Policy AG-1.4: Minimize Land Conflict.** Preserve and protect agricultural lands from encroachment by incompatible land uses.
 - **Policy AG-1.6: Public Lands for Agriculture.** Support the continued use and expansion of public lands for agricultural operations.

Inyo County Zoning Ordinance

ICC Title 18 contains the County's Zoning Ordinance, which provides the regulations and laws that define how properties subject to County jurisdiction can be used. The Open Space zoning allows agricultural and livestock uses. The Rural Residential zoning allows agricultural uses of orchards, and vegetable and field crops. The Commercial Recreation zoning allows agricultural and grazing, and the Light Industrial zoning allows agriculture uses of any kind, excluding feedlots, poultry ranches, or slaughterhouses.

4.2.1.2 Methodology

4.2.1.3 Existing Conditions

Agriculture is important to the culture, heritage, and economy of the County. Dating back to the late 1800s and due primarily to the extensive rangelands available for grazing, the primary agriculture activity in the County is livestock production, consisting of raising cattle, pack animals (horses, mules, and burros for transporting people and supplies), poultry, and sheep. A lesser amount of acreage of intensive row and field crop agriculture occurs, and irrigated pasturelands are also present within the County. Apiary operations are another small yet consistent agricultural pursuit within the County (Inyo County 2001). Crop production includes alfalfa hay, irrigated pasture, potatoes, turf, dates and other fruits, and honey (Agricultural Commissioner 2019).

Approximately 31,652 acres are designated for agricultural land use in the General Plan (Inyo County 2001).

4.2.2 Significance Thresholds

In accordance with Appendix G of the State CEQA Guidelines, the proposed project would have a significant impacts to agriculture and forestry resources if the project would:

1. Result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the FMMP of the California Resources Agency, to nonagricultural use;
2. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract;
3. Conflict with existing zoning for, or cause rezoning of forest land (as defined in California Public Resources Code section 12220 (g)), timberland (as defined by California Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]);
4. Result in the loss of forest land or conversion of forest land to non-forest use;
5. Other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.

4.2.3 Impact Analysis

AG-1 The proposed project would not convert Important Farmland to nonagricultural use.

According to the FMMP of the California Resources Agency, none of the eight parcels included as part of the proposed project is designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2016). Therefore, the proposed project would not convert any parcels designated as important farmland to non-agricultural use and there would be no impact.

Significance without Mitigation: No impact.

AG-2 The proposed project would not conflict with existing zoning for agricultural use or with a Williamson Act contract.

According to the Department of Conservation, Inyo County does not offer Williamson Act contracts and therefore none of the parcels included in the proposed project are under Williamson Act contract (California Department of Conservation 2019). None of the parcels included in the proposed project are currently in agricultural production and as shown in Table 2-1 in Chapter 2.0, Project Setting and Location, seven of the eight parcels are not located on land zoned for agricultural use or designated for agricultural use under the General Plan. One parcel in Bishop, APN 008-240-02, currently has an agricultural land use designation under the General Plan. However, the parcel is zoned as light industrial

(M2-PP) and is currently vacant. The land use designation and zoning changes proposed by the project would not conflict with existing zoning for agricultural use or with a Williamson Act contract. Therefore, impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

AG-3 The proposed project would not conflict with existing zoning of forest land, timberland, or timberland zoned Timberland Production.

As shown in Table 2-1 in Chapter 2.0, Project Setting and location, none of the parcels included in the proposed project are zoned for forest land, timberland, or timberland production. Therefore the land use designation and zoning changes proposed by the project would not convert existing forest land or timberland to non-forest uses and there would be no impact.

Significance without Mitigation: No impact.

AG-4 The proposed project would not result in the loss of farmland to nonagricultural use or conversion of forest land to non-forest use.

As discussed in Impacts AG-1 through AG-3, the parcels included in the proposed project are not currently used or zoned for agricultural or forest use. Therefore, the proposed project would not convert agricultural or forest land to non-agricultural or non-forest uses and there would be no impact.

Significance without Mitigation: No impact.

4.2.4 Cumulative Impacts

AG-5 The proposed project would not result in a significant cumulative impact with respect to agriculture and forestry resources.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly result in the conversion of Important Farmland to nonagricultural use, conflict with existing zoning for agricultural or forest use, or result in the loss of agricultural or forest land to non-agricultural or non-forest uses. The analysis of cumulative impacts is based on impacts of the proposed project and the other cumulative projects in the County.

As discussed above, the proposed project is not located on land zoned for or involved in the production of agriculture or timber, and therefore the proposed project would have no impact and would not contribute to a potential cumulative impact to these resources. Therefore, no cumulatively considerable impact associated with land use plans and/or policies would occur with approval of the proposed project.

Significance without Mitigation: No impact.

4.2.5 References

California Department of Conservation. 2016. California Important Farmland Finder. Accessed October 12, 2021 and available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>.

2016. Land Conservation (Williamson) Act. Accessed October 12, 2021 and available at: https://www.conservation.ca.gov/dlrp/wa/Pages/LCA_QandA.aspx.

Inyo and Mono Counties Agricultural Commissioner's Office (Agricultural Commissioner). 2019. 2019 Crop and Livestock Report. Accessed July 8, 2021 and available at: https://www.inyocounty.us/sites/default/files/2020-08/Crop%20Report%202019%20WEB_0.pdf.

Inyo County. 2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

Natural Resources Conservation Service (NRCS). 2021. Farmland Protection Policy Act: Background and Purpose. Accessed July 8, 2021 and available at: http://www.nrcs.usda.gov/wps/portal/nrcs/detail//?cid=nrcs143_008275.

4.3 AIR QUALITY

This section describes the regulatory framework and existing conditions related to air quality in the vicinity of the proposed project, evaluates the potential air quality impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.3.1 Environmental Setting

The project is located in Inyo County, which is part of the Great Basin Valleys Air Basin (Basin). The Basin is named for its geological formation of valleys surrounded by mountains. Air rises and sinks in the Basin due to the heat in the valleys and height of the mountains that causes the air and its pollutants to settle in the valleys and basins. Air quality in the Basin is regulated by the U.S. Environmental Protection Agency (USEPA) at the federal level, by the California Air Resources Board (CARB) at the State level, and by the Great Basin Unified Air Pollution Control District (GBUACPD) at the regional level.

4.3.1.1 Air Pollutant Descriptors and Terminology

Criteria pollutants are defined by State and federal law as a risk to the health and welfare of the general public. In general, criteria air pollutants include the following compounds:

- Ozone (O₃)
- Carbon monoxide (CO)
- Nitrogen dioxide (NO₂)
- Particulate matter (PM), which is further subdivided:
 - Coarse PM, 10 micrometers or less in diameter (PM₁₀)
 - Fine PM, 2.5 micrometers or less in diameter (PM_{2.5})
- Sulfur dioxide (SO₂)
- Lead (Pb)

Criteria pollutants can be emitted directly from sources (primary pollutants; e.g., CO, SO₂, PM₁₀, PM_{2.5}, and lead), or they may be formed through chemical and photochemical reactions of precursor pollutants in the atmosphere (secondary pollutants; e.g., ozone, NO₂, PM₁₀, and PM_{2.5}). PM₁₀ and PM_{2.5} can be both primary and secondary pollutants. The principal precursor pollutants of concern are reactive organic gases ([ROGs] also known as volatile organic compounds [VOCs])¹ and nitrogen oxides (NO_x).

The descriptions of sources and general health effects for each of the criteria air pollutants are shown in Table 4.3-1, *Summary of Common Sources and Human Health Effects of Criteria Air Pollutants*, based on information provided by the California Air Pollution Control Officers Association ([CAPCOA] 2018). Specific adverse health effects on individuals or population groups induced by criteria pollutant emissions are highly dependent on a multitude of interconnected variables such as cumulative concentrations, local meteorology and atmospheric conditions, and the number and characteristics of

¹ CARB defines and uses the term ROGs while the USEPA defines and uses the term VOCs. The compounds included in the lists of ROGs and VOCs and the methods of calculation are slightly different. However, for the purposes of estimating criteria pollutant precursor emissions, the two terms are often used interchangeably.

exposed individuals (e.g., age, gender). Criteria pollutant precursors (ROG and NO_x) affect air quality on a regional scale, typically after significant delay and distance from the pollutant source emissions. Health effects related to ozone and NO₂ are, therefore, the product of emissions generated by numerous sources throughout a region. Emissions of criteria pollutants from vehicles traveling to or from the project site (mobile emissions) are distributed nonuniformly in location and time throughout the region, wherever the vehicles may travel. As such, specific health effects from these criteria pollutant emissions cannot be meaningfully correlated to the incremental contribution from the project.

**Table 4.3-1
SUMMARY OF COMMON SOURCES AND HUMAN HEALTH EFFECTS OF CRITERIA AIR POLLUTANTS**

Pollutant	Major Man-Made Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Contributes to climate change and nutrient overloading, which deteriorates water quality. Causes brown discoloration of the atmosphere.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases (ROGs) and nitrogen oxides (NO _x) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield. Damages rubber, some textiles and dyes.
Particulate Matter (PM ₁₀ and PM _{2.5})	Produced by power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and other sources.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
Sulfur Dioxide (SO ₂)	A colorless, nonflammable gas formed when fuel containing sulfur is burned, when gasoline is extracted from oil, or when metal is extracted from ore. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid, which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries.	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems.

Source: CAPCOA 2018

4.3.1.2 Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye watering, respiratory irritation (a cough), runny nose, throat pain, and headaches. TACs may be carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For carcinogenic TACs, there is no level of exposure that is considered safe, and impacts are evaluated in terms of overall relative risk expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

Diesel engines emit a complex mixture of air pollutants, including both gaseous and solid material. The solid material in diesel exhaust is referred to as diesel particulate matter (DPM). Almost all DPM is 10 microns or less in diameter, and 90 percent of DPM is less than 2.5 microns in diameter (CARB 2018a). Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung. In 1998, CARB identified DPM as a TAC based on published evidence of a relationship between diesel exhaust exposure and lung cancer and other adverse health effects. DPM has a notable effect on California’s population—it is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2018a).

4.3.1.3 Regulatory Framework

Federal Regulations

Clean Air Act

Air quality is defined by ambient air concentrations of specific pollutants identified by the USEPA to be of concern with respect to the health and welfare of the general public. The USEPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish National Ambient Air Quality Standards (NAAQS), which identify concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for several criteria pollutants, which are introduced above. Table 4.3-2, Ambient Air Quality Standards, shows the federal and State ambient air quality standards (AAQS) for these pollutants.

**Table 4.3-2
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary ¹	Secondary ²
O ₃	1 Hour	0.09 ppm (180 µg/m ³)	–	–
	8 Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (137 µg/m ³)	Same as Primary
PM ₁₀	24 Hour	50 µg/m ³	150 µg/m ³	Same as Primary
	AAM	20 µg/m ³	–	Same as Primary

Pollutant	Averaging Time	California Standards	Federal Standards	Federal Standards
			Primary ¹	Secondary ²
PM _{2.5}	24 Hour	–	35 µg/m ³	Same as Primary
	AAM	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
CO	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	–
	8 Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)	–	–
NO ₂	1 Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	–
	AAM	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary
SO ₂	1 Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m ³)
	24 Hour	0.04 ppm (105 µg/m ³)	–	–
Lead	30-day Avg.	1.5 µg/m ³	–	–
	Calendar Quarter	–	1.5 µg/m ³	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m ³	
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	No Federal Standards	
Sulfates	24 Hour	25 µg/m ³		
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m ³)		

Source: CARB 2016

¹ National Primary Standards: The levels of air quality necessary, within 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 O₃: ozone; ppm: parts per million; µg/m³: micrograms per cubic meter; PM₁₀: large particulate matter; AAM: Annual Arithmetic Mean; PM_{2.5}: fine particulate matter; CO: carbon monoxide; mg/m³: milligrams per cubic meter; NO₂: nitrogen dioxide; SO₂: sulfur dioxide; km: kilometer; –: No Standard.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. Areas that do not meet the NAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. The area air quality attainment status of the Basin, including Inyo County, is shown in Table 4.3-3, Great Basin Valleys Air Basin Attainment Status. The Basin is currently in nonattainment for federal and State PM₁₀ standards. The Basin is in State nonattainment for ozone (1-hour and 8-hour) standards. Concentrations of all other pollutants meet State and federal standards.

**Table 4.3-3
GREAT BASIN VALLEYS AIR BASIN ATTAINMENT STATUS**

Pollutant	State of California Attainment Status	Federal Attainment Status
Ozone (1-hour)	Nonattainment	No Federal Standard
Ozone (8-hour)	Nonattainment	Attainment/Unclassified
Suspended Particulate Matter (PM ₁₀)	Nonattainment	Nonattainment*
Fine Particulate Matter (PM _{2.5})	Attainment	Attainment/Unclassified
Carbon Monoxide (CO)	Attainment	Attainment/Unclassified
Nitrogen Dioxide (NO ₂)	Attainment	Attainment/Unclassified
Lead	Attainment	Attainment/Unclassified
Sulfur Dioxide (SO ₂)	Attainment	Attainment/Unclassified
Sulfates	Attainment	No Federal Standard
Hydrogen Sulfide	Attainment	No Federal Standard
Visibility Reducing Particles	Unclassified	No Federal Standard

Sources: CARB 2019, 2018b.

*Nonattainment area is the Owens Valley PM₁₀ Planning Area

State Regulations

California Clean Air Act

CARB has established the more stringent California Ambient Air Quality Standards (CAAQS) for the seven criteria air pollutants listed above through the California CAA of 1988, and has also established CAAQS for additional pollutants, including sulfates, hydrogen sulfide (H₂S), vinyl chloride and visibility-reducing particles (see Table 4.3-2). Areas that do not meet the CAAQS for a particular pollutant are considered to be “nonattainment areas” for that pollutant. The Basin is currently classified as a nonattainment area under the CAAQS for ozone (1-hour and 8-hour) and PM₁₀. The current State attainment status for the Basin is provided in Table 4.3-3.

CARB is the State regulatory agency with the authority to enforce regulations to both achieve and maintain the NAAQS and CAAQS. The Basin is responsible for developing and implementing the rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, developing of air quality management plans, and adopting and enforcing air pollution regulations within the Basin.

State Implementation Plan

The CAA requires areas with unhealthy levels of ozone, inhalable particulate matter, carbon monoxide, nitrogen dioxide, and sulfur dioxide to develop plans, known as State Implementation Plans (SIPs). SIPs are comprehensive plans that describe how an area will attain the NAAQS. The 1990 amendments to the CAA set deadlines for attainment based on the severity of an area's air pollution problem.

SIPs are not single documents—they are a compilation of new and previously submitted plans, programs (e.g., monitoring, modeling, permitting), district rules, State regulations and federal controls. Many of California's SIPs rely on a core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and

submit them to CARB for review and approval. CARB forwards the SIP revisions to the USEPA for approval and publication in the Federal Register. The CFR Title 40, Chapter I, Part 52, Subpart F, Section 52.220 lists all of the items that are included in the California SIP (CARB 2009). At any one time, several California submittals are pending USEPA approval.

California Energy Code

The California Code of Regulations, Title 24, Part 6 is the California Energy Efficiency Standards for Residential and Nonresidential Buildings (also known as the California Energy Code). Future buildings associated with implementation of the project would be required to be designed to meet applicable the Title 24 energy efficiency standards in effect at the time of construction, including (but not limited to): insulation of conditioned spaced; lighting energy efficiency; appliance energy efficiency; and plumbing fixture water efficiency.

Toxic Air Contaminants

The Health and Safety Code (§39655, subd. (a)) defines a TAC as “an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health.” A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the CAA (42 United States Code Sec. 7412[b]) is a TAC. Under State law, the California Environmental Protection Agency (CalEPA), acting through CARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or that may pose a present or potential hazard to human health.

Regional and Local Regulations

Great Basin Unified Air Pollution Control District

The GBUAPCD enforces regulations and administers permits governing stationary sources by limiting emissions of criteria air pollutants and TACs. The GBUAPCD has adopted rules and regulations that regulate visible emissions, nuisance emissions, and fugitive dust emissions. The following rules would apply to the project:

- **Rules 200-A and 200-B. Permits Required:** Before any individual builds or operates anything which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants, such person must obtain a written authority to construct and permit to operate from an Air Pollution Control Officer.
- **Rules 401 and 402. Fugitive Dust and Nuisance:** Rule 401 requires that airborne particles remain at their place of origin under normal wind circumstances. Mitigation techniques, approved by the GBUAPCD must be implemented to ensure the containment of fugitive dust. Rule 401 does not apply to emissions discharged through a stack (point source). Rule 402 specifies that any discharge from any source in quantities of air contaminants or other materials which may cause injury, detriment, nuisance or annoyance, or damage to any public property or considerable number of people should be regulated.

Regional Comprehensive Plan

The Basin is identified as an Isolated Rural area, which means that its emissions are not part of an emissions analysis of any metropolitan planning area or plan. Thus, there is no regional plan to guide growth and transportation in the area.

Inyo County General Plan

Air Quality is addressed within the Public Safety Element of the General Plan, as amended. Section 9.2, Air Quality, of the Public Safety Element contains the following goals and policies to protect air quality in the County:

- **Goal AQ-1:** Provide good air quality for Inyo County to reduce impacts to human health and the economy.
 - **Policy AQ-1.1: Regulations to Reduce PM₁₀.** Support the implementation of the SIP and the agreement between GBUAPCD and the LADWP to reduce PM₁₀.
 - **Policy AQ-1.2: Attainment Programs.** Participate in the GBUAPCD's attainment programs.
 - **Policy AQ-1.3: Dust Suppression During Construction.** Require dust-suppression measures for grading activities.
 - **Policy AQ-1.4: Energy Conservation.** Encourage the use of energy-conservation devices in public and private buildings.
 - **Policy AQ-1.5: Monitor Regional Development.** Publicly object to development proposals within the region that do not adequately address and mitigate air quality impacts, especially fugitive dust.

4.3.1.4 Existing Conditions

Inyo County is located on the east side of the Sierra Nevada, in the east central part of California. It is bordered by Mono County to the north, Fresno and Tulare Counties to the west, and Kern and San Bernardino Counties to the south. The eastern boundary of the County is the California state line with Nevada. Inyo County is approximately 10,200 square miles and is largely undeveloped. The County's lone incorporated city, the City of Bishop, is located in the north central area of the County. The County is located within the Great Basin region of the United States which is noted for its arid climate and basin and range topography. This area is characterized by broad valleys traversed by streams, rivers, and washes, giving rise to mountain ranges of low hills and jagged peaks. The County's western boundary follows the east side of the Sierra Nevada. The project parcels evaluated in this EIR are located in the unincorporated communities of Independence and Lone Pine and surrounding the City of Bishop.

Climate

The variable climate of the Basin is determined by its diverse terrain and geographic location. The climate of the region is greatly influenced by the Sierra Nevada and is generally semi-arid to arid,

characterized by low precipitation, abundant sunshine, frequent winds, moderate to low humidity, and high potential for evapotranspiration.

The average minimum winter temperature is in the high 20 degrees Fahrenheit (°F), while the average maximum summer temperature is in the mid- to high 90°F. Most precipitation occurs between November and February. Spring is the windiest season, with fast-moving northerly weather fronts. During the day, southerly winds result from the strong solar heating of the nearby mountain slopes, causing upslope circulation. Summer winds are northerly at night as a result of cool air draining from higher to lower elevations (WRCC 2016).

Existing Air Quality

Criteria air pollutant concentrations are currently measured at 15 monitoring stations in the Basin. The nearest monitoring station with data representative of the project area is the Bishop-Line station located at 3000 East Line Street in Bishop. The Bishop-Line station monitors ozone, PM₁₀, and PM_{2.5}. The Keeler-Cerro Gordo Road station, located at 190 Cerro Gordo Road in Keeler, is the monitoring station nearest the southern parcels of the project that monitors both PM₁₀ and PM_{2.5}. Table 4.3-4 shows pollutant levels at each applicable station. PM₁₀ and PM_{2.5} levels are shown for both the Bishop-Line and Keeler-Cerro Gordo Road monitoring stations.

**Table 4.3-4
AIR QUALITY MONITORING DATA**

Pollutant Standard	2018	2019	2020
<i>Ozone (O₃) – Bishop-Line</i>			
Maximum 1-hour concentration (ppm)	0.083	0.069	0.079
Days above 1-hour State standard (0.08 ppm)	0	0	0
Maximum 8-hour concentration (ppm)	0.075	0.065	0.073
Days above 8-hour State standard (0.070 ppm)	7	0	1
Days above 8-hour federal standard (0.070 ppm)	6	0	1
<i>Fine Particulate Matter (PM_{2.5}) –</i>			
<i>Bishop-Line Monitoring Station</i>			
Maximum 24-hour concentration (µg/m ³)	247.4	98.9	196.9
Measured Days above federal standard (35 µg/m ³)	9	3	28
<i>Keeler-Cerro Gordo Road Monitoring Station</i>			
Maximum 24-hour concentration (µg/m ³)	152.2	63.4	160.7
Measured Days above federal standard (35 µg/m ³)	2	2	22
<i>Particulate Matter (PM₁₀) –</i>			
<i>Bishop-Line Monitoring Station</i>			
Maximum 24-hour concentration (µg/m ³)	259.0	456.0	134.0
Measured Days above State 1-hour standard (50)	5	3	7
<i>Keeler-Cerro Gordo Road Monitoring Station</i>			
Maximum 24-hour concentration (µg/m ³)	538.0	234.0	428.0
Measured Days above State 1-hour standard (50)	6	5	20

Source: CARB 2021a.

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

Sensitive Receptors

CARB and the Office of Environmental Health Hazard Assessment (OEHHA) have identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, infants (including in utero in the third trimester of pregnancy), and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis (CARB 2005; OEHHA 2015). Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved and are referred to as sensitive receptors. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers.

The closest existing sensitive receptors to the project parcels are single-family residences. In addition, a daycare facility is located approximately 100 feet northwest of one of the Bishop parcels (APN 008-190-01). The Keith B. Bright High School is located approximately 650 feet west of the Independence parcel, and the Lo-Inyo Elementary School is located approximately 650 feet northwest of the Lone Pine parcels. The Southern Inyo Healthcare District Hospital is also located approximately 800 feet northeast of the Lone Pine parcels.

4.3.2 Methodology

Criteria pollutant and precursor emissions for the project remediation and construction activities, and long-term operation were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. The model was developed for the CAPCOA in collaboration with the California air districts. CalEEMod allows for the use of default data (e.g., emission factors, trip lengths, meteorology, source inventory) provided by the various California air districts to account for local requirements and conditions, and/or user-defined inputs. The model calculates emissions of CO, PM₁₀, PM_{2.5}, SO₂, and the ozone precursors ROG_s and NO_x. The calculation methodology and input data used in CalEEMod can be found in the CalEEMod User's Guide Appendices A, D, and E (CAPCOA 2021). The input data and subsequent construction and operation emission estimates for the project are discussed below. CalEEMod output files for the project are included in Appendix D to this EIR.

Construction Emissions

Construction emissions were estimated based on a conservative development timeline, which assumes construction could begin as early as Summer 2022 and would be completed by Winter 2025, for a total construction period of approximately 30 months. The quantity, duration, and intensity of construction activity influence the amount of construction emissions and related pollutant concentrations that occur at any one time. As such, the emission forecasts provided herein reflect a specific set of conservative assumptions based on the expected construction scenario wherein a relatively large amount of construction activity is occurring in a relatively intensive manner. Because of this conservative assumption, actual emissions could be less than those forecasted. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix than assumed in CalEEMod, and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval).

Development of the project parcels would result in a temporary addition of pollutants to the local airshed caused by soil disturbance, dust emissions, and combustion pollutants from on-site construction equipment and off-site trucks hauling construction materials, including water to the site. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. Fugitive dust emissions would primarily result from site preparation and grading activities. NO_x and CO emissions would primarily result from the use of construction equipment and motor vehicles.

Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be used; (3) areas to be excavated and graded; and (4) volumes of materials to be exported from and imported to the project area. The analysis assessed maximum daily emissions from individual construction activities, including site preparation, grading, paving, building construction, and architectural coating. Construction would require heavy equipment during site preparation, grading, building construction, and paving. Construction equipment estimates are based on CalEEMod defaults, adjusted for the anticipated construction schedule and site conditions. The modeled construction equipment for each activity is shown in Table 4.3-5, Construction Equipment Assumptions.

**Table 4.3-5
CONSTRUCTION EQUIPMENT ASSUMPTIONS**

Equipment	Horsepower	Number	Hours per Day
Site Preparation			
Rubber Tired Dozers	247	3	8
Tractors/Loaders/Backhoes	97	4	8
Grading			
Excavators	158	2	8
Graders	187	1	8
Rubber Tired Dozers	247	1	8
Scrapers	367	2	8
Tractors/Loaders/Backhoes	97	2	8
Paving			
Pavers	130	2	8
Paving Equipment	132	2	8
Rollers	80	2	8
Building Construction			
Cranes	231	1	7
Forklifts	89	3	8
Generator Sets	84	1	8
Tractors/Loaders/Backhoes	97	3	7
Welders	46	1	8
Architectural Coating			
Air Compressors	78	1	6

Source: CalEEMod (output data is provided in Appendix D).

Construction traffic would primarily include the delivery of construction equipment, vehicles, and materials including concrete, water, and daily construction worker trips. Equipment, materials, and labor would likely come from the Inyo County area; however, it is possible that some equipment, materials, and labor would need to come from outside areas due to the rural nature of Inyo County. Emissions would vary based on the length of travel, with higher emissions associated with longer trips.

Construction activities would be temporary and short-term in nature and would vary day to day depending on the nature or phase of construction (e.g., site preparation, grading and excavation, building construction).

Operation Emissions

The project land uses were modeled as: 492 condominium/townhouse units with a default floor space of 1,000 square feet each.

4.3.3 Significance Thresholds

The impact analysis provided below is based on the application of the following State CEQA Guidelines Appendix G thresholds of significance, which indicate that a project would have a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard;
3. Expose sensitive receptors to substantial pollutant concentrations; and
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Neither Inyo County nor the GBUAPCD have established numerical significance thresholds for quantitatively determining air quality impacts. CEQA, however, allows lead agencies to rely on standards or thresholds promulgated by other agencies. The GBUAPCD has allowed use of the numerical standards of the Mojave Desert Air Quality Management District (MDAQMD) in prior CEQA reviews. Because the air quality and pollutant attainment status in portions of the Mojave Desert Air Basin (MDAB) are similar to those of the Basin, the numerical thresholds set for MDAB are considered adequate to serve as significance thresholds for the proposed project.

4.3.3.1 Construction Emissions

The GBUAPCD considers short-term construction equipment exhaust emissions to be less than significant. However, since the air basin is within the Owens Valley PM₁₀ Planning Area, fugitive dust emissions from construction must be mitigated. Therefore, construction emissions, including TAC emissions from construction activities, are evaluated qualitatively in the context of the significance thresholds identified below.

4.3.3.2 Operational Emissions

Project operations would have a significant impact to air quality if operational emissions from both direct and indirect sources exceed any of the threshold levels identified in Table 4.3-6. For nonattainment pollutants, if emissions exceed the thresholds shown in the table, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality.

**Table 4.3-6
AIR POLLUTANT SIGNIFICANCE THRESHOLDS**

Pollutant	Significance Thresholds (pounds per day)
Volatile Organic Compound (VOC)	137
Nitrogen Oxides (NO _x)	137
Particulate Matter Exhaust (PM ₁₀)	82
Fine Particulate Matter Exhaust (PM _{2.5})	65
Local Carbon Monoxide (CO)	548
Sulfur Oxides (SO _x)	137

Source: MDAQMD 2016

4.3.4 Impact Analysis

AQ-1 The proposed project would not conflict with or obstruct implementation of the applicable air quality plan.

Consistency with the air quality plan is determined by whether the project would hinder implementation of control measures identified in the air quality plan or would result in growth of population or employment that is not accounted for in local and regional planning.

As described in the Section 4.14, Population and Housing, implementation of the project would result in the construction of 492 multi-family residential dwelling units. The project would increase the available housing, which would be expected to increase population in the area; however, the increase in housing is consistent with the General Plan Housing Element and would assist the County in meeting its Regional Housing Needs Allocation (RHNA) of adding 205 dwelling units by 2029 (Inyo County 2021). The project does not include any commercial or industrial land uses and would not result in any significant direct increases in employment growth. Therefore, the growth in regional population as a result of the project would be consistent with the local and regional growth assumptions from the General Plan.

The GBUAPCD enforces regulations and administers permits governing stationary sources by limiting emissions of criteria air pollutants and TACs and regulating visible emissions, nuisance emissions, and fugitive dust emissions. As discussed under Impact AQ-2, the project would not contribute to a cumulatively considerable impact to any criteria air pollutant, and project emissions would not impede the air district from reducing significant air pollutants in the air basin. Therefore, the project would be consistent with General Plan Goal AQ-1 to provide good air quality for Inyo County to reduce impacts to human health and the economy and would not conflict with the implementation of an applicable air quality plan. Impacts would be less than significant, and no mitigation is necessary.

Significance without Mitigation: Less than significant impact.

AQ-2 The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard.

Construction

The project’s temporary construction emissions were estimated using CalEEMod as described in the methodology description, above. The results of the modeling of the project’s construction emissions of criteria pollutants and ozone precursors are shown in Table 4.3-7, Unmitigated Maximum Daily Construction Emissions. The data are presented as the maximum anticipated daily emissions for comparison with the MDAQMD thresholds. The complete CalEEMod output is provided in Appendix D to this EIR.

**Table 4.3-7
CONSTRUCTION CRITERIA POLLUTANT AND PRECURSOR EMISSIONS**

Year	Pollutant Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
2022	4.1	38.9	29.7	0.1	10.6	6.1
2023	3.8	17.7	27.9	0.1	4.0	1.6
2024	88.5	16.6	26.9	0.1	3.9	1.5
2025	88.5	1.3	3.6	<0.05	0.6	0.2
Maximum Daily¹	88.5	38.9	29.7	0.1	10.6	6.1
<i>MDAQMD Daily Thresholds</i>	<i>137</i>	<i>137</i>	<i>548</i>	<i>137</i>	<i>82</i>	<i>65</i>
Exceed Daily Threshold?	No	No	No	No	No	No

Source: CalEEMod (output data is provided in Appendix D).

¹ Totals may not sum due to rounding.

As shown in Table 4.3-7, the project’s unmitigated short-term construction emissions would not exceed any of the MDAQMD daily thresholds. Therefore, the project’s construction emissions would not violate any air quality standard or result in a cumulatively considerable net increase of any criteria pollutant and the impact would be less than cumulatively considerable.

Operation

A project-specific analysis of operational emissions was completed using CalEEMod Version 2020.4.0, as described in the Section 4.3.2, above. The project’s estimated long-term operational emissions for the earliest anticipated first full year of operations, 2025, are compared to the MDAQMD thresholds in Table 4.3-8, Operational Criteria Pollutant and Precursor Emissions. The full output data from project modeling using CalEEMod is included in Appendix D to this EIR.

**Table 4.3-8
OPERATIONAL CRITERIA POLLUTANT AND PRECURSOR EMISSIONS**

Source	Pollutant Emissions					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Daily Emissions (pounds per day)						
Area	16.0	0.5	40.6	<0.05	0.2	0.2
Energy	0.2	2.0	0.9	<0.05	0.2	0.2
Mobile	18.6	14.9	116.1	0.2	24.3	6.6
Total Project Emissions ¹	34.8	17.4	157.5	0.3	24.7	7.0
<i>MDAQMD Daily Thresholds</i>	<i>137</i>	<i>137</i>	<i>548</i>	<i>137</i>	<i>82</i>	<i>65</i>
<i>Exceed Daily Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Annual Emissions (tons per year)						
Area	2.80	0.04	3.65	<0.005	0.02	0.02
Energy	0.04	0.37	0.16	<0.005	0.03	0.03
Mobile	2.24	2.59	19.00	0.04	3.89	1.06
Total Project Emissions ¹	5.08	3.00	22.81	0.04	3.94	1.11
<i>MDAQMD Annual Thresholds</i>	<i>25</i>	<i>25</i>	<i>100</i>	<i>25</i>	<i>15</i>	<i>12</i>
<i>Exceed Annual Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>

Source: CalEEMod (output data is provided in Appendix D).

¹ Totals may not sum due to rounding.

² Maximum daily emissions of ROG and SO_x occur during the summer, maximum daily emissions of NO_x and CO occur during the winter, emissions of PM₁₀ and PM_{2.5} are not seasonally dependent.

As shown in Table 4.3-8, the project’s long-term emissions of criteria pollutants and precursors would not exceed the MDAQMD daily or annual thresholds. Therefore, the project’s operational emissions would not violate any air quality standard or result in a cumulatively considerable net increase of any criteria pollutant, and the impact would be less than cumulatively considerable.

Significance without Mitigation: Less than significant impact.

AQ-3 The proposed project would not expose sensitive receptors to substantial pollutant concentrations.

Impacts to sensitive receptors are typically analyzed for CO hot spots and exposure to TACs. An analysis of the project’s potential to expose sensitive receptors to these pollutants is provided below.

Carbon Monoxide Hotspots

Vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found near congested intersections. Under typical meteorological conditions, CO concentrations tend to decrease as distance from the emissions source (i.e., congested intersection) increase. Project-generated traffic has the potential of contributing to localized “hot spots” of CO off-site. Because CO is a byproduct of incomplete combustion, exhaust emissions are worse when fossil-fueled vehicles are operated inefficiently, such as in stop-and-go traffic or through heavily congested intersections. Because CO disperses rapidly, hot spots are most likely to occur in areas with limited vertical mixing such as tunnels, long underpasses, or below-grade roadways.

Because the project would not result in CO emissions that would exceed daily or annual thresholds as shown in Table 4.3-8 and the project’s traffic would be distributed throughout the County, the project is

not anticipated to result in or contribute to “hot spots” of CO. Additionally, as noted above, hot spots of CO are most likely to occur from exhaust emissions in tunnels, long underpasses, or below-grade roadways, and none of the roadways nearby the project parcels have these characteristics. Therefore, impacts would be less than significant.

Other Localized Pollutants

As a residential development, long-term operation of the project would not be a significant source of localized pollutants or TACs. However, the project would site new sensitive receptors, and the project’s mobile source emissions could exacerbate existing concentrations of vehicular exhaust in the project vicinity. Of the eight project parcels, only one of the Bishop parcels (APN 008-240-02) is located along a major roadway, the U.S. 395, which is the most traveled route in the County. As detailed in Table 1-1, *Recommendations on Siting New Sensitive Land Uses*, in CARB’s *Air Quality and Land Use Handbook: A Community Health Perspective*, CARB recommends projects avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles day (CARB 2005). According to the California Department of Transportation (Caltrans) Traffic Census Program, the greatest daily volume of traffic on U.S. 395 through Inyo County is found near the junction with State Route (SR) 6 in Bishop with 17,200 average daily trips (Caltrans 2020). Based on these traffic counts, U.S. 395 would not represent a substantial source of TACs. Therefore, the project would not result in the exposure of its resident’s to elevated pollutant levels from vehicular exhaust. The impact would be less than significant.

Significance without Mitigation: Less than significant impact.

AQ-4 The proposed project would not result in substantial emissions of odors adversely affecting a substantial number of people.

Construction of the project would require the use of diesel-powered equipment. Diesel exhaust can be a temporary source of odors. Due to the temporary and intermittent nature of construction activities, and due to the dispersion of construction activities throughout the County (32 acres total in the communities of Independence and Lone Pine and surrounding the city limits of Bishop), construction of the project would not result in emissions leading to odors that would adversely affect substantial numbers of people.

The project would be multi-family residential developments in the communities of Independence and Lone Pine and surrounding the city limits of Bishop, which is not considered to be a typical significant source of objectionable odors. Therefore, operation of the project would not result in emissions leading to odors that would adversely affect substantial numbers of people, and the impact would be less than significant.

Significance without Mitigation: Less than significant impact.

4.3.5 Cumulative Impacts

AQ-5 The proposed project would not contribute to a cumulatively considerable impact on regional air quality.

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards in the GBUAPCD. Instead, a project’s

individual emissions of criteria pollutants and precursors contribute to existing cumulatively significant adverse air quality impacts in the GBUAPCD. In developing thresholds of significance for criteria pollutants and precursors, MDAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions (MDAQMD 2016). As discussed in impacts AQ-1 through AQ-4 above, impacts related to emissions of air pollutants and consistency with the applicable air plan would be less than significant. Therefore, the project's contribution to regional air quality would be less than cumulatively considerable, and the cumulative impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

4.3.6 References

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4.4 BIOLOGICAL RESOURCES

This section begins with descriptions of the federal and state regulatory framework by which project effects may be deemed significant, and then describes methods used to evaluate project impacts to biological resources and existing biological resources on the project parcels and. The section identifies the potential impacts to biological resources that could occur as a result of the implementation of the proposed project, and details mitigation measures needed to avoid or reduce the significant impacts. Database search results and other technical information referenced in the text can be found in Appendix E.

4.4.1 Regulatory Framework

4.4.1.1 Federal Regulations

Federal Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) enforces the provisions stipulated within the Federal Endangered Species Act of 1973 (FESA; 16 United States Code [USC] 1531 et seq.). Species identified as federally threatened or endangered (50 CFR 17.11, and 17.12) are protected from take, defined as direct or indirect harm, unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Pursuant to the requirements of FESA, an agency reviewing a proposed project within its jurisdiction must determine whether any federally listed species may be present in the study area and determine whether the proposed project will jeopardize the continued existence of or result in the destruction or adverse modification of critical habitat of such species (16 USC 1536 (a)[3], [4]). Other federal agencies designate species of concern (species that have the potential to become listed), which are evaluated during environmental review under the National Environmental Policy Act (NEPA) or CEQA although they are not otherwise protected under FESA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 established federal responsibilities for the protection of nearly all species of birds, their eggs, and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all non-native species. Section 16 U.S.C. 703–712 of the Act states “unless and except as permitted by regulations, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill” a migratory bird. A migratory bird is any species or family of birds that live, reproduce, or migrate within or across international borders at some point during their annual life cycle. Currently, there are 836 migratory birds protected nationwide by the Migratory Bird Treaty Act, of which 58 are legal to hunt. The U.S. Court of Appeals for the 9th Circuit (with jurisdiction over California) has ruled that the MBTA does not prohibit incidental take (952 F 2d 297 – Court of Appeals, 9th Circuit 1991).

The Bald and Golden Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald and Golden Eagle Protection Act (16 USC 668–668c). It is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export, or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest, or egg of these eagles unless authorized by the Secretary of the Interior. Violations are

subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

Clean Water Act (33 USC 1252-1376)

Any person, firm, or agency planning to alter or work in “waters of the U.S.,” including the discharge of dredged or fill material, must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA; 33 USC 1344). Permits, licenses, variances, or similar authorization may also be required by other federal, state, and local statutes. Section 10 of the Rivers and Harbors Act prohibits the obstruction or alteration of navigable waters of the U.S. without a permit from USACE (33 USC 403).

On April 21, 2020, the USEPA and USACE published the Navigable Waters Protection Rule to define “Waters of the United States” in the Federal Register. On June 22, 2020 the Navigable Waters Protection Rule: Definition of “Waters of the United States” (NWPR) became effective in 49 states, including California, and in all US territories.

The NWPR regulates traditional navigable waters and perennial or intermittent tributary systems, and defines four categories of regulated waters including:

- The territorial seas and traditional navigable waters;
- Perennial and intermittent tributaries to those waters;
- Certain lakes, ponds, and impoundments; and
- Wetlands adjacent to jurisdictional waters.

The NWPR also defines 12 categories of exempted aquatic resources:

- Waters not listed as waters of the U.S.
- Groundwater
- Ephemeral features
- Diffuse stormwater run-off
- Ditches not identified as waters of the U.S.
- Prior converted cropland
- Artificially irrigated areas
- Artificial lakes and ponds
- Water-filled depressions incidental to mining or construction activity
- Stormwater control features
- Groundwater recharge, water reuse, and wastewater recycling structures
- Waste treatment systems

With non-tidal waters, in the absence of adjacent wetlands, the extent of USACE jurisdiction extends to the ordinary high-water mark (OHWM) – the line on the shore established by fluctuations of water and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris. Wetlands are defined in 33 CFR Part 328 as:

“those areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”

Federal and state regulations pertaining to waters of the U.S., including wetlands, are discussed below.

Clean Water Act (33 USC 1251-1376). The CWA provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 401 requires that an applicant for a federal license or permit that allows activities resulting in a discharge to waters of the U.S. must obtain a state certification that the discharge complies with other provisions of CWA. The RWQCB administers the certification program in California and may require State Water Quality Certification before other permits are issued.

Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S. This system is the National Pollutant Discharge Elimination System (NPDES) program, administered by the EPA, that has granted oversight authority in California to the State Water Board through its Regional Water Quality Control Boards.

Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the U.S. (including wetlands). Implementing regulations by USACE are found at 33 CFR Parts 320-332. The Section 404 (b)(1) Guidelines were developed by the USEPA in conjunction with USACE (40 CFR Part 230), allowing the discharge of dredged or fill material for non-water dependent uses into special aquatic sites only if there is no practicable alternative that would have less adverse impacts.

4.4.1.2 State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA), established under California Fish and Game Code §2050 et. seq., identifies measures to ensure that endangered species and their habitats are conserved, protected, restored, and enhanced. The CESA restricts the "take" of plant and wildlife species listed by the state as endangered or threatened, as well as candidates for listing. Section 86 of the Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Under §2081(b) of the Fish and Game Code, California Department of Fish and Wildlife (CDFW) has the authority to issue permits for incidental take for otherwise lawful activities. Under this section, CDFW may authorize incidental take, but the take must be minimal, and permittees must fully mitigate project impacts. CDFW cannot issue permits for projects that would jeopardize the continued existence of state listed species. For species listed under both FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

CDFW maintains lists of Candidate-Endangered Species and Candidate-Threatened Species. Candidate species and listed species are given equal protection under the law. CDFW also lists Species of Special Concern (SSC) based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Designation of SSC is intended by the CDFW to be used as a management tool for consideration in future land use decisions; these species do not receive protection under the CESA or any section of the California Fish and Game Code, and do not necessarily meet CEQA Guidelines §15380 criteria as rare, threatened, endangered, or of other public concern. The determination of significance for SSC must be made on a case-by-case basis. CDFW typically requests that CEQA lead agencies consider minimization of impacts to SSC species when approving projects.

California Code of Regulations Title 14 and California Fish and Game Code

The official listing of endangered and threatened animals and plants is contained in the California Code of Regulations Title 14 §670.5. A state candidate species is one that the California Fish and Game Code has formally noticed as being under review by CDFW to include in the state list pursuant to Sections 2074.2 and 2075.5 of the California Fish and Game Code.

Legal protection is also provided for wildlife species in California that are identified as “fully protected animals.” These species are protected under Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species at any time. CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by these species. CDFW has informed non-federal agencies and private parties that they must avoid take of any fully protected species in carrying out projects. However, Senate Bill 618 (2011) allows the CDFW to issue permits authorizing the incidental take of fully protected species under the CESA, so long as any such take authorization is issued in conjunction with the approval of a Natural Community Conservation Plan that covers the fully protected species (California Fish and Game Code Section 2835).

California Environmental Quality Act

Under CEQA (1970, as amended PRC Section 21000 et seq.), lead agencies analyze whether projects would have a substantial adverse effect on a candidate, sensitive, or special-status species (PRC Section 21001(c)). These “special-status” species generally include those listed under FESA and CESA, and species that are not currently protected by statute or regulation, but would be considered rare, threatened, or endangered under the criteria included CEQA Guidelines Section 15380. Therefore, species that are considered rare are addressed in this study regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity; plants with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, 2B, and 3 are generally considered special-status species under CEQA.¹

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants and animals. Section 15380(d) of the CEQA Guidelines allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

Nesting Birds (California Fish and Game Code Sections 3503, 3511, and 3800)

California Fish and Game Code Subsections 3503 and 3800 prohibit the possession, take, or needless destruction of birds, their nests, and eggs, and the salvage of dead nongame birds. California Fish and Game Code Subsection 3503.5 protects all birds in the orders of Falconiformes and Strigiformes (birds of prey). Fish and Game Code Subsection 3511 states that fully protected birds or parts thereof may not be

¹ The CNPS rare plant ranking system can be found online at <<http://www.cnps.org/cnps/rareplants/ranking.php>>

taken or possessed at any time. Fish and Game Code Subsection 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. The Attorney General of California has released an opinion that the Fish and Game Code prohibits incidental take.

California Native Plant Protection Act (California Fish and Game Code Sections 1900-1913)

The California Native Plant Protection Act of 1977 (California Fish and Game Code Sections 1900-1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use other than changing from one agricultural use to another, which allows CDFW to salvage listed plants that would otherwise be destroyed.

CNPS is a non-governmental conservation organization that has developed a list of plants of special concern in California. The following explains the designations for each plant species (CNPS 2020).

- Rare Plant Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
- Rare Plant Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere
- Rare Plant Rank 2A – Plants Presumed Extirpated in California, but Common Elsewhere
- Rare Plant Rank 2B – Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
- Rare Plant Rank 3 – Plants About Which More Information is Needed- A Review List
- Rare Plant Rank 4 – Plants of Limited Distribution – A Watch List

Although the CNPS is not a regulatory agency and plants on these lists have no formal regulatory protection, plants with a CRPR of 1A through 3 may be considered to meet the definition of endangered, rare, or threatened species under Section 15380(d) of CEQA (see above) and impacts to these species may be considered “significant.”

Waters of the State

Any action requiring a CWA Section 404 permit, or a Rivers and Harbors Act Section 10 permit, must also obtain a CWA Section 401 Water Quality Certification. The State of California Water Quality Certification (WQC) Program was formally initiated by the State Water Resources Control Board (SWRCB) in 1990 under the requirements stipulated by section 401 of the Federal CWA. Although the Clean Water Act is a Federal law, Section 401 of the CWA recognizes that states have the primary authority and responsibility for setting water quality standards. In California, under Section 401, the State and Regional Water Boards are the authorities that certify that issuance of a federal license or permit does not violate California’s water quality standards (i.e., that they do not violate Porter-Cologne and the Water Code). The WQC Program currently issues the WQC for discharges requiring USACE permits for fill and dredge

discharges within waters of the U.S., and now also implements the State's wetland protection and hydromodification regulation program under the Porter Cologne Water Quality Control Act.

On April 2, 2019, the SWRCB adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review and approval of applications for Water Quality Certifications and Waste Discharge Requirements for dredge or fill activities. The Office of Administrative Law approved the Procedures on August 28, 2019, and the Procedures become effective May 28, 2020. The SWRCB circulated final implementation Guidance on the Procedures in April 2020.

Under the Procedures and the State Water Code (Water Code §13050(e)), "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." Unless excluded by the Procedures, any activity that could result in discharge of dredged or fill material to Waters of the State, which includes Waters of the U.S. and non-federal Waters of the State, requires filing of an application under the Procedures.

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals.

California Fish and Game Code Section 1600

Under the California Fish and Game Code, the CDFW provides protection from "take" for a variety of species. The CDFW also protects streams, water bodies, and riparian corridors through the Streambed Alteration Agreement process under Section 1601 to 1606 of the California Fish and Game Code. The California Fish and Game Code stipulates that it is "unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake" without notifying the CDFW, incorporating necessary mitigation, and obtaining a Streambed Alteration Agreement. CDFW's jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation canopy cover. Impacts to riparian vegetation are regulated through the Lake and Streambed Alteration program. Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically

update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals. Projects that do not require a federal permit may still require review and approval by the RWQCB. The RWQCB focuses on ensuring that projects do not adversely affect the “beneficial uses” associated with waters of the State. In most cases, the RWQCB requires the integration of water quality control measures into projects that will require discharge into waters of the State. For most construction projects, the RWQCB requires the use of construction and post-construction best management practices.

4.4.2 Methods

Biological studies conducted in support of this EIR consisted of a special-status species evaluation, which included a desktop review and database searches to identify known biological resources in the project parcels and vicinity, and a biological reconnaissance survey conducted at each of the eight proposed project parcels, which are located in the communities of Independence (one parcel), Lone Pine (four parcels), and the City of Bishop (three parcels).

4.4.2.1 Database and Literature Review

For the purposes of this EIR, special-status species are defined as those that fall into one or more of the following categories, including those:

- listed as endangered or threatened under FESA (including candidates and species proposed for listing);
- listed as endangered or threatened under CESA (including candidates and species proposed for listing);
- designated as rare, protected, or fully protected pursuant to California Fish and Game Code;
- designated a Species of Special Concern (SSC) by CDFW;
- considered by CDFW to be a Watch List species with potential to become a SSC;
- defined as rare or endangered under Section 15380 of CEQA; or,
- Having a CNPS designated CRPR of 1A, 1B, 2A, 2B, or 3.

In order to evaluate special-status species and/or their habitats with the potential to occur in the project parcels and/or be impacted by the proposed project, HELIX obtained lists of regionally occurring special-status species from the following information sources:

- California Department of Fish and Wildlife. 2021. *California Natural Diversity Database; For: Lone Pine, Union Wash, Mt. Langley, Independence, Bee Spring Canyon, Manzanar, Bishop,*

Poleta Canyon, Fish Slough and Laws, USGS 7.5-minute series quadrangles (quads). Accessed [11 May 2021];

- California Native Plant Society. 2021. *Inventory of Rare and Endangered Plants* (online edition, v8-03 0.39) For: *Lone Pine, Union Wash, Mt. Langley, Independence, Bee Spring Canyon, Manzanar, Bishop, Poleta Canyon, Fish Slough and Laws* USGS 7.5-minute series quadrangles. Accessed [11 May 2021]; and,
- U.S. Fish and Wildlife Service. 2021. *Information for Planning and Consultation (IPaC) List of threatened and endangered species that may occur in your proposed project location and/or be affected by your proposed project*. Accessed [11 May 2021].

These record searches were broken down by project parcels. The *Lone Pine, Union Wash, Mt. Langley*, and *Manzanar* quads were queried to evaluate special-status species with the potential to occur on the Lone Pine project parcels. The *Union Wash, Manzanar, Independence*, and *Bee Springs Canyon* quads were queried to evaluate the Independence project parcel. The *Bishop, Poleta Canyon, Fish Slough* and *Laws* quads were queried to evaluate the Bishop project parcels. Appendix E includes these lists of special-status plant and animal species occurring in the project region, along with the potential for these regionally occurring special-status species to occur in the project parcels.

4.4.2.2 Biological Reconnaissance Surveys

Biological reconnaissance surveys of the eight project parcels were conducted on May 27 and 28, 2021 by HELIX Biologist, Stephanie McLaughlin, M.S., ISA Certified Arborist (WE-12922A). The project parcels were assessed to identify the habitat type(s) present on-site and the potential to support special-status plant and wildlife species, which are presented in Appendix E. The survey consisted of a pedestrian survey of the project parcels and the surrounding area. Meandering transects of the parcels were performed to obtain complete visual coverage. An assessment of the parcels for the presence/absence of potential wetlands or other aquatic resources was also conducted by assessing the parcels for any areas with indicators of hydrophytic vegetation, hydric soils, and wetland hydrology; however, a full wetland delineation was not conducted. A complete list of plant and animal species observed in the project parcels was prepared during the biological reconnaissance and is included as Appendix E.

4.4.3 Results: Environmental Setting

4.4.3.1 Existing Conditions

The proposed project is comprised of eight separate parcels in Inyo County: one in the community of Independence, three in the City of Bishop, and four in the community of Lone Pine.

Independence Parcel

The Independence parcel is approximately 16.9 acres and is identified as Assessor's Parcel Number (APN) 002-160-08. The parcel is an undeveloped vacant lot located in the southeast portion of the community of Independence, along Mazourka Canyon Road. Except for development associated with the community of Independence, which is generally situated north and west of the Independence parcel, the parcel is generally surrounded by undeveloped open space. Undeveloped, open space land uses directly abut the project parcel on the north, south, east, and west sides. Public facility land uses also occur west of the parcel and a substation is located just north of the project parcel as well as land in

active agriculture. Figure 2-2 depicts the Independence parcel on a USGS topographic map and Figure 2-3 depicts the Independence parcel on recent aerial imagery.

The Independence parcel has no apparent land uses other than utility easements and utility lines, which cross the parcel. Two perpendicular utility easements for power lines running southwest to northeast across the parcel and an access road to the substation running southeast to northwest transect the center of the parcel. In addition, a line of wooden utility poles bisects the parcel. Minor amounts of windblown trash and debris were observed on the parcel. Historical imagery shows limited disturbance on the parcel; it has remained essentially unchanged since at least 1947.

Bishop Parcels

The Bishop parcels total approximately 14.3 acres and consist of three parcels identified as APNs 008-240-01, 008-240-02, and 008-190-01. Figures 2-6a and 2-6b depict the west and east Bishop parcels, respectively, on USGS topographic maps. Figures 2-7a and 2-7b depict the west and east Bishop parcels, respectively, on recent aerial imagery.

Two of the Bishop parcels (APNs 008-240-01 and -02) are adjacent to the south and west of the City of Bishop city limits, these are referred to as the western Bishop parcels. Surrounding land uses for these two western Bishop parcels include commercial, light industrial, and public facility uses to the north; the Highway 395 corridor and commercial to the east; agricultural, open space, and public facility uses to the south; and agricultural and open space uses to the west. A utility easement borders both parcels to the north, and a utility easement borders APN 008-240-01 to the west.

The western Bishop parcels consist of a vacant lot that appears to be used for cattle grazing. Irrigation ditches containing water are present along the southern boundary of both parcels and along the northern boundary of parcel 008-240-02. There are also two dry irrigation ditches on parcel 008-240-01: one originating in the northwest corner and running diagonally across the parcel and another running along the northern boundary. Based on historical aerial imagery it appears that the western Bishop parcels have been relatively unchanged since at least 1947 and have been similarly used for agricultural purposes since then.

The other Bishop parcel (APN 008-190-01) is adjacent to the south and east of the Bishop city limits and is referred to as the eastern Bishop parcel. Surrounding land uses for this eastern Bishop parcel include residential uses to the north; agricultural and open space uses to the east; agricultural, open space, and rural residential uses to the south; and open space and commercial uses to the west. A drainage ditch borders the southern boundary of the eastern Bishop parcel, and the Bishop Creek Canal is adjacent to the east side of the eastern Bishop parcel.

The eastern Bishop parcel is a vacant lot. The western end of the parcel contains a gravel parking area and the remainder of the parcel appears to be used for cattle grazing. An irrigation ditch containing water runs along the southern boundary of the parcel. Historical aerial imagery shows the parcel was converted into agricultural uses sometime between 1947 and 1983 and the parking area was also installed during that time period.

Lone Pine Parcels

The Lone Pine parcels total approximately 0.78 acre and consist of four parcels identified as APNs 005-072-06, 005-072-07, 005-072-24, and 005-072-30. These four parcels are located within a residential

area in the community of Lone Pine and are entirely developed. Residential development surrounds the four Lone Pine parcels to the north, south, east, and west. Figure 2-10 depicts the Lone Pine parcels on a USGS topographic map and Figure 2-11 depicts the Lone Pine parcels on recent aerial imagery.

The Lone Pine parcels are being used as a truck terminal and equipment staging area for Inyo County vehicles. The parcels are paved with asphalt in the western portion and covered with gravel in the eastern portion. The parcels are surrounded by a chain link fence with entryways on the western and eastern borders and contain three small storage sheds, a large equipment workshop, and an office trailer. At the time of the survey a variety of vehicles were being stored on the parcels, including street sweepers, asphalt pavers, excavators, tanker trucks, snowplows, and passenger vehicles. Historic aerial imagery indicates that these four parcels have been developed and used for equipment staging since at least 1983.

4.4.3.2 Topography

Independence Parcel

The Independence parcel is mostly level with a gentle slope from east to west. The elevation of the parcel ranges from approximately 3,905 feet (1,190 meters) amsl on the east side to approximately 3,917 feet (1,194 meters) amsl on the west side.

Bishop Parcels

The western Bishop parcels are mostly level, with the exception of a low earthen mound running parallel to the irrigation ditch on the southern boundary of the two parcels. The elevation on the western Bishop parcels ranges from approximately 4,146 feet (1,264 meters) to 4,152 feet (1,265 meters). The eastern Bishop parcel is mostly level with an elevation range of approximately 4,128 feet (1,258 meters) to 4,143 feet (1,263 meters) amsl.

Lone Pine Parcels

The Lone Pine parcels are mostly flat with an elevation range of approximately 3,722 feet (1,134 meters) to 3,725 feet (1,135 meters) amsl.

4.4.3.3 Hydrology

Independence Parcel

The Independence parcel is located within the Tulare Swamp watershed (Hydrologic Unit Code 180901030105). Waterways in the region of the parcel drain into the Owens River. There were no apparent aquatic resources on the Independence parcel. The only apparent source of hydrology for the Independence parcel is direct precipitation, which likely primarily percolates into the ground.

Bishop Parcels

The western Bishop parcels are located within the Rawson Creek-Owens River watershed (Hydrologic Unit Code 180901020710). Waterways in the region of the parcel drain into the upper Owens River. The western Bishop parcels contain two active drainage ditches: one runs west to east along the southern boundary of the parcels, passing through a sluice gate and a culvert before exiting the parcel through a

culvert beneath US 395. It appears that this ditch eventually flows into the Bishop Creek Canal. There is a second, shorter drainage ditch in the northeast corner of the western Bishop parcels. The water in the ditch was stagnant at the time of the biological reconnaissance survey, so direction of flow could not be determined; however, the water does flow through a culvert beneath Highway 395, though it is unclear where it flows from there.

The eastern Bishop parcel is located within the North Fork Bishop Creek-Owens River watershed (Hydrologic Unit Code 180901020705). Waterways in the region of the parcel drain into the upper Owens River. On the eastern Bishop parcel there is a drainage ditch running along the southern boundary of the parcel. Water flows west to east in the drainage ditch and appears to eventually flow into the Bishop Creek Canal.

Lone Pine Parcels

The Lone Pine parcels are located within the Long John Canyon-Owens River watershed (Hydrologic Unit Code 180901030208). Waterways in the region of the parcels drain into the lower Owens River. There were no apparent aquatic resources on the Lone Pine parcels. The parcels receive hydrology in the form of direct precipitation, which presumably drains off-site and enters the local storm drain system.

4.4.3.4 Soils

Independence Parcel

The Independence parcel consists of one soil mapping unit (NRCS 2021): Inyo gravelly loamy coarse sand, 0 to 5 percent slopes. Inyo gravelly loamy coarse sand, 0 to 5 percent slopes occurs on alluvial fans and fan terraces between 3,800 and 5,000 feet amsl and consists of alluvium derived from mixed sources as parent material (NRCS 2021). A typical soil profile is gravelly loamy coarse sand from 0 to 1 inches, gravelly loamy sand from 1 to 46 inches, and stratified coarse sand to gravelly loamy sand from 46 to 60 inches. Inyo gravelly loamy coarse sand is an excessively drained soil with a frequency of ponding of “none” and a depth to water table of more than 80 inches. This soil unit is not considered hydric (NRCS 2016). Figure 4.4-1 is a soil map of the Independence parcel.

Bishop Parcels

Both the western and eastern Bishop parcels consist of one soil mapping unit (NRCS 2021): Dehy loam, 0 to 2 percent slopes. Dehy loam, 0 to 2 percent slopes occurs on alluvial fans and stream terraces between 3,600 and 4,700 feet amsl and consists of alluvium derived from mixed sources as parent material (NRCS 2021). A typical soil profile is loam from 0 to 12 inches, sandy loam or sandy clay loam from 12 to 19 inches and loam from 19 to 60 inches. Dehy loam is a somewhat poorly drained soil with a frequency of ponding of “none” and a depth to water table of more than 80 inches. This soil unit is considered hydric in the Benton-Owens Valley areas of Inyo and Mono Counties (NRCS 2016). Figures 4.4-2a and 4.4-2b are soils maps of the west and east Bishop parcels, respectively.

Lone Pine Parcels

The Lone Pine parcels include two soil mapping units (NRCS 2021): Inyo gravelly loamy coarse sand, 0 to 5 percent slopes and Shabbell sandy loam, 0 to 2 percent slopes. The great majority of the parcels is Inyo gravelly loamy coarse sand, 0 to 5 percent slopes. This soil type has been discussed above. Shabbell sandy loam, 0 to 2 percent slopes occurs on stream and fan terraces between 3,700 and 4,200 feet amsl

and consists of alluvium derived from mixed sources as parent material (NRCS 2021). A typical soil profile is sandy loam from 0 to 16 inches and sandy loam from 16 to 60 inches. Shabbell sandy loam is a well-drained soil with a frequency of ponding of “none” and a depth to water table of more than 80 inches. This soil unit is not considered hydric (NRCS 2016). Figure 4.4-3 is a soil map of the Lone Pine parcels.

4.4.3.5 General Biological Resources

Vegetation Communities/Land Cover Types within the Project Parcels

Five vegetation communities/land cover types are present in the project parcels: developed, alkali desert scrub, alkali meadow, Fremont cottonwood woodland, and drainage ditch. Vegetation communities/land cover types within each parcel are described below.

Independence Parcel

Alkali desert scrub, which totals approximately 16.9 acres, comprises the entirety of the Independence parcel. Alkali desert scrub is relatively common throughout Inyo County especially along dry lake beds and river floodplains and also comprises the primary habitat at mid to low elevation ranges. This habitat type may intermingle with other arid and semiarid wildlife habitats and is characterized by various species of saltbush, including fourwing saltbush (*Atriplex canescens*), shadescale (*Atriplex confertifolia*), and allscale saltbrush (*Atriplex polycarpa*). Other species observed within this habitat type include big sagebrush (*Artemisia tridentata*) and Russian thistle (*Salsola tragus*). Figure 4.4-4 is a habitat map of the Independence parcel.

Bishop Parcels

Habitat on the western Bishop parcels is comprised of alkali meadow habitat and active drainage ditches. Alkali meadow, which totals 9.04 acres, comprises the majority of the western Bishop parcel. Alkali meadows occur in areas with a shallow water table (1 – 3 meter deep) and alkaline soils (Sawyer and Keeler 1995). Alkali meadows are classified as a sensitive natural community (CDFW 2021). A total of 0.02 acre of dry drainage ditches dominated by alkali meadow vegetation is also present. Agricultural operations observed within the alkali meadow consist of cattle grazing, with cattle manure and hoof prints observed on the parcels during the biological reconnaissance survey. Dominant species observed in the alkali meadow habitat include saltgrass (*Distichlis spicata*), wall barely (*Hordeum murinum*), horseweed (*Erigeron canadensis*), Wood’s rose (*Rosa woodsii*), prickly sow thistle (*Sonchus asper*), red clover (*Trifolium pratense*) and baltic rush (*Juncus balticus*). Several Russian olive (*Elaeagnus angustifolia*) and white mulberry (*Morus alba*) trees are scattered throughout the interior of the parcels. Several mature Fremont’s cottonwood (*Populus fremontii*) and American elms (*Ulmus americana*) line the northern border of the parcels.

On the western Bishop parcels there are also two drainage ditches containing water totaling to 0.08 acre. One runs west to east along the southern boundary of the parcels, passing through a sluice gate and a culvert before exiting the parcel through a culvert beneath US 395. It appears that this ditch eventually flows into the Bishop Creek Canal. There is arroyo willow (*Salix lasiolepis*) growing along the banks of this drainage ditch. There is a second, shorter drainage ditch in the northeast corner of the western Bishop parcels. The water in the ditch was stagnant at the time of the biological reconnaissance survey, so direction of flow could not be determined; however, the water does flow through a culvert

beneath US 395, though it is unclear where it flows from there. Vegetation in this drainage ditch consists of common duckweed (*Lemna minor*) and common bulrush (*Typha latifolia*).

Habitat on the eastern Bishop parcel is comprised of developed land, Fremont cottonwood woodland, and active drainage ditches.

The western end of the eastern Bishop parcel is developed and consists of a large gravel parking area. Vegetation bordering the parking area consists of English plantain (*Plantago lanceolata*) and Russian thistle. There is a single, mature Fremont's cottonwood growing along the border of the parking lot. These isolated areas are heavily disturbed and consist mostly of bare ground or ruderal vegetation, this vegetation may provide habitat for wildlife such as nesting birds. Developed habitat covers 1.03 acres of the eastern Bishop parcel.

Fremont cottonwood woodland, which totals 4.04 acres, comprises the majority of the eastern Bishop parcel. Individual mature Fremont cottonwoods are scattered throughout this habitat type, with Oregon ash (*Fraxinus latifolia*) and American elm forming a subcanopy. Vegetation in the herbaceous layer consists of western ragweed (*Ambrosia psilostachya*), saltgrass, Wood's rose, perennial pepperweed (*Lepidium latifolium*), sweet vernal grass (*Anthoxanthum odoratum*), and hard rush. This herbaceous understory has been grazed by cattle. This habitat type is generally dependent of subsurface water supply and is often found in floodplains (CNPS 2021).

On the eastern Bishop parcel there is a drainage ditch running along the southern boundary of the parcel totaling 0.14 acre. The water flows west to east and appears to eventually flow into the Bishop Creek Canal. Vegetation around this drainage ditch is dominated by American licorice (*Glycyrrhiza lepidota*), red willow and common bulrush. Figures 4.4-5a and 4.4-5b depict habitats of the west and east Bishop parcels, respectively.

Lone Pine Parcels

The Lone Pine parcels are comprised entirely of developed land. There is a minor amount of vegetation growing on the margins of these parcels, including Russian thistle, red stemmed filaree (*Erodium cicutarium*), and a small American elm seedling. The developed habitat on the Lone Pine parcels totals to approximately 0.78 acre. Figure 4.4-6 is a habitat map of the Lone Pine parcels.

4.4.4 Special-Status Species

A total of 39 regionally occurring special-status plant species and 34 regionally occurring special-status wildlife species were identified during the database queries and desktop review and are evaluated in Appendix E.

4.4.4.1 Special-Status Plant Species

No special-status plant species were observed within any of the project parcels during the biological reconnaissance surveys. A total of 39 regionally occurring special-status plant species were identified during the database queries and desktop review as having the potential to occur in at least one of the Independence, Bishop, or Lone Pine project parcels. Many of the regionally occurring special-status plant species that were identified occur in aquatic habitats such as hot springs, marshes, seeps, wet meadows, playas or lake margins. Several species require pinyon-juniper woodland or coniferous forest

habitat, and several species are found in alpine or subalpine habitats such as are found in the mountains surrounding the Owens Valley. The potential for these regionally occurring special-status species to occur in the project parcels is analyzed in Appendix E.

Based on the literature review, published information, soil types present, and the habitats observed during the biological reconnaissance survey, three of the regionally occurring special-status plant species were identified as having the potential to occur within the Independence parcel and six were identified as having the potential to occur within the Bishop parcels and are discussed below. The Lone Pine parcels do not provide any suitable habitat for any of the regionally occurring special-status plants. Species determined to have no potential to occur within any of the project parcels or be impacted by the proposed project are not discussed further in this document.

Independence Parcel

Three special-status plant species were identified as having the potential to occur within the Independence parcel and/or be impacted by the proposed project activities on that parcel: coyote gilia (*Aliciella triodon*), Booth's hairy evening-primrose (*Eremothera boothii* ssp. *intermedia*), and Nevada oryctes (*Oryctes nevadensis*). All three species have the potential to occur within the alkali desert scrub habitat.

Coyote Gilia

Federal status – none

State status – none

CNPS Rare Plant Rank – 2B.2

Species Description

Coyote gilia is an annual herb found in open areas in Great Basin scrub and pinyon-juniper woodland on fine clayey sand or sand from 2,000 feet (610 meters) to 5,577 feet (1,700 meters) elevation. This species typically blooms from April to June (CNPS 2021). Conspecifics often include *Artemisia* sp. and *Tetradymia* sp. (NatureServe 2021a).

Survey History

Coyote gilia was not observed on the Independence parcel during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. The nearest CNDDDB reported occurrence of this species to the Independence parcel is approximately 3.5 miles east of the parcel along the western slopes of the White Mountains in greasewood scrub habitat (CDFW 2021).

Habitat Suitability

The Independence parcel contains alkali desert scrub habitat with sandy soils and provides marginal habitat for coyote gilia.

Potential for Adverse Effects

Although coyote gilia was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition,

it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on coyote gilia could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual coyote gilia plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to coyote gilia to a less than significant level.

Booth's Hairy Evening-primrose

Federal status – none

State status – none

Rare Plant Rank – 2B.3

Species Description

Booth's hairy evening-primrose is an annual herb found in sandy soils in Great Basin scrub and pinyon and juniper woodland from 4,921 feet (1500 meters) to 7,054 feet (2150 meters) elevation. This species typically blooms in June and occasionally in May (CNPS 2021).

Survey History

Booth's hairy evening-primrose was not observed on the Independence parcel during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. The nearest CNDDDB reported occurrence of this species to the Independence parcel is approximately five miles north in sagebrush and shadscale habitat (CDFW 2021).

Habitat Suitability

The Independence parcel contains alkali desert scrub and sandy soils as well as a similar species assemblage to the nearest occurrence noted in the CNDDDB record (CDFW 2021). The Independence parcel is considered potentially suitable, but marginal, habitat for Booth's hairy evening-primrose.

Potential for Adverse Effects

Although Booth's hairy evening-primrose was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, this species could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Booth's hairy evening-primrose could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual Booth's hairy evening-primrose plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to Booth's hairy evening-primrose to a less than significant level.

Nevada Oryctes

Federal status – none

State status – none

Rare Plant Rank – 2B.1

Species Description

Nevada oryctes is an annual herb found on dry sites with sandy soils in chenopod scrub and Mojavean desert scrub from 3,609 feet (1,100 meters) to 8,317 feet (2,535 meters) elevation. Nevada oryctes is widely distributed in the Owens Valley, especially in washes and desert foothills. This species blooms from April – June (CNPS 2021). The species is known from 33 extant occurrences in California and 30 in Nevada, many of which are managed by the BLM (NatureServe 2021b).

Survey History

Nevada oryctes was not observed on the Independence parcel during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. The nearest CNDDDB reported occurrence of Nevada oryctes is located 4.3 miles east of the project parcel along Mazourka Canyon Road. The reported occurrence describes 20 plants observed in 1986 in shadscale scrub dominated by shadscale, allscale saltbrush, burro weed (*Ambrosia dumosa*), red sage (*Kochia americana*), budsage (*Artemisia spinescens*), and sand rice grass (*Oryzopsis hymenoides*). The plants were growing in sandy loam soil in the outwash of Mazourka Canyon (CDFW 2021).

Habitat Suitability

The Independence parcel contains alkali desert scrub habitat with sandy soils and provides marginal habitat for Nevada oryctes.

Potential for Adverse Effects

Although Nevada oryctes was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Nevada oryctes could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual Nevada oryctes plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to Nevada oryctes to a less than significant level.

Bishop Parcels

Six special-status plant species were identified as having the potential to occur within the western Bishop parcels and/or be impacted by the proposed project activities on that parcel: silver-leaved milk-vetch (*Astragalus argophyllus* var. *argophyllus*), Fish Slough milk-vetch (*Astragalus lentiginosus* var. *piscinensis*), Inyo County star-tulip (*Calochortus excavatus*), Inyo phacelia (*Phacelia inyoensis*), Owens Valley checkerbloom (*Sidalcea covillei*), and prairie wedge grass (*Sphenopholis obtusata*). All six species have the potential to occur within the alkali meadow habitat. No special-status plant species were identified as having the potential to occur on the eastern Bishop parcels.

Silver-leaved Milk-vetch

Federal status – none

State status – none

CNPS Rare Plant Rank – 2B.2

Species Description

Silver-leaved milkvetch is a perennial herb found in saline or alkaline meadows, seeps, and playas from 4,068 feet (1,240 meters) to 7,710 feet (2,350 meters) elevation. Blooms May – July (CNPS 2021). Microhabitat preferences include alkaline and saline meadows, streambanks, and lake shores with stiff alluvial clays and loams (CDFW 2021).

Survey History

Silver-leaved milk-vetch was not observed on the western Bishop parcels during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. There are two CNDDDB occurrences within five miles of the western Bishop parcels; one occurrence is approximately 3.5 miles east of the western Bishop parcels, the other occurrence is approximately 3.75 miles east of the western Bishop parcels. Both occurrences are in alkali meadows along the flood plain adjacent to the Owens River. Other species observed at these locations includes beardless wild rye (*Leymus triticoides*), Rocky Mountain iris (*Iris missouriensis*), wild licorice (*Glycyrrhiza lepidota*), Baltic rush, and saltgrass (CDFW 2021).

Habitat Suitability

The western Bishop parcels contains alkali meadow habitat with loamy soils and provides suitable habitat for silver-leaved milk-vetch. Baltic rush and saltgrass were observed on the western Bishop parcels.

Potential for Adverse Effects

Although silver-leaved milk-vetch was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on silver-leaved milk-vetch could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the

destruction of individual silver-leaved milk-vetch plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to silver-leaved milk-vetch to a less than significant level.

Fish Slough Milk-vetch

Federal status – Threatened

State status – none

CNPS Rare Plant Rank – 1B.1

Species Description

Fish Slough milk-vetch is a perennial herb found on alkaline meadows and playas from 3,707 feet (1,130 meters) to 4,265 feet (1,300 meters) elevation. This species is frequently found on mounds in alkali meadows with sparse vegetation. Blooms June – July (CNPS 2021). Currently known only from a stretch of alkaline flats along Fish Slough in Mono County, California where there are eight populations with a total of approximately 4,500 plants (USFWS 2009)

Survey History

Fish Slough milk-vetch was not observed on the western Bishop parcels during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. The nearest CNDDDB occurrence is located 5.5 miles north of the western Bishop parcels along the Fish Slough channel. Other species observed at this occurrence include saltgrass, Baltic rush, white flowered rabbitbrush (*Chrysothamnus albidus*), alkali sacaton (*Sporobolus airoides*) and Inyo County star-tulip (*Calochortus excavatus*) (CDFW 2021).

Habitat Suitability

The western Bishop parcels contains alkali meadow habitat with several mounds and provide potentially suitable habitat for Fish Slough milk-vetch. Baltic rush and saltgrass were observed on the western Bishop parcels.

Potential for Adverse Effects

There is a low potential for Fish Slough milk vetch to occur in the western Bishop parcels and be impacted by the proposed project. Although Fish Slough milk-vetch was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Fish Slough milk-vetch could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual Fish Slough milk-vetch plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to Fish Slough milk-vetch to a less than significant level.

Inyo County Star-tulip

Federal status – none

State status – none

CNPS Rare Plant Rank – 1B.1

Species Description

Inyo County star-tulip is a perennial bulbiferous herb found in mesic, alkaline microsites in chenopod scrub, meadows, and seeps from 3,773 feet (1,150 meters) to 6562 feet (2,000 meters) elevation. Inyo County star-tulip is found mostly on fine, sandy, loamy soils with alkaline salts in grassy meadows and is widely distributed throughout the Owens and Chalfant Valleys. Blooms April – July (CNPS 2021).

Survey History

Inyo County star-tulip was not observed on the western Bishop parcels during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. There are two CNDDDB occurrences within 1.5-miles of the western Bishop parcels. One occurrence is 0.9 miles northwest of the western Bishop parcels in a moist alkali meadow used as a horse pasture on the Paiute-Shoshone Indian Reservation. The other occurrence is 1.3 miles northeast of the western Bishop parcels in an alkali meadow in loamy soil along the Bishop Creek Canal. Other species observed at these locations includes white flowered rabbitbrush, alkali sacaton, wild licorice, Baltic rush, Wood's rose, and saltgrass (CDFW 2021).

Habitat Suitability

The western Bishop parcels contains alkali meadow habitat with fine, sandy, loamy soils and provides suitable habitat for Inyo County star-tulip. Baltic rush, Wood's rose, and saltgrass were observed on the western Bishop parcels.

Potential for Adverse Effects

Although Inyo County star-tulip was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Inyo County star-tulip could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual Inyo County star-tulip plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to Inyo County star-tulip to a less than significant level.

Inyo Phacelia

Federal status – none

State status – none

CNPS Rare Plant Rank – 1B.2

Species Description

Inyo phacelia is an annual herb found along the margins of alkaline meadows and seeps in alkali scrub habitat from 3,002 feet (915 meters) to 10,499 feet (3,200 meters) elevation. This species is widely distributed throughout the Owens, Chalfant, and Long valleys where it blooms April – August (CNPS 2021).

Survey History

Inyo phacelia was not observed on the western Bishop parcels during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. The nearest CNDDDB occurrence is located 5.5 miles north of the western Bishop parcels along Fish Slough Road in gravely loam soils. Other species observed at this occurrence include white flowered rabbitbrush, alkali sacaton, and rubber rabbitbrush (*Ericameria nauseosa*) (CDFW 2021).

Habitat Suitability

The western Bishop parcels contains alkali meadow habitat and provides suitable habitat for Inyo phacelia.

Potential for Adverse Effects

Although Inyo phacelia was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Inyo phacelia could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual Inyo phacelia plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to Inyo phacelia to a less than significant level.

Owens Valley Checkerbloom

Federal status – none

State status – Endangered

CNPS Rare Plant Rank – 1B.1

Species Description

Owens Valley checkerbloom is a perennial herb found in mesic alkaline microsites in chenopod scrub, meadows, and seeps from 3,593 feet (1,095 meters) to 4,642 feet (1,415 meters) elevation. This species prefers fine, sandy loam soils and is widely distributed throughout the Owens Valley. Blooms April – June (CNPS 2021).

Survey History

Owens Valley checkerbloom was not observed on the western Bishop parcels during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. There are two CNDDDB occurrences within 1.5-miles of the western Bishop parcels. One occurrence is 0.7 miles northwest of the western Bishop parcels in an alkali meadow on the Pauite-Shoshone Indian Reservation. The other occurrence is 1.1 miles northeast of the western Bishop parcels in an alkali meadow on the north side of Yaney Street. Other species observed at these locations includes white flowered rabbitbrush, alkali sacaton, Rocky Mountain iris, Baltic rush, Wood's rose, and saltgrass (CDFW 2021).

Habitat Suitability

The western Bishop parcels contains alkali meadow habitat with fine, sandy, loamy soils and provides suitable habitat for Owens Valley checkerbloom. Baltic rush, Wood's rose, and saltgrass were observed on the western Bishop parcels.

Potential for Adverse Effects

Although Owens Valley checkerbloom was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Owens Valley checkerbloom could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual Owens Valley checkerbloom plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to Owens Valley checkerbloom to a less than significant level.

Prairie Wedge Grass

Federal status – none

State status – none

CNPS Rare Plant Rank – 2B.2

Species Description

Prairie wedge grass is a perennial herb found in mesic microsites in cismontane woodlands, meadows, and seeps from 984 feet (300 meters) to 6,562 feet (2,000 meters) elevation. This species prefers open, moist sites along rivers, springs and in alkaline desert seeps where it blooms April – July (CNPS 2021).

Survey History

Prairie wedge grass was not observed on the western Bishop parcels during the biological survey and there are no reported occurrences of this species on or adjacent to the parcel in the CNDDDB. The nearest CNDDDB occurrence is located 5.3 miles east of the western Bishop parcels in a desert alkaline wetland fed by a spring near the mouth of Silver Canyon. Other species observed at this occurrence include Fremont's cottonwood and willow (CDFW 2021).

Habitat Suitability

The western Bishop parcels contains alkali meadow habitat and provides marginal habitat for prairie wedge grass.

Potential for Adverse Effects

Although prairie wedge grass was not observed on the project parcel during the biological survey, focused surveys were not conducted for special-status plant species as part of the field assessment. In addition, it could have been present in the seed bank and not bloomed during the 2021 season or have experienced very low numbers due to drought conditions in the region resulting in the species going undetected. In the absence of proposed mitigation measures, potential adverse effects of the proposed project on prairie wedge grass could include harm to individual plants if this species is present on the site. If present, ground disturbance associated with construction activities could result in the destruction of individual prairie wedge grass plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of the plant, which would be considered a significant impact.

Implementation of Mitigation Measure BIO-1 would reduce potential impacts to prairie wedge grass to a less than significant level.

4.4.4.2 Special-Status Animal Species

No special-status animal species were observed within any of the project parcels during the biological reconnaissance surveys. A total of 34 regionally occurring special-status wildlife species were identified during the database searches and desktop review as having the potential to occur in at least one of the Independence, Bishop, or Lone Pine project parcels. The majority of the special-status wildlife species are associated with aquatic or riparian habitats. Several species require cliff habitat or are only found in rocky, alpine environments. The proposed project parcels are outside of the elevation or limited geographic range of several species. The potential for these regionally occurring special-status species to occur in the project parcels is analyzed in Appendix E.

Based on the literature review, published information, soil types present in the project parcels, and the habitats present, there are four special-status wildlife species with the potential to occur within the Bishop parcels and/or be impacted by construction activities on the Bishop parcels. The Independence

parcel and the Lone Pine parcels do not provide any suitable habitat for any of the regionally occurring special-status wildlife species. Species determined to have no potential to occur within any of the project parcels or be impacted by the proposed project are not discussed further in this document.

Bishop Parcels

Owen's Valley vole (*Microtus californicus vallicola*), Owen's sucker (*Catostomus fumeiventris*), speckled dace (*Rhinichthys osculuss*), and Swainson's hawk (*Buteo swainsoni*) have the potential to occur on the Bishop parcels and/or be impacted by the proposed project on those parcels.

Owens Valley Vole

Federal status – none

State status – none

Other – CDFW Species of Special Concern

Species Description

There is limited current data about the status and ecology of Owens Valley vole but its distribution and habitat use are thought to be similar to that of the California vole (*Microtus californicus*). This species is found in a variety of habitats, including rush/sedge meadow, native meadow, riparian scrub, and ungrazed irrigated pasture. Owens valley vole prefers areas with shrubs (Rose thickets), patches of dense herbaceous vegetation (*Juncus* sp. and *Leymus triticoides*), fence lines, and waterways (Nelson et al 2006).

Survey History

Owens Valley vole was not observed on any of the Bishop parcels during the biological survey and there are no reported occurrences of this species in the CNDDDB on or adjacent to the parcels. The nearest recorded occurrence for the species is approximately 2.0 miles east of the eastern Bishop parcel in the vicinity of Bishop Creek (CDFW 2021). This occurrence is dated to 1935 and there are no dated occurrences in the CNDDDB past 1957, but the species has not been reliably studied in recent years.

Habitat Suitability

The alkali meadow on the western Bishop parcels and the herbaceous understory on the eastern Bishop parcel provide potentially suitable habitat for the species, although no small mammal burrows were observed during the biological reconnaissance survey.

Potential for Adverse Effects

If Owens valley vole is present on the Bishop parcels and went undetected during the biological reconnaissance survey or occupies the Bishop parcels prior to construction, potential adverse effects of the proposed project on Owens Valley vole could include harm to individual Owens Valley vole, burrow disturbance/loss of active burrows, and loss of potential habitat. Harm of individuals could occur as a result of contact with construction equipment or personnel and burrow disturbance/loss of active burrows could result in displacement of individuals subjecting them to increased chance of predation or mortality. Harm to individual Owens valley vole would be considered a significant impact. Loss of

potential unoccupied habitat would not be considered a significant impact as there is ample higher quality habitat in the region of the Bishop parcels.

Implementation of Mitigation Measure BIO-2 would reduce potential impacts to Owens Valley vole to a less than significant level.

Owens Sucker

Federal status – none

State status – none

Other – CDFW Species of Special Concern

Species Description

Owens sucker is widespread and common throughout the Owens River system, including Bishop Creek, Rock Creek, Convict Lake, and Crowley Lake. It is considered secure with low concern but is retained on the list of species of special concern because of its limited geographic range (Moyle et al. 2015).

Owens sucker inhabits streams and lakes throughout the Owens River watershed and is the dominant species in many pools and ponds (Moyle et al. 2015). This species is primarily found in cool-water streams where it is found in long reaches with few riffles or rapids and a fine substrate, and often in off-channel pools (Deinstadt et al. 1986). Habitat includes silty to rocky pools and runs of creeks (Page and Burr 2011). In lakes, Owens sucker is abundant near the bottom. It appears to tolerate the presence of non-native species such as brown trout and bass. Owens suckers feed at night on a diet of aquatic insects, algae, detritus, and organic matter (Calfish 2017). Adults occur in cool permanent streams with deep (1+ meters) pools (Moyle 2015). Larvae of this species are abundant in weedy edges and backwaters of streams. This species spawns in gravelly riffles in tributary streams; lacustrine populations spawn in springs and gravel patches along lake shores, as well as in tributary streams (Moyle 2015).

Survey History

Owens sucker is widespread and common throughout the Owens River system, including Bishop Creek, Rock Creek, Convict Lake, and Crowley Lake. The nearest recent CNDDDB occurrence is located 0.23-miles northwest of the Bishop parcels in China Slough. The record is dated to 1985 (CDFW 2021).

Habitat Suitability

The active drainage ditches on both the eastern and western Bishop parcels are outside of the known occurrence areas for Owens sucker; however, this species could be present upstream of the project site or in upstream waterways hydrologically connected to the project site and these ditches could provide suitable habitat for Owens sucker. It is unlikely that this species will occur in the drainage ditches on the three Bishop parcels or from the project vicinity downstream to the Bishop Creek Canal or occupy these ditches for an extended period of time; however, these species could occupy these ditches periodically.

Potential for Adverse Effects

In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Owens sucker could include harm to individual Owens sucker as a result of indirect impacts to this species due to water quality impacts. Ground disturbance associated with construction activities would

have the potential to negatively impact water quality resulting in harm to individual Owens sucker if present in the ditches in or adjacent to the Bishop parcels, which would be a significant impact.

Implementation of Mitigation Measure BIO-3 would reduce potential impacts to Owens sucker to a less than significant level.

Owens Speckled Dace

Federal status – none

State status – none

Other – CDFW Species of Special Concern

Species Description

Owens speckled dace inhabits a wide range of streams, including ditches, hot spring systems, and cold-water streams. Spawning occurs in gravel and the fry congregate in warm shallow areas, often in channels with rocks and emergent vegetation (CDFW 2017). Owens speckled dace appears to be excluded from most of its wide ecological range by non-native predatory fishes, and habitat modifications that reduce vegetative cover (Moyle et al. 2015). Owens speckled dace has been extirpated from most of its natural range in the Owens River watershed, and now occurs only in three disjunct populations in Fish Slough, Round Valley, and in irrigation ditches in Bishop. It has a high concern rating due to a declining and fragmented population (Moyle et al. 2015).

Survey History

Within the northern Owens Valley, this species is known to occur in North McNally Ditch, North Fork Bishop Creek, an irrigation ditch in north Bishop, Lower Horton Creek, and Lower Pine and Rock creeks. Speckled dace now occurs primarily in streams and irrigation ditches around Bishop, but the populations are scattered, mostly small and fluctuate widely in size (CDFW 2017). There are two CNDDDB occurrences in drainage ditches within 0.6 miles of the western Bishop parcels dated to 1985 and 1988. Additionally, Owens speckled dace were observed in the Bishop Creek Canal in 1973 approximately 2.1 miles south of the eastern Bishop parcel (CDFW 2021).

Habitat Suitability

The active drainage ditches on both the eastern and western Bishop parcels are outside of the known occurrence areas in the northern Owens valley; however, this species could be present upstream of the project site or in upstream waterways hydrologically connected to the project site and these ditches could provide suitable habitat for Owens speckled dace. It is unlikely that this species will occur in the drainage ditches on the three Bishop parcels or from the project vicinity downstream to the Bishop Creek Canal or occupy these ditches for an extended period of time; however, these species could occupy these ditches periodically.

Potential for Adverse Effects

In the absence of proposed mitigation measures, potential adverse effects of the proposed project on Owens speckled dace could include harm to individual Owens speckled dace as a result of indirect impacts to this species due to water quality impacts. Ground disturbance associated with construction activities would have the potential to negatively impact water quality resulting in harm to individual

Owens speckled dace if present in the ditches in or adjacent to the Bishop parcels, which would be a significant impact.

Implementation of Mitigation Measure BIO-3 would reduce potential impacts to Owens speckled dace to a less than significant level.

Swainson's Hawk

Federal status – none

State status – Threatened

Other – none

Species Description

Swainson's hawk is a breeding season migrant in California that winters in South America; migrants typically arrive in mid-April and begin scouting nest locations. Breeding is finished by August and most birds have left the state by late-October. Populations are largest in the southern Sacramento Valley and high deserts.

Swainson's hawks' nest in large trees in riparian woodlands, tall trees in upland stands (especially Eucalyptus), and solitary trees in agricultural areas. Isolation from human foot traffic is important to nest site selection, though hawks are less sensitive to vehicle traffic. Nests are typically concealed in dense canopy. Individuals exhibit high nest site fidelity. Swainson's hawks forage opportunistically over a large area, soaring up to 10 miles from the nest to hunt small mammals and insects in agricultural fields and grasslands. Suitable foraging habitat is open, with low vegetation (less than 12 inches) and abundant prey. Foraging activity is highest in agricultural fields during activities that drive prey into the open such as harvesting, disking, flooding, and burning.

Survey History

The biological reconnaissance was conducted in May, when Swainson's hawks have arrived in California and are establishing breeding territories. No Swainson's hawk or raptor nests were observed on the Bishop parcels during the reconnaissance survey. The nearest recent CNDDDB occurrence is located 4.4 miles northeast of the Bishop parcels in locust trees along the South McNally Canal. The record is dated to 2012 (CNDDDB 2021).

Habitat Suitability

Large trees in and adjacent to the eastern and western Bishop parcels provide potentially suitable nest locations for Swainson's hawk. The eastern and western Bishop parcels are bordered by urban development to the north and Swainson's hawks are generally intolerant of foot traffic near nests; however, there is ample nesting habitat south of the Bishop parcels. Swainson's hawks could forage opportunistically on prey in the alkali meadow habitat on the western Bishop parcels or in the open areas within the Fremont cottonwood woodland habitat on the eastern Bishop parcel, although it is unlikely that Swainson's hawk would use these parcels regularly for foraging as they are small and located next to developed areas and this species typically forages in large open tracts of land.

Potential for Adverse Effects

Although Swainson's hawk are not expected to nest on either the western or eastern Bishop parcels, there is a low likelihood Swainson's hawk could nest on or adjacent to the parcels. If Swainson's hawk were to nest on the project parcels or vicinity, physical disturbance of an active nest through tree removal, or indirect disturbance of an active nest within 0.25 mile through noise, vibration, lights, or human presence, could lead to accidental injury or mortality of eggs or chicks. Accidental injury or mortality of Swainson's hawks would be a significant impact. Loss of potential marginal foraging habitat for Swainson's hawk that would occur as a result of project implementation would not be considered a significant impact to Swainson's hawk as the projects are small and there is ample foraging habitat for Swainson's hawk in the region of the Bishop parcels.

Implementation of Mitigation Measure BIO-4 would reduce potential impacts to nesting Swainson's hawk to a less than significant level.

4.4.4.3 Migratory Birds and Raptors

Migratory and non-game birds are protected during the nesting season by California Fish and Game Code. The Independence, Bishop, and Lone Pine parcels and their immediate vicinities provides nesting and foraging habitat for a variety of native birds common to urbanized areas and open habitats, such as red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), and American crow (*Corvus brachyrhynchos*). Nests were not observed during surveys; however, a variety of migratory birds have the potential to nest in and adjacent to the parcels, in trees, shrubs and on the ground in vegetation.

Project activities such as clearing and grubbing during the avian breeding season (February 1 through August 31) could result in injury or mortality of eggs and chicks directly through destruction or indirectly through forced nest abandonment due to noise and other disturbance. Needless destruction of nests, eggs, and chicks would be a violation of the Fish and Game Code and a significant impact.

Mitigation Measure BIO-5 for nesting migratory birds and raptors would reduce potential impacts to nesting birds to less than significant.

4.4.4.4 Sensitive Natural Communities

Natural communities are defined by one or more characteristic plant species, and the species communities in the majority of the project parcels are not considered characteristic of a sensitive natural community. Due to the general lack in abundance of native plant species, there are no terrestrial or aquatic sensitive natural communities on the Lone Pine parcels, eastern Bishop parcel or the Independence parcel. However, alkali meadow present on the western Bishop parcels is considered a sensitive natural community.

Alkali Meadow habitat dominated by saltgrass and Baltic rush was observed on the western Bishop parcels. Alkali meadows occur in areas with a shallow water table (1 – 3 meter deep) and alkaline soils (Sawyer and Keeler 1995). Alkali meadows in Owens Valley occur in a broad zone at the toe slopes of the giant alluvial fans coming down the west side of Owens Valley from the Sierra. Commonly present species include sacaton, saltgrass, beardless wild rye, Baltic rush, American licorice, and rabbitbrush. The herbaceous community on the western Bishop parcels is classified as alkali meadow due to the presence of saltgrass, which is one of the dominant herbaceous species in this habitat and an indicator species of

alkali meadow, and other species typical of the alkali meadow community including Baltic rush. The nearest CNDDDB occurrence is located approximately 1.0 miles northwest of the western Bishop parcels on the Paiute-Shoshone Indian Reservation. Species observed at this occurrence include saltgrass and Baltic rush (CDFW 2021).

Alkali meadow would be impacted by development of the proposed project. The alkali meadow in the western Bishop parcels is part of a large area dominated by similar plant species that could likely all be classified as alkali meadow. Impacts to alkali meadow could be considered a significant impact.

Implementation of Mitigation Measure BIO-6 would reduce potential impacts to alkali meadow to a less than significant level.

4.4.4.5 Aquatic Resources Evaluation

HELIX conducted an assessment of all of the project parcels for the presence/absence of potential wetlands or other aquatic resources by surveying the parcels for any areas with indicators of hydrophytic vegetation, hydric soils, and wetland hydrology during the biological reconnaissance survey. A formal delineation of aquatic resources was not conducted.

There were no apparent aquatic resources on the Independence or Lone Pine parcels (Figures 4.4-7 and 4.4-8, respectively). The Bishop parcels contain three active drainage ditches: two on the western Bishop parcels (0.08 acre) and one on the eastern Bishop parcel (0.14 acre). Refer to Figures 4.4-9a and 4.4-9b for the location of aquatic resources in proximity to the west and east Bishop parcels, respectively. Additionally, portions of the alkali meadow habitat located on the western Bishop parcel may qualify as wetlands. The ditches and alkali meadow habitat are described in Section 4.4.3.5 under *Bishop Parcels*.

A formal wetland delineation would need to be conducted and verified by the USACE and the Lahontan Regional Water Quality Control Board (RWQCB) to determine if the ditches and alkali meadow habitat are waters of the U.S. and/or waters of the State. Any impacts to waters of the U.S. and/or State would be considered a significant impact and would require permits from the USACE, the Lahontan RWQCB and CDFW. Mitigation Measure BIO-6 would reduce impacts to waters of the U.S. and waters of the State to less than significant.

4.4.4.6 Wildlife Corridors

A wildlife corridor is a link of wildlife habitat, generally native vegetation, which joins two or more larger areas of similar wildlife habitat. Corridors are critical for the maintenance of ecological processes including facilitating the movement of animals and the continuation of viable populations. The project parcels consist of developed and disturbed lands within the limits of the communities of Lone Pine and Independence, and the City of Bishop that do not provide a movement corridor for wildlife. Therefore, there are no wildlife corridors on the project parcels and the proposed project will not impact any wildlife corridors.

4.4.4.7 Habitat Conservation Plans/Natural Community Conservation Plans

The project does not fall under the purview of any Habitat Conservation Plans (HCP) or Natural Community Conservation Plans (NCCP).

4.4.5 Significance Thresholds

The thresholds for determining significance under CEQA are based on Appendix G of the CEQA Guidelines. In this analysis, the proposed project would have significant impacts on biological resources if it would:

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

4.4.6 Impact Analysis

BIO-1 The proposed project may result in a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Potential Impact to Special-Status Plants

Independence Parcel

The proposed project could potentially result in adverse impacts to special-status plants through destruction of the alkali desert scrub habitat found in the Independence parcel. Based on a review of species with a potential to occur in the region, it was determined that the Independence parcel contained suitable habitat for coyote gilia, Booth's hairy evening-primrose, and Nevada oryctes. If present, ground disturbance associated with construction activities could potentially result in the destruction of individuals of these special-status plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of these special-status plants, which would be considered a significant impact. Implementation of Mitigation Measure BIO-1 would reduce impacts to special-status plant species to a less than significant level.

Bishop Parcels

The proposed project could potentially result in adverse impacts to special-status plants through conversion of the alkali meadow habitat found in the western Bishop parcels. Based on a review of species with a potential to occur in the region, the western Bishop parcels contain suitable habitat for silver-leaved milk-vetch, Fish Slough milk-vetch, Inyo County star-tulip, Inyo phacelia, Owens Valley checkerbloom, and/or prairie wedge grass. If present, ground disturbance associated with construction activities could potentially result in the loss of individuals of these special-status plants and/or the project could result in the conversion of suitable habitat to unsuitable uses resulting in unsuitable conditions for germination of these special-status plants, which would be considered a significant impact. Implementation of Mitigation Measure BIO-1 would reduce impacts to special-status plant species to a less than significant level.

Lone Pine Parcels

The Lone Pine parcels do not provide suitable habitat for special-status plants and no impacts to special-status plants would occur as a result of project elements associated with the Lone Pine parcels.

Potential Impacts to Special-Status Wildlife

Independence Parcel

The Independence parcel does not provide suitable habitat for special-status wildlife and no impacts to special-status wildlife would occur as a result of project elements associated with the Independence parcel. However, there is a potential for migratory birds and other nesting birds to establish nests on or adjacent to the site on the ground or in trees or shrubs.

Potential Impacts to Other Nesting Raptors and Migratory Birds

Potential nesting habitat is limited on the Independence parcel; however, the proposed project may include removal of vegetation that provides potential nesting habitat for nesting birds. Project construction activities would potentially result in impacts to nesting birds if construction of the proposed project commences during the typical nesting period for passerines and other migratory birds. Construction activities and construction-related disturbance (noise, vibration and increased human activity) could adversely affect these species if they were to nest in or adjacent to the project area. Potential effects include physical destruction of nests by construction equipment and/or nest abandonment. Destruction of nests, eggs, or chicks of any bird would constitute a violation of the Migratory Bird Treaty Act of 1918 and the Fish and Game Code and therefore be a significant impact. Implementation of Mitigation Measure BIO-5 would reduce potential impacts to northern harrier, white-tailed kite, and other nesting raptors and migratory birds to a less than significant level.

Bishop Parcels

Potential Impacts to Owens Valley Vole

The proposed project could potentially result in adverse impacts to Owens Valley vole through disturbance of individual Owens Valley vole and burrow disturbance/loss of active burrows. Destruction of Owens Valley vole and any burrows would be a violation of the Fish and Game Code and a significant

impact. Implementation of Mitigation Measure BIO-2 would reduce impacts to Owens Valley vole to a less than significant level.

Potential Impacts to Owens Sucker and Owens Speckled Dace

The proposed project could potentially result in adverse impacts to Owens sucker and Owens speckled dace. Such impacts could include harm to individual fish as a result of indirect impacts to these species due to water quality impacts. Ground disturbance associated with construction activities would have the potential to negatively impact water quality resulting in harm to individual Owens sucker and Owens speckled dace if present in the ditches in or adjacent to the Bishop parcels, which would be a significant impact. Implementation of Mitigation Measure BIO-3 would reduce impacts to Owens sucker and Owens speckled dace to a less than significant level.

Potential Impacts to Swainson's Hawk

The proposed project could potentially result in adverse impacts to Swainson's hawk through disturbance of individual Swainson's hawk, burrow disturbance/loss of active nests, and loss of potential nesting and foraging habitat. If Swainson's hawk were to nest or forage on the project parcels or vicinity, physical disturbance of an active nest through tree removal, or indirect disturbance of an active nest within 0.25 mile through noise, vibration, lights, or human presence, could lead to accidental injury or mortality of eggs or chicks. Accidental injury or mortality of Swainson's hawks would be a significant impact. Implementation of Mitigation Measure BIO-4 would reduce impacts Swainson's hawk to a less than significant level.

Potential Impacts to Other Nesting Raptors and Migratory Birds

Potential nesting habitat is limited on the Bishop parcels; however, the proposed project may include removal of vegetation that provides potential nesting habitat for nesting birds. Project construction activities would potentially result in impacts to nesting birds if construction of the proposed project commences during the typical nesting period for passerines and other migratory birds. Construction activities and construction-related disturbance (noise, vibration and increased human activity) could adversely affect these species if they were to nest in or adjacent to the project area. Potential effects include physical destruction of nests by construction equipment and/or nest abandonment. Destruction of nests, eggs, or chicks of any bird would constitute a violation of the Migratory Bird Treaty Act of 1918 and the Fish and Game Code and therefore be a significant impact. Implementation of Mitigation Measure BIO-5 would reduce potential impacts to northern harrier, white-tailed kite, and other nesting raptors and migratory birds to a less than significant level.

Lone Pine Parcels

The Lone Pine parcels do not provide suitable habitat for special-status wildlife and no impacts to special-status wildlife would occur as a result of project elements associated with the Lone Pine parcels. However, there is a potential for migratory birds and other nesting birds to establish nests on or adjacent to the site on the existing buildings or in trees or shrubs adjacent to the site.

Potential Impacts to Other Nesting Raptors and Migratory Birds

Potential nesting habitat is limited on the Lone Pine parcels; however, the proposed project may include removal of vegetation that provides potential nesting habitat for nesting birds. Project construction

activities would potentially result in impacts to nesting birds if construction of the proposed project commences during the typical nesting period for passerines and other migratory birds. Construction activities and construction-related disturbance (noise, vibration and increased human activity) could adversely affect these species if they were to nest in or adjacent to the project area. Potential effects include physical destruction of nests by construction equipment and/or nest abandonment. Destruction of nests, eggs, or chicks of any bird would constitute a violation of the Migratory Bird Treaty Act of 1918 and the Fish and Game Code and therefore be a significant impact. Implementation of Mitigation Measure BIO-5 would reduce potential impacts to northern harrier, white-tailed kite, and other nesting raptors and migratory birds to a less than significant level

Summary

The proposed project could potentially result in significant impacts to the special-status animal species discussed in detail above as well as nesting raptors and other nesting birds. However, implementation of Mitigation Measures BIO-1 through BIO-5 would reduce potentially significant impacts to special-status species and/or nesting raptors and birds to a less than significant level. Species-specific mitigation measures are included in the mitigation measures identified below.

Significance without Mitigation: Potentially significant impact.

Mitigation Measure BIO-1: Rare Plant Surveys

Floristically appropriate botanical surveys shall be conducted to determine the presence or absence of special-status plant species on the proposed Independence project parcel prior to commencement of construction. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the blooming period of regionally occurring special-status plant species (generally March through August, with a peak in April and May). Surveys shall be conducted to determine the status of these species in the project parcel. If special-status plants are not found during the focused surveys, then no further action is required.

- If special-status plants are documented on the parcel, a report shall be submitted to CNDDDB to document the status of the species on the parcel. If the project is designed to avoid impacts to special-status plant individuals and habitat, no further mitigation for these species would be necessary.
- If special-status plants are documented on the parcel and project impacts to these species are anticipated, consultation with CDFW shall be conducted to develop a mitigation strategy. The proponent shall notify CDFW, providing a complete description of the location, size, and condition of the occurrence, and the extent of proposed direct and indirect impacts to it. The project proponent shall comply with any mitigation requirements imposed by CDFW. Mitigation requirements could include but are not limited to, development of a plan to relocate the special-status plants (seed) to a suitable location outside of the impact area and monitoring the relocated population to demonstrate transplant success or preservation of this species or its habitat at an on or offsite location.

Significance with Mitigation: Less than significant impact.

Mitigation Measure BIO-2: Owens Valley Vole Surveys

Owens Valley vole have the potential to burrow and forage within all of the proposed Bishop parcels. The following mitigation shall be implemented for Owens Valley vole:

- Prior to construction at all Bishop parcels, small mammal trapping shall be conducted in order to assess the presence/absence of Owens Valley vole. Traps are to be opened only at night for 3 nights and set up along a standard 100 X 100-m grid with traps at 10-m intervals. Large (7.6 X 8.9 X 22.cm) Sherman live-traps shall be used and baited with plain rolled oats and peanut butter. All captured animals are to be identified to species, sexed, measured, marked, and released. Surveys of Owens Valley vole sign (burrowing, feces, grass clippings, grazing, and runways) shall also be used to obtain additional information on Owens Valley vole distribution. Sign that may have been attributable to other small mammal species (i.e. burrows and grazing) shall only be considered if associated with sign distinctly characteristic of Owens Valley vole activity (i.e. runways and feces). Owens Valley vole fecal pellets were readily distinguishable from those of other small mammal species by their large size, crescent shape, and coarse texture. If Owens Valley vole are not found during the focused surveys, then a letter report should be prepared to document the survey, and no additional measures are recommended.
- If Owens Valley vole are present on or within 100 feet of the proposed project footprint, then avoidance and mitigation measures, such as relocation, shall be developed in coordination with CDFW.

Significance with Mitigation: Less than significant impact.

Mitigation Measure BIO-3: Special-Status Fish Avoidance Measures

Owens sucker and Owens speckled dace have the potential to occur in the drainage ditches on the three Bishop parcels or from the project vicinity downstream to the Bishop Creek Canal. The following mitigation shall be implemented for these special-status fish species:

- *Measures to Reduce Impacts to Water Quality*
 - Activities conducted in or near Bishop Creek Canal and the active drainage ditches shall be limited to the winter months (generally November – March) when flows are lowest.
 - All disturbed soils shall undergo erosion control treatment prior to October 15 and/ or immediately after construction is terminated. Erosion control blankets shall be installed on any disturbed soils on a 2:1 slope or steeper.
 - Standard construction BMPs shall be implemented throughout construction to avoid and minimize adverse effects to water quality within Bishop Creek Canal and the active drainage ditches in and adjacent to the project site. Appropriate erosion control measures shall be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from the project site. The integrity and effectiveness of the BMPs shall be inspected daily. Corrective actions and repairs shall be carried out immediately.
 - No construction shall occur within the wetted portion of waterways, including access by construction equipment or personnel. If work in the wetted portion of waterways is unavoidable, the work area shall be dewatered and the flow diverted around the work area. The flow shall be diverted only once the construction of the diversion is completed.
 - Construction activities and ground disturbance within the waterways in the project site shall be confined to the minimal area necessary to facilitate construction activities. To ensure that construction equipment and personnel do not affect sensitive aquatic habitat in Bishop Creek Canal and the active drainage ditches up and downstream of the project site, orange barrier fencing shall be erected to clearly define the habitat to be avoided. This shall delineate the Environmentally Sensitive Area (ESA) on the project. The integrity and effectiveness of ESA fencing shall be inspected daily. Corrective actions and repairs shall be carried out immediately for fence breaches.
 - Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials shall not be allowed to enter streams or other waters. A plan for the emergency clean-up of any spills of fuel or other materials shall be available when construction equipment is in use.
 - Construction vehicles and equipment shall be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Leaking vehicles and equipment shall be removed from the site.
 - Equipment shall be re-fueled, washed, and serviced at the designated construction staging area or off-site. All construction and fill materials shall be stored and contained in a designated area that is located away from Bishop Creek Canal and the active drainage ditches to prevent transport of materials

into these waterways. Equipment maintenance and storage, and materials storage shall be 100 feet or more away from waterways. In addition, a silt fence shall be installed around the staging and materials storage areas to collect any discharge, and adequate materials should be available for spill clean-up and during storm events

- No litter, debris, or sidecast shall be dumped or permitted to enter Bishop Creek Canal and the active drainage ditches. Trash and debris shall be removed from the site regularly. Following construction, all trash and construction debris shall be removed from work areas.
 - Building materials storage areas containing hazardous or potentially toxic materials such as herbicides and petroleum products shall be located outside of the 100-year flood zone, have an impermeable membrane between the ground and the hazardous material, and shall be bermed to prevent the discharge of pollutants to ground water and runoff water.
 - Worker education and awareness training regarding sensitive habitats (e.g., aquatic and riparian habitats) and special-status species shall be conducted for all construction personnel. The contractor will ensure that all new personnel shall receive the mandatory training before starting work.
- *Fish Salvage Measures*
 - If dewatering is required, the contractor shall prepare a creek dewatering plan that complies with all applicable permit conditions. Water diversion activities shall be conducted under the supervision of a qualified biologist. The biologist shall survey the area to be dewatered immediately after installation of the dewatering device and prior to the continuation of dewatering activities. The approved biologist shall use a net to capture trapped fish present in the area to be dewatered. Captured native organisms shall be released into the creek/ditch up or downstream of the construction zone.
 - If dewatering the work area in the creek is necessary, and it would be dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters to prevent fish from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the soil substrate.

Significance with Mitigation: Less than significant impact.

Mitigation Measure BIO-4: Swainson's Hawk Surveys

Pre-construction surveys shall be conducted to determine if there are nesting Swainson's hawk within 0.5-mile of all of Bishop parcels. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. Prior to initiation of construction activities during the Swainson's hawk breeding season

(March 1 through September 15), the applicant shall determine the presence of active Swainson's hawk nests in and within 0.5 mile of the Bishop parcels using the most recent published survey protocols (i.e., 3 surveys by a qualified biologist in each of the two periods preceding the construction start date; SHTAC 2000). If an active Swainson's hawk nest is discovered, the applicant shall initiate consultation with CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected would depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. If no active nests are discovered, no further action is required.

Significance with Mitigation: Less than significant impact.

Mitigation Measure BIO-5: Nesting Bird Surveys

If project activities such as vegetation removal activities commence during the avian breeding season (February 1 through August 31), a qualified biologist should conduct a pre-construction nesting bird survey no more than 7 days prior to initiation of project activities. The survey area should include suitable raptor nesting habitat within 500 feet of the project boundary (inaccessible areas outside of the project parcels can be surveyed from the parcel or from public roads using binoculars or spotting scopes). Pre-construction surveys are not required in areas where project activities have been continuous since prior to February 1, as determined by a qualified biologist. Areas that have been inactive for more than 14 days during the avian breeding season must be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the following measure should be implemented:

- A suitable buffer (e.g., 500 feet for Cooper's hawk and white-tailed kite; 300 feet for common raptors; 100 feet for non-raptors) should be established by a qualified biologist around active nests and no construction activities within the buffer should be allowed until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer should be monitored by a qualified biologist to determine whether nesting birds are being impacted.

Significance with Mitigation: Less than significant impact.

BIO-2 The proposed project may result in a substantial adverse effect on a sensitive natural community.

Independence Parcel

The Independence parcel does not contain any sensitive natural communities and no impacts to sensitive natural communities would occur as a result of project elements associated with the Independence parcel.

Bishop Parcels

The proposed project could potentially result in adverse impacts to a sensitive natural community. Alkali meadows, a sensitive natural community, is found on the western Bishop parcel. Implementation of Mitigation Measure BIO-6, discussed in the following section, would reduce impacts to sensitive natural communities to a less than significant level.

Lone Pine Parcels

The Lone Pine parcels do not contain any sensitive natural communities and no impacts to sensitive natural communities would occur as a result of project elements associated with the Lone Pine parcels.

Significance without Mitigation: Potentially significant impact (Bishop parcels).

See Mitigation Measure BIO-6: Jurisdictional Waters below.

Significance with Mitigation: Less than significant impact.

BIO-3 The proposed project may result in a substantial adverse effect on State or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) or other waters of the U.S. or State through direct removal, filling, hydrological interruption, or other means.

The proposed project could potentially result in adverse impacts to jurisdictional waters, including drainage ditches and alkali meadow. A formal jurisdictional delineation would determine the exact impact the proposed project may have on jurisdictional waters. Implementation of Mitigation Measure BIO-6 would reduce impacts to jurisdictional waters to a less than significant level.

Independence Parcel

The Independence parcel does not contain any State or federally protected wetlands and no impacts to State or federally protected wetlands would occur as a result of project elements associated with the Independence parcel.

Bishop Parcels

The proposed project could potentially result in adverse impacts to jurisdictional waters, including drainage ditches and alkali meadow. A formal jurisdictional delineation would determine the exact impact the proposed project may have on jurisdictional waters. Implementation of Mitigation Measure BIO-6 would reduce impacts to jurisdictional waters to a less than significant level.

Lone Pine Parcels

The Lone Pine parcels do not contain any State or federally protected wetlands and no impacts to State or federally protected wetlands would occur as a result of project elements associated with the Lone Pine parcels.

Significance without Mitigation: Potentially significant impact (Bishop parcels).

Mitigation Measure BIO-6: Jurisdictional Waters

Prior to any impacts to any of the Bishop parcels, a formal jurisdictional delineation shall be conducted. The U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW shall be contacted prior to commencement of any construction activity that would impact jurisdictional waters and permits shall be obtained as required. Impacts to jurisdictional waters shall be mitigated in accordance with agency requirements to ensure no net loss of acreage or value to waters of the U.S. and/or waters of the state. The loss of jurisdictional waters shall be mitigated for at a minimum ratio of 1:1 (i.e., 1 acre created per 1 acre impacted) to ensure no net loss of acreage or value to waters of the U.S. and/or waters of the state, except where exempted by regulation. The 1:1 mitigation must be replaced in-kind. This may be accomplished by purchasing credits in a mitigation bank approved by the USACE, RWQCB, and CDFW, or creation/preservation/or enhancement of waters in the project parcels or off-site reserves.

Significance with Mitigation: Less than significant impact.

BIO-4 The proposed project would not interfere substantially with the movement of native resident wildlife species or with established native resident or migratory wildlife corridors.

As discussed in Section 4.4.4.6, Wildlife Corridors, the project parcels do not contain any wildlife corridors. The project site is not included in any corridors mapped by the California Essential Habitat Connectivity project and does not provide any unique movement or dispersal habitat relative to surrounding lands for several miles in all directions. The project parcels consist of developed and disturbed lands within the limits of the towns of Lone Pine, Independence, and Bishop that do not provide a movement corridor for wildlife. Therefore, there are no wildlife corridors on the project parcels and the proposed project will not impact any wildlife corridors.

Significance without Mitigation: Less than significant impact.

BIO-5 The proposed project would not conflict with local policies or ordinances protecting biological resources.

The proposed project would not conflict with local policies or ordinances protecting biological resources. Neither Inyo County nor Independence, Lone Pine or Bishop have tree protection ordinances. The project would not conflict with local policies or ordinances protecting biological resources.

Significance without Mitigation: Less than significant impact.

BIO-6 The proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

As discussed in Section 4.4.4.7, Habitat Conservation Plans/Natural Community Conservation Plans, the proposed project does not fall under the purview of any HCPs or NCCPs. Therefore, the project would not conflict with any provisions of an adopted HCP, and no mitigation is required.

Significance without Mitigation: Less than significant impact.

The biological mitigation measures required for impacts each parcel or set of parcels is outlined below in Table 4.4-1.

**Table 4.4-1
BIOLOGICAL MITIGATION MEASURE REQUIREMENTS BY PARCEL**

Mitigation Measures	Independence (APN 002-160-08)	Western Bishop (APNs 008-240-01 and -02)	Eastern Bishop (APN 008-190-01)	Lone Pine (APNs 005-072-06, -07, -24, and -30)
BIO-1 Rare Plant Survey	X	X		
BIO-2 Owens Valley Vole Survey		X	X	
BIO-3 Special-Status Fish Avoidance Measures		X	X	
BIO-4 Swainson’s Hawk Surveys		X	X	
BIO-5 Nesting Bird Surveys	X	X	X	X
BIO-6 Jurisdictional Waters		X	X	

4.4.7 Cumulative Impacts

BIO-7 The proposed project would not result in a significant cumulative impact with respect to biological resources.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly result in an adverse impact to a special-status species, result in an adverse effect on a natural community, result in an adverse effect to wetlands, interfere with the movement of wildlife, conflict with local policies or ordinances protecting biological resources, or conflict with an HCP or NCCP. The cumulative context for the biological resources is Inyo County. Although impacts to biological resources are site specific, project specific impacts contribute to a continued loss of biological resources throughout the range of the species or other biological resource being impacted. The cumulative context for biological resources is based on projects located within the geographic range that would impact vegetation communities and species similar to those impacted by the proposed project.

The proposed project would potentially affect a small number of parcels, some of which have potential to support sensitive biological resources. In general, a project's potential impacts related to sensitive biological resources depend on the specific project site and whether it supports sensitive natural communities, special-status species, and/or aquatic resources. As discussed above, the proposed project would have potential impacts to special-status species, sensitive natural communities, or State or federally protected wetlands which would be reduced to less than significant levels by the implementation of Mitigation Measures BIO-1 through BIO-6. Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp and cannabis cultivation, dispensaries, and/or retail projects that are less than 1-acre in size and located over 50 miles from the nearest project parcel (with the exception of the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels).

Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Baker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. As such, none of the cumulative projects considered in this analysis would lead to cumulative impacts to biological resources.

As discussed above under impacts BIO-4, BIO-5, and BIO-6, implementation of the proposed project would not interfere with the movement of wildlife in wildlife corridors, conflict with local policies or ordinances protecting biological resources, or conflict with an HCP or NCCP. Therefore, the proposed project would not contribute to cumulative impacts in these areas.

The proposed project would convert relatively small portions of the county that are currently undeveloped to residential uses, which would have potential to contribute to loss of sensitive biological resources, including special-status species and their habitats, sensitive natural communities, and federally and state regulated wetlands. However, the implementation of Mitigation Measures BIO-1 through BIO-6 discussed above would reduce these potential impacts to less than significant levels. The projects listed as part of this cumulative analysis would also be subject to CEQA review and would be required to comply with any mitigation measures identified as necessary to reduce potential impacts to biological resources. Therefore, the project is not expected to make a cumulatively considerable contribution to losses of sensitive biological resources in the Inyo County.

Significance without Mitigation: Potentially significant impact.

See Impacts BIO-1 and BIO-3 for Mitigation Measures BIO-1 through BIO-6.

Significance with Mitigation: Less than significant impact.

4.4.8 References

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4.5 Cultural Resources

This section describes the regulatory framework and existing conditions related to cultural resources, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.5.1 Environmental Setting

4.5.1.1 Regulatory Framework

Federal Regulations

Archaeological Resources Protection Act of 1979

The Archaeological Resources Protection Act (ARPA) establishes penalties for damage, defacement, or unauthorized removal of archaeological artifacts from public land, or trafficking in any archaeological artifacts regardless of source. As amended in 1988, ARPA also requires federal land management agencies to conduct inventories of archaeological resources on the lands they administer.

Federal Land Policy and Management Act of 1976

The Federal Land Policy and Management Act (FLPMA) is the primary law governing how the Bureau of Land Management (BLM) manages public lands. FLPMA includes requirements that BLM manage lands to preserve scientific, scenic, historical, ecological, environmental, water resource, archaeological, and other values.

National Environmental Policy Act of 1969 (NEPA)

NEPA establishes a process of review for actions by federal agencies that affect the human environment. Every federal agency must create a NEPA implementing procedure that reflects its unique mission and mandate. All NEPA implementing procedures include public comment, interagency consultation, and comprehensive analysis and disclosure of project effects on the human environment. NEPA requires that agencies consider project alternatives that reduce environmental impacts, and that impacts are fully mitigated where mitigation is practicable.

The BLM NEPA implementing procedure includes consultation with Native American tribes, state, and local agencies as part of external scoping. The definition of potential project effects on the environment that must be analyzed under NEPA is open-ended, and the list of issues for a particular project is usually formulated during internal and external scoping based on comments from interested parties.

National Historic Preservation Act of 1966

The National Historic Preservation Act establishes the National Register of Historic Places (NRHP), the State Historic Preservation Offices (SHPO), and a review process for all federal projects that might affect sites listed or eligible for listing on the NRHP (Section 106 Review). The Section 106 review process includes consultation with the SHPO regarding potential impacts to historic sites, public comment, and requirements to avoid, minimize, or mitigate for impacts to historic sites.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) includes requirements that all federal agencies and museums receiving federal funds consult with Native American individuals and tribes regarding the repatriation of Native American cultural items in their possession, and provides greater protection for Native American burial sites and cultural artifacts on federal lands. NAGPRA requires that federal agencies consult with Native American tribes whenever Native American cultural items are encountered or expected to be encountered on public lands, and specifies that excavation or removal of such items must conform to the procedures established in ARPA.

Cultural items are defined as:

Human remains and associated funerary objects

Associated funerary objects are objects that are presumed to have been placed with human remains as part of a death rite or ceremony, and that retain their association with remains that can be located.

Unassociated funerary objects

Unassociated funerary objects are objects that are presumed to have been placed with human remains as part of a death rite or ceremony but have lost their association with located remains either by natural disturbance or removal.

Sacred objects

Sacred objects are specific ceremonial objects which are needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents.

Objects of cultural patrimony

Objects of cultural patrimony are objects having ongoing historical, traditional, or cultural importance central to the Native American group or culture itself, rather than property owned by an individual Native American. These objects must have been of such central importance to the group that they were owned communally and cannot have been conveyed, appropriated, or transferred by an individual.

State Regulations

Assembly Bill 52

Assembly Bill (AB) 52 adds consultation with Native American tribes to the approval process for all projects requiring discretionary permits and subject to CEQA (see below). Tribes inform local agencies that they wish to be informed of proposed actions, and agencies are required to consult with those tribes before taking actions that may affect tribal cultural resources.

California Environmental Quality Act of 1970

CEQA Guidelines establishes a process for the issuing of discretionary permits by all California public agencies. The process includes full public disclosure and analysis of a project's potential effects on the human environment, open public comment period(s), and written responses by agencies to public

comments. CEQA also requires agencies to consider project alternatives that reduce environmental impacts, and to ensure that environmental impacts are fully mitigated if mitigation is practicable. The human environment considered under CEQA includes agriculture, air quality, biological resources, geology and soils, greenhouse gases, hazards, historical and archaeological resources, land use and planning policies, mineral resources, noise, paleontological resources, population growth and housing, public services, recreation, traffic, tribal cultural resources, water quality, utilities, and visual resources.

Historical and archaeological resources are afforded consideration and protection by CEQA (14 CCR Section 21083.2, 14 CCR Section 15064). The CEQA Guidelines define significant cultural resources under two regulatory designations: historical resources and unique archaeological resources.

An historical resource is defined as a “resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register for Historic Resources (CRHR)” ; or “a resource listed in a local register of historical resources or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the [PRC]”; or “any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the agency’s determination is supported by substantial evidence in light of the whole record” (14 CCR Section 15064.5[a][3]). While Traditional Cultural Property (TCP) and cultural landscapes are not directly called out in the state definitions of historical resources, TCPs are places and cultural landscapes are areas, and places and areas are included as types of historical resources. Historical resources that are automatically listed in the CRHR include California historical resources listed in or formally determined eligible for the National Register of Historical Places (NRHP) and California Registered Historical Landmarks from No. 770 onward (PRC 5024.1[d]). Locally listed resources are entitled to a presumption of significance unless a preponderance of evidence in the record indicates otherwise.

Under CEQA, a resource is generally considered historically significant if it meets the criteria for listing in the CRHR. A resource must meet at least one of the following four criteria (PRC 5024.1; 14 CCR Section 15064.5[a][3]):

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage. Title 14, CCR Section 4852(b)(1) adds “is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.”
- Is associated with the lives of persons important in our past. Title 14, CCR Section 4852(b)(2) adds, “is associated with the lives of persons important to local, California, or national history.”
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Title 14, CCR 4852(b)(3) allows a resource to be CRHR eligible if it represents the work of a master.
- Has yielded, or may be likely to yield, information important in prehistory or history. Title 14, CCR 4852(b)(4) specifies that importance in prehistory or history can be defined at the scale of “the local area, California, or the nation.”

Historical resources must also possess integrity of location, design, setting, materials, workmanship, feeling, and association (14 CCR 4852[c]).

An archaeological artifact, object, or site can meet CEQA's definition of a unique archaeological resource, even if it does not qualify as a historical resource (14 CCR 15064.5[c][3]). An archaeological artifact, object, or site is considered a unique archaeological resource if "it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria (PRC 21083.2[g]):

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person."

Within California state law, cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. All resources nominated for listing in the CRHR must have integrity; the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Therefore, resources must retain enough of their historical character or appearance to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and/or association. It must also be judged with reference to the particular criteria under which a resource is proposed for nomination (Calif. PRC § 5024.1).

CEQA Guidelines, California Code of Regulations Title 14, Section 15064.5

When an initial study identifies the existence of, or the probable likelihood of, Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission (NAHC). A project proponent may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans identified as the most likely descendant by the NAHC.

Discoveries of Human Remains under California Environmental Quality Act Public Law

California law sets forth special rules that apply where human remains are encountered during project construction. These rules are set forth in one place in State CEQA Guidelines, Section 15064.5[e] as follows:

In the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery, the following steps should be taken:

- a) There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
 - i) The coroner of the county in which the remains are discovered must be contacted to determine that no investigation of the cause of death is required (as required under California Health and Safety Code Section 7050.5).
 - ii) If the coroner determines the remains to be Native American:

- (1) The coroner shall contact the NAHC within 24 hours.
 - (2) The NAHC shall identify the person or persons it believes to be the most likely descended from the deceased Native American.
 - (3) The most likely descendent may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods (as provided in [PRC] Section 5097.98), or
- b) Where the following conditions occur, the landowner or his authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further subsurface disturbance.
- i) The [NAHC] is unable to identify a most likely descendent or the most likely descendent failed to make a recommendation within 24 hours after being notified by the commission.
 - ii) The descendant identified fails to make a recommendation; or
 - iii) The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by the NAHC fails to provide measures acceptable to the landowner.

Public Resources Code §5024 *et seq.*

PRC Section 5024 requires that each state agency develop policies for the preservation and maintenance of all state-owned historical resources under its jurisdiction listed in, or potentially eligible for, inclusion in the NRHP; or registered or eligible for registration as a state historical landmark. Each state agency is required to submit updates to their inventory of all state-owned structures over 50 years of age under its jurisdiction listed in or which may be eligible for inclusion in the NRHP or registered or which may be eligible for registration as a state historical landmark. These inventories are used to create a master list maintained by the California Office of Historic Preservation (OHP). The State Historic Preservation Officer (SHPO) is supposed to be consulted by state agencies if any action would alter or affect any resources on this master list (PRC Section 5024.1). Additionally, Section 5024.1 establishes the CRHR as an authoritative guide for identifying which cultural resources are to be protected, to the extent prudent and feasible, from substantial adverse change. The CRHR eligibility criteria provide one of the bases for determining a cultural resource to be significant under CEQA.

Public Resources Code §5097.9 *et seq.*

PRC Section 5097.9 establishes that both public agencies and private entities using, occupying or operating on state property under public permit, shall not interfere with the free expression or exercise of Native American religion and shall not cause severe or irreparable damage to Native American sacred sites, except under special, determined circumstances of public interest and necessity. This section also creates the Governor-appointed nine-member NAHC, charged with identifying and cataloging places of special religious or social significance to Native Americans, identifying and cataloging known graves and cemeteries on private lands, and performing other duties regarding the preservation and accessibility of sacred sites and burials and the disposition of Native American human remains and burial items.

Under PRC Section 5097.5, all state and local agencies must cooperate with the NAHC by providing copies of appropriate sections of all CEQA environmental impact reports relating to property of special significance to Native Americans. The NAHC is required to investigate the effect of proposed actions by a

public agency if these actions may either cause severe or irreparable damage to a Native American sacred site located on state property or inhibit access to that site.

The NAHC is authorized to recommend mitigation measures if it finds, after a public hearing, that a proposed action would result in that damage or interference and to request action from the Attorney General if these mitigation measures are not addressed. This section also includes requirements for landowners to limit further development activity on property where Native American human remains are found until that landowner confers with NAHC-identified most likely descendants to consider treatment options. It further enables those descendants, within 48 hours of notification by the NAHC, to inspect the discovery site and recommend to the landowner or the person responsible for the excavation the means to treat or dispose of the human remains and any associated grave goods with dignity. In the absence of a most likely descendant, or of a treatment acceptable to all parties, the landowner is required to reinter the remains elsewhere on the property in a location that will not be disturbed. Finally, this section makes it a felony to remove Native American artifacts or human remains from a Native American grave or cairn, as well as to acquire, possess, sell, or dissect Native American remains, funerary objects, or artifacts from a Native American grave or cairn and establishes the repatriation of these remains, funerary objects, and associated grave artifacts as state policy (PRC Section 5097.9, *et seq.*).

California Health and Safety Code Section 8010-8011: California Native American Graves Protection and Repatriation Act (2001)

This section establishes a state policy that is partially consistent with the federal Native American Graves Protection and Repatriation Act (NAGPRA). It attempts to ensure that all Native American human remains and cultural items are treated with dignity and respect. It encourages the voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California, and requires that the state provide to tribes the mechanisms necessary to file and follow up with repatriation claims (California Health and Safety Code Section 8010 8011, *et seq.*).

California Senate Bill 18 (California Government Code, Section 65352.3)

Pursuant to Senate Bill 18, local governments are required to consult with California Native American tribes identified by the NAHC for the purpose of protecting and/or mitigating impacts to cultural places. Senate Bill 18 requires formal consultation with Native American tribes as part of a project that enacts or amends a general plan or a specific plan.

California Government Code Sections 65560 and 65562.5: Consultation with Native Americans on Open Space (2005)

This section identifies the protection of Native American cultural places as acceptable designations of open space. It further requires local governments to conduct meaningful consultation with California Native American tribes on the contact lists maintained by the NAHC for purposes of protecting cultural places located on open space (California Government Code Section 65560, 65562.5, *et seq.*).

Local Regulations

Inyo County Code

Chapter 9.52 of the Inyo County Code (ICC) covers the disturbance of archaeological, paleontological, and historical features. Under ICC Chapter 9.52, the excavation or exploration for archaeological, educational, or artifact collection purposes of any Native California Indian burial site is prohibited. Additionally, when archaeological or historical evidence indicates that a site was set aside for a Native California Indian burial site, all plans for a project that may cause disturbance must be submitted to the Big Pine Paiute Tribe of the Owens Valley, the Bishop Paiute, the Death Valley Timbisha Shoshone Tribe, the Fort Independence Indian Community of Paiute Indians, the Lone Pine Paiute-Shoshone Tribe, the Owens Valley-Paiute-Shoshone Band, or other representatives for review and comment.

In the event that a Native California Indian burial site is discovered in the course of a project development, the person responsible for the project must notify the County planning commission and interested California Native Indians in the County. The planning commission will weigh the archaeological, paleontological, or historical value of the burial site against the economic detriment to the project; based on the outcome, either the project or the burial site may be relocated.

Inyo County General Plan

Cultural resources are addressed within the Conservation/Open Space Element of the Inyo County General Plan. Section 8.7, Cultural Resources, of the Conservation/Open Space Element contains the following goals and policies to protect cultural resources within the County:

- Goal CUL-1: Preserve and promote the historic and prehistoric cultural heritage of the county.
 - Policy CUL-1.1: Partnerships in Cultural Programs. Encourage and promote private programs and public/private partnerships that express the cultural heritage of the area.
 - Policy CUL-1.2: Interpretive Opportunities. Support and promote the development of interpretive facilities that highlight the county's cultural resources.
 - Policy CUL-1.3: Protection of Cultural Resources. Preserve and protect key resources that have contributed to the social, political, and economic history and prehistory of the area, unless overriding circumstances are warranted.
 - Policy CUL-1.4: Regulatory Compliance. Development and/or demolition proposals shall be reviewed in accordance with the requirements of CEQA and the National Historic Preservation Act.
 - Policy CUL-1.5: Native American Consultation. The County and private organizations shall work with appropriate Native American groups when potential Native American resources could be affected by development proposals.

4.5.1.2 Cultural Setting

Prehistory

Archaeological sequences for the Great Basin and Mojave Desert regions are grouped into Late Pleistocene and Early, Middle, and Late Holocene time frames, with period definitions varying by region.

These chronological divisions correlate with climatic and environmental changes and are continually being refined as new data are collected and dating techniques are improved.

Archaeological evidence left by highly mobile hunter-gatherers usually takes the form of sparse scatters of lithic artifacts and small features such as hearths, small rock rings, and milling features. These remains may represent short-term encampments, but the repeated return to specific locations over long periods of time may nevertheless result in substantial archaeological deposits. Archaeological sites in desert regions of California are often limited to surface assemblages that lack datable organic materials or stratigraphic associations, and therefore archaeologists working in these regions rely largely on variations in projectile point morphology to place sites in time.

Late Pleistocene

Paleoindian Period (Pre-9500 Before Present [B.P.]

Little is known about the human occupation of this region during the Late Pleistocene. Fluted projectile points characteristic of the Paleoindian period have been documented in scattered locations throughout the western Mojave Desert and southwestern Great Basin, but with few exceptions these points have been found as isolates in undatable surface contexts, and therefore have been associated with the Paleoindian period solely on the basis of their morphological similarity to securely dated Clovis projectile points from the Great Plains and Southwest regions (Dillon 2002:115; Sutton 1996). Excavations at China Lake during the 1970s uncovered fluted points associated with burned, extinct megafaunal material (Davis 1975), providing convincing evidence that there was human occupation in the region during the terminal Pleistocene. Examples of fluted Paleoindian projectile points have been recovered in the immediate vicinity of the proposed project (Dillon 2002: Table 1), and include a fragment of an obsidian Clovis point recovered from the Rose Spring site (CA-INY-372), located approximately 30 miles south of Lone Pine (Yohe 1992a). Other tools associated with the Paleoindian period are large side scrapers, blades struck from prepared cores, and a mixture of expedient flaked tools (Justice 2002:73).

Extinct lakeshore and wetland environments are of particular interest to archaeologists who are studying the late Pleistocene and early Holocene—Bryan and Tuohy (1999) assert that “an economic adaptation to the presence of an existing shallow freshwater lake and the bioresources available in and around it clearly was the most important factor in the organization of the annual round followed by early prehistoric occupants of the Great Basin.” During the wet, cool Pleistocene, basin-and-range topography caused most Great Basin lakes to follow a sequence of fluctuations punctuated by overflows, rather than to exist as a steady-state system of continuously incoming and outgoing streams. 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; water would flow south in turn through Adobe and Owens lakes, through Rose Valley to China and Searles lakes, and then up north into Panamint Lake (Grayson 1993). Highstand dates for these lakes are not identical, which emphasizes the regional nature of the early Pleistocene climatic swings. Sediment investigations have shown that Owens Lake last overflowed sometime before 15,300 B.P., or before the earliest evidence of humans in the area (Bacon et al. 2006). Dorn et al. (1990) compared their own radiocarbon dates with the results from other researchers, and arrived at highstand dates of 10,500 B.P. for Searles Lake, 10,000 B.P. for Lake Manly and no later than 9220 B.P. for Lake Mojave.

Early Holocene

Lake Mohave Period (9500 to 6000 B.P.)

The people that lived in the western Mojave Desert and 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, especially white bursage and later creosote bush (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).

These climatic changes created the need for an increasingly diversified subsistence strategy, reflected in the archaeological materials associated with the Mojave period. Hallmark artifacts consist of Great Basin stemmed and concave-base projectile points and some highly formalized flake tools, such as scrapers, graters, bifaces, and occasionally crescents. Unifacial, plano-convex cores, flake cores, and battered stone tools, as well as unshaped handstones and thin-or thick-slab millings, have been found in association with early land-use in the region (Basgall 2007:170). In many Early Holocene sites in the Mojave and Great Basin deserts these tools are manufactured of non-local materials, suggesting that they were produced by highly mobile populations. This, coupled with the relative lack of groundstone tools in most Early Holocene assemblages, has led to the commonly held assumption that Mojave period groups were characterized by low population density and a subsistence regime that focused on hunting. Not all archaeologists share this view, however—Eerkens et al. (2007) argue that Mojave period sites in the Coso Basin show evidence of relatively dense populations that exploited a wide range of environments and were no more mobile than Middle or Late Holocene groups. Sutton et al. (2007:237) suggest that gradually drying pluvial lake basins were abandoned by prehistoric people during this period in favor of the eastern front of the Sierra Nevada, where a regular recharging of catchments created a rich patchwork of resources.

Middle Holocene

Little Lake Period (5950 to 3150 B.P.)

The Middle Holocene climate, although arid compared to the periods before and after, was still highly variable, with multiple oscillations between wetter and drier conditions occurring throughout. Although the lakes and marshes of the early Holocene receded during the early part of the period, streams and springs in the region may have still maintained water flow from nearby ranges, providing suitable water sources to sustain human activity, albeit at low densities (Aikens 1978; Basgall 2000; Jenkins and Warren 1984; Sutton 1996). Vegetation communities capable of supporting large game animals became limited to a few isolated areas. Settlement patterns adapted, shifting to upland settings where sources of water still existed (Sutton 1996). The latter part of the Little Lake period was punctuated by a cool and moist interval around 3800 B.P., when several hydrographically closed lakes (including Mono, Pyramid, Searles, Diamond Pond, Silver, and likely Owens lakes) reached their Holocene high stands (Stine 2003).

The Little Lake period is marked by the appearance of Little Lake and Pinto series projectile points. These thick points with an indented or bifurcate base, robust basal ears, and weak shoulders were first defined by Elizabeth and William Campbell in 1935 in the Pinto Basin, approximately 200 miles southwest of Owens Lake (Campbell and Campbell 1935). Other similarly ancient point styles include varied side-and

corner-notched forms such as Fish Slough Side-notched (Basgall et al. 1995) and “thick Elko” forms identified by Gilreath and Hildebrandt (1997). Other artifacts diagnostic of the period include large and small leaf-shaped bifaces, domed and heavy-keeled scrapers, numerous core and cobble tools, large metates and milling slabs, and shaped and unshaped handstones. Very small artifact assemblages and only occasional time-markers typify many middle Holocene sites (Basgall and Delacorte 2012:2-8). The best known expression of the Little Lake period in the vicinity of the project area occurs at the Stahl Site, located on the northern end of Little Lake, approximately 12 miles south of the project area (Harrington 1957).

Many archaeologists interpret these diverse artifact assemblages as a response to the onset of drier conditions. The presence of both hunting tools and milling equipment appears to represent a move from the strict exploitation of high-ranked food items, such as large animals, to a more diversified subsistence strategy (Sutton et al. 2007:237; Warren and Crabtree 1986). The use and abundance of milling equipment, particularly prepared basins, notably increases, and thin slab pieces of non-local stone were used, with both features suggesting intensification of plant exploitation. Faunal remains continued to focus on large and small terrestrial game, with the addition of fish (Delacorte et al. 1995; Gilreath 1995:17).

Late Holocene

The climate of the prehistoric late Holocene approximates that of today, with cooler and moister conditions than the middle Holocene but drier than the early Holocene. Plant communities took on their modern distributions, but as in the middle Holocene, the climate was highly variable, and many lake levels fluctuated, at times dramatically, throughout the period. At least two major droughts likely occurred in the Sierras, at c. 1050 to 840 B.P. and 740 to 600 B.P., resulting in low lake levels throughout the western Great Basin (Stine 1994, 2003). These droughts were followed by a cooler and wetter period from 600 to 200 B.P., which raised Owens Lake to its second highest stand of the late Holocene (Cleland and Spaulding 1992; Stine 2003). 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).

Newberry Period (3150 to 1350 B.P.)

The Newberry period reveals that significant cultural change had occurred across east-central California, focused on shifting settlement-subsistence systems and resource intensification. The scant data marking the first 1,500 years of this period suggest that the middle Holocene adaptive pattern of small, highly mobile groups remained unchanged (Gilreath 1995). Newberry period settlements near Bishop (Bettinger et al. 1984) and near Lone Pine (Basgall and McGuire 1988) reveal lowland settlements defined by midden accumulations, diversified artifact and ecofact assemblages, and house structures used as seasonal base camps by multiple households (Basgall and Delacorte 2012:2-9). Relatively large seasonal residential bases at Rose Spring (CA-INY-372) and Portuguese Bench (CA-INY-2284) are also associated with this period. Temporary camps have been documented in both lowland and upland contexts, typified by a narrow range of hunting or plant procurement activities. Wide-ranging mobility patterns are indicated by high obsidian material variability and the abundant use of exotic toolstone. Settlement shifts appear organized along a north-south axis that traversed the length of Great Basin valleys, including Owens Valley (Basgall and Delacorte 2012:2-9; see Basgall 1989; Basgall and McGuire 1988; Delacorte 1990, 1999; Delacorte et al., 1995), with logistical forays made to nearby mountain areas.

The Newberry period was characterized by dart-point size projectile points in notched or eared (Elko), concave base (Humboldt), and small-stemmed (Gypsum) forms. In addition to diagnostic projectile points, assemblages included leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, and, occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416).

The early Newberry (c. 3150–2000 B.P.) archaeological record derives primarily from sites situated with reference to water, including lakeside areas near Olancho (Byrd and Hale 2003) and streamside deposits along McGee Creek (Basgall et al. 2003). Associated cultural assemblages stem from smaller deposits, houses are rare or absent, and occupational intensity remains similar to that inferred for the middle Holocene (Basgall and Delacorte 2012:2-9).

The late Newberry period (c. 2000–1350 B.P.) marks the emergence of a logistically and well-organized adaptive pattern that included regularized use of long-term residential bases; smaller, serially reoccupied transient camps; communal hunting/butchering localities; quarry and stone working camps; and hunting and gathering stations (Basgall and Delacorte 2011, 2012; Basgall and McGuire 1988; Bettinger 1989, 1991; Delacorte 1990, 1991, 1999; Delacorte and McGuire 1993; Delacorte et al. 1995; Gilreath 1995; Yohe 1992b; Zeanah and Leigh 2002). Evidence is present for the construction of elaborate hunting facilities, well-built houses, and caches of non-portable or specialized gear. Lithic resources focused on obsidian, to the near-absence of earlier (early and middle Holocene) materials, such as microcrystalline, basalt, and rhyolite.

Settlement and subsistence data reveal that specialized task groups made short- and long-term logistical forays to procure food resources. Animal remains provide evidence of a broadening subsistence base, with an emphasis on small and large mammal and waterfowl. Plant resources remain an important resource, as evidenced by large quantities of well-fashioned milling equipment and paleobotanical remains, including pine nuts and other seeds.

The north-to-south orientation of the Newberry period settlement and subsistence pattern is underscored by toolstone sourcing data. Basgall and Delacorte (2011) demonstrated that Newberry site components located north of Lone Pine contained almost equal proportions of Long Valley and Coso obsidian, and suggest that these quarries mark the general northern and southern extent of the annual round. Obsidian exploitation of the Coso Volcanic field remained confined to lag quarries for the first half of the Newberry period, but after approximately 2300 B.P., the economic importance of obsidian exchange networks expanded dramatically. Obsidian production shifted to the mining of primary, high-quality seams in a limited number of quarries. Large bifacial cores and early-stage bifaces were produced at the quarries, and further reduced to biface blanks and tool preforms at off-quarry biface production sites. These bifaces were traded heavily with neighboring groups, and ultimately ended up being used by groups throughout southern California, particularly in Los Angeles County, Ventura County, the Kern Plateau, and the southern Sierra Nevada mountains (Gilreath and Hildebrandt 1997).

Haiwee Period (1350 to 650 B.P.)

Smaller Rose Spring and Eastgate series projectile points appear in the archaeological record by the onset of the Haiwee period at 1350 B.P., signaling with the introduction of the bow and arrow to the region (Yohe 1998). Despite a generally deteriorating climate, further population growth and territorial constriction occurred during this time. By the end of the Haiwee period, local groups "...operated within annual ranges so small they were made sedentary virtually by default" (Bettinger 1999:49). Biface types

prevalent during the Newberry period were largely replaced by abundant simple flake tools (Gilreath 1995:18). Obsidian, derived from the nearest source, remained the principal toolstone. Groundstone tools reveal a similar trend toward more casual, unshaped artifacts. Collectively, these artifact data suggest a shift to more expediently manufactured tool kits that were less functionally diverse and dependable, implying that Haiwee period peoples were less mobile and foraged more intensively around one or a few locales, lessening the need for tool transport (Gilreath 1995:18). A decline in, and subsequent abandonment of, logistical hunting camps implies that most hunting and other resource procurement was conducted from a few relatively fixed settlements (Gilreath 1995:18).

Until recently, archaeologists working in the region have generally accepted Bettinger's (1977, 1989) argument that nucleated semi-permanent settlements were established on the valley floor at the onset of the Haiwee period, and that this settlement pattern persisted until ethnographic times (Steward 1938). Using these settlements as a base, local populations staged logistically organized forays into the Sierra foothills to exploit piñon nuts (*Pinus monophylla*) and other tree crops. Other researchers (Basgall and Delacorte 2011; Delacorte and Basgall 2004) argue that the settlement patterns of Haiwee populations were more flexible and locally mobile, and that the sites that appear to be semi-permanent villages in the archaeological record likely represent shorter-term camps that were used repeatedly. Either way, evidence for resource intensification is prevalent, complementing the pattern of increased settlement centralization. Also noted have been high-cost extractive and storage strategies for pine nuts, ricegrass, and other seeds, as well as selective hunting of certain small mammals. It is likely that this increased reliance on relatively labor-intensive resources was as much the result of changes in social organization (including a shift from band to household organization and increased privatization of resources) as it was to population pressure and resource depletion (Bettinger 2015; Eerkens 2009; Eerkens and Spurling 2008). Both the introduction of the bow and arrow and the adoption of logistical foraging strategies may correspond with the expansion of Numic-speaking groups, which many researchers believe emanated from southeastern California about 1000 B.P. (Bettinger and Baumhoff 1982; Grayson 1993).

The overall number of quarries mined at the Coso Volcanic field shrank greatly during the Haiwee period, yet Coso obsidian was still commonly used in the outlying areas, suggesting that a limited number of groups enjoyed relatively exclusive access to obsidian quarries and exchange networks (Gilreath and Hildebrandt 1997). 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 1988, 1999; Gilreath 1995:18).

Marana Period (650 B.P. to Contact)

During the Marana period (650 B.P. to contact), the stemmed arrow points of the Haiwee period were replaced with Desert Side-notched and Cottonwood series projectile points. Resource intensification and specialization are suggested by an increased variety of tool forms, the use of new technologies such as ceramics and the mortar and pestle, the use of extensive storage facilities, and increased diversity in archaeological site locations. Seasonal forays for animal hunting and vegetal procurement (e.g., pine nut, seed crops, and roots) occurred from specialized sites in specific habitat environments. Settlement systems included both seasonally occupied temporary camps and semi-permanent winter encampments, the latter sited with reference to fuel, water, multiple habitat types for foraging, and access to cached resources such as seeds, pine nuts, and other crops (Basgall and Delacorte 2012:10-9). Evidence for east–west travel has been noted, focused on trans-valley movement of both people and

materials, possibly in response to periodic failures or local resource shortfalls (Basgall and Delacorte 2011, 2012:10-10).

Adaptive trends characterizing the late prehistoric record note the establishment of larger, more sedentary populations, and the continuing expansion of Numic speakers across the Great Basin (Bettinger and Baumhoff 1982). Between 1000 and 600 B.P., obsidian exports from the Coso Volcanic Field appear to have essentially ended (Gilreath and Hildebrandt 1997). These changes may be related partly to a series of droughts that began about 1,000 years ago and affected much of the area east of the Sierra Nevada range (Stine 1994).

Ethnography

Two groups were the primary inhabitants of the County: the Owens Valley Paiute and the Western (Panamint or Koso) Shoshone. The Owens Valley Paiute occupied the Owens Valley and the surrounding uplands, and the Western Shoshone inhabited Southern Inyo County (Inyo County 2001). Other groups occupied small portions of the County, including the Southern Paiute to the east of Badwater Basin and the Kawaiisu in the southern Panamint Range and southern Death Valley area. All of these groups belonged to the Numic branch of the Uto-Aztecan language family (Golla 2011).

Ethnolinguistic Chronology

The origin of the Northern Uto-Aztecan languages is widely debated, but it is likely that they existed in the southern Sierra Nevada around 3500 years BP, with the Takic language branch initially moving south to the coasts and deserts and the Numic language branch moving northeastward, either filling a void or replacing existing speech communities (Sutton 2009). Golla (2011) proposes that the Numic languages developed somewhat more recently than the Takic language between 1500 and 2000 years ago. The time for the split between the Numic dialects has been estimated to have begun between 1000 and 800 years BP and is linked with substantial archaeological changes in the northern Mojave and Great Basin (Golla 2011).

The ethnographically recorded groups associated with the County and the boundaries between groups were not like those of modern nation states and were instead indistinct, changeable, and permeable. Contact between groups, such as trade, marriage, and conflict all affected boundaries, as did changes in environmental conditions. To understand what archaeological materials may have been left behind by these groups, it is important to know the general way that they lived and where their traditional territories are located. This section includes general cultural characteristics followed by a description of lands traditionally occupied by each group.

General Cultural Characteristics for Numic Language Speakers

Cultural characteristics similar for Numic language speakers in the Great Basin and the Mojave Desert included diagnostic point types and types of pottery made using distinct coil and scrape or paddle and anvil techniques (Bean 1978; Bean and Smith 1978; Thomas et al. 1986). Four point types may be associated with contact-period populations in the Numic language area: Rose Spring, Eastgate, Cottonwood, and Desert Side-notched (Garfinkel and Williams 2009; Kelly and Fowler 1986; Strong 1929; Zigmund 1986).

The Western Shoshone and Owens Valley Paiute practiced both cremations and burials, while the Southern Paiute primarily practiced cremation (Busby et al. 1979; Thomas et al. 1986). The Owens Valley Paiute practiced a specialized irrigation system to grow crops while the Western Shoshone and Southern Paiute primarily lived by hunting and gathering (Busby et al. 1979, Kelly and Fowler 1986; Steward 1933). Sutton et al. (2007) suggest a geographic difference for artifact types. They note that the northern Mojave Desert or the Numic language areas have a combination of Desert Side-notched and Cottonwood triangular points, brownware pottery, some buffware pottery near the Mojave River, and primarily Coso obsidian artifacts. The portions of the Mojave Desert representing Takic language areas have only Cottonwood triangular points, brownware and buffware pottery, and local obsidian artifacts. The Mojave River appears to have been a boundary between the Takic and Numic speakers (Sutton et al. 2007).

Owens Valley Paiute

The Owens Valley Paiute, also called the Eastern Mono, occupied a territory centered along the Owens River on the eastern side of the southeastern Sierra Nevada. Owens Valley Paiute territory extends north to Benton, California, and east to Fish Lake Valley, Nevada (Liljeblad and Fowler 1986; Norwood et al. 1980; Steward 1933). While most of the northern Numic groups were highly mobile hunter-gatherers, the Owens Valley Paiute were organized as small groups or family units that owned rights to land and lived most of the year in permanent villages. These village sites and camps were most concentrated along the lower reaches of major drainages west of the Owens River.

The Owens Valley was one of the most densely occupied portions of the Great Basin, containing at least 30 villages and a population of approximately 1,500 to 2,000 (Busby et al 1979). Today, five separate tribes represent the descendants of the Owens Valley Paiute. All of these tribes are members of the Owens Valley Indian Water Commission. In the 1860s, the flood of prospectors attracted by the discovery of gold and silver in the Sierra Nevada and Inyo mountains began to impact the Owens Valley Paiute way of life. The ranchers and farmers who followed often used Paiute irrigation systems and grasslands.

A harsh winter and scarce food in 1861-1862 resulted in conflicts between the Paiute and settlers. In 1863 the military intervened and forcibly removed 1,000 Paiute to San Sebastian Reservation near Fort Tejon in the mountains south of Bakersfield (NPS 2014). In subsequent years, most left Fort Tejon and returned to the Owens Valley where they lived in camps near towns and farms. They integrated farm and domestic labor with traditional food gathering, and by 1866 were indispensable to the Owens Valley's agricultural economy.

In 1912 the government set aside over 67,000 acres of reservation land, known as the Bishop Colony, in the Owens Valley. An additional reservation was established at Fort Independence in 1915. In 1932 President Hoover revoked the 67,000 acres of reserved land from the Bishop Colony and placed the lands in watershed protection status for the City of Los Angeles. In 1936, the City of Los Angeles wanted the remaining lands and the federal government traded these lands for the 875 acres that now comprise the Bishop Paiute Reservation located at the base of the Eastern Sierra Nevada Mountains (Bishop Paiute Tribe 2014). Several years later in 1939, the federal government established both the Lone Pine Reservation and the Big Pine Reservation (Meridian 2014). Currently, the Owens Valley Paiute belong to five federally recognized tribes: Lone Pine Paiute, Fort Independence Paiute, Big Pine Paiute, Utu Utu Gwaitu Paiute, and Bishop Paiute.

Modern Owens Valley Paiute Tribes

Lone Pine Paiute Tribe

The Lone Pine Paiute Tribe of Lone Pine, California, consists of approximately 425 tribal members and a 237 acre reservation near Lone Pine, California. The tribal government consists of a general council that holds monthly meetings. Some Lone Pine Paiute Tribal members are of Timbisha Shoshone descent. Cultural resources issues are managed through the tribal Environmental Protection Program (Gates 2012).

Fort Independence Paiute Tribe

The Fort Independence Paiute Tribe has a reservation on the site of a US Army camp. The 580 acre reservation is located near Independence, California, and was established in 1915. The Tribe consists of 136 members, roughly half of whom live on the reservation. The Tribal government, consisting of a chairman, a vice chairman, and a tribal administrator, was established in 1965. As of 2005, cultural resources issues were handled by their Tribal Historic Preservation Officer (THPO) (Fort Independence Indian Reservation 2005).

Big Pine Paiute Tribe

The Big Pine Paiute Tribe of the Owens Valley consists of approximately 403 enrolled members with a 279 acre reservation near Big Pine, California. Tribal government consists of a constitutionally established Tribal Council and a General Council. The Tribal Council holds monthly meetings; the General Council meets quarterly. At least one Big Pine Paiute Tribe family shares a tribal affiliation with the Pahrump Paiute. The Big Pine Tribe's cultural resources program is managed by a THPO (Gates 2012).

Utu Utu Gwaitu Paiute Tribe

The Utu Utu Gwaitu Paiute Tribe was previously referred to as the Benton Paiute. Tribal membership is approximately 138 people and their reservation, near Benton, California, is 162 acres. The tribal government consists of the Utu Utu Tribal Council, which meets monthly, and the General Council of all members, which meets annually (Gates 2012).

Paiute-Shoshone Indians

The Paiute-Shoshone Indians of the Bishop Community has an 875 acre reservation located near Bishop, California, and tribal enrollment stands at approximately 1,040 members. The governing body of the tribe is the Bishop Indian Tribal Council. The Bishop Paiute Tribe's cultural resources program is maintained through a THPO (Gates 2012).

Western Shoshone

The Western Shoshone occupied a region that included Death, Panamint, and Saline valleys in eastern California through the highlands of central Nevada into northwestern Utah including Skull and Deep Creek valleys (Norwood et al. 1980, Thomas et al. 1986). Within the County, the Western Shoshone people resided in a swath of land between the Owens Valley Paiute and the Southern Paiute territories. Their western-most boundaries are in the Coso Mountains and the eastern slope of the Inyo Mountains.

Today, Western Shoshone in California and western Nevada are part of the Timbisha Shoshone Tribe, a federally recognized tribe. It currently has approximately 306 tribal members and occupies a 7,914 acre reservation, comprised of several parcels in and around Death Valley National Park, including a 314 acre parcel near Furnace Creek, California. Some reservation parcels are located in Nevada near Uda, Scotty's Junction, and Death Valley Junction. The tribe also has several areas that are co-managed with the NPS or BLM. The tribe's main office is in Bishop, California. The tribe was originally represented in the 1863 treaty of Ruby Valley. However, that treaty did not result in any specific representation for the Timbisha Shoshone, who fought for and eventually achieved federal recognition in 1983. However, the tribe did not receive a land base until 2000 with the passage of the Timbisha Homeland Act. The tribe holds general elections; it is led by a chairperson and holds monthly meetings. A THPO manages the tribe's cultural programs (Gates 2012).

Southern Paiute

The Southern Paiute represent a population of people who were the traditional inhabitants of a territory ranging from the northeastern Mojave Desert through southern Nevada into southwestern Utah and northwestern Arizona to the north of the Colorado River. The Pahrump and Las Vegas bands are the two most southwestern groups of Southern Paiute, except for the Chemehuevi (Gates 2012).

Pahrump Paiute Tribe

The Pahrump Paiute Tribe, located in Pahrump, Nevada, is not a federally recognized tribe, but is recognized as an established tribal entity by California and is often consulted by federal land managing agencies that operate within their traditional territory. The tribe currently consists of approximately 100 tribal members. The tribe is led by a chairperson and is based in Pahrump, Nevada. While the Pahrump Paiute Tribe has no reservation, they do assert an ancestral territory that includes the southeastern portion of the County and the northeastern corner of San Bernardino County, as well as the adjacent portion of Nevada. The primary focuses of the tribe are to maintain their unique cultural identity, to protect important cultural resources that are could be affected by various projects, and to attain federal recognition (Gates 2012).

Las Vegas Tribe of Paiute Indians

The Las Vegas Tribe of Paiute Indians of the Las Vegas Indian Colony is a federally recognized tribe. It consists of approximately 71 enrolled members with a 3,800 acre reservation generally referred to as "Snow Mountain," located several miles north of Las Vegas. The Pahrump Paiute and Las Vegas Paiute are closely related and to some of the Moapa Tribe membership. Isabel Kelly identified both Pahrump and Las Vegas under the Las Vegas Paiute Tribe; however, each tribe has continuously maintained their distinct identities and function independently. The tribe's original reservation was a 10 acre plot of land located in downtown Las Vegas and deeded to the tribe in 1911 by a private ranch owner. The 10 acre plot is still part of the reservation. The tribe has a constitution adopted in 1970, and is governed by a tribal council. The tribe has several businesses, including an extensive golf resort, gas station, and two smoke shops. Recent issues that involve the Tribe concern on-going desecration of tribal cultural sites, including graffiti of sacred sites in the Red Rock area, a popular tourist destination for visitors to Las Vegas. Cultural resources issues are dealt with by the tribal Environmental Protection Office (Gates 2012).

Kawaiisu

The Kawaiisu, or “Nuwa,” occupied the southern end of the Sierra Nevada watershed by the Piute and Tehachapi mountains at the line between the Great Basin and California cultures. The eastern portion of their territory ranged into the southern Panamint and Death Valleys in the County. The habitat was in the mountainous ridge between the Mojave Desert and the San Joaquin Valley. One source suggests that there were Mountain Kawaiisu who lived in the Piute and Tehachapi mountains in Kern County and Desert Kawaiisu who lived east of Tehachapi into southern Death and Panamint valleys where they sometimes lived with Shoshone groups (Garfinkel and Williams 2009).

Relocation by the United States government in the late 1800s resulted in the loss of much of the Kawaiisu traditional dress, music, language, and knowledge of traditional practices. In the early 2000s, there were only five native speakers remaining and few tribal members who had retained knowledge of the tribe’s traditions. In response to this, in 2002 tribal members came together to form the Kawaiisu Language and Cultural Center. In 2007, the Center became a nonprofit organization and formed an 11-member board of directors. The Center provides for Kawaiisu tribal members and members of other tribes with tools for teaching traditional language and culture (Kawaiisu Language and Cultural Center 2014; Lawrence 2009). Currently, the Kawaiisu number around 250 and are a non-federally recognized Indian tribe (Kawaiisu Language and Cultural Center 2014). An additional Kawaiisu organization is the Kawaiisu Tribe of the Tejon Indian Reservation. This is also not a federally recognized tribe. Members are represented by a five-member tribal council (Kawaiisu Tribe of the Tejon Indian Reservation 2014).

History

The initial European colonization of the Inyo County area began with the Euro-American fur trappers who began to work the County region in increasing numbers in the early 1800s (Malouf and Findlay 1986). While earlier trapping expeditions had passed through, the first recorded exploration of the rest of the County was in 1834 by Joseph Reddeford Walker. He entered the Owens Valley while leading the Chiles emigrant party into California. Settlement in the County was driven primarily by exploration and development of mineral resources, including gold, silver, borax, tungsten, and soda ash. As mining developed outside the County, demand for supplies brought cattle ranching to the Owens Valley. The County was organized in 1866 from land that had been set aside from Mono and Tulare Counties. The County was originally named Coso County, with Independence designated as the County seat (Inyo County 2001).

Mining

The County has a rich mining history. The Anglo-American settlement of the Inyo County area began with the establishment of gold and silver mines. The early strikes were focused on silver in Owens and Panamint valleys in the late 1850s and early 1860s. Some of the earliest mining claims were established in 1859 in the Potosi Mining District near Lone Pine (Chalfant 1922). Numerous silver mines were also established during the early 1860s in the Coso Range, resulting in the establishment of the Coso Mining Company and the Coso Gold and Silver Mining Company, among others (Norwood et al. 1980). Mining success fluctuated greatly in these areas. A third mining area was established in 1865 in the Inyo Range on the southeast side of the Owens Valley, centered at Cerro Gordo. This area was very productive, and by 1868 the Union Mine at Cerro Gordo was the most productive silver mine in the US (Norwood et al. 1980).

In addition to gold and silver, salt was mined in the Saline Valley east of Independence. Salt mining began in 1864, but transportation costs kept the enterprise from growing to a major operation (Norwood et al. 1980). The Saline Valley Salt Company constructed the Saline Valley Salt Tram between 1911 and 1913 to transport salt over the Inyo Mountains to Owens Valley where it was then shipped via railroad (Ver Planck 1957). It was the steepest tram in the US rising from 1,100 feet in the Saline Valley to 8,500 feet at the crest of the Inyo Mountains, and then dropping to 3,600 feet in Owens Valley. The tram is on the NRHP (No. 74000514) (Conrad 1973). Salt mining by various companies continued on and off until 1930 when the Sierra Salt Company closed (Ver Planck 1957).

Mining in the Death Valley-Furnace Creek area was slow to develop due to transportation difficulties. The Telescope Mining District, organized in 1860, was located just west of Death Valley on a spur of the Panamint Range. Worked only marginally in the beginning, by the late 1860s a substantial mining district had developed. Mormon immigrants traveling west discovered gold in 1854 and 1856 in the Amargosa River area (Norwood et al. 1980). Silver was found in the Panamint Range in 1858, and the area was worked with limited success in the 1860s. Beginning in the 1880s a revival of gold mining in the Panamint Mountains occurred, centered in the Tuber Canyon area. The towns of Ballarat and Garlock developed as a result of the mining industry in the Panamints.

The discovery of borax in Death Valley in 1881 led to the development of this previously sparsely populated portion of the County. One of the most successful mining operations in the area during the late 1800s was the Harmony Borax Works. In 1881, William T. Coleman formed the Greenland Salt and Borax Mining Company, which began operating the Harmony Borax works north of Furnace Creek in 1882. The operation mined borate that formed on the surface of the salt flats, called "cottonballs."

Coleman also ran another borate mining operation, the Amargosa Borax Works, near Resting Springs. The Amargosa Borax Works operated during the summer months when work in the valley was suspended because of extreme heat (Greene 1981). It was from the Amargosa works that the famous 20-mule teams hauled the borate to the Daggett railhead, a 330 mile round trip (Zentner 2012). In 1883 a richer type of borate, occurring underground, was discovered south of Furnace Creek and subsequently southwest of Death Valley Junction. In 1890 Francis M. Smith acquired the borate mines in Death and Amargosa valleys, Furnace Creek, and Borate, consolidating them all under the Pacific Coast Borax Company (Caltrans 2008). Smith closed down all the works except the Borate works, which could be worked most profitably. Borate became the main producer of borax and boric acid in the US between 1890 and 1907.

Tungsten mining became an important industry in Owens Valley that developed in the first decades of the 20th century. First discovered in 1913 in the Tungsten Hills west of the town of Bishop, tungsten mining took off with the construction of two mills in Round Valley in 1916. This industry remained economically important until the price of tungsten collapsed following World War I. At the end of the Great Depression into World War II, the prices rebounded and tungsten mining remained important in the area around Bishop until the end of the 20th century when mining effectively ceased (Meridian 2014).

Agriculture

Indigenous agriculture had existed in the Owens Valley well before the Spanish arrived, but the County did not become a site of historic period agriculture until farmers and cattlemen moved into the area to supply food to the mining operations in the area around the Owens and Panamint valleys. Although the

area received little rain, the Owens River supplied enough dependable water for irrigation. The arrival of larger numbers of Americans into the area resulted in conflicts with the indigenous Native American groups (Norwood et al. 1980). As cattlemen and ranchers moved into Owens Valley and cattle grazed on the Paiute food supply, the Paiute stole and killed cattle for food. The ranchers armed themselves and violence between the Native Americans and whites escalated into the conflict that became known as the Owens Valley Indian War (1861 to 1865). The ranchers asked for the help of the military in Los Angeles and Fort Tejon. In 1862, the Army established Camp Independence in Owens Valley to put an end to the violence. More than 1,000 Paiute were forced into San Sebastian Indian reservation at Fort Tejon in 1863 (California State Military Museum 2011a). Temporarily abandoned in 1864, the camp was re-occupied in 1865 after violence again broke out, and remained active until abandoned in March 1877 (California State Military Museum 2011b).

By the beginning of the 20th century, the City of Los Angeles was experiencing a severe water shortage and it was proposed to William Mulholland, president of the Los Angeles Water Department, that the Owens River be tapped to supply Los Angeles with water (Norwood et al. 1980). Los Angeles voters approved a \$23 million bond, water rights were purchased, and an aqueduct was completed by 1913. The diversion of water to Los Angeles did not immediately impact agriculture in the Owens Valley, but a drought in 1921-1922 began a decline that ended farming in the area by the mid-1930s (Norwood et al. 1980).

Transportation

An early important route for trade and travel into California was the Old Spanish Trail, pioneered as a trade route between New Mexico and California by Antonio Armijo in 1829 (Beck and Haase 1974). The Old Spanish Trail began in Santa Fe, New Mexico, and ended at the Pacific Ocean at the Pueblo of Los Angeles. This passed through the eastern portion of the County as it passed from Las Vegas or Jean in Nevada and headed west before turning south at Tecopa (NPS 2001).

Numerous small railroads were constructed into the County for the express purpose of servicing mining operations. The Carson and Colorado Railroad, incorporated in 1880, and ran from Mound House, Nevada, to Keeler, California, below the Cerro Gordo Mines on the east side of Owens Valley. Much of the route paralleled US 395. The Southern Pacific Company bought the line in 1900, renamed it the Nevada and California Railway in 1905, and in 1912 was renamed again the Southern Pacific. Portions of the railway lines closed in the 1930s and 1940s. The final portion from Laws to Keeler was abandoned in 1960 and the rails were removed in 1961 (Turner 1965).

The Tonopah & Tidewater Railroad, constructed between 1905 and 1907, was a 170 mile rail line that ran from Ludlow, California, to Beatty, Nevada. The line went through Death Valley Junction, where borax from the borax mines in Death Valley was loaded onto railcars for shipment. Both cargo and passenger trains operated on the line. The Pacific Coast Borax Company began shutting down operations in Death Valley in 1928, dealing a substantial blow to the revenue of the railroad. The line continued to run reduced operations for several years afterward, but finally closed down in June 1940 (Jennings and Wyant 1976).

A trail likely ran through Owens Valley into Mono County to the north since prehistoric times, but in the historic period it became commonly used by prospectors passing through the area to the California gold fields and Comstock Lode. This trail became a road by at least the 1860s when ranchers began driving cattle into the high Sierra Nevada to supply the mining boomtown of Aurora. This road, eventually called

El Camino Sierra, ultimately ran from Los Angeles in the south to Lake Tahoe in the north. Initially used to move materials to and from mines and mining communities, by the early 20th century, El Camino Sierra was marketed as a scenic route for people in the newly available automobile. By 1931, the paving of El Camino Sierra was complete. Today, much of this route in the County is occupied by US 395 (Di Pol 2012).

Military

In 1862, the 2nd California Cavalry established Camp Independence as a post on the north side of Oak Creek, about three miles from the town of Independence, in the Owens River Valley. Lieutenant Colonel George S. Evans was sent there to end violence between the area's miners and the Native American population. Temporarily abandoned in 1864, it was reoccupied in March 1865 when violence broke out again. The post was finally abandoned on July 5, 1877. The military reservation was transferred to the Interior Department for disposition on July 22, 1884. The building which served as the commanding officer's quarters was moved from its original site to its new setting on Edwards Street in Independence. In 1915, the former military reservation was established as the Fort Independence Indian Reservation (California State Military Museum 2011b).

China Lake NAWS, originally called Naval Ordnance Test Station Inyokern, was established in 1943 for the California Institute of Technology to conduct research into rockets and rocket propellants (Mikesell 2000). China Lake NAWS continued after World War II with development and testing of guided missiles, jet aircraft ejection systems, and later space program capsules and the intercontinental ballistic missile development program (Mikesell 2000). China Lake NAWS is the Navy's largest single land holding at 19,600 square miles and continues as their center for research, testing, and evaluation of weapons systems.

Manzanar Relocation Center

With the outbreak of World War II, the federal government gave the US Army the authority to forcibly relocate approximately 120,000 Japanese Americans to 10 internment camps away from the Pacific Coast. The Manzanar Relocation Center was established in 1942 as the first of these camps and held over 10,000 incarcerated Japanese Americans, 90 percent of whom were from the Los Angeles area. The camp consisted of one-story barracks with common bathrooms, showers, laundries, and mess halls. It was closed in 1945 at the end of World War II; it is the best-preserved internment camp (Thompson 1984). The Manzanar Relocation Center is listed on the NRHP (No. 76000484) and is designated a National Historic Landmark (No. 850) and a National Historic Site (N432).

4.5.1.3 Areas of Potential Effects

The Areas of Potential Effects (APE) for the proposed project are defined as the geographic areas where project activities may directly or indirectly cause changes in the character or use of historical resources of prehistoric or historic age, if any such resources exist.

The proposed project consists of eight APEs located in unincorporated communities of Independence and Lone Pine and surrounding the City of Bishop; these correspond to the eight project parcels that are being evaluated for General Plan and zoning amendments, and each APE has been designated with the Assessor's Parcel Number (APN) for its respective parcel. The APEs range in size from 0.2 acre up to 16.9 acres, with a combined acreage of 32.0 acres. One of the eight APEs is located in the community of

Independence; three are located adjacent to and outside the City of Bishop city limits; and four are located in the community of Lone Pine. Table 4.5-1, Areas of Potential Effect, summarizes the designations, locations, and sizes of the APEs evaluated in this EIR. Aerial photographs of the APEs are presented as Figures 4.5-1 through 4.5-3. See Section 2.3 for detailed descriptions of the eight parcels that comprise the APEs.

**Table 4.5-1
AREA OF POTENTIAL EFFECTS**

APE	Location	APE Size (acres)
002-160-08	Independence	16.9
008-240-01	Bishop	5.8
008-240-02	Bishop	3.3
008-190-01	Bishop	5.2
005-072-06	Lone Pine	0.2
005-072-07	Lone Pine	0.2
005-072-24	Lone Pine	0.2
005-072-30	Lone Pine	0.2
TOTAL		32.0

4.5.1.4 Cultural Resource Records Search

On August 5, 2021, a records search addressing the APEs and a 0.25-mile radius beyond their boundaries was conducted by the Eastern Information Center (NCIC) at University of California, Riverside. The purpose of the record search was to (1) identify prehistoric and historic resources previously documented in the APEs and within 0.25 miles of APE boundaries; (2) determine which portions of the APEs may have been previously studied, when those studies took place, and how the studies were conducted; and, (3) ascertain the potential for archaeological resources, historical resources, and human remains to be found in the APEs. This search also included a review of the appropriate USGS topographic maps on which cultural resources are plotted, archaeological site records, building/structure/object records, and data from previous surveys and research reports. The California Points of Historical Interest, the California Historical Landmarks, the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and the Office of Historic Preservation's Archaeological Determinations of Eligibility (ADOE) and Built Environment Resources Directory (BERD) were reviewed to ascertain the presence of designated or evaluated resources within the APEs. Historical maps and historical aerial photographs of the area were also examined.

Previous Studies

The cultural resources records search identified 19 studies that have previously been conducted within a 0.25-mile radius of the APE (Table 4.5-2). Four of these studies addressed two Bishop APEs during their surveys: APE 008-240-02 has been examined three times, first in 1994 for Report IN-00466, then in 1999 for Report IN-00572, and again in 2001 for Report IN-00719; and APE 008-190-01 was surveyed in 2009 for Report IN-01132. None of the other APEs have been surveyed in the past.

**Table 4.5-2
PREVIOUS STUDIES CONDUCTED WITHIN 0.25 MILE OF THE APEs**

APE*	Report (IN-)	Year	Author(s)	Title	Affiliation
005-072-06 005-072-07 005-072-24 005-072-30	00035	1977	Young, D. L.	Archaeological Survey Report for a Highway Reconstruction Project Between Cartago and Lone Pine (Portions) on 09-INY-395 - P.M. 54.5/57.6	Caltrans
008-190-01	00282	1986	Jenkins, R. C.	An Archaeological Assessment of the Bishop Vegetation Management Project, Inyo County, California	None
005-072-06 005-072-07 005-072-24 005-072-30	00302	1990	McGowan, D., and T. O'Brien	Archaeological Survey Report of a Portion of Route 395, Near Lone Pine, Inyo County, California 09-INY-395 P.M. 54. 6/59.O 09-213000	Caltrans
002-160-08 005-072-06 005-072-07 005-072-24 005-072-30 008-240-01 008-240-02	00303	1990	Burton, J. F.	An Archaeological Survey of the Contel Bishop to Inyokern Fiber Optics Line, Inyo and Kern Counties, California	Trans-Sierran Archaeological Research
008-190-01	00369	1991	Edell, J.	Historic Property Survey Report for 4-Laning a Portion of U.S. 395 Near Lone Pine, Inyo County, California	Caltrans
008-240-01 008-240-02	00466	1994	Laylander, D.	Negative Archaeological Survey Report: Conduct Rehabilitation Work on Portions of Routes 168 and 395, In and Around the City of Bishop	Caltrans
002-160-08	00555	1997	Shepard, R. S.	A Phase I Cultural Resources Investigation of Two 2-Acre Parcels, Independence, Inyo County, California	EIP Associates
008-240-01 008-240-02	00572	1999	Keefe, T., and T. Dayak	Archaeological Survey Report of the Golf Club Rehabilitation Project, Inyo County, California, 09-INO-395, P.M. 112.9/115.0	Caltrans
008-240-01 008-240-02	00624	2006	Jordan, S. C.	Archaeological Survey Report for the Southern California Edison Company Tap Control -- Inyo Fiber Optic Cable Project, Inyo County, California (WO#8458-0461)	Jones and Stokes
008-240-01 008-240-02	00719	2001	Mills, T.	Historic Property Survey Report of the Golf Club Rehabilitation Project, Inyo County, California	Caltrans
002-160-08	00728	2001	Wickstrom, B.	Historic Property Survey Report: Independence Four-Lane Project	Caltrans, Central California Cultural Resources Branch, Fresno
002-160-08	00738	2000	Wickstrom, B.	Archaeological Survey Report for the Independence Four Lane Project in Inyo County, California (09-INY-395, P.M. 70.3/76.1, EA 214800)	Caltrans, Central California Cultural Resources Branch, Fresno
002-160-08	00740	2000	Fisher, J.	Historic Architectural Survey Report for the Four-Lane Widening Project Independence, Inyo County	Caltrans
002-160-08	00742	2000	Basgall, M. E.	Eligibility Report on Phase II Evaluations at Nine Archaeological Sites Near Independence, Inyo County, California	California State University, Sacramento
002-160-08	00739	2001	Glover, L. C., and M. E. Basgall	First Supplemental Archaeological Survey Report for the Independence Four Lane Project (09-INY-395, PM70.3/76.1; EA214800)	California State University, Sacramento
008-190-01	00948	2009	Switalski, H.	Archaeological Survey Report for the SCE Co's Replacement of 17 Deteriorate Power Poles	AMEC Earth and Environmental, Inc.

APE*	Report (IN-)	Year	Author(s)	Title	Affiliation
005-072-06 005-072-07 005-072-24 005-072-30	00960	2010	Velasquez, S.	An Archaeological Survey Report for the Lone Pine Fuel Reduction Project, Inyo County, California	California Division of Forestry
008-190-01 008-240-01 008-240-02	01132	2009	Environmental Scientists and Planners	Archaeological Survey 17 Areas in Bishop, California, for the Bishop Low-Income Housing Project	Environmental Scientists and Planners
005-072-06 005-072-07 005-072-24 005-072-30	01138	1991	Edell, J.	Historic Property Survey Report for 4-Laning a Portion of U.S. 395 Near Lone Pine, Inyo County, California	Caltrans

* APEs in bold were directly surveyed in support of the associated report.

Previously Recorded Resources

The cultural resources records search determined that 33 cultural resources within 0.25 miles of the APEs have previously been documented. Table 4.5-3 provides brief descriptions, CRHR/NRHP status, and the closest APEs for each of these resources; it should be noted that APE information for archaeological resources has been kept confidential. Over half of the 33 resources are historic-era structures in Lone Pine that were originally documented in 1981.

**Table 4.5-3
PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN 0.25 MILE OF THE APEs**

APE	Primary (P-14-)	Trinomial (CA-INY-)	Year	Recorder	Description and CRHR/NRHP status
Confidential	001532	001532	1968	Shepard	Prehistoric habitation site; not evaluated
002-160-08 005-072-06 005-072-07 005-072-24 005-072-30	004590	004590	1992	Costello, J., Marvin, and J. Tordoff	Inyo County Wagon Road (Bishop to Olancho); found ineligible for NRHP
002-160-08	004830	None	1981	Hazlitt, R.	Single family property; not evaluated
002-160-08	004845	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004873	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004874	None	1981	Hazlitt, R.	Commercial building; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004875	None	1981	Hazlitt, R.	Single family property; potentially eligible for NRHP
005-072-06 005-072-07 005-072-24 005-072-30	004876	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004877	None	1981	Hazlitt, R.	Single family property; potentially eligible for NRHP

APE	Primary (P-14-)	Trinomial (CA-INY-)	Year	Recorder	Description and CRHR/NRHP status
005-072-06 005-072-07 005-072-24 005-072-30	004878	None	1981	Hazlitt, R.	Commercial building (Lloyd's of Lone Pine); not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004879	None	1981	Hazlitt, R.	Commercial building (La Florista); not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004880	None	1981	Hazlitt, R.	Commercial building; potentially eligible for NRHP
005-072-06 005-072-07 005-072-24 005-072-30	004881	None	1981	Hazlitt, R.	Commercial building (Inyo Independent Press Building; not evaluated)
005-072-06 005-072-07 005-072-24 005-072-30	004882	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004883	None	1981	Hazlitt, R.	Commercial building (Old Lone Pine Hotel; not evaluated)
005-072-06 005-072-07 005-072-24 005-072-30	004884	None	1981	Hazlitt, R.	Commercial building (Dow Villa Hotel; not evaluated but may be of local interest)
005-072-06 005-072-07 005-072-24 005-072-30	004885	None	1981	Hazlitt, R.	Single family property; potentially eligible for NRHP
005-072-06 005-072-07 005-072-24 005-072-30	004887	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004888	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004889	None	1981	Hazlitt, R.	Single family property; not evaluated
005-072-06 005-072-07 005-072-24 005-072-30	004890	None	1981	Hazlitt, R.	Single family property; not evaluated but may be of local interest
005-072-06 005-072-07 005-072-24 005-072-30	004891	None	1981	Hazlitt, R.	Single family property; not evaluated
Confidential	005923	005397/H	1997	Shepard, R.S.	Prehistoric lithic and ceramic scatter; historic refuse scatter; not evaluated
Confidential	006216	005656	1999	Wickstrom, B., J. Sharp, and G. Diaz	Prehistoric habitation site; found ineligible for NRHP
Confidential	006735	005767H	1999	Sharp, J., G. Diaz, and B. Wickstrom	Historic refuse dump; not evaluated

APE	Primary (P-14-)	Trinomial (CA-INY-)	Year	Recorder	Description and CRHR/NRHP status
002-160-08	007081	None	1999	Fisher, J.	Independence Historic Commercial District
Confidential	010961	008391	2011	Bodmer, C.	Prehistoric lithic and ceramic scatter; historic refuse scatter; not evaluated
Confidential	011682	008996	2010	Velasquez, S.	Historic refuse dump; not evaluated
Confidential	012232	009406	2014	Mahoney, S.S., et al.	Historic refuse scatter; not evaluated
Confidential	012764	None	2012	Chambers Group, Inc.	Historic refuse scatter; not evaluated
Confidential	013447	None	2009	Bennett, B., E. Wiant, and W. Wiant	Prehistoric lithic scatter; not evaluated
Confidential	013448	None	2009	Bennett, B., E. Wiant, and W. Wiant	Historic refuse scatter, borrow pit and berm; not evaluated
Confidential	013449	None	2009	Bennett, B., E. Wiant, and W. Wiant	Historic refuse scatter; not evaluated

* APEs in bold contain the associated resources within their boundaries.

Two of the resources are located within APEs for the current project. These include P-14-012764, a dumping location of domestic debris during the first half of the twentieth century, and P-14-0013447, a scatter of obsidian debitage and one projectile point fragment in an area that has been disturbed by past development. Additional materials associated with this site were found during the survey (see Section 4.5.1.6 below). The APEs containing these sites have been kept confidential.

Two resources (P-14-004590 and P-14-006216) are listed in the ADOE but both have been determined ineligible for inclusion in the NRHP. Four resources, including (P-14-004875, P-14-004877, P-14-004880, and P-14-004885) are listed in the BERD and are potentially eligible for inclusion in the NRHP, while two additional resources (P-14-004884 and P-14-004890) are listed and are not eligible for the NRHP but still of local interest.

4.5.1.5 Native American Consultation and Outreach

NAHC Sacred Lands File Search

HELIX requested a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC) for the proposed project. On September 20, 2021, the NAHC provided the SLF search results, which were negative. However, absence of specific cultural resource information in the SLF does not negate the potential presence of cultural resources within the project area and eight parcels. As outlined in the tribal consultation and outreach efforts described below, the County requested cultural resource information from the tribes noted on the SLF search results. All correspondence relevant to tribal consultations are included in Appendix F.

Senate Bill 18 and Assembly Bill 52 Consultation

On November 4, 2020, Inyo County transmitted written requests for consultation with multiple tribal representatives to eight tribal governments that previously requested consultation under AB 52. On November 5, 2020, Inyo County transmitted written requests for consultation with multiple tribal representatives to eight tribal governments under SB 18 per the results of the SLF search.

The County received an email request to consult from the Big Pine Paiute Tribe of the Owens Valley (BPPT) by their Environmental Director, Sally Manning, on November 9, 2021. The correspondence suggested that a meeting be scheduled between County Supervisors and BPPT Tribal leaders.

The County received a written request for consultation from the BPPT on November 19, 2020. The County responded to the written request for consultation regarding scheduling a meeting to consult via email on December 8, 2020, January 6, 2021, and January 20, 2021. The County did not receive a response from the tribe for consultation. In addition, phone calls were made to the tribal administrator that went unreturned.

The County discussed the project with a tribal representative from Fort Independence Indian Community of Paiutes. This tribe did not request formal consultation but asked that they be informed as to the selected parcels for the proposed project in and around the unincorporated communities of Lone Pine and Independence.

4.5.1.6 Cultural Resources Survey

HELIX Archaeologist Andrea Van Schmus surveyed the project APEs on June 28 and June 29, 2021. The survey involved systematic investigation of the ground surface by walking in parallel 10 meter transects. During the survey, the ground surface was examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, fire-affected rock, prehistoric ceramics), soil discoloration that might indicate the presence of a prehistoric cultural midden, soil depressions, features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations, or wells), or historic debris (e.g., cans, metal, glass, or ceramics). Ground disturbances such as gopher holes, burrows, cut banks, and drainage banks were also visually inspected.

No previously undocumented cultural resources were encountered during the survey. However, additional materials were found that appear to be associated with the two sites (P-14-012764 and P-14-0013447) determined by the records search to be within the APEs.

Additional materials associated with P-14-012764 include hole-in-top cans, church key-opened beverage cans, sanitary cans, meat cans, enamel cookware, barrel hoops, tobacco tins, horseshoes, and assorted glass fragments including amethyst, aqua, olive, celadon green, and milk glass. The site, which is distributed thinly across an approximately 7 acre area, appears to date to the early part of the twentieth century.

Additional materials associated with previously recorded site P-14-0013447 include modified or retouched obsidian flakes, ground stone, one pottery fragment, and historic-era refuse including amethyst, cobalt, and aqua glass.

4.5.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact associated with cultural resources if the project would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
3. Disturb any human remains, including those interred outside of formal cemeteries.

4.5.3 Impact Analysis

CUL-1 The proposed project may cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5

While no previously undocumented historical resources were encountered during the field survey, the possibility exists that unknown, buried historical resources may be present within the project parcels, and the proposed project could cause a significant impact to unknown historical resources within the footprint of the project parcels. Implementation of Mitigation Measure CUL-1 would address unanticipated discoveries of historical resources, and the proposed project's potential impacts to unknown historical resources would be reduced to below the level of significance.

The cultural resources records search and survey determined that one historic-era site (P-14-012764) and one multicomponent (i.e., both historic and prehistoric) site (P-14-0013447) are located within the project's APEs. Neither site has been evaluated for inclusion in the CRHR. Should either site prove to qualify as a historical resource under CEQA, implementation of the proposed project could directly affect that site, resulting in a potentially significant impact.

If unknown historical resources, site P-14-012764 or site P-14-0013447 cannot be avoided, substantial adverse changes to the significance of historical resources resulting from implementation of the proposed project would be reduced to below the level of significance through the implementation of Mitigation Measure CUL-2, which is in accordance with CEQA Guidelines.

Significance without Mitigation: Potentially significant impact.

Mitigation Measure CUL-1 Inadvertent Discovery of Cultural Resources

In the event that cultural resources are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards shall then be retained to evaluate the resource's significance under CEQA. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and shall be discussed in consultation with the County.

Mitigation Measure CUL-2: Cultural Resources Investigations

Inyo County shall ensure that potentially impacted prehistoric and historic archaeological sites be assessed to determine if they qualify as historical resources as defined in CEQA Guidelines Section 15064.5(a). Per CEQA Guidelines Section 15064.5(c), archaeological sites that fail to qualify as historical resources under CEQA must also be assessed to determine if they qualify as unique archaeological resources as defined in PRC Section 21083.2(g). Impacts to those sites found to be significant, either as historical resources or as unique archaeological resources, shall

be mitigated to below the level of significance through a Phase III data recovery program. Resources found to be not significant shall not require mitigation.

Phase II Evaluations

One historic-era site (P-14-0013447) and one multicomponent site (P-14-0013447) shall be assessed for significance through the implementation of Phase II investigations prior to the initiation of construction activities in those areas where the sites are located. This may require some or all of the following:

- Development of a research design that guides assessments of site significance and scientific potential.
- Mapping and systematic collection of a representative sample of surface artifacts
- Subsurface investigation through shovel test pits, surface scrapes, or 1 by 1 meter excavation units; a combination of such methods; or equivalent methods
- Analysis of recovered material to determine significance pursuant to the State CEQA Guidelines
- Preparation of a report, including an evaluation of site significance, and recommendations for mitigation, if appropriate
- Appropriate curation of collected artifacts

Phase III

A Phase III data recovery effort, in accordance with CEQA Guidelines, shall be implemented by Inyo County for those sites determined to be significant through Phase II testing and evaluation. Inyo County shall ensure that data recovery conducted to the level that reduces impacts to below the level of significance has been completed prior to project implementation for any area containing a site determined to be significant and for which it can be demonstrated that consequential scientific information can be recovered. The Phase III data recovery program shall include:

- Development of a comprehensive research design to answer questions addressed during the Phase II on a broader regional level and to provide a procedural framework for the collection of data at sites determined to be significant
- Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size
- Subsurface investigation through methods, such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing methods, may also be used
- Analysis of recovered material through visual inspection and chemical analysis when applicable

- Preparation of a report
- Appropriate curation of collected artifacts

Significance with Mitigation: Less than significant impact.

CUL-2 The proposed project may cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5

While no previously undocumented archaeological resources were encountered during the field survey, the possibility exists that unknown, buried archaeological resources may be present within the project parcels, and the proposed project could cause a significant impact to unknown archaeological resources within the footprint of the project parcels. Implementation of Mitigation Measure CUL-1 would address unanticipated discoveries of archaeological resources, and the proposed project's potential impacts to unknown archaeological resources would be reduced to below the level of significance.

The cultural resources records search and survey determined that one historic-era site (P-14-0013447) and one multicomponent (i.e., both historic and prehistoric) site (P-14-0013447) are located within the project's APEs. Neither site has been evaluated as a unique archaeological resource as defined in PRC Section 21083.2(g). Should either site prove to qualify as a unique archaeological resource implementation of the proposed project could directly affect that site, resulting in a potentially significant impact.

If unknown historical resources, site P-14-012764 or site P-14-0013447 cannot be avoided, substantial adverse changes to the significance of unique archaeological resources resulting from implementation of the proposed project would be reduced to below the level of significance through the implementation of Mitigation Measures CUL-1 and CUL-2 above, which is in accordance with CEQA Section 21083.2.

Significance without Mitigation: Potentially significant impact.

See Impacts CUL-1 for Mitigation Measures CUL-1 and CUL-2.

Significance with Mitigation: Less than significant impact.

CUL-3 The proposed project may disturb human remains, including those interred outside of formal cemeteries

Human remains were not encountered during the field survey. However, implementation of the proposed project has the potential to result in unanticipated discovery of human remains through discovery of unknown burial sites. Substantial adverse changes to the significance of human remains resulting from implementation of the proposed project would be reduced to below the level of significance through the implementation of Mitigation Measure CUL-3, which is in accordance with CEQA Guidelines Section 15064.5(e).

Significance without Mitigation: Potentially significant impact.

Mitigation Measure CUL-3: Human Remains

The discovery of human remains is always a possibility during a project. If such an event did occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, must be followed:

1. All excavation activities within 60 feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker to ensure that no additional disturbance occurs.
2. The project owner or their authorized representative will contact the Inyo County Coroner.
3. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours.
4. NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for their treatment. Work will be suspended in the area of the find until the County approves the proposed treatment of human remains.

Significance with Mitigation: Less than significant impact.

4.5.4 Cumulative Impacts

CUL-4 The proposed project may result in cumulative impacts to cultural resources.

Cumulative cultural resource impacts may occur when a series of actions leads to the loss of historically or archaeologically significant type of site, building, deposit, or tribal cultural resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such historical resources on a project-by-project basis could amount to a significant cumulative effect. As discussed above, with the implementation of Mitigation Measures CUL-1 and CUL-2 for the inadvertent discovery and assessment of cultural resources during construction, the proposed project would have less than significant impacts on unknown cultural resources. However, the analysis of cumulative impacts to cultural resources is based on impacts of the proposed project plus the other cumulative projects in the County. Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp cultivation, dispensaries, and/or retail projects that are less than 1.0 acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels).

Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. As such, each

cumulative project that would be subject to CEQA would be required to assess its potential impacts to cultural resources. Mitigation measures conducted for each cumulative project would ensure that impacts to cultural resources are minimized to the maximum extent feasible. Therefore, with implementation of Mitigation Measures CUL-1 and CUL-2 and the requirement for the other cumulative projects subject to CEQA to adopt similar measures, no cumulatively considerable impact to Tribal Cultural Resources would occur with approval of the proposed project.

Significance without Mitigation: Potentially significant impact.

See Impacts CUL-1 for Mitigation Measures CUL-1 and CUL-2.

Significance with Mitigation: Less than significant impact.

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4.6 Energy

This section describes the regulatory framework and existing conditions on the subject property related to energy, evaluates the potential impacts that could occur as a result of implementation of the proposed project related to energy, and details mitigation measures needed to reduce significant impacts, as necessary.

4.6.1 Environmental Setting

This section provides an evaluation of existing energy production/consumption conditions and potential energy use and related impacts from the project. The units of energy used in this section are the British thermal units (BTU), megawatt hours (MWh)¹, therms, and gallons. A BTU is the quantity of heat required to raise the temperature of one pound of water one °F at sea level. Because the other units of energy can all be converted into equivalent BTU, the BTU is used as the basis for comparing energy consumption associated with different resources. A MWh is a unit of electrical energy, and one MWh is equivalent to approximately 3.413 million BTU (MBtu), taking into account initial conversion losses (i.e., from one type of energy, such as chemical, to another type of energy, such as mechanical) and transmission losses. Natural gas consumption is described typically in terms of cubic feet or therms; one cubic foot of natural gas is equivalent to approximately 1.05 MBTU, and one therm represents 0.1 MBTU. One gallon of gasoline/diesel is equivalent to approximately 0.125/0.139 MBTU, respectively, taking into account energy consumed in the refining process.

4.6.1.1 Regulatory Framework

Federal Regulations

Energy Independence and Security Act of 2007

House of Representatives Bill 6, the federal Energy Independence and Security Act of 2007, established new standards for a few energy-consuming equipment types not already subject to a standard, and updated some existing standards. The most substantial new standard that House of Representatives Bill 6 established is for general service lighting that is being deployed in two phases. First, phased in between 2012 through 2014, common light bulbs were required to use about 20 to 30 percent less energy than previous incandescent bulbs. Second, by 2020, light bulbs were required to consume 60 percent less energy than previous incandescent bulbs; this requirement will effectively phase out the incandescent light bulb.

State Regulations

Renewable Energy Programs and Mandates (SB 1078, SB 107, SB 2 X1, SB 350 and SB 100)

A series of substantive and far-reaching legislative initiatives have been advanced at the State level in the last two decades. These initiatives focused on increasing the generation of electricity via renewable energy sources and promoting a shift from fossil- or carbon-based fuels as a key strategy to reduce GHG emissions, air pollution, and water use associated with the energy sector.

¹ MWh is the most common measure of electrical energy when discussing utility-scale electrical generation. Kilowatt hours (kWh; 1,000 kWh = 1 MWh) and gigawatt hours (GWh; 1,000 MWh = 1 GWh).

In 2002, California established the Renewables Portfolio Standard (RPS) with Senate Bill (SB) 1078, requiring electric utilities in the State to increase procurement of eligible renewable energy resources to achieve a target of 20 percent of their annual retail sales by the year 2010. In 2011, Governor Jerry Brown approved the California Renewable Energy Resources Act, SB 2 X1. SB 2 X1 legislatively broadens the scope of the State RPS to include retail electricity sellers; investor- and publicly owned utilities; municipal utilities; and community choice aggregators under the mandate to obtain 33 percent of their retail electrical energy sales from renewable sources by 2020.

Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of RPS eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers resource needs, reduce GHG emissions, and increase the use of clean energy.

Approved by Governor Brown on September 10, 2018, SB 100 extends the renewable electricity procurement goals and requirements of SB 350. SB 100 requires that all retail sale of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and/or zero-carbon resources by the end of 2045.

California Energy Plan

The California Energy Commission (CEC) is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the fewest environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators.

Local Regulations

Inyo County General Plan

Energy is addressed within the Conservation and Open Space Element of the General Plan (Inyo County 2001). Section 8.10, Energy Efficiency, of the Conservation and Open Space Element contains the following goals and policies that relate to the project and encourage energy efficiency within the County:

- **Policy EE-1.2:** The County will continue to evaluate energy use and reduction targets as a way to promote energy efficiency throughout the county and as a means to reduce operating costs.
- **Policy EE-1.3:** The County will continue to implement the action items identified in the 2012 Energy Action Plan to meet its overall energy reduction goals as long as those actions will result in savings to the County from reduced energy usage.
- **Policy EE-1.4:** The County will consider adopting incentive programs for homeowners who exceed the State's requirements for new construction, remodels, and additions.
- **Policy EE-1.5:** The County will consider adopting recognition programs for homeowners who exceed the State's requirements for new construction, remodels, and additions.

4.6.1.2 Existing Conditions

State Energy Supply

Electricity

California's electricity needs are satisfied by a variety of entities, including investor-owned utilities, publicly owned utilities, electric service providers, and choice aggregators.² As of 2018, California electricity demand totaled 285,488 gigawatt hours (GWh). In-state generating facilities accounted for about 194,842 GWh, or 68 percent of the total electric power used in the State, with the remaining electricity coming from out-of-state imports (CEC 2019a).

Since deregulation in 1998, the CEC has licensed or given small power plant exemptions to 91 power plants, including:

- 66 projects representing 22,965 MW currently on-line;
- 4 projects totaling 2,635 MW currently under construction or pre-construction;
- 2 projects totaling 795 MW currently on hold or under suspension; and
- 15 projects totaling 5,844.5 MW approved but then cancelled by applicants, or license expired or terminated before construction.

In addition, as of October 2021, the CEC had five proposed projects under review, totaling approximately 453 MW (CEC 2021). One additional geothermal steam turbine project, representing a total of 250 MW, has been announced but has not yet filed with the CEC.

On the demand side, Californians consumed 284,060 GWh of electricity in 2017; this is a decrease from the 285,434 GWh demanded in 2016 (CEC 2018). CEC staff forecasts of future electricity demand anticipate that consumption will grow by between 0.99 and 1.59 percent per year from 2017 to 2030, with peak demand forecasts growing by 0.30 to 1.52 percent annually from 2017 to 2030 (CEC 2018).

Natural Gas

Natural gas continues to play an important and varied role in California. In 2012, nearly 45 percent of the natural gas burned in California was used for electricity generation, and much of the remainder was consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors (CEC 2019b). Natural gas supplies are currently plentiful and relatively inexpensive as a result of technological advances that allow recovery of natural gas from formations such as shale reservoirs that were previously inaccessible. However, potential environmental concerns are causing decision makers to reexamine the development of shale resources and consider tighter regulations, which could affect future natural gas supplies and prices.

² Community choice aggregation is authorized in California by AB 117 (Chapter 836, Statutes of 2002), which allows cities, counties, and groups of cities and counties to aggregate the electric load of the residents, businesses and institutions within their jurisdictions to provide them electricity.

Transportation Fuels

Automobiles and trucks consume gasoline and diesel fuel, which are nonrenewable energy products derived from crude oil, which in turn is derived from petroleum. In addition to energy consumption associated with on-road vehicle use, energy is consumed in connection with construction and maintenance of transportation infrastructure. Passenger cars and light-duty trucks are by far the largest consumers of transportation fuel. Retail sales of transportation fuel in California totaled 15.6 billion gallons of gasoline and 1.9 billion gallons of diesel in 2017 (CEC 2018).

Regional Electricity Supply

Electricity within the County is primarily provided by two service providers: LAWDP and SCE. LADWP has transmission lines that run along the east side of the Owens Valley, beginning in the Owens River Gorge and continuing into the San Fernando Valley. The Southern California Edison transmission line service area includes Inyo County and has ties into LADWP lines (Inyo County 2001). Certain areas of the County to the east of Chicago Valley are provided electricity by Las Vegas Power and Light through an agreement with SCE. The LADWP has a 500kV transmission line which traverses the Owens Valley corridor. SCE also has a 115kV transmission line traversing the Owens Valley corridor, which serves San Bernardino, Kern, Inyo, and Mono counties and has ties into LADWP lines (Inyo County 2013). Unless the demand for electrical generating capacity exceeds estimates, and provided that there are no unexpected outages to major sources of electrical supply, these electric power providers are expect to meet electrical requirements with current facilities for the next several years in Inyo County (Inyo County 2001).

4.6.1.3 Methodology

The proposed project's direct electricity and natural gas consumption as well as the indirect electricity consumption from water/wastewater sourcing, transport, and treatment were estimated from the air quality and GHG emissions project modeling completed using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0, as described Sections 4.3 and 4.8. Fuel consumption factors in terms of gallons per hour of diesel for off-road equipment were calculated using data from the CARB Mobile Source Emissions Inventory online database—OFFROAD2017 version 1.0.1 (CARB 2021a). Fuel consumption factors, in terms of gallon of diesel and gasoline per mile travel, were calculated from the CARB Mobile Source Emissions Inventory online database—EMFAC2021 version 1.0.0 (CARB 2021b). The energy calculation sheets are included as Appendix D.

Energy usage from transportation sources is associated with project-related vehicle trip generation and trip length. Based on the CalEEMod defaults, the total annual VMT for the project is estimated to be 10,263,959 miles.

Project building energy consumption was estimated assuming the CalEEMod default multi-family residence floor area for Inyo County of 1,000 SF (CAPCOA 2021), and implementation of energy-reducing project design features to comply with the 2019 Title 24 standards which include a requirement for on-site generation of electricity through photovoltaic (solar) panels. In accordance with 2019 Title 24, a 1,000 square-foot multi-family dwelling unit in Inyo County (CEC climate zone 16) would require solar panels producing a minimum of 1.81 kW (CEC 2019c). The annual electricity generated by a rooftop mounted 1.81 kW solar power system varies by the climate, amount of sunlight available per day, the pitch and orientation of the roof, and the efficiency of the electrical transmission. The term used to account for this variability is Capacity Factor. Using a statewide average capacity factor of 28.9 percent,

the estimated electrical solar power produced by each of the project's dwelling units is 4,585 kWhr or 2,255,958 kWhr per year (Berkely Lab 2018). The solar generation requirement calculation sheets are included as Appendix D.

Indirect energy consumption from water/wastewater sourcing and treatment was estimated based on the CalEEMod indoor and outdoor water use estimates from the GHG emissions analysis contained in Section 4.8, and from CalEEMod default values for water/wastewater electricity use intensity factors for San Diego County (CAPCOA 2021).

4.6.2 Significance Thresholds

According to Appendix G of the CEQA Guidelines, the following criteria may be considered in establishing the significance of energy consumption:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
2. Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

The CEQA Guidelines Appendix F, Energy Conservation, provides guidance for EIRs regarding potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing the inefficient, wasteful and unnecessary consumption of energy. In addition, though not described as thresholds for determining the significance of impacts, Appendix F seeks inclusion of information in an EIR addressing the following topics:

- The project's energy requirements and its energy-use efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

4.6.3 Impact Analysis

ENE-1 The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.

Construction

Energy consumed for project construction would primarily consist of fuels in the form of diesel and gasoline. Fuel consumption would result from: the use of on-road trucks for the transportation of construction materials and water; construction worker vehicles traveling to and from the project site; and from the use of off-road construction equipment. The estimated fuel and total energy consumed during project construction is shown in Table 4.6-1, Construction Energy Use. The full construction energy consumption calculation sheets are included as Appendix D to this EIR.

**Table 4.6-1
CONSTRUCTION ENERGY USE**

Phase	Gallons Diesel	Gallons Gasoline	MBtu
Site Preparation	1,413	148	215
Grading	5,832	371	857
Paving	1,477	216	232
Building Construction	47,803	75,759	16,039
Architectural Coatings	165	1,024	150
TOTAL	56,689	77,519	17,492

Source: CalEEMod; OFFROAD2017; EMFAC2017.

MBtu = million British thermal units.

While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. The petroleum consumed during project construction would be typical of similar residential projects and would not require the use of new petroleum resources beyond those typically consumed in California annually for construction activities. Based on these considerations, construction of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the impact would be less than significant.

Operation

During long-term operation of the project, energy would be consumed in the form of diesel and gasoline used by vehicles traveling to and from the project site; natural gas for heating and hot water; electricity required to source and treat water used by the project; and electricity used directly by the project. The project's net electricity use calculation accounts for the on-site solar generation requirement, as described in the Methodology Section, above. The project's estimated annual operational energy use (for the first full year of operation—2025) in gallons of fuel, electricity, and equivalent MMBtu is shown in Table 4.6-2, Operational Net Energy Use. The energy calculation sheets are included in Appendix D to this EIR.

**Table 4.6-2
OPERATIONAL NET ENERGY USE**

Source	Quantity	Energy (MMBtu)
Gasoline (Gallons)	43,030	5,336
Diesel (Gallons)	411,340	57,176
Natural Gas (kBtu)	7,951,730	7,952
Electricity (kWh)	624,345	2,130
TOTAL¹		72,594

Source: CalEEMod; OFFROAD; EMFAC2021.

MWh = megawatt hours; MBtu = million British thermal units.

¹ Totals may not sum due to rounding.

As shown in Table 4.6-2, the project would result in a net increase in annual energy consumption of approximately 72,594 MMBtu. While the proposed project would result in the consumption of gasoline, diesel, electricity and natural gas, the increase would consistent overall with the energy projections for the state and the region to meet the demands of anticipated future residential growth in the state and region. Implementation of the project would not require the construction of new regional facilities and sources of energy. Therefore, operation of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources and the impact would be less than significant.

Significance without Mitigation: Less than significant impact.

ENE-2 The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

The 2019 Title 24 Part 6, Building Energy Efficiency Standards, and 2019 Title 24 Part 11, CALGreen, include provisions applicable to all buildings, which are mandatory requirements for efficiency and design. The project would be consistent with the requirements of Title 24 through implementation of energy-reduction measures, such as energy efficient lighting and appliances, water efficient appliances and plumbing fixtures, and water efficient landscaping and irrigation. Therefore, the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, and the impact would be less than significant.

Significance without Mitigation: Less than significant impact.

4.6.4 Cumulative Impacts

ENE-3 The proposed project would not contribute to significant cumulative impacts on regional energy supplies and sources.

Potential cumulative impacts on energy would result if the proposed project, in combination with past, present, and future projects, would result in the wasteful or inefficient use of energy. This could result from development that would not incorporate sufficient building energy efficiency features, not achieve building energy efficiency standards, or would result in the unnecessary use of energy during construction and/or operation. Projects that include development of large buildings or other structures that would have the potential to consume energy in an inefficient manner would have the potential to contribute to a cumulative impact.

Cumulative projects that include long-term energy demand, such as residential developments, would be subject to California Code of Regulations Title 24 Part 6 (building energy efficient standards) and California Code of Regulations Title 24 Part 11 (CALGreen), which provides energy efficiency standards for commercial and residential buildings. Title 24 part 6 and 11 implement increasingly stringent energy efficiency standards that would require the project and the other cumulative projects to minimize the wasteful and inefficient use of energy. In addition, 2019 Title 24 Part 6 requires most residential buildings with three or fewer stories, approved on or after January 1, 2020, to provide on-site solar electricity generation.

In consideration of cumulative energy use, the proposed project would not contribute to a substantial demand on energy resources or services such that new regional energy facilities would be required to be constructed as a result of the incremental increase in energy demand resulting from the proposed project. Therefore, the project's contribution to cumulative energy demand would be less than cumulatively considerable.

Significance without Mitigation: Less than significant impact.

4.6.5 References

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4.8 Greenhouse Gas Emissions

This section describes the regulatory framework and existing conditions related to greenhouse gas (GHG), evaluates the potential GHG emissions impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.8.1 Environmental Setting

4.8.1.1 Climate Change Overview

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by atmospheric gases. These gases are commonly referred to as GHGs because they function like a greenhouse by letting sunlight in but preventing heat from escaping, thus warming the Earth's atmosphere.

GHGs are emitted by natural processes and human (anthropogenic) activities. Anthropogenic GHG emissions are primarily associated with: (1) the burning of fossil fuels during motorized transport, electricity generation, natural gas consumption, industrial activity, manufacturing, and other activities; (2) deforestation; (3) agricultural activity; and (4) solid waste decomposition.

The temperature record shows a decades-long trend of warming, with 2019 ranked as the second warmest year on record with an increase of 1.8 degrees Fahrenheit compared to the 1951-1980 average. Globally, 2019's temperatures were second only to those of 2016 (National Aeronautics and Space Administration [NASA] 2020). GHG emissions from human activities are the most significant driver of observed climate change since the mid-20th century (United Nations Intergovernmental Panel on Climate Change [IPCC] 2013). The IPCC constructed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. The statistical models show a "high confidence" that temperature increase caused by anthropogenic GHG emissions could be kept to less than two degrees Celsius relative to pre-industrial levels if atmospheric concentrations are stabilized at about 450 parts per million (ppm) carbon dioxide equivalent (CO₂e) by the year 2100 (IPCC 2014).

4.8.1.2 Greenhouse Gases

The GHGs defined under California's Assembly Bill (AB) 32 include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆).

Carbon Dioxide. CO₂ is the most important and common anthropogenic GHG. CO₂ is an odorless, colorless GHG. Natural sources include the decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources of CO₂ include burning fuels, such as coal, oil, natural gas, and wood. Data from ice cores indicate that CO₂ concentrations remained steady prior to the current period for approximately 10,000 years. The atmospheric CO₂ concentration in 2010 was 390 ppm, 39 percent above the concentration at the start of the Industrial Revolution (about 280 ppm in 1750). As of September 2021, the CO₂ concentration exceeded 415 ppm (National Oceanic and Atmospheric Administration [NOAA] 2021).

Methane. CH₄ is the main component of natural gas used in homes. A natural source of methane is from the decay of organic matter. Geological deposits known as natural gas fields contain methane, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

Nitrous Oxide. N₂O is produced by both natural and human-related sources. N₂O is emitted during agricultural and industrial activities, as well as during the combustion of fossil fuels and solid waste. Primary human-related sources of N₂O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic (fatty) acid production, and nitric acid production.

Hydrofluorocarbons. Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. Chlorofluorocarbons are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface). Chlorofluorocarbons were first synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped as required by the 1989 Montreal Protocol.

Sulfur Hexafluoride. SF₆ is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF₆ is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semi-conductor manufacturing, and as a tracer gas for leak detection.

GHGs have long atmospheric lifetimes that range from one year to several thousand years. Long atmospheric lifetimes allow for GHG emissions to disperse around the globe. Because GHG emissions vary widely in the power of their climatic effects, climate scientists have established a unit called global warming potential (GWP). The GWP of a gas is a measure of both potency and lifespan in the atmosphere as compared to CO₂. For example, because methane and N₂O are approximately 25 and 298 times more powerful than CO₂, respectively, in their ability to trap heat in the atmosphere, they have GWPs of 25 and 298, respectively (CO₂ has a GWP of 1). CO₂e is a quantity that enables all GHG emissions to be considered as a group despite their varying GWP. The GWP of each GHG is multiplied by the prevalence of that gas to produce CO₂e.

Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR). In 2007, IPCC updated the GWP values based on the latest science at the time in its Fourth Assessment Report (AR4). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. In 2013, IPCC again updated the GWP values based on the latest science in its Fifth Assessment Report (AR5) (IPCC 2013). However, United Nations Framework Convention on Climate Change (UNFCCC) reporting guidelines for national inventories require the use of GWP values from the AR4. To comply with international reporting standards under the UNFCCC, official emission estimates for California and the U.S. are reported using AR4 GWP values. Therefore, statewide and national GHG inventories have not yet updated their GWP values to the AR5 values. By applying the GWP ratios, project related CO₂e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline. The atmospheric lifetime and GWP of selected GHGs are summarized in Table 4.8-1, Global Warming Potentials and Atmospheric Lifetimes.

**Table 4.8-1
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES**

Greenhouse Gas	Atmospheric Lifetime (years)	Global Warming Potential (100-year time horizon)
Carbon Dioxide (CO ₂)	50-200	1
Methane (CH ₄)	12	25
Nitrous Oxide (N ₂ O)	114	298
HFC-324a	14	1,430
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390
PFC: Hexafluoroethane (C ₂ F ₆)	10,000	12,200
Sulfur Hexafluoride (SF ₆)	3,200	22,800

Source: IPCC 2007.

HFC: hydrofluorocarbon; PFC: perfluorocarbon

4.8.1.3 Regulatory Framework

Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court ruled on April 2, 2007, in *Massachusetts v. U.S. Environmental Protection Agency* (USEPA) that CO₂ is an air pollutant, as defined under the Clean Air Act (CAA), and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO₂, CH₄, N₂O, HFC, PFC, and SF₆) threaten the public health and welfare of the American people. This action was a prerequisite to finalizing the USEPA's GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the United States Department of Transportation's National Highway Traffic Safety Administration (NHTSA). The standards were established on April 1, 2010 for 2012 through 2016 model year vehicles and on October 15, 2012 for 2017 through 2025 model year vehicles (USEPA 2017; USEPA and NHTSA 2012).

Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards

The USEPA and the NHTSA have been working together on developing a national program of regulations to reduce GHG emissions and to improve fuel economy of light-duty vehicles. The USEPA established the first-ever national GHG emissions standards under the CAA, and the NHTSA established Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. On April 1, 2010, the USEPA and NHTSA announced a joint Final Rulemaking that established standards for 2012 through 2016 model year vehicles. This was followed up on October 15, 2012, when the agencies issued a Final Rulemaking with standards for model years 2017 through 2025. On August 2, 2018, the agencies released a notice of proposed rulemaking—the Safer Affordable Fuel-Efficient Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks (SAFE Vehicles Rule). The purpose of the SAFE Vehicles Rule is “to correct the national automobile fuel economy and greenhouse gas emissions standards to give the American people greater access to safer, more affordable vehicles that are cleaner for the environment.” The direct effect of the rule is to eliminate the standards that were put in place to gradually raise average fuel economy for passenger cars and light trucks under test conditions from 37 miles per gallon (mpg) in 2020 to 50 mpg in 2025. By contrast, the new SAFE Vehicles Rule freezes the average fuel economy level standards indefinitely at the 2020 levels. The new SAFE Vehicles Rule also results in the withdrawal of the waiver previously provided to California for that State's GHG and zero

emissions vehicle (ZEV) programs under section 209 of the CAA. The combined USEPA GHG standards and NHTSA CAFE standards resolve previously conflicting requirements under both federal programs and the standards of the State of California and other states that have adopted the California standards.

State Regulations and Plans

There are numerous State plans, policies, regulations, and laws related to GHG emissions and global climate change. Following is a discussion of some of these plans, policies, and regulations that (1) establish overall State policies and GHG emission reduction targets; (2) require State or local actions that result in direct or indirect GHG emission reductions for the proposed project; and (3) require CEQA analysis of GHG emissions.

California Energy Code

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated approximately every three years to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 standards went into effect on January 1, 2020. The 2019 standards improve upon the 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2019 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant improvements to the residential standards include the requirement for onsite photovoltaic electricity (e.g., solar panels) generally for most new residential single-family buildings and multi-family buildings up to three stories high (California Energy Commission [CEC] 2018).

The standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards – the energy budgets – that vary by climate zone (of which there are 16 in California) and building type; thus, the standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that provide a recipe or a checklist compliance approach.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen; California Code of Regulations Title 24, Part 11) is a code with mandatory requirements for new residential and nonresidential buildings (including industrial buildings) throughout California. The code is Part 11 of the California Building Standards Code in Title 24 of the California Code of Regulations. The current 2019 Standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2020.

The development of CALGreen is intended to (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is

established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

CALGreen contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency (California Building Standards Commission 2019).

Executive Order S-3-05

On June 1, 2005, Executive Order (EO) S-3-05 proclaimed that California is vulnerable to climate change impacts. It declared that increased temperatures could reduce snowpack in the Sierra Nevada, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To avoid or reduce climate change impacts, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.

Assembly Bill 32 – Global Warming Solution Act of 2006

The California Global Warming Solutions Act of 2006, widely known as AB 32, requires that the California Air Resources Board (CARB) develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions.

Senate Bill 375

SB 375, the Sustainable Communities and Climate Protection Act of 2008, supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities.

Under the Sustainable Communities Act, CARB sets regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established these targets for 2020 and 2035 for each region covered by one of the State's metropolitan planning organizations (MPO). CARB periodically reviews and updates the targets, as needed.

Each of California's MPOs must prepare a Sustainable Communities Strategy (SCS) as an integral part of its regional transportation plan (RTP). The SCS contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet its GHG emission reduction targets. Once adopted by the MPO, the RTP/SCS guides the transportation policies and investments for the region. CARB must review the adopted SCS to confirm and accept the MPO's determination that the SCS, if implemented, would meet the regional GHG targets. If the combination of measures in the SCS would not meet the regional targets, the MPO must prepare a separate alternative planning strategy (APS) to meet the targets. The APS is not a part of the RTP. Qualified projects consistent with an approved SCS or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing. The Association of Bay Area Governments (ABAG) is the San Francisco Bay Area's local MPO and, in coordination with the Metropolitan Transportation Commission (MTC), has

responded to the requirements of SB 375 with the preparation of the Plan Bay Area 2040 discussed in greater detail in below.

Senate Bill 743

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changes transportation impact analysis as part of CEQA compliance. These changes include the elimination of auto delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts for land use projects and plans in California. Further, parking impacts will not be considered significant impacts on the environment for select development projects within infill areas with nearby frequent transit service. According to the legislative intent contained in SB 743, these changes to current practice were necessary to more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of GHG emissions.

Senate Bill 97

SB 97 required the Governor's Office of Planning and Research to develop recommended amendments to the CEQA Guidelines for addressing GHG emissions, including the effects associated with transportation and energy consumption. The amendments became effective on March 18, 2010.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG emission reduction targets with those of leading international governments, including the 28 nation European Union. California is on track to meet or exceed the target of reducing GHG emissions to 1990 levels by 2020, as established in AB 32. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050.

Senate Bill 32 and Assembly Bill 197

As a follow-up to AB 32 and in response to EO-B-30-15, SB 32 was passed by the California legislature in August 2016 to codify the EO's California GHG emission reduction target of 40 percent below 1990 levels by 2030 and requires the State to invest in the communities most affected by climate change. AB 197 establishes a legislative committee on climate change policies to help continue the State's activities to reduce GHG emissions.

Assembly Bill 1493 – Vehicular Emissions of Greenhouse Gases

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bind California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles (CARB 2021). In January 2012, CARB approved a new emissions-control program for

model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single packet of standards called Advanced Clean Cars (CARB 2021).

Assembly Bill 341

The State legislature enacted AB 341 (California Public Resource Code Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. The final regulation was approved by the Office of Administrative Law on May 7, 2012 and went into effect on July 1, 2012.

Executive Order S-01-07 – Low Carbon Fuel Standard

This EO, signed by Governor Schwarzenegger on January 18, 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

Senate Bill 350

Approved by Governor Brown on October 7, 2015, SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030. This will increase the use of Renewables Portfolio Standard eligible resources, including solar, wind, biomass, and geothermal. In addition, large utilities are required to develop and submit Integrated Resource Plans to detail how each entity will meet their customers' resource needs, reduce GHG emissions, and increase the use of clean energy.

Senate Bill 100

Approved by Governor Brown on September 10, 2018, SB 100 extends the renewable electricity procurement goals and requirements of SB 350. SB 100 requires that all retail sale of electricity to California end-use customers be procured from 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

California Air Resources Board: Climate Change Scoping Plan

On December 11, 2008, CARB adopted the Scoping Plan as directed by AB 32 (CARB 2008). The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled (VMT) and vehicle GHG emissions through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis.

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target (CARB 2014). The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions. In December 2017, CARB adopted the 2017 Climate Change Scoping Plan Update, the Strategy for Achieving California's 2030 Greenhouse Gas Target, to reflect the 2030 target set by EO B-30-15 and codified by SB 32 (CARB 2017).

Local Regulations and Plans

Great Basin Unified Air Pollution Control District

The Great Basin Unified Air Pollution Control District (GBUAPCD) regulates air quality in the County according to the standards established in the CAA and amendments to those acts. The GBUAPCD regulates air quality through its permitting authority and through air quality-related planning and review activities over most types of stationary emission sources.

Inyo County General Plan

Although the General Plan (2001, as amended) does not currently include any goals, policies, or implementation measures specifically related to GHG emissions, the Conservation and Open Space Element was updated in 2014 with an Energy Efficiency chapter that contains several policies which indirectly address global climate change.

- **Policy EE-1.2.** The County will continue to evaluate energy use and reduction targets as a way to promote energy efficiency throughout the County and as a means to reduce operating costs.
- **Policy EE-1.3.** The County will continue to implement the action items identified in the 2012 Energy Action Plan to meet its overall energy reduction goals as long as those actions will result in savings to the County from reduced energy usage.

In 2015, Inyo County adopted the Renewable Energy General Plan Amendment (REGPA) which updated the County's General Plan to include policies to support solar energy development. The REGPA identified new and modified General Plan goals, policies, and implementation measures in order to regulate and direct the type, siting, and size of potential future renewable energy development within the County through adoption of land use policies that are consistent with the broader goals and vision of the General Plan.

Energy Action Plan

An Energy Action Plan was prepared for the County in October 2012 with the purpose of outlining a strategy to reduce energy use and costs throughout the County. The plan establishes a long-term vision for energy efficiency, identifies reduction goals and milestones, provides potential energy reduction policies and procedures, identifies County buildings that are highly energy efficient and County buildings that require improvements, and presents potential funding mechanisms for energy efficiency projects.

Inyo County Code Title 21: Renewable Energy Ordinance

The County adopted ICC Title 21, the Renewable Energy Ordinance, in 2010. The ordinance supports and encourages the responsible utilization of the County's natural resources, and encourages the use of clean, renewable energy sources. This ordinance focuses mainly on the use of wind and solar resources for alternative energy purposes.

4.8.1.4 Existing Conditions

State GHG Inventories

CARB performs statewide GHG inventories. The inventory is divided into six broad sectors: agriculture and forestry, commercial, electricity generation, industrial, residential, and transportation. Emissions are quantified in MMT CO₂e. Table 4.8-2, California GHG Emissions by Sector, shows the estimated statewide GHG emissions for the years 1990, 2000, 2010, and 2017.

**Table 4.8-2
CALIFORNIA GHG EMISSIONS BY SECTOR**

Sector	Emissions (MMT CO ₂ e)			
	1990	2000	2010	2019
Agriculture and Forestry	18.9 (4%)	31.0 (7%)	33.7 (8%)	31.8 (8%)
Commercial	14.4 (3%)	14.1 (3%)	20.1 (4%)	24.2 (6%)
Electricity Generation	110.5 (26%)	105.3 (22%)	90.5 (20%)	59.0 (14%)
Industrial	105.3 (24%)	104.6 (22%)	101.3 (23%)	99.9 (24%)
Residential	29.7 (7%)	31.7 (7%)	32.1 (7%)	33.0 (8%)
Transportation	150.6 (35%)	181.3 (39%)	170.2 (38%)	170.3 (41%)
Unspecified Remaining	1.3 (<1%)	-	-	-
TOTAL	430.7	468.0	447.9	418.1

Source: CARB 2007 and CARB 2019.

MMT = million metric tons; CO₂e = carbon dioxide equivalent; - = not reported

As shown in Table 4.8-2, statewide GHG emissions totaled approximately 431 MMT CO₂e in 1990, 468 MMT CO₂e in 2000, 448 MMT CO₂e in 2010, and 418 MMT CO₂e in 2019. Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

4.8.1.5 Methodology

GHG emissions that would result from implementation of the project and from the existing use of the project site were calculated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0, as described in Section 4.3, Air Quality. CalEEMod output files for the project are included in Appendix D to this EIR.

4.8.1.6 Construction Emissions

The CalEEMod input and assumptions for modeling construction emissions are described in the Section 4.3, Air Quality.

4.8.1.7 Operation Emissions

The project's land uses were modeled as: 492 condominiums/townhouses with a default floor space of 1,000 square feet per dwelling unit. Operational sources of GHG emissions in CalEEMod include area, energy, mobile, water use, and solid waste. Operational project input and design features incorporated into CalEEMod for the project and existing use include:

- **Area** – area sources include GHG emissions from landscaping equipment, the use of consumer products, and gas fireplaces. Emissions associated with area sources were estimated using the CalEEMod default values for the project. Area sources in CalEEMod also include emissions from wood burning stoves and fireplaces. However, in accordance with the GBUAPCD Rule 431, *Particulate Emissions*, the project would not include wood-burning stoves or wood-burning fireplaces (GBUAPCD 1990). The CalEEMod defaults for area sources were used in the project and existing use modeling.
- **Energy** – The project would use electricity and natural gas for lighting, heating, and cooling. Some electricity generation entails the combustion of fossil fuels, including natural gas and coal, which results in GHG emissions at the power plant locations. Power plant GHG emissions may occur outside of the region or State. Electricity within the County is primarily provided by two service providers: LAWDP and Southern California Edison (SoCal Edison). Propane within the County is primarily provided by two service providers: Eastern Sierra Propane and AmeriGas. Energy source emissions for the project were estimated assuming CalEEMod defaults for energy consumption based on the land use type.
- **Mobile** – Operational GHG emissions from mobile sources are associated with project-related vehicle trip generation and trip length. Based on the trip generation rate from the model defaults, each of the project's dwelling units would generate 7.32 average daily trips on weekdays ([ADT] 3,601 total ADT), 8.14 average daily trips on Saturdays (4,005 total ADT), and 6.28 average daily trips on Sundays (3,090 total ADT). The CalEEMod default trip distances and purposes were in the existing use modeling. Based on these model defaults, the project would result in an annual VMT of approximately 10.3 million miles.

The project model default car and light truck vehicle emissions factors were adjusted using correction factors for EMFAC2014 data provided by CARB to account for the USEPA Final SAFE Rule which relaxed federal GHG emissions and CAFE standards (CARB 2020).

- **Solid Waste** – Solid waste generated by the project would also contribute to GHG emissions. Treatment and disposal of solid waste produces emissions of methane. Modeling was conducted using CalEEMod default solid waste generation rates and GHG factors for Inyo County. For project modeling, a 25 percent reduction applied to account for residential AB 341 and local waste diversion mandates not accounted for in the model defaults.
- **Water Sources** – Water-related GHG emissions are from the energy used and process emissions for the conveyance and treatment of water. The CEC's 2006 Refining Estimates of Water-Related Energy Use in California defines average energy values for water use. These values are used in CalEEMod to establish default water related emission factors. Modeling was conducted using these defaults. For the project modeling, a 20 percent reduction in potable water use and wastewater generation was applied in accordance with 2019 CALGreen standards.

4.8.2 Significance Thresholds

According to Appendix G of the CEQA Guidelines, the following criteria may be considered in establishing the significance of GHG emissions:

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

As discussed in Section 15064.4 of the CEQA Guidelines, the determination of the significance of GHG emissions calls for a careful judgment by the Lead Agency, consistent with the provisions in Section 15064. Section 15064.4 further provides 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. Neither the GBUAPCD nor the County has yet established specific quantitative significance thresholds for GHG emissions evaluated under CEQA.

In the absence of adopted local or statewide thresholds, the general methodology in this EIR follows the interim guidance provided by the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD’s CEQA Guidelines establish an annual GHG threshold of 100,000 tons of CO₂e per year (MDAQMD 2016).

4.8.3 Impact Analysis

GHG-1 Implementation of the project would not generate GHG emissions that may have a significant impact on the environment.

A project-specific analysis of the project’s GHG emissions was completed using CalEEMod Version 2020.4.3, as described in the methodology description, above.

Construction (Short-Term) Emissions

The project’s estimated total and amortized short-term construction GHG emissions are shown in Table 4.8-3, Construction GHG Emissions. The project’s construction GHG emissions were amortized over the 30-year estimated life span of the buildings and included in the project’s operational GHG emissions inventory, below.

**Table 4.8-3
CONSTRUCTION GHG EMISSIONS**

Year	Emissions (MT CO ₂ e)
2022	269.1
2023	762.7
2024	635.5
2025	4.3
TOTAL¹	1,672.6
<i>Amortized Construction Emissions (30 years)</i>	<i>55.7</i>

Source: CalEEMod (output data is provided in Appendix D).

¹Totals may not sum due to rounding.

Operation (Long-Term) Emissions

The project’s estimated long-term operational GHG emissions and net long-term GHG emissions (project emissions minus existing land use emissions) for the anticipated first full year of operations, 2025, are compared to the MDAQMD thresholds in Table 4.8-4, Operational GHG Emissions.

**Table 4.8-4
OPERATIONAL GHG EMISSIONS**

Source	Annual Emissions (MT CO ₂ e)
Area	6.1
Energy	467.4
Mobile	3,571.2
Waste	85.4
Water	196.6
Operational Subtotal ¹	4,326.7
Amortized Construction Emissions (30 years)	55.7
Total Project Emissions	4,382.4
MDAQMD Threshold (TPY CO ₂ e)	100,000
Exceed Threshold?	No

Source: CalEEMod (output data is provided in Appendix D).

¹ Totals may not sum due to rounding.

As shown in Table 4.8-4, the project’s long-term emissions of 4,382 MT CO₂e per year would not exceed the MDAQMD threshold. Therefore, the implementation of the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and the impact would be less than cumulatively considerable.

Significance without Mitigation: Less than significant impact.

GHG-2 Implementation of the project would not conflict with or obstruct implementation of applicable GHG reduction plans, policies, or regulations.

The County’s General Plan (2001, as amended) does not currently include any goals, policies, or implementation measures specifically related to GHG emissions. However, the Conservation and Open Space Element was updated in 2014 with an Energy Efficiency chapter that contains several policies which indirectly address global climate change through promoting energy efficiency throughout the County and implementing the action items in the 2012 Energy Action Plan to meet its overall energy reduction goals as long as those actions will result in savings to the County from reduced energy usage.

As discussed in Impact GHG-1, the project would not exceed the MDAQMD’s project level thresholds developed to meet the reduction mandates of AB 32 or the adjusted 2025 threshold to demonstrate progress towards meeting the reduction mandates of SB 32 in 2030. Therefore, the project would be consistent with the CARB Climate Change Scoping Plan developed to implement the mandates of AB 32 and SB 32.

Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, and impacts would be less than cumulatively considerable.

Significance without Mitigation: Less than significant impact.

4.8.4 Cumulative Impact

GHG-3 The proposed project would not contribute to a significant cumulative impact to regional and State GHG emissions.

As noted above, climate change impacts are cumulative. Given the relatively small levels of emissions generated by a project in relationship to the total amount of GHG emissions generated on a national or global basis, individual projects are not expected to result in significant, direct impacts with respect to climate change. However, given the magnitude of the impact of GHG emissions on the global climate, GHG emissions from new development could result in significant, cumulative impacts with respect to climate change. As discussed in Impacts GHG-1 and GHG-2 above, the project would not make a cumulatively considerable contribution to significant cumulative GHG emissions and would not conflict with or obstruct applicable plans related to GHG emission reductions. Therefore, the project's contribution to global climate change would be less than cumulatively considerable.

Significance without Mitigation: Less than significant impact.

4.8.5 References

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4.9 Hazards and Hazardous Materials

This section describes the regulatory framework and existing conditions related to hazards and hazardous materials, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.9.1 Environmental Setting

4.9.1.1 Regulatory Framework

Development of the proposed project is subject to numerous regulatory requirements and industry standards related to the storage, transport, and use of hazardous materials. Most regulations originate at the state and federal levels, with enforcement by local agencies.

Federal Regulations

Resource Conservation and Recovery Act of 1976

Federal hazardous waste laws are largely promulgated under the Resource Conservation and Recovery Act (RCRA; 40 CFR, Part 260), as amended by the Hazardous and Solid Waste Amendments of 1984 (which are primarily intended to prevent releases from leaking underground storage tanks). These laws provide for the “cradle to grave” regulation of hazardous wastes. Specifically, under RCRA any business, institution or other entity that generates hazardous waste is required to identify and track it from the point of generation until it is recycled, reused or disposed of. The USEPA has the primary responsibility for implementing RCRA, although individual states are encouraged to seek authorization to implement some or all RCRA provisions.

Hazardous Material Transportation Act

The US Department of Transportation regulates hazardous materials transportation under 49 CFR, which requires the US Department of Transportation’s Office of Hazardous Materials Safety to generate regulations for the safe transportation of hazardous materials. The California Highway Patrol and Caltrans are the State agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. These agencies also govern permitting for hazardous materials transportation within the state.

Comprehensive Environmental Response, Compensation, and Liability Act

The 1980 Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, provides federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. Federal actions related to the Superfund are limited to sites on the National Priorities List for cleanup activities, with the listings based on the USEPA Hazard Ranking System which is a numerical ranking system used to screen potential sites based on criteria such as the likelihood and nature of hazardous material release, and the potential to affect people or environmental resources. The Superfund was amended by the Superfund Amendments and Reauthorization Act (SARA) in 1986 as outlined below.

Superfund Amendments and Reauthorization Act

SARA is intended primarily to address the emergency management of accidental releases, and to establish state and local emergency planning committees responsible for collecting hazardous material inventory, handling and transportation data. Specifically, under Title III of SARA, a nationwide emergency planning and response program established reporting requirements for businesses that store, handle or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. Title III of SARA also requires each state to implement a comprehensive system to inform federal authorities, local agencies and the public when significant quantities of hazardous or acutely toxic substances are stored or handled at a facility. These data are made available to the community at large under the “right-to-know” provision, with SARA also requiring annual reporting of continuous emissions and accidental releases of specified compounds.

State Regulations

California hazardous materials and waste regulations are equally or more stringent than federal regulations. The USEPA has granted the State primary oversight responsibility to administer and enforce hazardous waste management programs. State regulations require planning and management to ensure that hazardous materials are handled, stored, and disposed of properly to reduce risks to human health and the environment. Several important State laws pertaining to hazardous materials and wastes are discussed below.

California Environmental Protection Agency

The California EPA was created in 1991 by EO W-5-91. Several State regulatory boards, departments, and offices were placed under the Agency’s umbrella to create a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources. The California EPA also oversees the unified hazardous waste and hazardous materials management regulatory program (Unified Program).

California Department of Toxic Substances Control

The California DTSC, which is a department of the California EPA, is authorized to carry out the federal hazardous waste program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California. Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow federal and State requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

California Division of Occupational Safety and Health

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the workplace. The California Division of Occupational Safety and Health (Cal/OSHA) and the federal Occupational Safety and Health Administration (OSHA) are the agencies responsible for assuring worker safety in the workplace.

Cal/OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices within the state. At sites known to be contaminated, a site safety plan must be

prepared to protect workers. The site safety plan establishes policies and procedures to protect workers and the public from exposure to potential hazards to the contaminated site.

California Building Code

The State of California provides minimum standards for building design and construction through Title 24 of the California Code of Regulations. The California Building Code is located in Part 2 of Title 24 and is adopted by reference in Chapter 14.08, Building and Safety, of the Inyo County Code. The California Building Code is updated every three years. Commercial and residential buildings are plan-checked by County building officials for compliance with the typical fire safety and other requirements of the California Building Code.

California Emergency Management Agency

The California Emergency Management Agency adopted the State Hazard Mitigation Plan in 2007. This plan is the official statement of California's statewide hazard mitigation goals, strategies, and priorities. Hazard mitigation can be defined as any action taken to reduce or eliminate long-term risk to life and property by natural and human caused disasters. The plan, required under federal law, includes chapters on hazard assessment, local hazard mitigation planning, and mitigation strategy, and it must be updated every three years.

California Fire Code

The California Fire Code adopts by reference the International Fire Code with necessary State amendments. Updated every three years, the California Fire Code includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements include the following: installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Department of Forestry and Fire Protection

Sections 4201–4204 of the California Public Resources Code and Sections 51175–51189 of the Government Code require identification of fire hazard severity zones (FHSZ) within the State of California. Areas where the State of California has ultimate financial responsibility for wildfire suppression are referred to as “state responsibility areas” (SRA). In SRAs, the California Department of Forestry and Fire Protection (CAL FIRE) is required to delineate three hazard ranges: moderate, high, and very high; whereas “local responsibility areas” (LRA), which are typically developed or agricultural lands under the jurisdiction of local entities (e.g., cities, counties), are required to only identify very high fire hazard severity zones. The hazard ranges are measured quantitatively, based on vegetation, topography, weather, crown fire potential (a fire's tendency to burn upward into trees and tall brush), and ember production and movement within the area of question.

Most of the land in Inyo County is owned by the federal government and, thus, is considered to be Federal Responsibility Areas (FRA). Most of the areas along the US 395 corridor (excluding the City of Bishop and reservations) in northern Inyo County are located within SRA. According to CAL FIRE's fire hazard severity mapping, all project parcels are within High FHSZs of SRA (CAL FIRE 2021).

Local Regulations

Inyo County Environmental Health Services Department

As noted above under State Regulations, the County EHSD is the local Certified Unified Program Agency (CUPA) and has jurisdiction over Hazardous Material Business Emergency Plans (HMBEP) in the County. The EHSD provides detailed guidelines for the preparation and implementation of HMBEPs, including direction on covered businesses/materials, storage/safety criteria, spill prevention/mitigation, emergency/contingency response requirements and exemptions.

Inyo County General Plan

Public Safety Element

Section 9.5, Wildfire Hazard, in the Public Safety Element of the County General Plan (Inyo County 2001) identifies a number of potential issues related to wildfire hazards, including associated risks to public safety and property. The following goal and policies are relevant to the discussion of hazards and hazardous materials:

- **Goal WF-1:** Prevent wildfires and provide public safety from wildfire hazards.
 - **Policy WF-1.1: Fire Protection Agencies.** Support expansion of fire protection agencies and volunteer fire departments, and continue to cooperate with federal, state, local agencies and private landowners to provide greater fire protection for the County.
 - **Policy WF-1.2: Limitations in Fire Hazard Zones.** Discourage development within high fire hazard severity zones.
 - **Policy WF-1.3: Fuel Modification.** Require fuel modification for structures within fire hazard zones.
 - **Policy WF-1.4: Public Education/Notification.** Educate the public about the hazards of wildfires and methods used to reduce the potential for fires to occur.
 - **Policy WF-1.5: Emergency Access.** All County roads shall be developed and maintained at adequate standards to provide safe circulation for emergency equipment.

Section 9.3, Flood Hazards, in the Public Safety Element of the County General Plan (Inyo County 2001) identifies a number of potential issues related to flood hazards, including associated risks to public safety and property. The following goal and policies are relevant to the discussion of flood hazards:

- **Goal FLD-1:** Provide adequate flood protection to minimize hazards and structural damage.
 - **Policy FLD-1.1: Floodplain Limitations.** The County shall regulate development of habitable structures within floodplain areas (as established by FEMA), and areas within dam inundation zones (as recorded by the California Office of Emergency Services).

- **Policy FLD-1.2: Development in Floodplain.** Prior to approval of any development in a floodplain area, the project applicant shall demonstrate that such development will not adversely impact downstream properties.
- **Policy FLD-1.3: Mudflow Constraints.** Discourage development within known or potential courses of mudflows.
- **Policy FLD-1.4: Channelization.** The natural condition of watercourses is to be maintained whenever feasible. The County shall discourage the channelization of watercourses unless necessary for the protection of public safety. If alterations of a watercourse are found to be necessary, the alterations shall be engineered to preserve or restore the natural characteristics of the watercourse to the greatest extent possible.
- **Policy FLD-1.5: Maintenance of Levees.** Existing levees should be maintained and upgraded, if necessary, to provide adequate flood protection.
- **Policy FLD-1.6: Stormwater Detention/Retention and Groundwater Recharge.** Develop stormwater retention/detention ponds and groundwater recharge areas to make efficient use of stormwaters and to direct water away from hazard areas.
- **Policy FLD-1.7: Limit Surface Runoff.** Require that water runoff from urban development project sites not contribute to flooding hazards for downstream areas.

Section 7.7, Aviation, in the Circulation Element of the County General Plan (Inyo County 2001) identifies the following goal and policies that apply to airports in Inyo County:

- **Goal AVI-1:** Enhance airports in the County to meet changing needs and demands.
 - **Policy AVI-1.2: Land Use Compatibility.** Promote land use compatibility of each airport with the surrounding environment.

Airport Hazard Overlay Ordinance (Ord. 943 § 4, 1994)

Inyo County's Airport Hazard Overlay District was established to prevent the creation of airport hazards, thereby protecting the lives and property of users of the various county airports and occupants in the vicinity of those airports. The overlay district provides height and land use regulations in the vicinity of county airports to protect and promote the health, safety, and general welfare of the inhabitants of the county pursuant to the state law. Pursuant to Inyo County Code Title 18, Chapter 18.62, Section 18.62.020 (Surfaces and Zone), the following requirements are identified for airport hazard (AH) designations:

The AH overlay district consists of five surfaces and one zone for the purpose of airport zoning. Each of the surfaces as defined in this section and as depicted on the zoning map establish the height limitations necessary to accomplish the intent of the AH overlay district. The surfaces and zone of the AH district are as follows:

- A. **Primary Surface.** The primary surface is a surface longitudinally centered on the runway. When the runway has a specifically prepared hard surface, the primary surface extends 200 feet beyond each end of the runway; but when the runway has no specially prepared hard surface,

the primary surface ends at each end of that runway. The elevation of any point of the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of the primary surface is 250 feet for all runways at all airports except for the non-precision runways at Bishop and Lone Pine Airports where the width is 500 feet.

- B. Approach Surface. The approach surface is a surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end. The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of 1,250 feet, at 5,000 feet in length with an approach slope of 20:1, for that end of all runways at all public use airports in Inyo County, except for those non-precision instrument runways at Bishop and Lone Pine Airports where the approach surface expands uniformly, from the primary surface, to a width of 3,500 feet, at 10,000 feet in length with an approach slope of 34:1.
- C. Transition Surface. These surfaces extend outward and upward at right angles to the runway center line and the runway centerline extended at a slope of 7:1 from the sides of the primary surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.
- D. Horizontal Surface. The horizontal surface is a horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of a specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is 5,000 feet for all runways in Inyo County except for those non-precision runways at Bishop and Lone Pine Airports where the radius of each arc is 10,000 feet.
- E. Conical Surface. The conical surface is a surface extending outward and upward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet.
- F. Runway Protection Zone. The runway protection zone is the land area which lies under the approach surface from the end of the primary surface for a distance of 1,000 feet for all runways at all public use airports in Inyo County, except for those non-precision runways at Bishop and Lone Pine Airports where the distance is 1,700 feet.

Emergency Response/Evacuation Plans

The County Environmental Health Services Department (EHSD) implements a Hazardous Materials Area Plan (HMAP), which provides direction to EHSD, other agencies and businesses, and the public regarding appropriate actions and responses in the event of a release or threatened release of hazardous materials (Inyo County 2008). The primary objectives of the HMAP include efforts to:

- Save lives, reduce injuries, and minimize property/environmental damage in the event of an incident involving hazardous materials.

- Describe the pre-emergency preparations, concept of operations, organization, Scene Management System, protective actions and supporting systems required to implement the HMAP.
- Promote a coordinated and integrated response to hazardous materials incidents.
- Define roles and responsibilities of participating departments and agencies.
- Identify lines of authority and coordination when this plan is activated.
- Confine the effects of an immediate hazardous materials incident by guarding against its extension or the occurrence of secondary incidents.

As part of the strategy to meet the noted objectives, the HMAP identifies the following primary and alternate emergency evacuation routes within the County:

Primary Evacuation Routes – Primary evacuation routes in the County consist of the major streets and highways within the County, as well as the interstate freeway system and state routes.

Alternate Evacuation Routes – Alternate evacuation routes in the County also include major surface streets, with the best routes to be determined at the time of the incident based on site and event-specific conditions (e.g., wind, traffic, population and the nature/location of the emergency event).

Based on the HMAP descriptions, evacuation routes within the County would include (but not necessarily be limited to) US 395 and 6, and SR 168, 136, 190, 127 and 178. All of these roadways are located within ROW corridors that restrict encroachment by facilities or activities that would impede roadway operations. Any such encroachment related to project construction or maintenance activities (e.g., for drainage crossing structures) would be required to obtain authorization (e.g., encroachment permits) from the associated management agency (e.g., Caltrans), with related standard remedial measures (e.g., use of flaggers and guide vehicles), and/or to provide alternate routes to ensure the maintenance of adequate traffic operations.

4.9.1.2 Existing Conditions

Environmental Setting

Flooding

Three types of landforms in Inyo County are commonly subject to flooding: stream floodplains, alluvial fan/bajadas, and playas or dry lakes. Additionally, residents of Lone Pine and Olancho have expressed concern that the Los Angeles Aqueduct might fail and result in flooding hazards. These hazards can be exacerbated when development occurs within these floodplains or hazard zones, causing additional runoff, modification of floodplains, and public safety risks. New development in the future may also impact flood zones to some extent by increasing impervious surfaces and runoff. High rainfall or snow melt can also lead to hazards such as mudflows and the downstream movement of larger debris flows, such as rocks, trees, and other large debris. (Inyo County 2001 General Plan)

Hazardous Materials

As described in the Inyo County Environmental Health Services' Hazardous Materials Area Plan, when a hazardous materials incident occurs within the Inyo County the Fire Departments along with the County Sheriff Department are the responsible parties for the County. However, Inyo County does not have a full HazMat Team and utilizes a joint agreement with the neighboring counties as well as private contractors to conduct a coordinated HazMat response. The Fire Departments and the County Sheriff Department shall be placed under the Incident Command System as the responsible parties for conduct of operations through the duration of the incident. Support will be provided by the State and Federal agencies upon request (Inyo County 2008).

Environmental Database Search

A database search of the project site and a 0.25-mile search radius did not identify hazardous waste sites that could potentially cause upset and accident conditions involving the release of hazardous materials into the environment. Two of the primary hazardous material database sites in the State of California are the SWRCB GeoTracker and CalEPA/Department of Toxic Substance Control (DTSC) EnviroStor (Government Code 65962.5/Cortese) lists. Searches of the GeoTracker (SWRCB 2021) and EnviroStor (DTSC 2021) did not reveal any known hazardous waste sites, current or previous, on the parcels included in the proposed project. The GeoTracker database reports 5 Leaking Underground Storage Tank (LUST) cleanup sites within 0.25 miles of the Lone Pine parcels, all of which completed cleanup activities prior to 2014. The GeoTracker database reports 10 LUST cleanup sites and one cleanup program site within 0.25 miles of the Bishop parcels, all of which completed cleanup activities prior to 2014.

Airports

Airport-related hazards are generally associated with aircraft accidents, particularly during takeoff and landing. Airport operation hazards include incompatible land uses, power transmission lines, wildlife hazards (e.g., bird strikes), and tall structures surrounding the airport.

Aviation facilities in Inyo County include both public and private airports serving commercial, recreation, medicinal, law enforcement, fire, and agricultural needs. There are three public-use airports in the vicinity of the proposed project: Independence Airport, Eastern Sierra Regional Airport, and Lone Pine Airport.

4.9.2 Significance Thresholds

Based on Appendix G of the CEQA Guidelines, a hazards and hazardous materials impact is considered significant if implementation of the proposed project would:

1. Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials;
2. Create a significant hazard to the public hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

3. Emit hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
4. Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Section 65962.5 of the California Government Code and, as a result, would create a significant hazard to the public or the environment;
5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area;
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.9.3 Impact Analysis

HAZ-1 The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Implementation of the project would lead to further development and other land use activities that would require the routine transport, use, or disposal of hazardous materials and wastes within the county during construction, and that could result in reasonably foreseeable accident conditions involving the release of hazardous materials into the environment.

In the event of a hazardous materials incident, the local fire departments and the County Sheriff Department would respond; however, since Inyo County does not have a full HazMat Team, the County agencies would utilize their joint agreement with the neighboring counties as well as private contractors to conduct a coordinated HazMat response. CHP and/or the Inyo County Sheriff's Department would also respond to provide traffic control, investigation, and/or incident command if needed. The County would continue to offer its free hazardous household waste disposal program through the Inyo County Environmental Health Services Department. The CUPA would also provide oversight of cleanup activities and permitting for hazardous waste generators.

All development associated with the proposed project would be required to be consistent with the General Plan and policies therein addressing hazardous materials. Existing regulations, including the policies of the General Plan, would ensure that hazardous materials are handled in a safe manner. For these reasons, the impact would be less than significant.

Significance without Mitigation: Less than significant.

HAZ-2 The proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The proposed project would amend the General Plan land use designation and zoning eight vacant parcels throughout the County to promote increased housing opportunities. During any demolition and construction associated with the proposed project, all oil, gasoline, diesel fuel, paints, solvents, and disposal of hazardous materials are subject to local, State, and federal regulations to minimize risk and exposure. No extremely hazardous substances (i.e., those governed pursuant to Title 40, Part 335 of the Code of Federal Regulations) are anticipated to be produced, used, stored, transported, or disposed of as a result of the proposed project. If spilled, these substances could pose a risk to the environment and to human health. However, both federal and State laws include provisions for the safe handling of hazardous substances. All relevant regulations would be complied with, and any spills would be immediately addressed following the manufacturer's recommendations and any relevant agency requirements. Following demolition and construction, the use or storage of hazardous materials would not be expected other than minor amounts of residential cleaning products, automotive fluids, pesticides, and herbicides, but they would be utilized in small quantities and would not result in significant hazards to the public or environment. Therefore, with compliance to local, State, and federal regulations, potential impacts from the routine transport, use, disposal, or accidental release of hazardous materials would be less than significant.

Implementation of the proposed project could lead to new development. Construction equipment that is typically used for development projects has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. Given the nature of hazardous materials that would be used, stored, or disposed of (e.g., materials for construction equipment, contaminated soil), there is a possibility for upset and accident conditions involving the release of hazardous materials into the environment. Accidental releases of small quantities of these substances could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. However, the handling and disposal of these materials would be governed according to regulations enforced by Cal/OSHA, and DTSC. In addition, regulations under the federal Clean Water Act require contractors to avoid allowing the release of materials into surface waters as part of their stormwater pollution prevention plan and National Pollutant Discharge Elimination System permit requirements (see Section 4.10, Hydrology and Water Quality, for a discussion of stormwater pollution prevention plans). Therefore, it is not anticipated that use of hazardous materials during construction would result in a reasonably foreseeable upset or accident condition that would cause significant hazard to the public or environment.

Reasonably foreseeable spills under operational conditions would be handled according to the specifications of the Inyo County Environmental Health Services Division and the Hazardous Materials Area Plan. This plan governs the preparation and implementation of the County's emergency response to chemical spills in the community. Based on the existing regulatory schemes, this impact would be less than significant, and no mitigation is required.

Significance without Mitigation: Less than significant impact.

HAZ-3 The proposed project would not emit hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

The eight parcels that make up the proposed project are listed below, along with the approximate distance to the nearest school:

**TABLE 4.9-1
DISTANCE FROM NEAREST SCHOOL**

No.	APN	Location	Nearest School	Approximate Distance from Nearest School (miles)
1	002-160-08	Independence	Keith B. Bright High School	0.12
2	008-240-01	Bishop	Discovery Point Pre-School	0.3
3	008-240-02	Bishop	Discovery Point Pre-School	0.3
4	008-190-01	Bishop	Discovery Point Pre-School	0.02
5	005-072-06	Lone Pine	Lo-Inyo Elementary School	0.12
6	005-072-07	Lone Pine	Lo-Inyo Elementary School	0.12
7	005-072-24	Lone Pine	Lo-Inyo Elementary School	0.12
8	005-072-30	Lone Pine	Lo-Inyo Elementary School	0.12

As shown in Table 4.9-1, six of the eight parcels that make up the proposed project are located within 0.25 mile of an existing school. Implementation of the proposed project could lead to further development and the intensification of land uses that could result in the release of hazardous emissions or entail the handling of hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. While the implementation of the proposed project would lead to development for residential uses that would not require routine use of hazardous materials, hazardous materials may be present onsite during construction. There are existing schools located within 0.25 mile of several of the parcels identified as part of the proposed project. The General Plan does not explicitly incorporate policies to limit the use of hazardous materials near school sites or limit the development of proposed schools near the existing contamination. The County also routinely consults with school districts prior to discretionary approval of new businesses and industry that use hazardous materials near existing school sites as part of the project review process. Additionally, school siting regulations implemented by the Department of Education prohibit locating schools near existing contamination. Therefore, this impact would be less than significant, and no mitigation is required.

Significance without Mitigation: Less than significant.

HAZ-4 The proposed project would not be located on a site that is included on a list of hazardous materials compiled pursuant to Section 65962.5 of the California Government Code and, as a result, would not create a significant hazard to the public or the environment.

A database search of the proposed project site and a 1 mile search radius was conducted pursuant to Section 65962.5 of the California Government Code that did not identify any hazardous materials sites that could potentially cause upset and accident conditions involving the release of hazardous materials into the environment. The list under Section 65962.5, also known as the Cortese list, consists of sites identified by the SWRCB for Leaking Underground Storage Tanks, the Integrated Waste Board for State

and tribal landfill and/or solid waste disposal sites, and the DTSC for potential or confirmed hazardous substance releases (Cal-Sites, now replaced by ENVIROSTOR).

The proposed project is not located on a site listed under Section 65962.5 of the California Government Code. Therefore, the proposed project would have no impact.

Significance without Mitigation: No impact.

HAZ-5 The proposed project would not be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and thus the project would not result in a safety hazard or excessive noise for people residing or working in the project area.

Airports in the project area include Independence Airport, Eastern Sierra Regional Airport near Bishop, and Lone Pine Airport. As shown in Table 4.9-2, development of the parcels included in the proposed project would take place within 2 miles from these airports.

**TABLE 4.9-2
DISTANCE FROM NEAREST AIRPORT**

No.	APN	Location	Nearest Airport	Approximate Distance from Nearest Airport (miles)
1	002-160-08	Independence	Independence Airport	1.06
2	008-240-01	Bishop	Eastern Sierra Regional Airport	1.85
3	008-240-02	Bishop	Eastern Sierra Regional Airport	1.9
4	008-190-01	Bishop	Eastern Sierra Regional Airport	1.4
5	005-072-06	Lone Pine	Lone Pine Airport	1.13
6	005-072-07	Lone Pine	Lone Pine Airport	1.13
7	005-072-24	Lone Pine	Lone Pine Airport	1.13
8	005-072-30	Lone Pine	Lone Pine Airport	1.13

The project would comply with Policy AVI-1.2 of the General Plan to promote land use compatibility of each airport with the surrounding environment. Development under the proposed project would also comply with the requirements of Inyo County's Airport Hazard Overlay District, which includes height and land use regulations in the vicinity of county airports to promote the health and safety of the public. Implementation of the policies of the General Plan and compliance with the requirements of the Airport Hazard Overlay District would reduce any risks associated with people residing or working near airports to less than significant.

Significance without Mitigation: Less than significant.

HAZ-6 The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Construction projects implemented under the proposed project could cause temporary changes in emergency access. There are no specific development projects associated with the project. As subsequent development projects are proposed in the County, each project would be reviewed to ensure continued roadway safety and emergency access. Existing county requirements for construction projects require signage and an access plan to ensure continued emergency access during construction.

The project does not propose any changes in land uses or development patterns that would result in impairment or physical interference of emergency response plans or evacuation plans since all potential development would occur as infill. Consequently, the impact is considered to be less than significant, and no mitigation is required.

Significance without Mitigation: Less than significant.

HAZ-7 The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Fire protection is addressed in the discussion of the State and County's firefighting personnel and facilities, including wildland fire, structure fire, and basic hazardous materials response, in Section 4.15 of this EIR. For information relating to wildfire risks and response for each of the project parcels, see Section 4.20 of this EIR.

All sites are located along the US 395 corridor in the Owens Valley of Inyo County. All are located near US 395 and have ready access to that route, along with access to other potential evacuation routes, if needed. The broad, flat topography favors multiple routes of ingress and egress in the case of evacuations. Several of the parcels are within or surrounding established communities but do host natural vegetation or are bordered with areas of natural vegetation. Vegetation communities/land cover types within the project parcels are described below.

Alkali desert scrub comprises the entirety of the Independence parcel. Vegetation on and surrounding the Bishop parcels include annual grasslands, English plantain, and Russian thistle. Much of the annual grasslands in the Bishop parcels are dominated by saltgrass, wall barley, horseweed, Wood's rose, prickly sow thistle, red clover, hard rush, western ragwood, perennial pepperweed, American licorice, and sweet vernal grasses. The Lone Pine parcels are comprised entirely of developed land consisting of gravel and asphalt paving. There is a minor amount of vegetation growing on the margins of the Lone Pine parcels, including Russian thistle, red stemmed filaree, and a small American elm seedling. As discussed above, the Independence parcel is covered in alkali desert scrub; the Bishop parcels are covered in annual grasslands and regularly grazed by cattle; and the Lone Pine parcels are fully developed. Development of these parcels would not exacerbate the risk of wildland fires.

According to CAL FIRE's fire hazard severity zone map, all of the project parcels are located in High FHSZs (CAL FIRE 2021). CAL FIRE bears ultimate financial responsibility for wildfire suppression in SRA, but given that local government stations are located significantly closer to several of the project parcels than CAL FIRE stations, initial attack, and responses to less complex incidents, would be provided by local volunteer fire departments located near these project parcels. CAL FIRE would send additional resources and respond to complex incidents for these parcels. In the case of the Independence parcel, both CAL FIRE and the local volunteer fire department maintain stations less than 0.5 mile from the parcel; in this case, both agencies would likely provide initial attack for any wildland fire incident on or near that parcel. See section 4.20 of this EIR for a more detailed discussion.

There are sufficient facilities and fire personnel serving the project areas; all parcels are located less than one mile from the nearest fire station. General Plan Policy WF-1.2 stipulates that any new development in high FHSZs will require appropriate structure setbacks and fuel modification zones and that the County will review development plans and provide recommendations regarding fire prevention and protection. Additionally, given that all parcels are located in SRA, development in any parcel would

be required to comply with State wildfire regulations including requirements for defensible space and site ingress and egress. Compliance with these policies along with all other pertinent local, state, and federal policies and codes would ensure that any development as a result of project implementation would not significantly increase risks involving wildland fire hazards for people or structures, either directly or indirectly. Therefore, this impact would be less than significant, and no mitigation is required.

Significance without Mitigation: Less than significant impact.

4.9.4 Cumulative Impacts

HAZ-8 The proposed project would not contribute to a significant cumulative impact with respect to hazards and hazardous substances.

Cumulative impacts related to hazards and hazardous materials would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly create a significant hazard through the transport, use, or disposal of hazardous materials; accidental release of hazardous materials; emit hazardous emissions in proximity to a school; be located on a hazardous materials site; result in a safety hazard or excessive noise in proximity to an airport; or impair implementation of or physically interfere with an adopted emergency plan. As discussed above, implementation of the proposed project would result in a less than significant impact to hazards and hazardous materials with the implementation of BMPs.

The cumulative development projects included in Table 4-1, Inyo County Cumulative Projects List, could involve the storage, use, disposal, and transport of hazardous materials to some degree during construction and operation. None of the cumulative projects is associated with the production and manufacturing of hazardous materials other than incidental hazardous materials as a by-product of the site activity. All cumulative development projects, including the proposed project, when considered with the cumulative projects would not create a cumulative hazard to the public or environment related to the handling or accidental release of hazardous materials.

Much of the County and the surrounding areas are rated as moderate or high for fire hazard ratings. Implementation of the proposed project would lead to development in areas that are prone to wildland fires which could result in significant loss, damage, or death. Where cumulative projects are constructed in close proximity, the cumulative impact is increased. However, there are sufficient facilities and fire personnel serving the project areas and all parcels included in the proposed project are located less than one mile from the nearest fire station. Therefore, cumulative projects located in proximity to the proposed project would also be located in proximity to fire stations served by adequate personnel. Therefore, the proposed project and cumulative projects would not have a cumulatively considerable effect on wildland fire hazards.

Significance without Mitigation: Less than significant impact.

4.9.5 References

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4.10 Hydrology and Water Quality

This section describes the regulatory framework and existing conditions related to hydrology and water quality, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.10.1 Environmental Setting

4.10.1.1 Regulatory Framework

Federal Regulations

Federal Water Pollution Control Act, also known as the Clean Water Act

The following are potentially applicable sections of the CWA (33 USC 1251-13176).

Section 303 and 305 - Total Maximum Daily Load Program

The State of California adopts water quality standards to protect beneficial uses of state waters as required by the Clean Water Act (CWA) 303 Total Maximum Daily Load (TMDL) Program and the State's Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act). CWA 303(d) established the TMDL process to guide the application of state water quality standards (see the discussion of state water quality standards below). To identify candidate water bodies for TMDL analysis, a list of water quality-limited streams is generated. Such streams are considered to be impaired by the presence of pollutants, including sediments, and to have no additional capacity for these pollutants.

In addition to the impaired water body list required by CWA Section 303(d), CWA Section 305(b) requires states to develop a report that assesses statewide surface water quality. Both CWA requirements are addressed through the development of a 303(d)/305(b) Integrated Report, which provides both an update to the 303(d) list and a 305(b) assessment of statewide water quality. The State Water Resources Control Board (SWRCB) statewide 2014/2016 California Integrated Report was based on Integrated Reports from each of the nine Regional Water Quality Control Boards (RWQCB). After approval of the Section 303(d) list portion of the California Integrated Report by the SWRCB, the complete 2014 and 2016 California Integrated Report was approved by the USEPA on April 6, 2018.

Section 401 - Water Quality Certification

CWA Section 401 requires that an applicant obtain a water quality certification (or waiver) for pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant to a regulated water body. Water quality certifications are issued by the RWQCB in California, and the Lahontan RWQCB is responsible for issuing certifications in the Inyo County area. Under the CWA, the state (as implemented by the relevant RWQCB) must issue or waive a CWA Section 401 water quality certification for a project to be permitted under CWA Section 404. Water quality certification requires the evaluation of water quality considerations associated with dredging or the placement of fill materials into waters of the United States. Construction of the proposed project would require a CWA 401 certification for the project if CWA Section 404 requirements are triggered.

Section 402 - National Pollutant Discharge Elimination System Program

The 1972 amendments to the Federal Water Pollution Control Act established the National Pollutant Discharge Elimination System (NPDES) permit program to control discharges of pollutants from point sources (CWA Section 402). The 1987 amendments to the CWA created a new section of the CWA that is devoted to stormwater permitting (CWA 402[p]). USEPA has granted the State of California primacy in administering and enforcing the provisions of CWA and the NPDES permit program. The NPDES permit program is the primary federal program that regulates point-source and nonpoint-source discharges to waters of the United States.

The SWRCB issues both general and individual permits for certain activities. Although implemented at the state and local level, relevant general and individual NPDES permits are discussed below.

Construction Activities

Dischargers whose projects disturb 1 or more acres of soil, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to file a notice of intent to obtain coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ) (Construction General Permit). Construction activities subject to this permit include clearing, grading, and disturbances to the ground such as stockpiling or excavation, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility.

The Construction General Permit requires the preparation and implementation of a stormwater pollution prevention plan (SWPPP), which must be completed before construction begins. The SWPPP should contain a site map that shows the construction site perimeter; existing and proposed buildings, lots, roadways, and stormwater collection and discharge points; general topography both before and after construction; and drainage patterns across the project site. The SWPPP must list the best management practices (BMP) that the discharger will use to manage stormwater runoff and describe the placement of those BMPs. Additionally, the SWPPP must contain a visual monitoring program, a monitoring program for pollutants that are not visible to be implemented if there is a failure of BMPs, and a pH and turbidity monitoring program if the site discharges to a water body listed on the CWA 303(d) list for sediment. The Construction General Permit describes the elements that must be contained in a SWPPP.

Section 404 - Permits for Fill Placement in Waters and Wetlands

CWA Section 404 regulates the discharge of dredged and fill materials into waters of the United States, which include oceans, bays, rivers, streams, lakes, ponds, and wetlands. Project proponents must obtain a permit from the USACE for all discharges of dredged or fill material into waters of the United States before proceeding with a proposed activity. Before any actions are implemented that may affect surface waters, a delineation of jurisdictional waters of the United States must be completed, following US Army Corps of Engineers (USACE) protocols, to determine whether the study area contains wetlands or other waters of the United States that qualify for CWA protection. These areas include the following:

- Sections within the ordinary high-water mark of a stream, including non-perennial streams with a defined bed and bank and any stream channel that conveys natural runoff, even if it has been realigned.
- Seasonal and perennial wetlands, including coastal wetlands.

CWA Section 404 permits may be issued for only the least environmentally damaging practical alternative (i.e., authorization of a proposed discharge is prohibited if there is a practical alternative that would have fewer significant effects and lacks other significant consequences). CWA Section 404 would apply if project construction was proposed within waters of the United States.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act, Water Code Section 13000 et seq.) is California's statutory authority for the protection of water quality in conjunction with the federal CWA. The Porter-Cologne Act requires the SWRCB and RWQCBs under the CWA to adopt and periodically update water quality control plans, or basin plans. Basin plans are plans in which beneficial uses, water quality objectives, and implementation programs are established for each of the nine regions in California. The Porter-Cologne Act also requires dischargers of pollutants or dredged or fill material to notify the RWQCBs of such activities by filing Reports of Waste Discharge and authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, CWA Section 401 water quality certifications, or other approvals.

California Regional Water Quality Control Board and Lahontan Regional Water Quality Control Board Basin Plan

Water quality in streams and aquifers of the region is guided and regulated by the respective RWQCB basin plans. State policy for water quality control is directed at achieving the highest water quality consistent with the maximum benefit to the people of the state. The proposed project is under the jurisdiction of the Lahontan RWQCB, which established regulatory standards and objectives for water quality in its Water Quality Control Plan for the Lahontan Region, commonly referred to as the Basin Plan, summarized below.

Lahontan Region Basin Plan

The Lahontan Basin Plan establishes a number of beneficial uses and water quality objectives for surface and groundwater resources in the Lahontan Region. Beneficial uses are generally defined as the uses of water necessary for the survival or well-being of man, plus plants and wildlife.

Water quality objectives identified in the Basin Plan are based on established beneficial uses and non-degradation policy requirements and are defined in the Porter-Cologne Water Quality Control Act as "the allowable limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area." Beneficial uses are described above, while the non-degradation policy is generally intended to maintain existing water quality where it exceeds Basin Plan objectives. Water quality objectives for the Lahontan Basin include both narrative requirements (which can encompass qualitative and quantitative standards) and specific numeric objectives for identified contaminants and waters. All groundwater

resources in the Lahontan Basin with a municipal beneficial use are subject to narrative water quality objectives related to coliform bacteria, chemical constituents (e.g., drinking water standards), radioactivity and taste/odor. Groundwater resources with an AGR beneficial use are also required to limit chemical constituent levels so as not to adversely affect water use related to agriculture (RWQCB 1995).

The Basin Plan also includes a series of discharge prohibitions, including regional (basin-wide) and HU-specific prohibitions. These restrictions typically involve discharges such as untreated waste, wastewater or sewage effluent that would "...individually or collectively, directly or indirectly, adversely affect water quality or beneficial uses." As part of the related implementation strategy, the Basin Plan provides standards for discharges such as sewage effluent, septic systems, and solid/liquid wastes for areas not covered by NPDES municipal permits or individual WDRs, including individual locations/dischargers in the County. These standards provide criteria such as treatment measures, discharge/percolation restrictions (e.g., rates and locations), constituent limitations for applicable discharges, and monitoring/testing requirements.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) was signed into California in 2014. SGMA establishes a framework for long-term sustainable groundwater management across California and requires local agencies to bring overdrafted basins into balanced levels of pumping and recharge. The California Department of Water Resources (DWR) uses the California Statewide Groundwater Elevation Model Priority List to rank groundwater basins across the State according to priority levels of high, medium, low, or very low, and SGMA specifies deadlines for completion of Groundwater Sustainability Plans (GSP) in order of basin priority. Under SGMA, high- and medium-priority basins, as designated by the DWR, must establish Groundwater Sustainability Agencies (GSA) that oversee the preparation and implementation of a local GSP. The Owens Valley Groundwater Basin is low-priority and a GSA and GSP are not required. The Owens Valley Groundwater Authority is the recognized GSA for the basin and adopted a GSP on December 9, 2021. The GSP contains groundwater water level and quality criteria at representative monitoring locations to define sustainable groundwater conditions in the basin.

Local Regulations

Inyo County General Plan

Safety Element

Section 9.3, Flood Hazards, of the Public Safety Element of the General Plan (2001, as amended) identifies a number of potential flood- and drainage-related issues, including protection from risks associated with 100-year flood zones. The principal goal and associated policies and implementation measures that are applicable to the proposed project are summarized below.

- **Goal FLD-1:** Provide adequate flood protection to minimize hazards and structural damage.
 - **Policy FLD-1.1: Floodplain Limitations.** This policy is intended to regulate development of habitable structures within Federal Emergency Management Agency (FEMA) floodplain zones, and areas within dam inundation zones. Associated implementation measures include efforts to: (1) collect and maintain data/maps depicting flood and inundation zones and make these data available to the public; and, (2) utilize applicable

FEMA maps and related information in development reviews to ensure that habitable structures are precluded in mapped floodplains.

- **Policy FLD-1.2: Development in Floodplains.** This policy is intended to require proposed project applicants to demonstrate that development in floodplains will not adversely affect downstream properties. Associated implementation measures include efforts to preclude development in floodplains that would adversely affect floodway capacity/characteristics, natural/riparian areas, natural groundwater recharge areas, and on-site/downstream drainage patterns and associated ecological systems.
- **Policy FLD-1.3: Mudflow Constraints.** This policy is intended to discourage development within known or potential mudflow courses. Associated implementation measures include efforts to identify and map areas of known landslides and mudflows and restrict development of habitable structures in such areas.
- **Policy FLD-1.4: Channelization.** This policy is intended to maintain the natural condition of water courses, discourage channelization unless required for public safety reasons, and require channelization efforts to preserve or restore the natural stream characteristics to the greatest extent possible. Associated implementation measures include efforts to work with applicable regulatory agencies to develop alternative solutions to flood control other than lined channels.
- **Policy FLD-1.5: Maintenance of Levees.** This policy requires that existing levees be maintained and/or upgraded as necessary to provide adequate flood protection. Associated implementation measures include identifying damaged and/or deficient levees and procuring funds to implement associated remedial efforts.
- **Policy FLD-1.6: Storm Water Retention/Detention and Groundwater Recharge.** This policy is intended to develop storm water retention/detention facilities and groundwater recharge areas to efficiently use storm water flows and direct such flows away from hazard areas. Associated implementation measures include efforts to work with applicable regulatory agencies to develop storm water retention/detention and recharge facilities to enhance flood protection and groundwater recharge capabilities.
- **Policy FLD-1.7: Limit Surface Runoff.** This policy requires that runoff from applicable development sites does not contribute to flooding hazards in downstream areas. Associated implementation policies include efforts to require on-site flow and velocity controls for applicable development projects when necessary to maintain existing flows and velocities in natural drainage systems.

Conservation and Open Space Element

Section 8.2, Soils, in the Conservation and Open Space Element of the General Plan identifies a number of potential issues related to soils, including protection from risks associated with soil erosion and development-related hazards on certain soil types. The principal goal and associated policies and implementation measures that are applicable to the proposed project are summarized below.

- **Goal S-2:** Recognize development limitations of soil types in review and approval of future development projects to protect public health and safety.

- **Policy S-2.1: Soil Erosion.** This policy is intended to minimize wind- and water-related erosion from new development. Associated implementation measures include efforts to develop guidelines under the County Zoning Code for grading-related erosion control.
- **Policy S-2.3: Soil Instability.** This policy is intended to limit the intensity of development in areas of unstable soils and/or steep terrain. Associated implementation measures include efforts to require erosion control measures for all grading activities.

Section 8.5, Water Resources, in the General Plan Conservation and Open Space Element identifies a number of potential issues related to surface and groundwater resources. The principal goals and associated policies and implementation measures that are applicable to the proposed project are summarized below.

- **Goal WR-1: Provide an adequate and high-quality water supply to all users within the County.**
 - **Policy WR-1.1: Water Provisions.** This policy is intended to ensure adequate water availability through review of development proposals. Associated implementation measures include efforts to coordinate with applicable water agencies to ensure adequate water supplies and facilities are available to serve planned development.
 - **Policy WR-1.2: Domestic Groundwater.** This policy is intended to support sustainable groundwater use in rural areas. Associated implementation measures include efforts to review development proposals involving groundwater withdrawals not regulated by the County Groundwater Ordinance or the County/LADWP Agreement to ensure an adequate, safe, and economically viable groundwater supply.
 - **Policy WR-1.3: Water Reclamation.** This policy is intended to encourage the use of reclaimed wastewater wherever feasible to augment groundwater supplies and conserve potable water. Associated implementation measures include efforts to support the development of reclaimed water systems.
 - **Policy WR-1.4: Regulatory Compliance.** This policy is intended to continue the review of existing and proposed development to ensure compliance with applicable requirements under CWA, RWQCB, and local ordinances related to water quality. Associated implementation measures include efforts to review and monitor projects to ensure compliance with applicable requirements, and work with industry operators to reduce pollutant and wastewater discharge.
- **Goal WR-2: Protect and preserve water resources for the maintenance, enhancement, and restoration of environmental, resources.**
 - **Policy WR-2.1: Restoration.** This policy is intended to encourage and support restoration of degraded surface and groundwater resources. Associated implementation measures include efforts to work with applicable agencies to develop a plan for restoration of the Owens River, identify other applicable waters requiring restoration, and provide associated funding and/or volunteer support.

- **Goal WR-3:** Protect and restore environmental resources from the effects of export and withdrawal of water resources.
 - **Policy WR-3.1: Watershed Management.** This policy is intended to protect, maintain and enhance watersheds in the County. Associated implementation measures include efforts to coordinate with applicable agencies to provide watershed protection; and maintain adequate, safe and economically viable surface and groundwater supplies.
 - **Policy WR-3.2: Sustainable Groundwater Withdrawal.** This policy is intended to manage groundwater resources within the County to ensure an adequate, safe and economically viable groundwater supply for existing and future development. Associated implementation measures include similar efforts as noted above for Policy WR-3.1.

Government Element

- **Goal GOV-5:** Protection and Development of Water Resources.
 - **Policy GOV-5.1: Water Management.** It is the policy of the County to be a part of the planning, development, and management of its water resources in coordination with federal, state, and any water managing districts. Resolution 99-43 set forth the County policy on extraction and use of its water resources. That policy is to protect the County's environment, citizens and economy from adverse effects caused by activities relating to the extraction and use of water resources and to seek mitigation of any existing or future adverse effects resulting from such activities. It is further the policy of the County to encourage the following:
 - a. That the protection of existing water rights and water uses within the planning area is of primary importance to the County's economic and cultural well-being.
 - b. That the County discourages out-of-county water transfers and strongly opposes transfers that do not (i) pass the highest level of scientific analysis in demonstrating minimal impacts to existing water rights and (ii) show a long-term benefit to the socioeconomic stability of the County. The groundwater ordinance (Ord. 1004) provides that interbasin or out-of-county transfers of groundwater are only permitted if the proposed transfer will not unreasonably affect the overall economy of Inyo County and not unreasonably affect the environment of Inyo County.
 - c. That the Board shall be notified of all state, regional, interstate and federal action that may have any impact on water in the planning area prior to such action being initiated.
 - d. That any out-of-basin water transfers be thoroughly evaluated and only be permitted if they are shown to not unreasonably affect the economy and environment of the County. In its evaluation, the County may consider factors such as impacts on the County's tax base and revenues, orderly community

growth, development, environment, and/or expansion, future revenues and/or other gains, or characteristics.

- e. That any regional water plan may be assessed and may be considered for inclusion as part of this Plan.
- f. That the County should review all water policies affecting the planning area to determine how they affect the environment, citizens, and economy of the County.
- g. That the County may develop its own water use policy to ensure both water quantity and water quality and to ensure that such policy does not adversely impact water users within the planning area.
- h. That the County may prepare riparian management plans in concert and coordination with landowners and the appropriate federal and state agencies.
- i. That all such proposed actions referred to above should be coordinated with the County as it relates to the General Plan prior to adoption and implementation. It is the intent of the County to develop, plan and be part of federal, state, and water districts' water planning and management as it affects the planning area's existing and proposed water resources as well as all other natural, cultural, and economic resources.

Inyo County Code

Grading Ordinance (Ord. 409 [part], 1981)

Pursuant to ICC Title 16, Chapter 16.40, Section 16.40.030 (Grading and Stripping Restrictions), the following requirements are identified for grading operations:

Where grading or filling or stripping of vegetation is not done concurrently with the final map or parcel map improvements and bonds required therefore, no grading or filling or stripping of vegetation within the boundaries of the subdivision shall be permitted until the advisory agency has given approval and has provided for any necessary interim erosion control and planting to protect adjoining private and public property and the general welfare, a grading permit has been issued in accordance with such conditions and the required grading bond has been filed.

Groundwater Ordinance (Ord. 1004 § 10, 1998; Ord. 943 § 4, 1994)

Pursuant to ICC Title 18, Chapter 18.77, Section 18.77.035 (Monitoring, Groundwater Management and Reporting), the following requirements are identified for groundwater resources:

The county planning commission, in consideration of the relevant recommendations submitted by the water commission, shall approve and incorporate, as appropriate, a monitoring, groundwater management and/or reporting program into each conditional use permit it grants for a transfer or transport of water described in Section 18.77.010(A). The monitoring, groundwater management and/or reporting program shall be of such scope and extent as the commission finds to be necessary to ensure that the proposed water transfer will not

unreasonably affect the overall economy or the environment of the county. In determining the scope of a monitoring, groundwater management and/or reporting program, the ability of the proposed program to detect and avoid potential significant adverse effects before such effects occur shall be considered. The monitoring and/or reporting portion of the program shall be in compliance with Chapter 15.44 of this code. The groundwater management and/or reporting program may include, but shall not be limited to, instream flow measurements, reports of the amounts of surface water diverted and/or amounts of groundwater pumped, monitoring of wells, monitoring of groundwater levels, monitoring of spring and seeps, monitoring of vegetation, wildlife, fish and economic effects and thresholds and/or trigger points which, if reached, will control the extraction of groundwater.

Inyo/Los Angeles Long Term Water Agreement

Under the 1991 Inyo/Los Angeles Long Term Water Agreement, the overall goal for managing the water resources within Inyo County is to avoid certain described decreases and changes in vegetation and to cause no significant effect on the environment which cannot be acceptably mitigated while providing a reliable supply of water for export to Los Angeles and for use in Inyo County. Under this agreement, groundwater pumping by LADWP is subject to an "On/Off" provision, which is based on monitoring of local criteria including vegetation cover and soil moisture at selected sites in Owen Valley. The agreement also includes provisions intended to avoid "groundwater mining," which is defined therein as total groundwater pumping from a well field within a 20-year period that exceeds the total recharge within the same period (Aspen Environmental Group 2014). The Water Agreement also contains provisions requiring continuing water related uses on irrigated lands and implementation of environmental or mitigation projects.

Well Abandonment Ordinance (Ord. 309 § 3, 1976)

Pursuant to ICC Title 14, Chapter 14.28, Section 14.28.130 (Abandoned or Unused Wells), the following requirements are identified for well abandonment:

- A. The owner of an abandoned well must, within thirty days, destroy it in accordance with the standards contained in Section 14.28.100 of the County Code (i.e., Chapter II of DWR Bulletin No. 74, Water Well Standards: state of California, and Chapter II of DWR Bulletin No. 74-1, Cathodic Protection Well Standards: state of California (with certain exceptions as noted in Section 14.28.100).
- B. The owner of a well, the use of which has been or is soon to be discontinued, must apply to the County, in writing, declaring his intention to use the well again for its original or other approved purpose. The County shall review such a declaration and grant an exemption from the requirement that it be destroyed, provided no undue hazard to health or safety is created by the continued existence of the well. Such an exemption must be applied for every 5 years and may be terminated for cause by the County at any time.

Flood Damage Prevention Ordinance (Ord. 1076 § 2 [part], 2004)

Pursuant to ICC Title 14, Chapter 14.29, Section 14.29.040 (Methods of Reducing Flood Losses), the following requirements are identified for flood damage prevention:

- A. Restrict or prohibit uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or flood heights or velocities;
- B. Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Control the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Control filling, grading, dredging, and other development which may increase flood damage; and
- E. Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Water Quality Ordinance (Ord. 29 § 1, 1948)

Pursuant to ICC Title 7, Chapter 7.16, Section 7.16.010 (Restrictions), the following requirements are identified in relation to water quality standards:

It is unlawful for any person, or persons, or association of persons to:

- A. Place, deposit, dump or dispose of, or cause to be placed, deposited, dumped or disposed of, upon the right-of-way of any street or thoroughfare, or upon any camping place or public park, or into any stream or dry watercourse, or on the banks of any stream or dry watercourse, within the county, any debris, refuse, garbage, swill, junk, cans, bottles, rubbish, papers, ashes, or other unsightly, putrescible, decaying or offensive matter of any kind whatsoever, whether organic or inorganic;
- B. Bathe, swim, wash, launder clothes, wash dishes or any other object or thing, in any stream or watercourse within Inyo County, or by any other means foul or pollute the waters of such stream in any manner whatsoever.

4.10.1.2 Existing Conditions

Hydrology

Independence Parcel

The Independence parcel is located within the Tulare Swamp watershed (Hydrologic Unit Code 180901030105). Waterways in the region of the parcel drain into the Owens River. There were no apparent aquatic resources on the Independence parcel. The only apparent source of water input to the Independence parcel is direct precipitation, which primarily percolates into the ground.

Bishop Parcels

The western Bishop parcels are located within the Rawson Creek-Owens River watershed (Hydrologic Unit Code 180901020710). Waterways in the region of the parcel drain into the upper Owens River. The western Bishop parcels contain two active drainage ditches: one runs west to east along the southern boundary of the parcels, passing through a gate and a culvert before exiting the parcel through a culvert

beneath US 395. It appears that this ditch eventually flows into the Bishop Creek Canal. There is a second, shorter drainage ditch in the northeast corner of the western Bishop parcels. The water in the ditch was stagnant at the time of the biological reconnaissance survey, so direction of flow could not be determined; however, the water does flow through a culvert beneath US 395, though it is unclear where it flows from there.

The eastern Bishop parcel is located within the North Fork Bishop Creek-Owens River watershed (Hydrologic Unit Code 180901020705). Waterways in the region of the parcel drain into the upper Owens River. On the eastern Bishop parcel there is a drainage ditch running along the southern boundary of the parcel. Water flows west to east in the drainage ditch and appears to eventually flow into the Bishop Creek Canal.

Lone Pine Parcels

The Lone Pine parcels are located within the Long John Canyon-Owens River watershed (Hydrologic Unit Code 180901030208). Waterways in the region of the parcels drain into the lower Owens River. There were no apparent aquatic resources on the Lone Pine parcels. The parcels receive hydrology in the form of direct precipitation, which presumably drains off-site and enters the local storm drain system.

Groundwater

There are 517 groundwater basins and subbasins in California, and DWR is required to prioritize these groundwater basins and subbasins as either high, medium, low, or very low. The Owens Valley groundwater basin covers 663,623 acres and is a low priority groundwater basin (OVGA 2021). All of the proposed project parcels are located over the Owens Valley groundwater basin. The Owens Valley groundwater basin supplies a total of 1,054 wells, 130 of which are public supply wells. The estimated groundwater use in this basin is approximately 119,900 acre-feet which is 42-52 percent of the basin's groundwater recharge. (OGVA 2021).

Floodplain

Independence Parcel

The Independence parcel is addressed by FEMA Flood Insurance Rate Map/Panel 06027C1500D, effective 8/16/2011. As shown on the FEMA map, the project parcel is located in Zone X, Area of Minimal Flood Hazard (FEMA 2021).

Bishop Parcels

The Bishop parcels are addressed by FEMA Flood Insurance Rate Map/Panel 06027C0332E, effective 12/3/2020. As shown on the FEMA map, all three Bishop parcels are located in Zone X, Area of Minimal Flood Hazard (FEMA 2021). The easternmost Bishop parcel (APN 008-190-01) is located in Zone X, but an area Zone AE, Special Flood Hazard Area is adjacent to the east where the Bishop Creek Canal is located along the eastern boundary of the parcel (FEMA 2021).

Lone Pine Parcels

The Lone Pine parcels are addressed by FEMA Flood Insurance Rate Map/Panel 06027C2200D, effective 8/16/2011. As shown on the FEMA map, the project parcels are located in Zone X, Area of Minimal Flood Hazard (FEMA 2021).

Dam Inundation

Independence Parcel

The Tinemaha dam is the closest dam to the community of Independence, located approximately 17 miles north of the Independence parcel. The Tinemaha dam is owned and operated by LADWP and has a High downstream hazard rating. The Independence parcel is not located within the dam inundation boundary (DWR 2021).

Bishop Parcels

The Pleasant Valley dam is the closest dam to the City of Bishop, located approximately 8 miles northwest of the Bishop parcels. The Pleasant Valley dam is owned and operated by LADWP and has a High downstream hazard rating. None of the three Bishop parcels are located within the dam inundation boundary (DWR 2021).

The Sabrina and Hillside (South Lake) dams are both located approximately 15 miles southwest of the Bishop parcels. Both dams are owned and operated by Southern California Edison and have Extremely High downstream hazard ratings. The eastern Bishop parcel (APN 008-190-01) is within the dam inundation boundaries, but the two western Bishop parcels are located just outside of the mapped inundation boundaries (DWR 2021).

Lone Pine Parcels

The Tinemaha dam is the closest dam to the community of Lone Pine, located approximately 32 miles north of the Lone Pine parcels. The Tinemaha dam is owned and operated by LADWP and has a High downstream hazard rating. The Lone Pine parcels are not located within the dam inundation boundary (DWR 2021).

4.10.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, project-related impacts to hydrology and water quality would be significant if the proposed project would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially

increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows;

4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; and
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.3 Impact Analysis

HYD-1 The proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Site clearing, grading, excavation, and construction activities have the potential to impact water quality through soil erosion and increased silt and debris discharged via surface runoff. Additionally, the use of construction materials such as fuels, solvents, and paints may present a risk to surface water quality. Temporary storage of construction materials and equipment in work areas or staging areas could create the potential for a release of hazardous materials, trash, or sediment to the storm drain system. Since construction of the proposed project would result in disturbance of an area greater than one acre, the project applicant would be required to enroll for coverage under the Storm Water Construction General Permit (Construction General Permit) for the NPDES program. The Construction General Permit requires the submittal of Permit Registration Documents to the Lahontan RWQCB prior to the start of construction and a Notice of Intent (NOI), risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations would be included in the submittal. A project-specific SWPPP would be prepared and BMPs would be implemented during construction. Typical BMPs would include diversion of runoff from disturbed areas, protective measures for sensitive areas, temporary soil stabilization measures, storm water runoff quality control measures, concrete waste management, watering for dust control, and installation of perimeter silt fences, as needed.

The total amount of impervious area within the project parcels would increase upon project construction. Under existing conditions, the project parcels are mostly vacant with pervious surfaces. Following project construction, it is conservatively assumed that 100 percent of each project parcel would be developed with impervious surfaces, consisting of building foundations and paved areas. However, it is reasonable to assume that some areas of the parcels would remain pervious to provide for landscaping and other green areas. The proposed project would comply with the individual NPDES permit which requires that permanent water quality control devices treat all stormwater to the maximum extent practicable and result in no additional runoff. The proposed project may result in an increase of pollutants associated with the development and degrade water quality. However, implementation of Mitigation Measure HYD-1, which requires compliance with the Construction General Permit and preparation and implementation of a SWPPP and its BMPs, would reduce potential erosion- and sedimentation-related water quality impacts to a less-than-significant level. Therefore, construction of the proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.

Significance without Mitigation: Potentially significant impact.

Mitigation Measure HYD-1: Stormwater Quality Protection

The project applicant shall file an NOI to comply with the Construction General Permit with the Lahontan RWQCB prior to each phase of construction. Individual SWPPPs shall be prepared for each NOI and shall detail the treatment measures and BMPs to control pollutants that shall be implemented and complied with during the construction and post-construction phases of the project. The SWPPPs are subject to approval by the Lahontan RWQCB, which makes the final determination on which BMPs are required for the project. The construction contracts for each project phase shall include the requirement to implement the BMPs in accordance with the SWPPPs, and proper implementation of the specified BMPs is subject to inspection by the Lahontan RWQCB staff. Example BMPs may include practices such as: designation of restricted-entry zones, sediment tracking control measures (e.g., crushed stone or riffle metal plate at construction entrance), truck washdown areas, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, provision mulching for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area. The SWPPPs will also prescribe treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds.

Significance with Mitigation: Less than significant impact.

HYD-2 The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

The eight project parcels are located in the existing communities of Independence, Lone Pine, and Bishop, which are currently served by existing water service providers. In the City of Bishop and the surrounding community, water service is provided by the City of Bishop. Lone Pine and Independence have a town water system operated by Inyo County (Inyo County 2001). As discussed above, all eight of the proposed project parcels are located over the Owens Valley groundwater basin which is a low priority groundwater basin. The Owens Valley groundwater basin supplies a total of 1,054 wells, 130 of which are public supply wells. The estimated groundwater use in this basin is 134,680 acre-feet which is 84 percent of the basin's groundwater supply, and the SGMA 2019 Basin Prioritization estimates assumed an 8 percent population growth from 2010 to 2030 in its estimates. It is estimated that construction of each project parcel at maximum buildout would add 1,073 residents to Inyo County's current population of 18,548 people (see Section 4.14 for population information), which would be a 6.0 percent growth rate from 2010 and less than the assumed 8 percent population growth assumed in the SGMA 2019 Basin Prioritization report (DWR 2020). Therefore, the proposed project is not anticipated to substantially decrease groundwater supplies, and impacts would be less than significant.

While the proposed project would result in additional impervious surfaces on the project parcels which can interfere with the natural groundwater recharge process, the project parcels are not a significant source of recharge for the Owens Valley groundwater basin. The Owens Valley groundwater basin covers a 663,623 acrearea, and assuming a maximum buildout scenario, 100 percent of all eight parcels would be developed with impervious surfaces for a total of 32 acres (or less than 0.0001 percent of the Owens Valley groundwater basin area). Therefore, the proposed project would not substantially

decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and impacts would be less than significant.

Significance with Mitigation: Less than significant impact.

HYD-3 The project may alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows.

(i) result in substantial erosion or siltation on- or off-site;

Substantial erosion or siltation due to development of the proposed project is not anticipated. All eight project parcels are relatively flat, and assuming maximum buildout, would result in the development of 32 acres across three communities in Inyo County. All runoff from the project site would be directed to stormwater drainages installed within and immediately adjacent to the parcel that would connect to existing stormwater infrastructure in the communities of Independence, Bishop, and Lone Pine. The development of the project parcels would include a storm drain system consisting of Low Impact Development (LID) measures, curbs and gutters along the roadways and sidewalk, and underground storm drainpipes that would be installed throughout the parcel to accommodate stormwater runoff. The storm drainage system and stormwater control plan for each project parcel would be designed by qualified engineers in collaboration with the Inyo County and/or City of Bishop public works departments to ensure the proposed stormwater drainage system and control plan would adequately manage stormwater runoff and minimize the potential for erosion or siltation. Therefore, the proposed project would not substantially alter the existing drainage pattern of a parcel in a manner that would result in substantial erosion or siltation on- or off-site.

Significance without Mitigation: Less than significant impact.

(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

None of the project parcels are located within a 100-year flood zone. A storm drain system would be designed for the development of each project parcel that would consist of LID measures, curbs and gutters along the roadways and sidewalks, and underground storm drainpipes that would be installed throughout the parcel to accommodate stormwater runoff. The storm drainage system and stormwater control plan for each project parcel would be designed by qualified engineers in collaboration with the Inyo County and/or City of Bishop public works departments to ensure the proposed stormwater drainage system and control plan would adequately manage stormwater runoff and minimize the potential for on- or off-site flooding. The proposed project, therefore, would not substantially alter the existing drainage pattern or rate of runoff at the project parcels in a manner that would result in flooding in the area or downstream of the area. Therefore, impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

- (iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

All eight project parcels are relatively flat, and assuming maximum buildout, would result in the development of 32 acres across three communities in Inyo County. All runoff from the project site would be directed to stormwater drainages installed within and immediately adjacent to the parcel that would connect to existing stormwater infrastructure in the communities of Independence, Bishop, and Lone Pine. The development of the project parcels would include a storm drain system consisting of LID measures, curbs and gutters along the roadways and sidewalk, and underground storm drainpipes that would be installed throughout the parcel to accommodate stormwater runoff. The storm drainage system and stormwater control plan for each project parcel would be designed by qualified engineers in collaboration with the Inyo County or City of Bishop public works departments to ensure the proposed stormwater drainage system and control plan would adequately manage the anticipated increase in stormwater runoff. Additionally, potential other sources of polluted runoff from project construction and operation would be controlled through the preparation and implementation of an erosion control plan, SWPPP, and Stormwater Management Plan (SWMP) consistent with recommended design criteria in accordance with the NPDES permitting requirements. Therefore, implementation of the proposed project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems, and impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

- (iv) Impede or redirect flood flows?

The project parcels are located in areas of minimal flood concerns, and development of the project parcels would not impact flooding on site or downstream. The proposed residential developments would not place structures within a 100-year flood hazard area that would substantially impede or redirect flood flows, and impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

- HYD-4 The project would not risk release of pollutants due to project inundation due to flood hazards, tsunamis, or seiches.

The Independence parcel, two westernmost Bishop parcels, and Lone Pins parcels would not be inundated if any of the upstream reservoirs (Pleasant Valley, Sabrina, Hillside, or Tinemaha) fail. The easternmost Bishop parcel (APN 008-190-01) is the only parcel of the eight project parcels that is within the dam inundation area for the Sabrina and Hillside reservoir dams if either were to fail. Although the two dams pose a risk of inundation to the easternmost Bishop parcel, but the dams are located approximately 15 miles southwest of the parcel and inspected on an annual basis to ensure the dams are safe and not developing problems (DWR 2021). The risk of dam failure is extremely low and is not considered a significant hazard that could risk releasing pollutants due to project inundation.

FEMA flood insurance rate maps identify that all eight project parcels are within Zone X. Therefore, the project parcels are not located within a 100-year Special Flood Hazards Area, and the project would not risk release of pollutants due to flood hazards (FEMA 2021).

The project parcels are approximately 200 miles inland from the Pacific Ocean and are not subject to tsunamis. The project parcels are also not subject to seiche as the nearest lakes or reservoirs over 8 miles from any project parcel and dammed as discussed above. Therefore, impacts from the risk of release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones would be less than significant.

Significance without Mitigation: Less than significant impact.

HYD-5 The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Project construction and operation would comply with local, State, and federal regulations, including the NPDES Construction General Permit, Basin Plan, and the County's Code. Commonly practiced BMPs, as required by these regulations, would be implemented to control construction site runoff and reduce the discharge of pollutants to storm drain systems from stormwater and other nonpoint-source runoff. As part of compliance with permit requirements during ground-disturbing or construction activities, implementation of water quality control measures and BMPs would ensure that water quality standards would be achieved, including the water quality objectives that protect designated beneficial uses of surface and groundwater, as defined in the Water Quality Control Plan for the Lahontan Region. Construction runoff would also have to be in compliance with the appropriate water quality objectives or water quality standards, including designated beneficial uses. Therefore, the project would not obstruct implementation of a water quality control plan.

Conflict with a sustainable groundwater management plan is not anticipated from project implementation. As discussed above, all eight of the proposed project parcels are located over the Owens Valley groundwater basin which is a low priority groundwater basin. The Owens Valley groundwater basin supplies a total of 1,054 wells, 130 of which are public supply wells. The SGMA 2019 Basin Prioritization report estimated an 8 percent population growth from 2010 to 2030 when considering the low priority rank. As discussed in Section 4.14, Population and Housing, the population growth rate between 2010 (18,546 people) and 2020 (18,584 people) is less than 0.01 percent. It is estimated that construction of each project parcel at maximum buildout would add 1,073 residents to Inyo County's current population of 18,548 people, which would be a 6.0 percent growth rate from 2010 and less than the assumed 8 percent population growth in the SGMA 2019 Basin Prioritization report (DWR 2020). Additionally, the eight parcels included in the proposed project are located in the existing communities of Independence, Lone Pine, and Bishop, which are currently served by existing water service providers. In the City of Bishop and the surrounding community, water service is provided by the City of Bishop. Independence has a town water system operated by Inyo County (Inyo County 2001). Treated, potable water in Lone Pine and Independence is supplied by PWWS, which is governed by the Long-Term Water Agreement between the County of Inyo and LADWP (Inyo County 2021b). Therefore, the proposed project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan, and impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

4.10.4 Cumulative Impacts

HYD-6 The proposed project would not contribute to a significant cumulative impact with respect to hydrology and water quality resources.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, substantially degrade groundwater supplies or interfere substantially with groundwater recharge, substantially alter the existing drainage pattern of the site in a manner which would cause negative environmental effects, increase the risk release of pollutants in flood hazard, tsunami, or seiche zones, or conflict with or obstruct implementation of a water quality control plan or groundwater management plan. The analysis of cumulative impacts is based on impacts of the proposed project and the other cumulative projects in the County. Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp and cannabis cultivation, dispensaries, and/or retail projects that are less than 1-acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels). Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide.

While construction of the cumulative development projects would have the potential to increase pollutants associated with the development and degrade water quality, the projects would be required to comply with water quality standards as administered through the NPDES permit. Additionally, the cumulative development projects total approximately 30 acres combined and are located over the Owens Valley, Searles Valley, and Pahrump Valley groundwater basins which are very low and low priority groundwater basins (DWR 2020). The addition of impervious surfaces from the cumulative projects would not adversely affect groundwater supplies or recharge. Additionally, all cumulative projects would be required to include post-construction stormwater management features, such as LID measures, to maintain flows to pre-project conditions and would be subject to the requirements of the federal, State, and local municipal codes, plans, and policies described in Section 4.10.1, Environmental Setting, and related to protecting water resources. Therefore, the proposed project, in combination with the cumulative projects, would not contribute to a significant cumulative hydrology and water quality impact.

Significance without Mitigation: Less than significant impact.

4.10.5 References

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- Regional Water Quality Control Board– Lahontan Region (RWQCB). 1995. Water Quality Control Plan for the Lahontan Region, North and South Basins (Basin Plan). As amended through April 2014.
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4.11 Land Use and Planning

This section describes the regulatory framework and existing conditions related to land use and planning for the proposed project parcels, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.11.1 Environmental Setting

4.11.1.1 Regulatory Framework

Federal Regulations

There are no federal regulations related to land use and planning that apply to the project.

State Regulations

All cities and counties are required by the State to adopt a general plan establishing goals and policies for long-term development, protection from environmental hazards, and conservation of identified natural resources (California Government Code 65300). California Government Code Section 65302 lists seven elements or chapters that cities and counties must include in their general plans: land use, circulation, housing, conservation, open space, noise, and safety.

Of the mandatory general plan elements, the land use element typically has the broadest scope. This central element describes the desired distribution, location, and extent of the jurisdiction's land uses, which may include housing, business, industry, and open space, including agriculture, natural resources, and recreation. Enjoyment of scenic beauty, education, public buildings and grounds, and solid and liquid waste disposal facilities are also typically addressed in the land use element.

Local Regulations

As stated above, land use and planning are the province of local governments in California. General plans lay out the pattern of future residential, commercial, industrial, agricultural, open space, and recreational land uses within a community. To facilitate implementation of planned growth patterns, general plans typically also include goals and policies addressing the coordination of land use patterns with the development and maintenance of infrastructure facilities and utilities.

Local jurisdictions implement their general plans by adopting zoning, grading, and other ordinances. Zoning identifies the specific types of land uses that are allowed on a given site and establishes standards for new development.

Inyo County General Plan

Goal LU-1: Create opportunities for the reasonable expansion of communities in a logical and contiguous manner that minimizes environmental impacts, minimizes public infrastructure and service costs, and furthers the countywide economic development goals. Guide high-density population growth to those areas where services (community water and sewer systems, schools, commercial centers, etc.) are available or can be created through new land development, while providing and protecting open space areas.

- Policy LU-1.1: Community Expansion. The County shall encourage community expansion to occur in a logical and orderly manner.
- Policy LU-1.2: New Growth. The County shall plan to concentrate new growth within and contiguous to existing communities (e.g., Bishop, Big Pine, Independence, Lone Pine) and expand existing infrastructure as needed to serve these areas. As a secondary priority, the County shall plan to accommodate new growth in existing rural residential communities (e.g., Olancho, Charleston View, Mustang Mesa, Starlite Estates) and ensure the appropriate expansion of existing infrastructure as needed to serve these areas.
- Policy LU-1.8: The County shall allow mixed-use (commercial/residential) development in established communities to maximize housing opportunities.
- Policy LU-1.17: Impacts of New Development on Infrastructure Improvements, Public Facilities, and Services. The impacts of discretionary projects shall be assessed as required by the California Environmental Quality Act and appropriate, feasible, mitigation will be required at the time such projects are approved and as provided by law. Mitigation required for such projects may include the collection of fees to offset impacts to infrastructure, public facilities, and services.

Goal LU-2: Assure that all residential development is well planned, adequately served by necessary public facilities and infrastructure, and directed towards existing developed areas.

- Policy LU-2.10: Orderly Growth. The County shall require that residential development occur in a logical and orderly manner. This would include encouragement of developing the vacant land or redevelopment within a community and/or the development of vacant land contiguous to a developed community.
- Policy LU-2.11: Approved Development. The County shall preserve the right of property owners to construct houses on all legally created parcels with a General Plan designation that allows residential uses, unless the County determines that such development would be detrimental to public health, safety or welfare.
- Policy LU-2.12: Planned Unit Development. The County shall allow “Planned Unit Developments” to be developed in all nine residential designations of the Land Use Element, providing the minimum gross area size of four acres is met and the upper density ceiling is not exceeded, with the exception of where the Board of Supervisors grants a “density bonus.”

4.11.1.2 Existing Conditions

The combined acreage of the eight project parcels is 32 acres, and the project parcels are located in or near the communities of Independence, Bishop, and Lone Pine. Land use in the project parcel areas is regulated by the Inyo County General Plan and Zoning Ordinance. See below for the project parcels’ land use designations and zoning according to the County’s General Plan and Zoning Ordinance.

The undeveloped Independence parcel is 16.9 acres and located in the community of Independence in western Inyo County along Mazourka Canyon Road, east of Edwards Street. Undeveloped, open space land uses surround the project parcel adjacent to the north, south, east, and west, and public facility land uses are also west of the project parcel. The Independence parcel is currently designated for

Residential Ranch (RR) and zoned for Rural Residential, 1 acre minimum (RR-1.0). Refer Figure 2-2 in Appendix A for the existing general plan land use designation and zoning for this parcel.

The three undeveloped Bishop parcels are 14.3 acres combined and located adjacent but outside the City of Bishop city limits in northwestern Inyo County. Surrounding land uses for the two adjacent Bishop parcels (APNs 008-240-01 and -02) include commercial, light industrial, and public facility uses to the north; commercial uses to the east; agricultural, open space, and public facility uses to the south; and agricultural and open space uses to the west. Surrounding land uses for the other Bishop parcel (APN 008-190-01) include residential uses to the north; agricultural and open space uses to the east; agricultural, open space, and rural residential uses to the south; and open space and commercial uses to the west. One Bishop parcel (APN 008-240-01) is currently designated for Public Service Facilities (PF) and zoned for Public (P). Another Bishop parcel (APN 008-240-02) is currently designated for Agriculture (A) and zoned for Light Industrial - Precise Plan Overlay (M2-PP). The third Bishop parcel (APN 008-190-01) is currently designated for Retail Commercial (RC) and zoned for Single-Family Residential (R-1). Refer Figure 2-4 in Appendix A for the existing general plan land use designation and zoning for these parcels.

The Lone Pine parcels are 0.8 acre combined and located in the community of Lone Pine in western Inyo County, north of E. Mountain View Street and between N. Hay Street and N. Lone Pine Avenue. These parcels are developed and used as a County road yard, but residential land uses surround the four project parcels to the north, south, east, and west. Three of the Lone Pine parcels (APNs 005-072-07, -24, and -30) are currently designated for PF and zoned for P. The other Lone Pine parcel (APN 005-072-06) is currently designated Residential Medium-High Density (RMH) and zoned for Duplex (R-2). Refer Figure 2-6 in Appendix A for the existing general plan land use designation and zoning for these parcels.

General Plan Land Use Designations

Existing General Plan designations for the project parcels being evaluated are RR, PF, A, RC, and RMH. The purpose and intent of these General Plan land use designations are summarized below (Inyo County 2001):

- **Residential Ranch (RR):** The RR land use designation provides for very large-lot single-family housing in rural residential neighborhoods, public and quasi-public uses, and similar and compatible uses. Residential densities shall be a maximum of 1 DU per 10 acres. This designation is to be used in rural areas where the open characteristics of an area are to be maintained and where services are minimal. The designation can also be used for areas located on the fringes of communities that are to be held as urban reserve areas for future long-term expansion of the community. Individual water wells and individual sewage disposal systems are allowed.
- **Public Service Facilities (PF):** The PF land use designation provides for areas owned by public agencies such as County or State agencies and local districts, or by quasi-public organizations, that serve as significant public facilities such as schools, airports, hospitals, solid waste facilities, correctional facilities, cemeteries, and similar and compatible uses. The FAR shall not exceed 0.90.
- **Agriculture (A):** The A land use designation provides for agricultural uses on land that is suited by soils and water resources to the production of food and fiber on a regular and sustained basis, limited agricultural support services, agriculturally oriented services, agricultural processing facilities, public and quasi-public uses, and certain compatible nonagricultural activities. Residential

uses associated with the agricultural use are allowed at a maximum density of 1 DU/40 acres. The FAR for nonresidential uses shall not exceed 0.10 with the following exceptions: the FAR for agriculturally oriented services (e.g., stables, feed stores, silos, etc.) shall not exceed 0.25.

- *Retail Commercial (RC)*: The RC land use designation provides for retail and wholesale commercial uses, service uses, offices, public and quasi-public uses, and similar and compatible uses. The FAR shall not exceed 0.40. Residential uses in this designation shall be subject to discretionary review and approval. Residential densities shall be in the range of 7.6 to 24 DU per net acre.
- *Residential Medium-High Density (RMH)*: The RMH land use designation provides for single-family and multi-family residential units, group quarters, public and quasi-public uses, and similar and compatible uses. Residential densities shall be in the range of 7.6 to 15 DU per net acre. If development occurs at the lower end of the density range, access and project design shall provide for ultimate development at the maximum permitted density. Connection to both an acceptable sewer and water system is mandatory.

Zoning

Existing zoning designations for the project parcels being evaluated are RR-1.0, P, M2-PP, R-1, and R-2. The purpose and intent of these zoning districts are summarized below (Inyo County 2021):

- *Rural Residential (RR-1.0)*: The primary purpose of the RR zone district is to provide suitable areas and appropriate environments for low density, single family rural residential and estate type uses where certain agricultural activities can be successfully maintained in conjunction with residential uses on relatively large parcels. The RR zone district is intended to be applied to the areas outside the urban communities of the County which are generally without fully developed services and where individual residences are expected to be largely self-sustaining, particularly for water and sewage disposal.
- *Public (P)*: The primary purpose of the P zone district is to provide regulations that implement those goals, objectives, and policies of the General Plan and to assure the availability and adequacy of lands suitable for future public, quasi-public, and institutional facilities, uses and activities.
- *Light Industrial – Precise Plan (M2-PP)*: The primary purpose of the M-2 zone district is to provide a zone for suitable and appropriate areas for light, less intense, small scale manufacturing activities which normally take place within structures. Limited amount of outdoor storage or activities are acceptable, provided they are clearly accessory and incidental to the main use. There is an established combined land use district known as a PP zone district. The PP zone district consists of those regulations set forth for the PP zone district together with the specific regulations in the M-2 district. The purpose of the PP zone district is to assure that yards, open space, structures, parking, loading facilities, landscaping, streets, and similar uses and developments of land within the district will be located in accordance with an approved precise plan providing for compatible developments within the district and a compatible relationship with developments in adjoining districts.
- *Single Family Residential (R-1)*: The primary purpose of the R-1 zone district is to protect established neighborhoods of single-family dwellings, and to provide space in suitable locations for additional development of this kind, with appropriate community facilities.

- *Duplex (R-2)*: The primary purpose of the R-2 zone district is to protect established neighborhoods of such dwellings and to provide space suitable in appropriate locations for additional housing development of single-family dwelling units as well as duplexes.

4.11.2 Significance Thresholds

According to Appendix G of the CEQA Guidelines, the following criteria may be considered in establishing the significance of land use and planning impacts:

1. Physically divide an established community; or,
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.11.3 Impact Analysis

LUP-1 The proposed project would not physically divide an established community.

The Independence parcel is located along the southern boundary of the community of Independence, and undeveloped, open space land uses surround the project parcel adjacent to the north, south, east, and west. There are no established communities in the vicinity of the parcel that would be divided by development of the parcel.

The three undeveloped Bishop parcels are located adjacent but outside the City of Bishop city limits. The two adjacent Bishop parcels (APNs 008-240-01 and -02) are located adjacent to the southwest of the southern boundary of the City of Bishop city limits, and surrounding land uses include commercial, light industrial, and public facility uses to the north; commercial uses to the east; agricultural, open space, and public facility uses to the south; and agricultural and open space uses to the west. The other Bishop parcel (APN 008-190-01) is located adjacent to the southeast of the southern boundary of the City of Bishop city limits, and surrounding land uses include residential uses to the north; agricultural and open space uses to the east; agricultural, open space, and rural residential uses to the south; and open space and commercial uses to the west. There are no established communities in the vicinity of the parcels that would be divided by development of the parcels.

The four Lone Pine parcels are adjacent to each other and located within a developed neighborhood in the northern portion of the community of Lone Pine. These parcels are developed and used as a County road yard, but residential land uses surround the four project parcels to the north, south, east, and west. The current land use of these parcels is not compatible with the surrounding land uses of the neighborhood. Implementation of the proposed project would allow for residential development of these parcels, which is a compatible use of the existing neighborhood. Therefore, development of these parcels with residential uses would not physically divide an established community.

Therefore, no established communities in the vicinity of the project parcels would be divided from implementation of the proposed project, and no impact would occur.

Significance without Mitigation: No impact.

LUP-2 The proposed project would not conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

The proposed project would allow for a combined maximum of 494 residential DUs to be developed on the eight project parcels proposed for General Plan land use designated and zoning changes. The County's General Plan and Zoning Ordinance are the only land use plan and regulation that establish standards for development on the project parcels, and neither were adopted for the purpose of avoiding or mitigating an environmental effect.

The 16.9 acre Independence parcel is undeveloped and proposed for a General Plan land use designation change to RM and rezone to R-3. Refer to Figure 2-3 in Appendix A for the proposal general plan land use designation and zoning for this parcel.

Two Bishop parcels (APNs 008-240-01 and -02) are undeveloped and proposed for a General Plan land use designation change to CBD and rezone to CB. The CB zone district allows for multiple-family dwellings to be developed as a conditional use. Therefore, development of multi-family residential units on these two parcels would currently require a conditional use permit. As of November 2022, the County is considering a proposal to allow development of multi-family units by right without the need for a conditional use permit. The other Bishop parcel (APN 008-190-01) is also undeveloped and proposed for a General Plan land use designation change to RH and rezone to R-3. Refer to Figure 2-5 in Appendix A for the proposal general plan land use designation and zoning for these parcels.

The four Lone Pine parcels are developed and currently used as a County road yard. All four parcels are proposed for a General Plan land use designation change to RH and rezone to R-3. Upon project approval, the existing use of the parcels may continue in accordance with Section 18.78.230, Nonconforming uses and buildings, of the County's zoning ordinance (Inyo County 2021). Any subsequent development of the parcels would be required to conform with the most current land use designation and zoning or seek the appropriate entitlements (e.g., General Plan amendment, Rezone, Conditional Use Permit) if a nonconforming land use is proposed. Refer to Figure 2-7 in Appendix A for the proposal general plan land use designation and zoning for these parcels.

County approval of the proposed project would amend the General Plan land use designations and zoning for the eight project parcels, and implementation of the proposed project would not conflict with an applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

4.11.4 Cumulative Impacts

LUP-3 The proposed project would not result in a significant cumulative impact with respect to land use and planning.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly physically divide an established community or 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. The analysis of cumulative impacts is based

on impacts of the proposed project and the other cumulative projects in the County. As discussed above, the proposed project would have no impact associated with the physical division of an established community. Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp and cannabis cultivation, dispensaries, and/or retail projects that are less than 1 acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels).

Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. As such, none of the cumulative projects considered in this analysis would physically divide an established community in Inyo County (see Figure 4-1 for locations of the cumulative projects).

Implementation of the proposed project would not conflict with an applicable land use plan, policy, or regulation that was adopted for the purpose of avoiding or mitigating an environmental effect. Each cumulative project would be subject to the appropriate land use consistency regulations and restrictions of the land use agency controlling the land. The land entitlement and CEQA/NEPA processes that are conducted for each cumulative project would ensure that each project is consistent with applicable land use plans and policies. Therefore, no cumulatively considerable impact associated with land use plans and/or policies would occur with approval of the proposed project.

Significance without Mitigation: Less than significant impact.

4.11.5 References

Inyo County. 2021. Inyo County Code: Title 18 Zoning. Current through Ordinance 1264, effective March 21, 2021. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

4.12 Mineral Resources

This section describes the regulatory framework and existing conditions related to mineral resources, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.12.1 Environmental Setting

4.12.1.1 Regulatory Framework

Federal Regulations

Portions of the County are under federal management (including areas with split-estate surface/mineral resource ownership) and are therefore associated federal regulations are applicable to these areas. Specifically, federal regulations on mineral resources are applicable to areas under the jurisdiction of the BLM and USFS. Most areas under military and National Park Service jurisdiction are closed to mineral entry and operation, with the exception of “grandfathered” or split-estate sites. Federal mining regulations include broad-based legislation such as the General Mining Act of 1872 (as amended, 42nd U.S. Congress, Sess. 2, Ch. 152, 17 Stat. 91-96), and the Federal Land Policy and Management Act of 1976 (as amended, Public Law 94-579). These Acts provide guidance for procuring rights to the following three basic classes of minerals on public lands: (1) locatable minerals, such as gold, silver and other “hard rock” mineral types; (2) leasable minerals, such as oil & gas and geothermal resources; and (3) salable minerals, such as aggregate and volcanic materials.

The noted Acts, as well as related BLM and USFS guidelines and policies, also provide direction on related mineral exploration, production, and processing activities. Specifically, these include applicable federal land use and environmental requirements such as CFR Title 43, Subpart 3809 and NEPA. The noted legislative and regulatory criteria also include guidelines for surface rights related to access, excavation and other land use considerations associated with mineral exploration and development. Under these guidelines, the rights to use associated surface areas to support mineral activities can vary substantially depending on factors such as the location and type of operation and the date of associated mineral entries. For example, certain older (and “grandfathered”) mining claims under the 1872 Mining Act encompass exclusive surface rights for mineral activities, while leases for some mineral types (e.g., oil and gas) may preclude surface entry entirely, and require alternative recovery methods (e.g., directional drilling) in applicable locations such as sensitive habitats or cultural resource areas.

State Regulations

California Surface Mining and Reclamation Act of 1975

The principal legislation addressing mineral resources in California is the Surface Mining and Reclamation Act of 1975 (SMARA) (PRC Sections 2710-2719), which was enacted in response to land use conflicts between urban growth and essential mineral production. The stated purpose of SMARA is to provide a comprehensive surface mining and reclamation policy that will encourage the production and conservation of mineral resources while ensuring that adverse environmental effects of mining are prevented or minimized; to ensure that mined lands are reclaimed and residual hazards to public health and safety are eliminated; and to give consideration to recreation, watershed, wildlife, aesthetic, and other related values. SMARA governs the use and conservation of a wide variety of mineral resources,

although some resources and activities are exempt from its provisions, including excavation and grading conducted for farming, construction, or recovery from flooding or other natural disaster.

SMARA provides for the evaluation of an area's mineral resources using a system of Mineral Resource Zone (MRZ) classifications that reflect the known or inferred presence and significance of a given mineral resource. The MRZ classifications are based on available geologic information including geologic mapping and other information on surface exposures, drilling records, and mine data, as well as socioeconomic factors such as market conditions and urban development patterns. The MRZ classifications are defined as follows:

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

Although the State of California is responsible for identifying areas containing mineral resources, the county or city is responsible for SMARA implementation and enforcement by providing annual mining inspection reports and coordinating with the California Geologic Survey (CGS).

Mining activities that disturb more than 1 acre or involve excavation of at least 1,000 cubic yards of material require a SMARA permit from the lead agency, which is the county, city, or board that is responsible for ensuring that adverse environmental effects of mining are prevented or minimized. The lead agency establishes its own local regulations and requires a mining applicant to obtain a surface mining permit, submit a reclamation plan, and provide financial assurances pursuant to SMARA.

Certain land-disturbing activities do not require a permit, such as excavation related to farming, grading related to restoring the site of a natural disaster, and grading related to construction.

Local Regulations

Inyo County General Plan

Conservation/Open Space Element

Section 8.4, Mineral and Energy Resources, in the Conservation/Open Space Element of the General Plan (Inyo County 2001) provides the following goal and policies related to mineral resources:

- **Goal MER-1:** Protect the current and future extraction of mineral resources that are important to the County's economy while minimizing impacts of this use on the public and the environment.

- **Policy MER-1.1: Resource Extraction and the Environment.** Support the production of mineral resources where it would not significantly impact sensitive resources as defined by CEQA and the General Plan.
- **Policy MER-1.2: Minimize Land Conflicts.** New mining operations shall be designed to provide a buffer between existing or likely adjacent uses to minimize incompatibility with nearby uses, and adequately mitigate their environmental and aesthetic impacts.
- **Policy MER-1.3: SMARA Compliance.** The County shall ensure that all mining projects comply with the requirements of SMARA, County ordinances, and any other applicable regulations. As part of this compliance, all mining operations shall prepare and implement reclamation plans that mitigate environmental impacts and incorporate adequate security to guarantee proposed reclamation.
- **Policy MER-1.4: Environmental Contamination.** All mining operations will be required to take precautions to avoid contamination from wastes or incidents related to the storage and disposal of hazardous materials, or general operating activity at the site.
- **Policy MER-1.5: Maintain Accessibility.** Ensure that extractive resource areas are protected from incompatible development that could interfere with extractive operations, now or in the future.

Economic Development Element

Section 5.2, Economic Development, in the Economic Development Element of the General Plan (2001, as amended) provides the following goal and policy related to mineral resources:

- **Goal ED-4:** Actively encourage the expansion of existing industry of all types (including resource industries, manufacturing and service industries), and actively recruit new businesses that will bring jobs to the County.
 - **Policy ED-4.1: Mining Industry.** Support the continued operation of existing mining activities within the County as well as new mining in appropriate areas, subject to each operator meeting all applicable safety and environmental laws, regulations, and County policies.

4.12.1.2 Existing Conditions

Mineral Resources

Inyo County Mineral Resource Potential

The County is located within the Basin and Range Geomorphic Province, with this region historically producing substantial amounts of mineral resources such as base and precious metals (e.g., gold, silver, and copper). The County includes extensive occurrences of known and potential mineral resources, along with associated past and current mineral production.

The occurrence of mineral resources was an important factor in the early settlement of the County, and mining operations remain a substantial, albeit declining, local industry. Currently, aggregate resources

(e.g., sand, gravel, clay and stone) represent the predominant mining activity in the County, although development of other mineral resources such as base and precious metals, borates, volcanic materials (e.g., pumice, perlite and cinders) and geothermal resources are occurring in various locations (Inyo County 2001). A number of studies on mineral resource occurrences and potential have been conducted for areas within the County, including efforts by the USGS, BLM, CGS, and South Coast Geologic Society. These sources are outlined below, with further discussion provided below under discussion of Project Area Mineral Resource Potential.

U.S. Geological Survey Investigations

Numerous investigations regarding mineral resources in the County have been conducted by the USGS (USGS 2021). Specifically, these include extensive evaluation of current and historic mining for: (1) base and precious metals in areas such as the Death Valley region, the White and Inyo Mountains, the Argus Range, and Darwin; (2) borates and soda ash from the Death Valley area and Owens Lake; (3) tungsten minerals along the eastern Sierra Nevada, including deposits near Bishop (Tungsten Hills); (4) volcanic materials from sources including the Coso volcanic field; and (5) other minerals, such as limestone and talc deposits in the White and Inyo Mountains.

U.S. Bureau of Land Management Investigations

The BLM California Desert Conservation Area Plan (BLM 1980) includes an assessment of “economic mineral resources” on federal lands in much of Inyo County. This analysis identified similar locations of known/potential mineral occurrences as noted above under USGS Investigations, as well as the following areas of mineral resource potential: (1) energy minerals (e.g., uranium and thorium) in locations including Saline Valley, the northern Coso Range and southern White and Inyo Mountains (including near Owens Lake, Olancha and Rose Valley) and Death Valley; (2) base and precious metals east of Tecopa in the southern Nopah Range; (3) volcanic materials in the White and Inyo Mountains; (4) non-metallic minerals (e.g., zeolites) in Death Valley and Tecopa areas; and (5) geothermal resources in Saline Valley, the Coso volcanic field, northern Searles Valley and the Tecopa area.

California Geological Survey Investigations

The California Geological Survey (CGS) has conducted numerous analyses of mineral resource occurrences and potential throughout Inyo County, including most of the areas noted above for USGS and BLM studies (CGS 1991), as well as MRZ investigations for the Eureka/Saline Valley area (CGS 1993a) and the southern Death Valley region (CGS 1993b). The establishment of MRZs is based on requirements outlined in SMARA, with both of the referenced assessments identifying MRZs with known and potential mineral resource potential. While MRZ designations identifying known/potential mineral resources within the County are limited to the two noted areas, other portions of the County could potentially encompass such resources and qualify for associated MRZ designation. This conclusion is based on the widespread occurrence of mineral resources (such as aggregate) and the presence of geologic environments suitable for mineral occurrences within the County (refer to Section 4.7 Geology and Soils and the project area description below), as well as the fact that known MRZ investigations in the County have not been conducted outside of the two identified areas (CGS 2020).

South Coast Geological Society Investigations

The South Coast Geological Society has published numerous studies regarding mineral resource potential and occurrence in the desert areas of California. Specifically, these include many of the

locations described above for other investigations, as well as metamorphic minerals such as asbestos and wollastonite in the northern Death Valley area (South Coast Geological Society 1980).

Project Area Mineral Resource Potential

The project area consists of eight parcels identified in or adjacent to existing communities in Inyo County. None of the parcels identified as part of the proposed project are located on lands designated or zoned for mineral resource production. As shown in Table 2-1, the parcels that make up the proposed project are located on lands currently designated for residential, public facilities, agricultural, or retail commercial use and zoned for residential, public, or light industrial use. No mineral extraction activities take place on the parcels that comprise the proposed project or the parcels adjacent to the proposed project.

4.12.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact associated with geology, soils, mineral resources or paleontological resources if the project would:

1. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state;
2. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan;

4.12.3 Impact Analysis

MIN-1 The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

The proposed project is comprised of zoning and land use designation changes to eight parcels in or adjacent to existing communities in Inyo County. Inyo County allows mineral extraction and mining as a conditional use in the Open Space (OS) and General Industrial and Extractive (M-1) zones. As shown in Table 2-1 and discussed above, none of the changes proposed affect parcels in either of these zones. All the parcels affected by these changes are within other land use designations which do not allow for the extraction of minerals. Therefore, the changes resulting from the project would not substantially amend any policy or ordinance in a way that would affect the availability of a known mineral resource. There would be no impact.

Significance without Mitigation: No impact.

MIN-2 The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

The proposed project would facilitate housing development by allowing for more variation of development in areas where infrastructure and development already exists. As discussed above, the

proposed changes would only affect parcels that are not zoned or designated for mineral extraction. No changes included in the proposed project would affect a parcel where mineral resource extraction is permitted. Therefore, the proposed project would not affect any plan-identified mineral resource recovery site. There would be no impact.

Significance without Mitigation: No impact.

4.12.4 Cumulative Impacts

MIN-3 The proposed project would not result in a significant cumulative impact with respect to mineral resources.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would result in the loss of a known mineral resource or a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. The geographic context for the analysis of cumulative impacts to mineral resources is the extent of the County, and immediately adjacent areas to the extent of the resource. As discussed above, the proposed project would not result in the loss of a known mineral resource or locally important mineral resource. Since the proposed project would not impact any known mineral resources, it would not contribute to a cumulatively considerable impact on mineral resources.

Significance without Mitigation: No impact.

4.12.5 References

Bureau of Land Management (BLM). 1980. The California Desert Conservation Area Plan. Accessed May 24, 2021 and available at:

https://eplanning.blm.gov/public_projects/lup/66949/82080/96344/CDCA_Plan.pdf.

California Geological Survey (CGS). 2020. Publications of the SMARA Mineral Land Classification Project Dealing with Mineral Resources in California. Accessed May 24, 2021 and available at:

<https://www.conservation.ca.gov/cgs/Documents/Publications/SMARA-Publications-California-SECURED.pdf>.

1993a. Mineral Land Classification of the Eureka-Saline Valley Area, Inyo and Mono Counties, California. Special Report 166.

1993b. Mineral Land Classification of the Ash Meadows, Big Dune, Eagle Mountain, Funeral Peak, Ryan, Pahrump, and Stewart Valley 15-Minute Quadrangles and High Peak 7.5-Minute Quadrangle, Inyo County, California. Special Report 167.

1991. Mines and Mineral Prospects of the California Desert. Open-File Report 91-18.

Inyo County. 2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at:

<https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

South Coast Geological Society. 1980. Geology and Mineral Wealth of the California Desert. Dibblee Volume, Donald L. Fife and Arthur R. Brown, Editors. Published in conjunction with the October 11-12, 1980 SCGS Field Trip.

US Geological Survey (USGS). 2021. Mineral Resources Online Spatial Data. Accessed May 24, 2021 and available at: <https://mrdata.usgs.gov/general/map-us.html>.

4.13 Noise

This section describes the regulatory framework and existing conditions related to noise sources and the overall noise environment in the vicinity of the proposed project, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.13.1 Environmental Setting

4.13.1.1 Noise and Sound Level Descriptors and Terminology

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this wide range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA. The threshold of hearing for the human ear is about 0 dBA, which corresponds to 20 mPa.

Because decibels are logarithmic units, SPL cannot be added or subtracted through standard arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than from one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dBA—rather, they would combine to produce 73 dBA. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dBA louder than one source.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dBA changes in sound levels, when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000 Hz–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dBA are generally not perceptible. It is widely accepted, however, that people begin to detect sound level increases of 3 dBA in typical noisy environments. Further, a 5 dBA increase is generally perceived as a distinctly noticeable increase, and a 10 dBA increase is generally perceived as a doubling of loudness.

Time-averaged noise levels are expressed by the symbol L_{EQ} , followed a specified duration. Noise levels expressed as L_{EQ} without a specified duration are time-averaged for one hour. Maximum noise levels are expressed by the symbol L_{MAX} . The Day Night sound level (L_{DN}) is a 24-hour average with an added 10 dBA weighting during the hours from 10:00 p.m. to 7:00 a.m. The Community Noise Equivalent Level (CNEL) is a 24-hour average similar to L_{DN} , where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

4.13.1.2 Groundborne Vibration Terminology and Metrics

Groundborne vibration consists of rapidly fluctuating motions or waves transmitted through the ground with an average motion of zero. Sources of groundborne vibrations include natural phenomena and anthropogenic causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV) and another is vibration velocity decibels (VdB). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave and is the metric used in this analysis.

4.13.1.3 Regulatory Framework

The project parcels are located in unincorporated areas of Inyo County. Regulatory requirements related to environmental noise are typically promulgated at the local level, however, federal and State agencies also provide standards and guidelines to local jurisdictions. Noise standards for Inyo County, along with the State CEQA Guidelines, were considered in the noise assessment.

Federal Regulations

U.S. Environmental Protection Agency Recommendations

The USEPA provides guidance in Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety (NTIS 550\9-74-004, EPA, Washington, D.C., March 1974), which is commonly referenced as the “Levels Document.” The Levels Document establishes an L_{DN} of 55 dBA as the requisite noise level, with an adequate margin of safety for areas of outdoor uses, including residential and recreational areas. This document does not rely upon USEPA regulations or standards, but it identifies safe levels of environmental noise exposure without consideration of costs for achieving these levels or other potentially relevant considerations. The Levels Document is intended to “provide State and local governments as well as the Federal government and the private sector with an informational point of departure for the purpose of decision-making.” The agency is careful to stress that the recommendations contain a factor of safety and do not consider technical or economic feasibility issues and therefore should not be construed as standards or regulations.

Federal Transit Administration

The Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual contains guidelines and recommendations for predicting and assessing the vibration impacts of proposed transit projects, including predicting and assessing the ground-borne vibrations from commonly used construction equipment. The manual contains guidelines for determining thresholds for damage to structures from construction equipment vibrations based on the age and/or construction type of the structures near construction activity (FTA 2018).

State Regulations

California Noise Control Act

The California Noise Control Act is a section within the California Health and Safety Code that describes excessive noise as a serious hazard to the public health and welfare and that exposure to certain levels

of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

Local Regulations

Inyo County General Plan

The Inyo County General Pan Noise Element contains goals and policies that establish acceptable ambient noise levels (Inyo County 2001). The following goals and policies from the Noise Element of the General Plan are relevant to this resource section:

- **Goal NOI-1:** Prevent incompatible land uses, by reason of excessive noise levels, from occurring in the future. This includes protecting sensitive land uses from exposure to excessive noise and to protect the economic base of County by preventing the encroachment of incompatible land uses within areas affected by existing or planned noise-producing uses.
 - **Policy NOI-1.1: Acceptable Noise Limits.** The County shall utilize the noise levels shown in Table 9-9 for evaluating project compatibility related to noise. Table 9-9 shows that ambient noise levels between 61 L_{DN} and 70 L_{DN} for residential land uses are conditionally acceptable meaning new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed insulation features have been included in the design. Where ambient noise levels exceed 70 L_{DN}, new residential construction or development should not be undertaken.
 - **Policy NOI-1.2: Exposure to Existing Noise from Stationary Sources.** The County shall not allow new development within areas where existing noise levels currently exceed County noise standards (as shown in Table 9-9), unless mitigation measures would reduce impacts to future occupants.
 - **Policy NOI-1.3: Limit Increases in Noise Levels from Stationary Sources.** Require that new development not increase the ambient exterior noise level (measured at the property line) above established County noise standards (as shown in Table 9-9), unless mitigation measures are included to reduce impacts to below County noise standards.
 - **Policy NOI-1.4: Transportation-Related Noise.** The development of new noise sensitive land uses adjacent to existing or planned transportation facilities or development of new transportation facilities adjacent to existing or planned sensitive land uses shall require a noise impact analysis in areas where current or future exterior noise levels from transportation sources exceeds 65-dB L_{dn}. This study shall include recommendations and evidence to establish mitigation that will reduce noise exposure to acceptable levels. Areas subject to this criterion are defined as follows:
 - **Roadway Noise.** For major roadways in the County, the future noise levels estimated on Table 9-7 shall be used to determine the applicability of this policy.

In addition to noise from vehicle traffic on highways, aircrafts are another source of mobile noise. Seven public access airports and six private airstrips are located throughout the County. These airports are not considered a substantial contributor to noise levels within the surrounding communities given their locations and current use levels (Inyo County 2001, as amended).

Noise and Vibration Sensitive Land Uses

Noise-sensitive land uses (NSLU) are land uses that may be subject to stress and/or interference from excessive noise, including residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Noise receptors are individual locations that may be affected by noise. Existing noise sensitive land uses are located adjacent to the Lone Pine parcels and across the street from the easternmost Bishop parcel (APN 008-190-01); however, the land surrounding the Independence parcel and westernmost Bishop parcels are largely undeveloped or do not have noise sensitive receptors nearby. The closest existing sensitive receptors to the project parcels are single-family homes, with the closest residential building located approximately 5 feet from the northern property boundary of the northeastern Lone Pine parcel (APN 005-072-06).

4.13.2 Significance Thresholds

The impact analysis provided below is based on the application of the following CEQA Guidelines Appendix G thresholds of significance, which indicate that a project would have a significant noise impact if it would result in:

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

4.13.3 Impact Analysis

NOI-1 The proposed project may result in a temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the County Noise Ordinance.

Construction Noise

Implementation of the proposed project would result in a temporary or periodic increase in ambient noise levels related to construction equipment, activities, and vehicles. Noise impacts from construction activities occurring within the project parcels would be dependent on the type, location, and duration of the noise-generating construction activities, and the distance to noise sensitive land uses. As discussed above, existing noise sensitive land uses are located adjacent to the Lone Pine parcels and across the street from the easternmost Bishop parcel (APN 008-190-01); however, the land surrounding the

Independence parcel and westernmost Bishop parcels are largely undeveloped or do not have noise sensitive receptors nearby.

Construction noise from the development of the project parcels would be temporary and short term as construction occurs intermittently and varies depending on the nature or phase of construction (e.g., site preparation, grading, installation of underground utilities, installation of foundations, building construction). Heavy-duty trucks used for deliveries, material and/or equipment hauling, and construction worker trips would temporarily result in noise increases along delivery routes. However, noise impacts associated with worker vehicles and delivery trucks would be short-term and would only occur during daytime hours.

The County does not provide noise limits for construction noise; however, Policy NOI-1.7 requires that contractors implement noise reduction measures if construction is located within close proximity to noise sensitive land uses. Therefore, if project construction is located within 500 feet of a residence or noise sensitive land use and do not include noise-reducing measures, impacts would be potentially significant.

The Lone Pine parcels and Bishop parcels are located within 500 feet of a residence or noise sensitive land use. The contractor would be required to implement the measures identified in Mitigation Measure NOI-1 to reduce potential construction impacts to a less than significant level.

Operation Noise

Following construction, the residential developments that would be constructed from implementation of the proposed project would not introduce significant noise-generating uses that are anticipated to generate noise levels in excess of the County's conditionally acceptable standard of 60 L_{DN} for residential areas. Therefore, long-term operation noise impacts to ambient noise levels would be less than significant.

Significance without Mitigation: Potentially significant.

Mitigation Measure NOI-1: Construction Noise Reduction Measures. If project development would occur within 500 feet of a residence or other noise sensitive receptor, the following measures shall be implemented to reduce construction noise to the extent feasible:

- Whenever feasible, electrical power will be used to run air compressors and similar power tools.
- Equipment staging areas will be located as far as feasible from occupied residences or schools.
- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.
- Stationary equipment shall be placed such that emitted noise is directed away from sensitive noise receptors.
- Stockpiling and vehicle staging areas shall be located as far as practical from occupied dwellings.

Significance with Mitigation: Less than significant impact.

NOI-2 The proposed project would not result in the generation of excessive groundborne vibration levels.

The development of the project parcels may generate vibration in the immediate vicinity of the project parcels when heavy equipment or impact tools are used during construction. Construction activities would result in vibration from the use of heavy construction equipment, but it is not anticipated that project construction would require blasting or pile drivers. The largest potential source of vibration during project construction would be a vibratory roller primarily used to achieve soil compaction as part of the foundation and paving construction. A large vibratory roller could create approximately 0.210 in/sec PPV at a distance of 25 feet (FTA 2018). A vibratory roller producing a 0.210 in/sec PPV vibration level could result in vibrations as high as 0.10 in/sec PPV at a distance of 50 feet and as high as 0.58 in/sec PPV at a distance of 10 feet.¹ The FTA's building damage threshold for groundborne vibration is 0.2 in/sec PPV for non-engineered timber and masonry buildings. If project construction activities would occur within 20 feet of an occupied structure, then the building damage threshold of 0.2 in/sec PPV may be exceeded, resulting in a potentially significant impact.

Mitigation Measure NOI-2 would require vibratory rollers to be used in static mode only (no vibrations) when operating within 20 feet of any occupied structure. With implementation of Mitigation Measure NOI-2, project construction activities would not result in excessive groundborne vibration or groundborne noise levels that would damage structures near the project parcels or result in vibration-related annoyance to building occupants, and impacts would be reduced to a less than significant level.

Operational (Long-Term) Groundborne Vibration

Following construction, the residential developments that would be constructed from implementation of the proposed project would not create a significant source of ground-borne vibration that would affect land uses beyond the project parcels. Therefore, long-term, operational vibration impacts would be less than significant.

Significance without Mitigation: Potentially significant.

Mitigation Measure NOI-2: Construction Vibration Limits. The County shall ensure that, during project construction activities, all vibratory rollers are used in static mode only (no vibrations) when operating within 20 feet of any occupied structure. If construction activity is to be performed by contractors, the County shall specify the vibratory roller use limitations on contract documents.

Significance with Mitigation: Less than significant impact.

¹ Equipment PPV = Reference PPV * (25/D)ⁿ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receiver in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from FTA 2018.

NOI-3 The proposed project would not expose people residing or working in the project area to excessive noise levels from public use airports or private airstrips.

Airports in the vicinity of the project parcels include the Independence Airport, Eastern Sierra Regional Airport near Bishop, and Lone Pine Airport. As shown in Table 4.13-2 below, the project parcels are located between 1 to 2 miles from one of the three airports listed above.

**Table 4.13-2
DISTANCE FROM NEAREST AIRPORT**

No.	APN	Location	Nearest Airport	Approximate Distance from Nearest Airport (miles)
1	002-160-08	Independence	Independence Airport	1.06
2	008-240-01	Bishop	Eastern Sierra Regional Airport	1.85
3	008-240-02	Bishop	Eastern Sierra Regional Airport	1.9
4	008-190-01	Bishop	Eastern Sierra Regional Airport	1.4
5	005-072-06	Lone Pine	Lone Pine Airport	1.13
6	005-072-07	Lone Pine	Lone Pine Airport	1.13
7	005-072-24	Lone Pine	Lone Pine Airport	1.13
8	005-072-30	Lone Pine	Lone Pine Airport	1.13

The Eastern Sierra Regional Airport near the City of Bishop is the most active airport of the three airports located near the project parcels. Noise levels up to 65 CNEL for the Eastern Sierra Regional Airport are contained within the boundary of the airport, except for the end of runway 12/30 (southeast to northwest), where it encroaches into the Runway Protection Zone (City of Bishop 1993). Additionally, Policy NOI-1.4, Transportation-Related Noise, of the County's General Plan requires that for airports that do not have noise contour information, uses within 0.25 mile shall be evaluated. None of the project parcels are located within 0.25 mile of an airport. Therefore, development of the project parcels would not expose people residing or working in the project area to excessive noise levels from airport operations, and the impact would be less than significant.

Significance without Mitigation: Less than significant.

4.13.4 Cumulative Impacts

NOI-4 The proposed project would not contribute to a cumulatively considerable impact on ambient noise levels in the County.

The analysis of potential cumulative noise impacts attributable to construction and stationary sources considers the proposed project along with other cumulative projects in the County area due to the localized nature of noise impacts. As discussed above, the proposed project would result in less than significant impacts to noise. Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp and cannabis cultivation, dispensaries, and/or retail projects that are less than 1 acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels).

Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. Due to the distance between the proposed project parcels and other cumulative projects and with implementation of Mitigation Measure NOI-1 to implement construction noise reduction measures for construction within 500 feet of sensitive receptors, combined construction and operation noise from the proposed project and other cumulative projects would not result in a substantial increase in ambient noise levels in the County. Therefore, the proposed project would not in cumulatively considerable noise impact, and impacts would be less than significant with implementation of Mitigation Measure NOI-1.

Significance without Mitigation: Potentially significant.

See Impact NOI-1 for Mitigation Measure NOI-1.

Significance with Mitigation: Less than significant impact.

4.13.5 References

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4.14 Population and Housing

This section describes the regulatory framework and existing conditions related to population and housing, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.14.1 Environmental Setting

4.14.1.1 Regulatory Framework

Federal Regulations

There are no relevant federal regulations for population and housing.

State Regulations

California Planning Law – General Plan Housing Element

California Government Code Section 65302 requires Inyo County (County) to adopt a housing element as part of its General Plan. The housing element identifies future housing needs for all income levels and provides strategies for meeting those needs. The California Department of Housing and Community Development (HCD) assigns the County a set of projected housing numbers, by income level, as part of the regional housing needs allocation (RHNA) process. Under state law, the County must adopt a land use plan and regulatory system to provide sufficient opportunities for housing development to meet its share of the allocated housing need. The HCD reviews each housing element for adequacy in meeting requirements of state law. An adopted housing element that has been approved by HCD is presumed to meet the requirements of state law for the term of the element.

Pursuant to state law, the housing element must be updated every 8 years, based on the regional housing needs for the next 8 year cycle. The housing numbers reflected in the housing element are projections rather than mandatory requirements for housing construction. Actual construction will depend on market conditions, regulatory requirements, and other factors.

California Government Code Section 65584

The state requires regional housing plans to be developed by local jurisdictions based on countywide housing projections developed by the HCD. The HCD RHNA requirements are relevant to the project and are discussed below.

Every eight years, HCD assigns the County a set of projected housing numbers for persons at a variety of income levels. As shown in Table 4.14-1, Regional Housing Needs (2019-2020), unincorporated Inyo County has a projected housing need of 205 total units based on household growth expected during the 2021 Housing Element timeframe, with at least 42 percent of these units targeted towards lower-income households. The County has been allocated 46 units for very low-income households and approximately half of those are presumed to be for extremely low-income households.

Table 4.14-1
REGIONAL HOUSING NEEDS (2019-2029) – UNINCORPORATED INYO COUNTY

Income Category	Percent	Housing Units Needed
Extremely Low	11%	23
Very-Low	11%	23
Low	20%	40
Moderate	19%	39
Above-Moderate	39%	80
Total	100.0%	205

Source: Inyo County 2021.

Local Regulations

Inyo County Housing Element

The Inyo County General Plan was adopted in December 2001, and the associated General Plan EIR was prepared in 2001. The General Plan establishes the land use distribution pattern (e.g., residential, commercial, agricultural, open space) and the maximum intensity and density of future development within the unincorporated areas under the County's jurisdiction. When the EIR for the General Plan was prepared in 2001, the County estimated that a total of 341 housing units that would need to be added in unincorporated Inyo County over the 1999-2008 period (Inyo County 2001). The updated 2021 Housing Element of the General Plan addresses housing needs in the County through 2029. The 2021 Housing Element anticipates the addition of 205 housing units to meet the County's RHNA need between 2019 and 2029, which would bring the total number of housing units in the unincorporated county to 7,815 by 2029 (Inyo County 2021). In 2020, total number of housing units in unincorporated Inyo County (the entire County excluding the City of Bishop) was approximately 7,610 units (Inyo County 2021).

The General Plan identifies the type, intensity, and density of allowable development on a parcel-by-parcel basis throughout the unincorporated area. The following goals and policies from the Housing Element of the General Plan are relevant to this resource section:

- **Goal 1.0:** Maintain the existing housing stock and eliminate substandard housing conditions in Inyo County.
 - **Policy 1.1: Housing Rehabilitation Funding.** In addition to its own investment, the County shall seek and manage additional federal and state funds for housing rehabilitation and weatherization assistance. The County will also continue to provide outreach programs to educate the public about available housing rehabilitation and weatherization assistance and fire safety measures.
 - **Policy 1.2: Housing Rehabilitation Code Enforcement.** The County shall advocate for the rehabilitation of substandard residential properties by homeowners and landlords.
 - **Policy 1.3: Energy Efficiency.** The County will focus efforts to promote energy efficiency by supporting programs such as weatherization and utility assistance programs that alleviate energy costs for households. The County shall maintain its webpage dedicated to energy efficiency education and programs.

- **Goal 2.0:** Provide adequate sites for residential development.
 - **Policy 2.1: Adequate Sites 2021-2021.** The County will monitor the sites identified for very low, low, and moderate income units.
- **Goal 3.0:** Encourage the adequate provision of housing by location, type of unit, and price to meet the existing and future needs of Inyo County residents.
 - **Policy 3.1: Variety of Housing.** The County shall continue to identify and evaluate the best approaches to providing a variety of residential development opportunities to meet the needs of all its citizens. This includes all housing types, such as: single-family homes, mobile homes, accessory dwelling units (ADU/JADU), and apartments, to accommodate special needs and income levels.
 - **Policy 3.2: High Density Housing.** The County shall encourage the development of higher density housing in appropriate locations throughout the communities. Locate higher density residential development within close proximity to service, jobs, transit, recreation, and neighborhood shopping areas.
 - **Policy 3.3: Second Units.** Encourage the development of second units as another way to promote housing opportunities for lower-income households.
 - **Policy 3.4: Manufactured and Mobile Homes.** The County will continue to promote the utilization of manufactured housing and mobile home purchase and placement as an affordable homeownership opportunity.
 - **Policy 3.5: Financial Assistance for Housing.** Provide financial assistance for the conservation and/or development of housing affordable to extremely low, very low, and low-income households.
- **Goal 4.0:** Provide increased opportunities for homeownership.
 - **Policy 4.1: Self-Help.** The County shall encourage “self-help” housing to allow lower-income households to build their own homes.
 - **Policy 4.2: Purchase Assistance Program.** The County will facilitate the availability of home purchase assistance programs for low and moderate-income households.
- **Goal 5.0:** Remove governmental constraints on housing development.
 - **Policy 5.1: Compliance with new State Regulations.**
 - **Policy 5.2: Expedited Permit Processing and Project Review.** The County shall continue to expedite project review and facilitate timely building permit and development plan processing for residential developments, especially for those with an affordable housing component or density bonus proposal.

- **Policy 5.3: Infrastructure.** The County will work to identify new ways to provide adequate infrastructure to accommodate residential development in all areas of the unincorporated county.
- **Goal 6.0:** Promote equal opportunity for all residents to reside in housing of their choice.
 - **Policy 6.1: Equal Opportunity.** The County shall work to prohibit discrimination in the sale or rental of housing with regard to race, ethnic background, religion, handicap, income, sex, age, household composition or other protected characteristics.
 - **Policy 6.2: Residential Care Facilities.** The County shall work to ensure that equal and fair housing opportunities are available to all residents.
 - **Policy 6.2: Reasonable Accommodation.** The County shall ensure the availability of reasonable accommodations for persons with disabilities, including developmental disabilities.

Inyo County Zoning Ordinance

While the policies and goals of the General Plan guide the County's land use decision making, the Zoning Ordinance consists of regulations that are enforced by the County. By law, counties must adopt a zoning ordinance that is consistent with the adopted General Plan.

The Zoning Ordinance establishes specific zoning classifications (e.g., Single-Family Residential, Commercial) that, when applied to a specific property, describe the range of allowable land uses and basic standards for development (e.g., maximum building height, building setbacks from property lines, required parking spaces) of that property. Each zoning classification has a different set of allowable land uses and development standards. The zoning maps adopted as part of the ordinance identify the zoning classification that applies to each parcel within the unincorporated area under the County's jurisdiction.

Similar to the General Plan, while a zoning designation describes the type and intensity of development that may be allowed it does not vest a property owner's right to develop at the maximum intensity allowed. The size and shape of the property, the availability of public infrastructure and utilities, development fees, owner preferences, and other factors determine how a property is developed within the rules set forth in the County's Zoning Ordinance.

4.14.1.2 Existing Conditions

Population

Based on HCD data, in 2020 Inyo County had a total population of 18,584. With approximately 10,200 square miles of land, the County has a density of approximately 1.82 persons-per-square-mile. Much of the County's population is centered in and around the City of Bishop, the County's only incorporated city. Additional small towns and communities are scattered throughout the County, although they are mostly concentrated along US 395 which traverses through the Owens Valley and the County in a north-south direction. Table 4.14-2 identifies population trends in the County over time. While Inyo County saw significant increases in population in the 1960s and 1970s, the population of the unincorporated areas of the County has remained relatively stable over the past 40 years. Between 2010 and 2020, the population of the County increased by only 0.6 percent.

Table 4.14-2
INYO COUNTY POPULATION 1960-2020

Year	County Population	City of Bishop Population	Unincorporated County Population	Unincorporated County Population Percentage Change from Prior Year
1960	11,684	2,875	8,809	-
1970	15,571	3,498	12,073	37%
1980	17,895	3,333	14,562	20%
1990	18,281	3,475	14,806	1.7%
2000	17,945	3,575	14,416	-2.6%
2010	18,546	3,879	14,667	1.7%
2020	18,584	3,821	14,763	0.6%

Sources: California Department of Finance; Historical Census Population of Counties in California, 1850-1990; Historical Census Population of Places, Towns, and Cities in California, 1850-1990; City/County Population & Housing Estimates, 1990-1998 (Report E-5); City/County Population and Housing Estimates, 2000-2008 (Report E-5); HCD-HE Data Package 2020.

Table 4.14-3 identifies population associated with census-designated places (CDP) in the County based on 2019 American Communities Survey (ACS) data. As discussed above, much of the County's population is centered in Bishop and the areas surrounding it. This population center includes Bishop, West Bishop CDP, and Dixon Lane-Meadow Creek CDP. These three CDPs have a total population of 9,143, which is just over half of the total County population. Outside of Bishop, the major population centers in the County include Big Pine, Independence, and Lone Pine. These three CDPs have a total population of 3,934 people, which is approximately 21.8 percent of the total residents in the County.

Table 4.14-3
2019 POPULATIONS OF CENSUS DESIGNATED AREAS IN INYO COUNTY

Census Designated Place (CDP)	2019 Population
Big Pine CDP	1,524
City of Bishop	3,745
Cartago CDP	5
Darwin CDP	35
Dixon Lane-Meadow Creek CDP	2,664
Furnace Creek CDP	108
Homewood Canyon CDP	69
Independence CDP	603
Keeler CDP	10
Lone Pine CDP	1,807
Mesa CDP	348
Olancho CDP	229
Pearsonville CDP	7
Round Valley CDP	509
Shoshone CDP	17
Tecopa CDP	168
Trona CDP	40
Valley Wells CDP	0

Census Designated Place (CDP)	2019 Population
West Bishop CDP	2,734
Wilkerson CDP	519
Areas of the County outside of a CDP	2,898
Total	18,039

Source: ACS 2019a.

Housing

Based on 2019 American Communities Survey data, Inyo County has 9,572 total housing units. Table 4.14-4 contains a summary of total, occupied, and vacant housing in Inyo County overall, the incorporated City of Bishop, and unincorporated Inyo County. In 2019, unincorporated Inyo County had 6,921 occupied housing units and 1,488 vacant housing units. The vacancy rate in unincorporated Inyo County was 17.1 percent, with a slightly lower vacancy rate of 15.5 percent in the City of Bishop.

**Table 4.14-4
INYO COUNTY 2019 HOUSING UNITS**

Geographic Area	Total Housing Units	Occupied Housing Units	Vacant Housing Units	Vacancy Rate (percentage)
Inyo County	9,572	7,950	1,622	16.9%
City of Bishop	863	729	134	15.5%
Unincorporated Inyo County	8,709	6,921	1,488	17.1%

Source: ACS 2019a.

While Inyo County has a somewhat high vacancy rate, many of these homes are used as second homes that are vacant for significant portions of the year and not available for rent or sale to those looking for housing in Inyo County. According to data from the 2018 American Communities Survey, in 2018 there were 1,312 vacant units in the unincorporated county representing 17.6 percent of all units. Of these, 719 were reported vacant as second homes used for “seasonal, recreational, or occasional use”. These vacant homes represent about 55 percent of the vacancies in the unincorporated county which has increased from previous years, showing a growing trend of second homeownership which can have a significant effect on housing availability and housing conditions for full time residents within the community. While the County has a somewhat high vacancy rate which would intuitively equate to more homes available for rent or sale, this is not the case as many of these vacant properties are used as second homes or vacation homes. This keeps these houses both empty most of the time and off rental or sales markets and exacerbates the County’s already constrained housing inventory. At the time the data was collected in 2018, there were only three homes listed for sale in Inyo County, which represents less than half a percent of the vacant units (Inyo County 2021). The lack of homes for sale or available for rent in Inyo County is a direct reflection of the tight real estate market and lack of private land available for new development in the County. The increasing number of homes used for seasonal or occasional use within the County has also contributed to the tight housing market within the County.

Table 4.14-5 shows the housing unit type composition in Inyo County. Most housing units in the County were detached single-family units as of 2019, making up about 61.9 percent of all housing units. The next largest unit type category was mobile homes, consisting of 23.5 percent of all housing units.

**Table 4.14-5
INYO COUNTY 2019 HOUSING UNITS BY TYPE**

Units in Structure	Total Number of	Percentage of
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	Units	Total Housing Units
One Unit, Detached	5,929	61.9%
One Unit, Attached	235	2.5%
Two Units	179	1.9%
Three or Four Units	371	3.9%
Five to Nine Units	259	2.7%
Ten to Nineteen Units	98	1.0%
Twenty or More Units	124	1.3%
Mobile Home	2,250	23.5%
Boat, RV, Van, etc.	127	1.3%

Source: ACS 2019a.

Approximately 82 percent of Inyo County's existing housing units were built before 1989 and are therefore over 30 years old. Housing older than 30 years of age are generally considered to be likely to need major rehabilitation. Given that the majority of Inyo County's housing, approximately 82 percent, is over 30 years old, much of the County's housing either has had or is in need of major rehabilitation. Construction of new housing units peaked in the 1970 to 1979 period and has slowed significantly since then. Development in the County in the last several decades has generally been low and slow. No development has occurred since 2018 that counts towards the RHNA progress in Inyo County. Table 4.14-6 shows the distribution of housing units by year built in Inyo County.

Table 4.14-6
AGE OF INYO COUNTY HOUSING STOCK

Year Built	Number of Units	Percentage of Total Units
2014 or later	58	1%
2010 to 2013	156	2%
2000 to 2009	567	8%
1990 to 1999	744	10%
1980 to 1989	1,309	18%
1970 to 1979	1,733	23%
1960 to 1969	1,045	14%
1950 to 1959	599	8%
1940 to 1949	697	9%
1939 or earlier	552	7%

Source: HCD Data Package 2020.

Employment

Based on the American Community Survey 5-Year Estimates, there were 8,593 people in the Inyo County labor force in 2019. Of these, 8,238 were employed and 355 were unemployed. Table 4.14-7 shows the County's employment characteristics. The largest employment industries in the County are educational services and healthcare and social assistance, which accounts for 24 percent of all jobs in the County. The arts, entertainment, recreation, and accommodation and fast-food services account for the next largest employment sector, with 14.4 percent of all jobs. Construction, retail trade, and public administration are the next-largest employment sectors, each accounting for approximately 10 percent of the labor force.

**Table 4.14-7
INYO COUNTY EMPLOYMENT CHARACTERISTICS**

Industry	Labor Force Estimate	Percent of Total Labor Force
Agriculture, forestry, fishing and hunting, and mining	367	4.5%
Construction	867	10.5%
Manufacturing	238	2.9%
Wholesale trade	118	1.4%
Retail trade	868	10.5%
Transportation and warehousing, and utilities	660	8.0%
Information	129	1.6%
Finance and insurance, real estate, and rental and leasing	342	4.2%
Professional, scientific, management, administrative, and waste management services	354	4.3%
Educational services, and healthcare and social assistance	1,975	24.0%
Arts, entertainment, recreation, and accommodation and food services	1,190	14.4%
Other services, except public administration	315	3.8%
Public administration	815	10.0%
Total	8,238	100%

Source: ACS 2019b.

4.14.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact to population and housing if the project would:

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.14.3 Impact Analysis

POP-1 The proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly.

The proposed project would amend the General Plan land use designation and zoning for eight vacant parcels throughout the County to promote increased housing opportunities, primarily by increasing allowable residential density. Construction of new residential development allowed under the proposed project would create a maximum of 492 residential dwelling units to be constructed on the eight parcels throughout the County. Based on the average household size of 2.18 persons per household in Inyo County, these units would provide housing for approximately 1,073 persons. The proposed project is intended to increase housing opportunities for existing residents of Inyo County. As described above in

Section 4.14.1.2, Inyo County has a tight housing market with few housing units available for rent or purchase due to a lack of private land available for development in the area. Additionally, the majority of the County's housing is aging and either is in need of major rehabilitation or will be in need of major rehabilitation in the foreseeable future. While the proposed project would result in the development of housing units that would house approximately 1,073 persons, this housing would primarily serve to house existing residents of Inyo County who either have not been able to find appropriate housing due to the tight rental market or the County's aging housing stock.

The proposed project also directly supports several of the goals and policies in the Housing Element of the General Plan. The proposed project is consistent with Goal 2.0 and Policy 2.1, Vacant and Underutilized Land, which state that the County will provide adequate sites for residential development and facilitate the development of underutilized parcels within the County. The proposed project also supports Goal 3.0 and policies 3.1, Variety of Housing, and 3.2, High Density Housing, which aim to encourage the provision of housing by providing opportunities for the development of a variety of housing types including higher density housing. As shown in Table 4.14-5, the majority of housing units in Inyo County are detached single-family homes. The proposed project's changes to land use designations and zoning would allow for the construction of higher-density housing on appropriate parcels, thereby directly supporting these goals and policies. The dwelling units constructed as a result of the proposed project would also assist Inyo County with meeting its RHNA of adding 205 units by 2029.

The proposed project is intended to increase housing opportunities for current residents by creating housing units on vacant parcels and help Inyo County maintain its existing population. The proposed project would not create substantial unplanned population growth because it would support the goals and policies of the Housing Element, would help the County meet its RHNA requirements, and would provide housing that is needed to support Inyo County's existing population due to its tight housing market and aging housing stock. Therefore, the impact would be less than significant.

Significance without Mitigation: Less than significant.

POP-2 The proposed project would not displace existing people or housing or necessitate the construction of replacement housing elsewhere.

The project would not displace existing housing or existing residents; no aspect of the project encourages the removal of housing or allow substantial non-residential uses in existing residential areas. As described in Chapter 3, Project Description, the proposed project consists of amendments to the General Plan land use designation and zoning for eight parcels throughout the County to promote increased housing opportunities. One of the criteria used to select parcels during the vacant lands inventory was that the parcel must be classified as vacant according to County assessor's data. Given that all parcels included in the proposed project are vacant, no existing people or housing would be displaced by the proposed project and no impact would result.

Significance without Mitigation: No impact.

4.14.4 Cumulative Impacts

POP-3 The proposed project would not result in a significant cumulative impact with respect to population and housing.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly induce substantial population growth in an area or displace people or housing and necessitate the construction of replacement housing elsewhere. The analysis of cumulative impacts is based on impacts of the proposed project and other cumulative projects in the County. As discussed above, the proposed project would not induce substantial population growth in the County. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp and cannabis cultivation, dispensaries, and/or retail projects that are less than 1-acre in size. Other projects include an exploratory drilling project and a solar development project. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. None of the cumulative projects, in combination with the proposed project, would directly or indirectly induce substantial population growth.

As discussed above, the proposed project would not displace existing people or housing or necessitate the construction of housing elsewhere. Therefore, the project would not contribute to a cumulatively considerable impact to the displacement of existing people or housing.

Significance without Mitigation: Less than significant impact.

4.14.5 References

American Communities Survey (ACS). 2019a. Selected Housing Characteristics for Inyo County, California. Accessed June 2, 2021 and available at: <https://data.census.gov/cedsci/table?q=Inyo%20County%202019%20housing%20units&tid=ACSDP5Y2019.DP04>.

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4.15 Public Services

This section describes the regulatory framework and existing conditions related to public services, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.15.1 Environmental Setting

4.15.1.1 Regulatory Framework

Federal Regulations

There are no relevant federal regulations for public services.

State Regulations

California Fire Code

The California Fire Code, also referred to as Title 24 of the California Building Standards Code, exists to establish minimum fire code requirements to ensure good building practices and public safety. It adopts by reference the International Fire Code with necessary State amendments. Updated every three years, the California Fire Code includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. Typical fire safety requirements include: installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Public Resources Code

State Responsibility Areas (SRA) are defined by Public Resources Code (PRC) Section 4102 as areas of the State in which the Board of Forestry and Fire Protection has determined that the financial responsibility for preventing and suppressing fires lies with the State of California. SRAs are lands where the California Department of Forestry and Fire Protection (CAL FIRE) has legal and financial responsibility for wildfire protection. SRA lands typically are unincorporated areas of a county, are not federally owned, have wildland vegetation cover, have housing densities lower than three units per acre, and have watershed or range/forage value. In practice, some local government agencies (in this case, local volunteer fire districts), may also provide direct protection of some SRAs in coordination with their local CAL FIRE unit. PRC 4202 directs lands within SRAs to be classified into fire hazard severity zones.

Local Responsibility Areas (LRA) include lands that do not meet criteria for SRAs or federal responsibility areas, or are lands in incorporated areas, cultivated agricultural lands, and nonflammable areas in the unincorporated parts of a county. LRAs can include flammable vegetation and wildland-urban interface areas. LRA fire protection is provided by city or local fire departments, fire protection districts, county fire departments, or by contract with CAL FIRE.

Senate Bill 50

Senate Bill 50 (passed in 1998) sets forth a state school facilities construction program that includes restrictions on a local jurisdiction's ability to condition a project or mitigation of a project's impacts on school facilities in excess of fees set forth in Education Code 17620. The provisions of Senate Bill 50 allow the state to offer funding to school districts to acquire school sites, construct new school facilities, and modernize existing school facilities. Senate Bill 50 also establishes a process for determining the amount of fees developers may be charged to mitigate the impact of development on school facilities resulting from increased enrollment. Under this legislation, a school district could charge fees above the statutory cap only under specified conditions, and then only up to the amount of funds that the district would be eligible to receive from the state. This program has been found by the legislature to constitute "full and complete school facilities mitigation."

Local Regulations

Inyo County General Plan

Land Use Element

Section 4.2, Land Use, in the Land Use Element of the General Plan (2001, as amended) provides the following goals and policies related to public services:

- **Goal LU-1:** Create opportunities for the reasonable expansion of communities in a logical and contiguous manner that minimizes environmental impacts, minimizes infrastructure and service costs, and furthers the countywide economic development goals. Guide high-density population growth to those areas where services (community and water systems, schools, commercial centers, etc.) are available or can be created through new land development, while providing and protecting open space areas.
 - **Policy LU-1.2: New Growth.** The County shall plan to concentrate new growth within and contiguous to existing communities (e.g., Bishop, Big Pine, Independence, Lone Pine) and expand existing infrastructure as needed to serve these areas. As a secondary priority, the County shall plan to accommodate new growth in existing rural residential communities (e.g., Olancho, Charleston View, Mustang Mesa, Starlite Estates) and ensure the appropriate expansion of existing infrastructure as needed to serve these areas.
 - **Policy LU-1.17: Impacts of New Development on Infrastructure Improvements, Public Facilities, and Services.** The impacts of discretionary projects shall be assessed as required by CEQA and appropriate, feasible, mitigation will be required at the time such projects are approved and as provided by law. Mitigation required for such projects may include the collection of fees to offset impacts to infrastructure, public facilities, and services.
- **Goal LU-5:** Provide adequate public facilities and services for the existing and/or future needs of communities and their surrounding environs, and to conserve natural and managed resources.

Section 4.3, Public Services and Utilities, in the Land Use Element of the General Plan (2001, as amended) provides the following goals and policies related to public services:

- **Goal PSU-1:** To ensure the timely development of public facilities and the maintenance of adequate service levels for these facilities to meet the needs of existing and future County residents.
 - **Policy PSU-1.1: Facilities and Services for New Development.** The County shall ensure through the development review process that public facilities and services will be developed, operational, and available to serve new development. The County shall not approve new development where existing facilities are inadequate unless the applicant can demonstrate that all necessary public facilities will be installed or adequately financed and maintained (through fees or other means).
 - **Policy PSU-1.2: On-Site Infrastructure.** The County shall require all new development, including major modifications to existing development, to construct necessary on-site infrastructure to serve the project in accordance with County standards.
- **Goal PSU-2:** To ensure that adequate facility and service standards are achieved and maintained through the use of equitable funding methods.
 - **Policy PSU-2.2: Fair Share of Costs.** The County shall require that new development pays its fair share of the cost of developing new facilities and services and upgrading existing public facilities and services. Exceptions may be made when new development generates significant public benefits (e.g., low income housing) or when alternative sources of funding can be identified to offset foregone revenues.
- **Goal PSU-8:** To protect the residents of and visitors to Inyo County from injury and loss of life and to protect property from fires.
 - **Policy PSU-8.1: Fire Protection for New Development.** Prior to the approval of development projects, the County shall determine the need for fire protection services. New development in unincorporated areas of the County shall not be approved unless adequate fire protection facilities can be provided.
 - **Policy PSU-8.2: Education.** The County shall identify key fire loss problems and design appropriate fire safety education programs to reduce fire incidents and losses.
- **Goal PSU-9:** To provide adequate law enforcement services to deter crime and to meet the growing demand for services associated with increasing populations and commercial/industrial development in the County.
 - **Policy PSU-9.1: Law Enforcement Facilities.** Within the County's overall budgetary constraints, the County shall provide law enforcement facilities (including substation space, patrol, and other vehicles, necessary equipment, and support personnel) sufficient to maintain service standards.
 - **Policy PSU-9.3: Law Enforcement Support.** The County shall work with federal law enforcement agencies to ensure appropriate coordination and maximum use of available resources for the protection of public safety in the County.

- **Goal PSU-11:** To ensure that adequate school facilities are available and appropriately located to meet the needs of Inyo County residents.
 - **Policy PSU-11.1: Provision of Facilities.** The County shall continue to support local school districts in providing quality education facilities that will accommodate projected changes in student enrollment.
 - **Policy PSU-11.2: Planning for New Facilities.** The County shall work cooperatively with local school districts in monitoring housing, population, and school enrollment trends and in planning future school facility needs, and shall assist the districts in identifying appropriate sites for new schools in the County.
 - **Policy PSU-11.6: Funding.** The County and school districts should work closely to secure adequate funding for new school facilities. The County shall support the school districts' efforts to obtain appropriate funding methods such as school impact fees.

Public Safety Element

Section 9.5, Wildfire Hazard, in the Public Safety Element of the General Plan (2001, as amended) provides the following goals and policies related to public services:

- **Goal WF-1:** Prevent wildfires and provide public safety from wildfire hazards.
 - **Policy WF-1.1: Fire Protection Agencies.** Support expansion of fire protection agencies and volunteer fire departments, and continue to cooperate with federal, state, local agencies and private landowners to provide greater fire protection for the County.
 - **Policy WF-1.2: Limitations in Fire Hazard Zones.** Discourage development within high fire hazard severity zones.
 - **Policy WF-1.3: Fuel Modification.** Require fuel modification for structures within fire hazard zones.

4.15.1.2 Existing Conditions

Fire Protection

Given that federal land comprises the majority of land within the County, fire protection within most of the County is provided by federal land management agencies. These agencies include the US Forest Service (USFS), Bureau of Land Management (BLM), and the National Park Service (NPS). These agencies also provide fire protection to areas outside of managed lands through cooperative fire protection and mutual aid agreements. Much of the County is located within Federal Responsibility Areas (FRA), with LRAs scattered throughout the County in areas like the City of Bishop. SRAs occur primarily within the Owens Valley and the US 395 corridor.

Inyo County is located within the CAL FIRE San Bernardino/Inyo/Mono Unit (BDU). Given that most land in the County is federally owned, only two CAL FIRE BDU stations are located in the County: the CAL FIRE BDU Independence Fire Station, located at 250 East Park Street, Independence, CA, and the CAL FIRE BDU Bishop Fire Station, located at 2784 South Round Valley Road, Bishop, CA.

There are six local fire protection districts (FPD) within the boundaries of the County, including the Big Pine FPD, Bishop Rural FPD, Independence FPD, Lone Pine FPD, Olancho Volunteer Fire Department, and Southern Inyo FPD (Inyo County 2001, as amended). The FPDs respond to structure fires, wildland fires, medical emergencies, hazardous materials spills, and other emergencies. Local government fire departments are discussed in further detail below.

Independence Parcel

The undeveloped Independence parcel is 16.9-acres and located in the community of Independence in western Inyo County along Mazourka Canyon Road, east of Edwards Street. The project parcel is identified as APN 002-160-08. The parcel is located within a High FHSZ of SRA (CAL FIRE 2021). The nearest CAL FIRE station is the CAL FIRE Independence Fire Station, located 0.1 mile to the west. The nearest local government station is the Independence Volunteer Fire Department, located 0.4 mile to the northwest at 200 South Jackson Street, Independence, CA. Both stations would likely provide a response to most incidents at the Independence parcel.

Bishop Parcels

The undeveloped Bishop parcels are 14.3 acres combined and located adjacent to but outside of the City of Bishop city limits in northwestern Inyo County. The three Bishop parcels are identified by the following APNs: 008-240-01; 008-240-02; and 008-190-01. Two of the Bishop parcels (APNs 008-240-01 and -02) are adjacent to the south and west of the City of Bishop city limits, southwest of the intersection of S. Main Street (also US 395) and Jay Street, and the other Bishop parcel (APN 008-190-01) is adjacent to the south and east of the City of Bishop city limits, southeast of the intersection of E. South Street and S. 3rd Street.

The Bishop Fire Department is a cooperation between the Bishop Rural Fire Protection District and the City of Bishop that provides fire protection and other emergency services in the Bishop area (City of Bishop 2021). The Bishop Fire Department also serves the Bishop Paiute Reservation under contract with the Tribe. As a result, the Department's service area includes Bishop, West Bishop, North Bishop, the Bishop Paiute Reservation, Rocking K, Laws, and Wilkerson.

The Bishop Fire Department is a volunteer department with one full time paid Fire Chief and one part-time paid Assistant Chief (City of Bishop 2021). As a cooperation between the Bishop Rural Fire Protection District and the City of Bishop, the Department works under both the District Board and the City Council. The Department operates three stations in and around the City of Bishop.

APNs 008-240-01 and -02

Both of these parcels are located within a High FHSZ of SRA (CAL FIRE 2021). The nearest CAL FIRE station to these two parcels is the CAL FIRE BDU Bishop Station, located 10.3 miles to the northwest. The nearest local government station to these two parcels is the Bishop Fire Department Station One, located 0.6 mile to the north at 209 West Line Street, Bishop, CA. CAL FIRE bears ultimate financial responsibility for wildfire protection within SRA, and may send additional resources from their nearest station for major incidents, but given the distance to the nearest CAL FIRE station, initial attack, and response to smaller and less complex incidents, would be provided by the nearby Bishop Fire Department.

APN 008-190-01

This parcel is located within a High FHSZ of SRA (CAL FIRE 2021). The nearest CAL FIRE station to this parcel is the CAL FIRE BDU Bishop Station, located 10.2 miles to the northwest. The nearest local government station to the parcel is the Bishop Fire Department Station One, located 0.5 mile to the northwest at 209 West Line Street, Bishop, CA. CAL FIRE bears ultimate financial responsibility for wildfire protection within SRA, and may send additional resources from their nearest station for major incidents, but given the distance to the nearest CAL FIRE station, initial attack, and response to smaller and less complex incidents, would be provided by the nearby Bishop Fire Department.

Lone Pine Parcels

The Lone Pine parcels are developed, 0.8-acre combined, and located in the community of Lone Pine in western Inyo County, north of E. Mountain View Street and between N. Hay Street and N. Lone Pine Avenue. The four Lone Pine parcels are located adjacent to each other and identified by the following APNs: 005-072-06; 005-072-07; 005-072-24; and 005-072-30. The Lone Pine parcels are located in a High FHSZ of SRA (CAL FIRE 2021). The nearest CAL FIRE station to the parcels is the CAL FIRE BDU Independence Station located 15.7 miles to the northwest. The nearest local government fire station is the Lone Pine FPD station located 0.2 miles to the west at 130 N Jackson St, Lone Pine, CA. CAL FIRE bears ultimate financial responsibility for wildfire protection within SRA, and may send additional resources from their nearest station for major incidents, but given the distance to the nearest CAL FIRE station, initial attack, and response to smaller and less complex incidents, would be provided from the nearby Lone Pine FPD station.

Police Protection Services

Inyo County Sheriff's Department

Police protection services within Inyo County are provided by the Inyo County Sheriff's Department. The department headquarters are located in Independence with additional posts in Bishop, Lone Pine, Shoshone and Death Valley. The sheriff's department has special units including boat patrol, off-highway vehicle detail, and mounted patrol (ICSD 2021).

California Highway Patrol

The California Highway Patrol (CHP) is a statewide organization with responsibility for law enforcement for state highways and roads. Primary responsibilities of the CHP include traffic safety, service to the motoring public, and protection of state property. CHP services include law enforcement, traffic control, accident investigation, and the management of hazardous materials spill incidents. Inyo County is located within the Inland Division of the CHP. According to the CHP, the Inland Division faces the widest spectrum of traffic enforcement challenges due to the large patrol area (CHP 2021). In addition to many automobiles, the Inland Division operates two fixed-wing aircraft and two helicopters. There is one CHP area office located within Inyo County at 469 South Main Street in Bishop (CHP 2021).

Schools

There are six school districts within Inyo County, including Big Pine Unified School District (USD), Bishop USD, Death Valley USD, Lone Pine USD, Owens Valley USD, and Round Valley Joint Elementary School

District (JESD) (Inyo County Office of Education 2021). Table 4.15-1 summarizes the enrollment for each of the school districts.

**Table 4.15-1
SCHOOL DISTRICTS IN INYO COUNTY**

School District	2019-2020 Enrollment	Schools			
		Elementary	Middle/Junior High School	High School	Other
Big Pine USD	150	0	0	0	1(K-12)
Bishop USD	2,088	3	2	2	2
Death Valley USD	24	2	0	1	1
Lone Pine USD	329	1	0	1	0
Owens Valley USD	83	1	0	1	0
Round Valley JESD	78	0	0	0	1 (K-8)
Total	2,752	7	2	5	5

Source: Education Data Partnership 2021.

Parks

Inyo County maintains parks and campgrounds for use by residents and visitors (Inyo County 2021a). Parks operated by the County Parks and Recreation Department include seven parks located in Bishop, Big Pine, Independence, and Lone Pine. Bishop-area parks include the Millpond Recreation Area, Izaak Walton Park, and Starlight Park. Mendenhall Park is located in Big Pine, and Spainhower Park is located in Lone Pine. Dehy Park and Independence Park are located in Independence. The County Parks and Recreation Department operates eleven lower elevation campgrounds readily accessible from US 395, including Diaz Lake, Portuguese Joe, Independence Creek, Taboose Creek, Tinnemaha Creek, Millpond, Baker Creek, Pleasant Valley, Glacier View, Brown’s Town, and Tecopa Park and Campground. For additional information about the parks and campgrounds operated by Inyo County, please see Section 4.16 Recreation.

Libraries

The Inyo County Free Library operates six branches throughout the county. There are four branches in the Owens Valley located in Bishop, Big Pine, Independence, and Lone Pine, as well as two branches in and around Death Valley National Park (Inyo County 2021b).

Other Public Facilities

There are two hospitals located in Inyo County: Northern Inyo Hospital in Bishop and Southern Inyo Hospital in Lone Pine. Northern Inyo Hospital is a 25-bed critical access, not-for-profit hospital providing 24-hour emergency care services (Northern Inyo Healthcare District 2021). Southern Inyo Hospital provides general medical and surgical care for inpatient, outpatient, and emergency room patients and provides 24-hour emergency care services (Southern Inyo Healthcare District 2021). Ambulance services for Southern Inyo Hospital are provided by the Lone Pine FPD, which operates three ambulances, and the Independence FPD that operates two ambulances; both are staffed by volunteer emergency medical technicians and Lone Pine has a volunteer paramedic. Patients who require transfers are transported via ambulance, fixed-wing plane, or helicopter to the nearest and most medically appropriate facility. Lower-acuity cases are often transferred to North Inyo Hospital in Bishop, while high-acuity cases are

generally sent to Washoe Medical Center in Reno, Nevada or Loma Linda University Medical Center, in Loma Linda, California (Southern Inyo Healthcare District 2021).

4.15.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact to public services in the project would:

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

4.15.3 Impact Analysis

PS-1 The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities in order to maintain acceptable service ratios, response times or other performance objectives for any public services including fire protection, police protection, schools, parks, or other public facilities.

Development associated with the land use designation and zoning changes of the proposed project could provide housing for up to 1,073 residents by the year 2040. As discussed in Section 4.14, Population and Housing, these residential units would primarily serve the existing population of Inyo County by replacing aging housing stock rather than substantially increasing the County's population. The sites selected as part of the vacant lands inventory are distributed throughout the existing population centers in the County and would be constructed over the next 20 years; demand for public services associated with the project would be spread out geographically and is not expected to contribute to substantial service demand increases at any single public facility. The selection criteria for parcels that comprise the proposed project involved several provisions to ensure that the parcels would be served by existing public services, including that the parcels needed to be located within an existing fire protection district and located within or adjacent to a water/sanitary sewer district. The parcels are located within existing population centers that already contain adequate public service facilities to serve the current population. While the proposed project would provide housing for up to 1,073 residents, these residents would be distributed throughout existing population centers in the County so as not to place additional strain in the public services located in any one area. Furthermore, full build out of the parcels identified as part of the proposed project would take place over the next 20 years, allowing adequate time for minor expansions of public services if necessary.

Additionally, the General Plan contains policies and strategies to prevent development within the county from exceeding acceptable service levels. In accordance with Policy PSU-1.1 of the General Plan, the County would ensure through the development review process that adequate public facilities and services are available to serve new development, and the County shall not approve new development where existing facilities are inadequate unless the applicant can demonstrate that all necessary public facilities will be installed and adequately financed and maintained. Therefore, while it is not anticipated that population growth throughout the County as a result of the proposed project would contribute to service ratio declines at public facilities such that facility construction or expansion would need to occur,

adherence to the existing General Plan policies would ensure that future development provides the necessary infrastructure or contributes to funds that offset any such costs. Additionally, if any such facilities do need to be constructed at a later date, they would be subject to their own individual environmental review and analysis of potential impacts. Therefore, impacts would be less than significant.

Significance without Mitigation: Less than significant.

4.15.4 Cumulative Impacts

PS-2 The proposed project would not result in a significant cumulative impact with respect to public services.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities in order to maintain acceptable service ratios, response times, or other performance objectives for any public services including fire protection, police protection, schools, parks, or other public facilities. Potential impacts to public services are evaluated on the level at which that public service is provided, which may be regional or more localized depending on the service. As discussed above, implementation of the proposed project would result in less than significant impacts to public services.

Potential development under the proposed project could result in residential development projects being constructed concurrently with, and in proximity to, other land use and development projects in Inyo County as shown in Table 4-1, Inyo County Cumulative Projects List. Each cumulative project would result in a small but incremental impact to public services. All projects in Inyo County, including the proposed project and the cumulative projects considered in this analysis, would be subject to the General Plan policies that prevent development in the county from exceeding acceptable service levels, including Policy PSU-1.1 which would ensure through the development review process that adequate public facilities and services are available to serve new development. Therefore, no cumulatively considerable impact associated with public services would occur with approval of the proposed project.

Significance without Mitigation: Less than significant impact.

4.15.5 References

CAL FIRE. 2021. CAL FIRE: About Us. Accessed on June 3, 2021 and available at:

<https://www.fire.ca.gov/about-us/>.

California Highway Patrol (CHP). 2021. Inland Division. Accessed on May 26, 2021 and available at:

<https://www.chp.ca.gov/Find-an-Office/Inland-Division>.

City of Bishop. 2021. Fire Department. Accessed on June 9, 2021 from:

<https://www.cityofbishop.com/departments/fire/>.

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<http://www.ed-data.org/district/Inyo/Inyo-County-Office-of-Education>.

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Inyo County. 2021a. Parks and Recreation. Accessed May 20, 2021 and available at: <https://www.inyocounty.us/services/parks-recreation>.

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Northern Inyo Healthcare District. 2021. Bishop Health Services. Accessed May 27, 2021 and available at: <https://www.nih.org/services/>.

Southern Inyo Healthcare District. 2021. Southern Inyo Healthcare District: About Us. Accessed May 27, 2021 and available at: <https://www.sihd.org/about-us>.

4.16 Recreation

This section describes the regulatory framework and existing conditions related to recreation resources, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.16.1 Environmental Setting

4.16.1.1 Regulatory Framework

Federal Regulations

Omnibus Public Federal Land Management Act

The Omnibus Public Federal Land Management Act was passed in 2009 and protects more than two million acres of land as designated wilderness in nine states; designates over 1,000 miles of Wild and Scenic Rivers; and established three national parks, three national conservation areas, four national trails, ten national heritage areas, and a national monument. It also created several water conservation, habitat restoration and land management programs, and gives formal recognition to the 26 million acre National Landscape Conservation System. Among these protected wilderness lands include approximately 350,000 acres within the Inyo National Forest and BLM land.

Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) was enacted in 1976 and governs the way in which public lands administered by the BLM are managed. The FLPMA is the landmark legislation that provides a framework for managing federal land in perpetuity for the benefit of present and future generations. Under the FLPMA, public lands are to be managed “in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use.”

National Trails Systems Act

The National Trails Systems Act (16 USC 1241), enacted in 1968, created a series of national trails “to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the nation.” This act established three types of trails, including the National Scenic Trails, National Recreation Trails, and connecting-and-side trails. The National Trails System currently consists of 30 National Scenic and Historic Trails and over 1,000 National Recreation Trails, and two connecting-and-side trails, with a total length of more than 50,000 miles. The National Trails provide for recreational activities of hiking, horseback riding, mountain biking, and camping. Trails within Inyo County that are part of the National Trails System include the Pacific Crest National Scenic Trail and Old Spanish National Historic Trail.

Inyo National Forest Land and Resource Management Plan

The Inyo National Forest Land and Resource Management Plan (LRMP) provides direction for management activities in the Inyo National Forest. The LRMP guides where and under what conditions

an activity on national forest lands can occur and includes guidance on the provision of recreational opportunities.

National Park Service Management Policies

The National Park Service (NPS) Management Policies (2006) provide broad policy guidance for the management of units of the national park system. Topics include park planning, land protection, natural and cultural resource management, wilderness preservation and management, interpretation and education, recreational uses, special uses of the parks, park facilities design, and concessions management.

State Regulations

California State Parks Off-Highway Motor Vehicle Recreation Division

The Off-Highway Motor Vehicle Recreation Program was created in 1971 to manage off-highway recreation, while balancing the need to protect the state's resources. In addition to providing accessibility to off-highway recreation for hikers to bikers to bird watchers, the program provides a variety of services and benefits to California's residents and visitors, including resource management of state lands, wildlife habitat protection, youth development and law enforcement.

California Outdoor Recreation Plan

The California Outdoor Recreation Plan is the statewide master plan for parks, outdoor recreation, and open space for California. The plan provides policy guidance to all outdoor recreation providers, including federal, state, local, and special district agencies that provide outdoor recreational lands, facilities and services throughout California.

Local Regulations

Lower Owens River Recreation Use Plan

The Lower Owens River Recreation Use Plan (LORP) provides a conceptual framework to protect the area from the unintended consequences of increased use. The plan's purpose is to support LORP goals while creating opportunities for local residents and visitors to experience recreation, learn more about the ecosystem, and become active stewards of the lower Owens River. Fishing, birding, wildlife viewing, hunting, and OHV riding are the most popular recreation activities within the LORP area.

Owens Valley Land Management Plan

The City of Los Angeles Department of Water and Power (LADWP) owns and manages approximately 250,000 acres in Inyo County, mainly within the Owens Valley floor. Approximately 75 percent of LADWP land in Inyo County is open to the public for recreational uses such as fishing, hiking, hunting, nature studies, photography, painting, and other daytime recreational uses. LADWP's OVLMP (2010) provides management direction for resources on all city of LADWP lands in the County (excluding the LORP area discussed above). Resource management issues include water supply, habitat, recreation and land use. The Owens Valley Land Management Plan (OVLMP) provides a framework for implementing management prescriptions through time, monitoring the resources, and adaptively managing changed land and water conditions.

Inyo County General Plan

Recreational resources are addressed within the Conservation/Open Space Element of the Inyo County General Plan. Section 8.9, Recreation, contains the following goals and policies:

- **Goal REC-1:** Develop a public parks, recreation, and open space system that provides adequate space and facilities to meet the varied needs of County residents and visitors.
 - **Policy REC-1.1: Natural Environment as Recreation.** Encourage the use of the natural environment for passive recreational opportunities.
 - **Policy REC-1.2: Recreational Opportunities on Federal, State, and LADWP Lands.** Encourage continued management of existing recreational areas and open space, and appropriate expansion of new recreational opportunities on federal, state, and LADWP lands.
 - **Policy REC-1.3: Existing Park Facilities.** Enhance existing County recreational parks and campground sites.
 - **Policy REC-1.4: Adequate Parkland.** The County shall provide adequate parkland throughout the County. The County shall provide parkland dedication and/or developer fees for new subdivisions within the County to provide adequate recreation space for residents.
 - **Policy REC-1.5: Distribution of Community Parks.** The County shall ensure that community parks are located to ensure equitable distribution of facilities within the County.
 - **Policy REC-1.6: Range of Recreational Activities/Facilities.** The County shall provide for a broad range of active and passive recreational activities in community parks. When possible, this should include active sports fields and facilities in community parks that will provide for the needs of leagues and programs.
 - **Policy REC-1.7: Park Design.** The County shall ensure that community members are involved in the design and development of all park facilities.

The General Plan also lists a variety of implementation measures to enact the policies included in the plan. One of the implementation measures for Policy REC-1.4 Adequate Parkland is that the County will seek to maintain a level of service standard of 3 acres of community parks per 1,000 residents. Another implementation measure states that the County, as part of their Zoning Ordinance, shall establish minimum park standards to be used in assessing improvement needs, new park development plans, and available funding for maintenance (Inyo County 2001).

Inyo County Code

Section 16.40.100 of the Inyo County Code, titled “Policy on parks and recreational facilities”, states that new residential developments consisting of fifty-one lots or more shall assist the county in meeting the county’s obligation and responsibility to provide adequate park and recreation facilities. Developers can meet this requirement either through the dedication of land for park and recreational purposes or

through the payment of fees that will be used by the county for park and recreational purposes. Section 16.40.130 describes how in-lieu fees shall be determined and used by the county for the development of parks. Section 16.40.170 describes how private park and recreation facilities may satisfy the county's park requirement for new developments (Inyo County 2021a).

4.16.1.2 Existing Conditions

The County contains vast areas of undeveloped open space areas rich in natural resources and features that provide a variety of outdoor recreational opportunities. Most of the land within the County is publicly owned. Public agencies provide and manage various outdoor recreational facilities and resources that are heavily frequented by visitors and residents alike. These recreational resources are described below and their locations are shown on Figure 4.16-1.

County Parks

The Inyo County Parks and Recreation Department manages and maintains seven parks within the County that total approximately 139 acres of parkland. Existing County parks are summarized in Table 4.16-1.

**Table 4.16-1
INYO COUNTY PARKS**

Park	Location	Size (acres)	Amenities
Millpond Recreation Area	220 Sawmill Road Bishop	124.9	Play equipment, softball fields, tennis courts, horseshoe pits, swimming pond, gazebo with tables and barbeque
Izaak Walton Park	3600 West Line Street Bishop	2.1	Play equipment, event-size barbeque, large serving area, creek
Starlite Park	880 Starlite Drive Bishop	1.0	Play equipment, tennis court, picnic tables
Mendenhall Park	370 North School Street Big Pine	4.8	Play equipment, basketball court, picnic gazebo, horseshoe pit
Dehy Park	435 North Edwards Street Independence	1.4	Play equipment, horseshoe pit, basketball court, restroom, creek
Independence Park	609 East Edwards Street Independence	0.5	Shaded areas and restroom
Spainhower Park	445 North Main Street Lone Pine	4.1	Play equipment, lawn area, tennis and basketball courts, horseshoe pit, gazebo, creek

Source: Inyo County 2021b.

Campgrounds

The Inyo County Parks and Recreation Department operates 11 lower elevation campgrounds readily accessible from US 395 within the County, including Diaz Lake, Portuguese Joe, Independence Creek, Taboose Creek, Tinnemaha Creek, Millpond, Baker Creek, Pleasant Valley, Glacier View, Brown's Town,

and Tecopa Park and Campground. All of these campgrounds are located in proximity to surface water features and offer fishing (Inyo County 2021b).

In addition to County-operated campgrounds, there are numerous campgrounds on federal land, including within Death Valley National Park, Inyo National Forest, and BLM lands. There are also numerous private campgrounds throughout the County.

Death Valley National Park

Most of the 3 million acre Death Valley National Park is located within the eastern portion of Inyo County. Death Valley is a major tourist destination and provides a multitude of recreational facilities, including campgrounds, hiking and mountain biking trails, historic sites, museums, and back country roads.

Historical Sites/Points of Interest

The County contains many historical sites and notable points of interest that provide recreation for visitors and residences. Major historical sites and points of interest include but are not limited to: Manzanar National Historic Site; Cerro Gordo Ghost Town; Scotty's Castle; Stovepipe Wells; Armargosa Hotel and Opera House; Mount Whitney Fish Hatchery; Lone Pine Film History Museum; Austin Home; Putnam's Stone Cabin; Earthquake Victims Grave; Eastern California Museum; Laws Railroad Museum; Ancient Bristlecone Pine Forest; Fossil Falls; and Alabama Hills.

Dispersed Recreation

Dispersed recreational activities are those that are not limited to a specific location such as campgrounds or parks. Such outdoor activities can occur in larger use areas on a regional level as well as a local level. Given the amount of open space and wilderness areas within the County, there are an abundance of natural resources that support dispersed recreational activities. Types of dispersed recreational activities that are available in certain geographic areas of the County include the following:

- Fishing
- Hunting
- Hiking and backpacking
- Off-highway vehicle (OHV) riding
- Rock climbing
- Horseback riding
- Mountain biking
- Boating
- Hang gliding
- Rockhounding (i.e., recreational mining)
- Wildlife and nature viewing
- Birding
- Wilderness camping
- Scenic Driving

Fishing is common at many of the numerous lakes, ponds, streams, and rivers within the County. Boating is also provided at many of the lakes. Hunting is dispersed throughout the County and is popular

for big game, and birds including waterfowl. Hiking and backpacking primarily occurs within wilderness areas and forest land with trailheads that lead to a large network of trails within the many mountain ranges and valleys. OHV riding and all-terrain vehicle (ATV) use is a popular activity that occurs in designated OHV areas, as well as within certain areas of the Inyo National Forest and BLM lands.

Popular locations for rock climbing include Mount Williamson, Mount Brewer, Charlotte Dome, Mount Clarence King, North Guard, Central Peak, Mount Gardiner, Dragon Peak, Mount Tyndall, Owens River Gorge, the Alabama Hills, and the Buttermilks. Horseback riding takes place primarily within the John Muir Wilderness and Inyo National Forest. Inyo County also has approximately 2,500 miles of unpaved rural roads and trails used by hikers and mountain bikers, including abandoned railroad corridors and roads maintained by the Inyo National Forest, NPS, BLM, SCE, and the LADWP. Hang gliding is most popular in the summer months and occurs on mesa tops. Rock hounding is common in areas off of US 395. Wildlife and nature viewing is provided in most areas of the County, but particularly within the wilderness areas and forest land. Similarly, birding is popular in natural open space areas and at Owens Lake. Wilderness camping occurs within Death Valley, the Inyo National Forest, and BLM lands. Scenic driving is provided in most areas of the County due to the abundance of scenic resources, and the officially designated state scenic highways and scenic byways within the county.

Other Recreational Facilities

In addition to the outdoor recreational resources and facilities described above, the County contains a few golf courses (Mount Whitney Golf Course, Bishop Country Club, Furnace Creek Golf Course, and Trona Golf Club), several recreational vehicle parks, a few hot springs, and eco-tourist locations that provide recreation opportunities for residents and visitors.

4.16.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact to recreation resources if the project would:

1. 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
2. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.16.3 Impact Analysis

REC-1 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

As described in Section 3.4 Project Description, project implementation could result in the addition of up to 492 dwelling units throughout the County as the result of the General Plan land use designation and zoning changes proposed by the project. The addition of up to 492 dwelling units is anticipated to provide housing for approximately 1,073 residents based on current occupancy rates. As discussed in Section 4.14, Population and Housing, these dwelling units would be constructed over a period of 20 years and would largely provide housing for existing residents of Inyo County.

Inyo County currently provides approximately 7.47 acres of developed, county-maintained park land per 1,000 residents, substantially exceeding its stated goal of 3 acres of community parks per 1,000 residents. Even if all 1,073 residents of the residential units built as a result of the proposed project were new residents to the County, this ratio would be 6.95 acres of developed, county-maintained park land per 1,000 residents and would continue to exceed the county's stated goal. The proposed project would provide housing for up to 1,073 residents, which could cause increased use of existing recreational facilities in the region that could potentially lead to facility deterioration or degradation. However, as discussed in Section 4.14 Population and Housing, it is anticipated that the residential units constructed as a result of the proposed project would generally provide housing to existing residents of Inyo County who are unable to find appropriate housing due to the County's aging housing stock and tight housing market. While residents associated with project implementation and future development would likely use some existing recreational features, these residents would be located throughout the county and their use of park and recreational facilities would be widely dispersed and not concentrated on any one recreational facility. Furthermore, Inyo County offers ample open space for recreation on publicly owned lands. Therefore, the impacts from increased use of existing parks or recreational facilities would be less than significant.

Significance without Mitigation: Less than significant impact.

REC-2 The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment

The project does not include, and would not directly induce, the construction or expansion of recreational facilities in the project area. There would be no impact.

Significance without Mitigation: No impact.

4.16.4 Cumulative Impacts

REC-3 The proposed project would not result in a significant cumulative impact with respect to recreation.

Cumulative impacts would occur when the proposed project, in combination with the other projects in Inyo County, would result in an increased use of parks and recreational facilities such that substantial physical deterioration of the facility would occur, or if the projects would include the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. Potential impacts to recreation are evaluated at the regional level. As discussed above, the proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse impact on the environment, and because it would have no impact it would therefore not contribute to a cumulatively considerable impact.

As discussed above, the proposed project would result in less than significant increased use of regional and neighborhood parks and recreational facilities and therefore would not cause substantial physical deterioration of the facility. Even with the potential additional residents, Inyo County would still well exceed its goal of providing adequate park acreage to resident. Potential development under the proposed project could result in residential development projects being constructed concurrently with, and in proximity to, other land use and development projects in Inyo County shown in Table 4-1, Inyo

County Cumulative Projects List. Each cumulative project could result in a small but incremental impact to recreation. All projects in the County, including the cumulative projects, would be required to comply with the goals, policies, and implementation measures of the County General Plan that would require the provision of adequate parkland for residents. Therefore, the cumulative impact of the proposed project and the other projects included in the cumulative analysis would be less than significant.

Significance without Mitigation: Less than significant impact.

4.16.5 References

National Park Service (NPS). 2006. National Parks Service Management Policies. Accessed May 20, 2021 and available at: https://www.nps.gov/subjects/policy/upload/MP_2006.pdf.

Inyo County. 2021a. Inyo County Code: Title 16 Subdivisions. Current through Ordinance 1264, effective March 21, 2021. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2021b. Parks and Recreation. Accessed May 20, 2021 and available at: <https://www.inyocounty.us/services/parks-recreation>.

2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

4.17 Transportation

This section describes the regulatory framework and existing transportation and traffic conditions related to the proposed project, evaluates the potential impacts that could occur as a result of implementation of the proposed project, including potential impacts to intersections, roadway segments, pedestrian and bicycle facilities, and transit service, and details mitigation measures needed to reduce significant impacts, as necessary.

4.17.1 Environmental Setting

4.17.1.1 Regulatory Framework

This section describes federal, State, and local environmental laws and policies that are relevant to the CEQA review process for transportation and circulation. These policies provide context for the impact discussion related to the proposed project's consistency with the applicable regulatory conditions.

Federal Regulations

Code of Federal Regulations

Code of Federal Regulations (CFR) Title 49, Subtitle B, provides guidelines pertaining to interstate and intrastate transport of goods and hazardous materials and substances, as well as safety measures for motor carriers and motor vehicles that operate on public highways. The primary transportation corridor within the County is US Highway 395; most of the County's population is located along this highway.

CFR Title 23, Part 658 prescribes national policies that govern truck sizes and weights on the national network of highways based on the Surface Transportation Assistance Act. The maximum length of a semitrailer operating in a truck tractor-semitrailer combination is 48 feet. The maximum length of a semitrailer or trailer operating in a truck tractor, semitrailer-trailer combination, is 28 feet. The maximum width of vehicles operating on the national network is 102 inches (except for mobile home transport, which requires a special permit). The maximum gross vehicle weight is 80,000 pounds.

State Regulations

California Department of Transportation

California Department of Transportation (Caltrans) is a State agency overseeing State highway, bridge, and rail transportation planning, construction, maintenance and operation. For administrative purposes, Caltrans divides the State into 12 districts, supervised by district offices. Inyo County is located within District 9 which is headquartered in Bishop. Caltrans requires an encroachment permit for non-transportation activities, including utility construction, occurring within rights-of-way (ROW) of the State highway system. Caltrans also requires transportation permits for the movement of vehicles or loads exceeding the size and weight limitations of the California Vehicle Code.

State Improvement Program

The California Transportation Commission (CTC) administers transportation programming, which is the public decision-making process that sets priorities and funds projects that have been envisioned in long-range public transportation plans (California Transportation Commission 2019). The CTC commits

expected revenues for transportation projects over a multi-year period. The State Transportation Improvement Program (STIP) is a multi-year capital improvement program for transportation projects both on and off the state highway system. The STIP is prepared by Caltrans in cooperation with the metropolitan planning organizations (MPO) and regional transportation planning agencies and contains all capital and noncapital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and Title 23 of the United States Code. STIP is funded with revenues from the state highway account and other funding sources. STIP programming typically occurs every 2 years.

California Transportation Plan 2050

The California Transportation Plan 2050 (CTP) was adopted in February 2021. The CTP, which is overseen by Caltrans, serves as a blueprint for California's transportation system, as defined by goals, policies, and strategies to meet the State's future mobility needs (Caltrans 2021). The goals defined in the CTP fall into three categories: social equity, prosperous economy, and quality environment. Each goal is tied to performance measures. In turn, members from regional and MPOs report these performance measures to Caltrans.

California Streets and Highways Code

The California Streets and Highways Code contains regulations for the care and protection of state and County highways and specifies that permits issued by Caltrans be required for roadway encroachment during truck transportation and delivery, as well as loads that exceed Caltrans' weight, length, or width standards for public roadways. The code also requires permits for utilities constructed within the right-of-way of a public highway.

California Vehicle Code

The California Vehicle Code contains several regulations regarding the safe transport of hazardous materials, hazardous waste, and explosive materials. It also provides weight guidelines and excessive load restrictions for vehicles traveling on highways.

Senate Bill 375

Senate Bill (SB) 375 provides guidance regarding curbing emissions from cars and light trucks to help the State comply with Assembly Bill (AB 32). There are four major components to SB 375. First, SB 375 requires regional greenhouse gas (GHG) emissions targets. The California Air Resources Board's (CARB) Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each MPO in the State. These targets, which MPOs may propose themselves, must be updated every 8 years in conjunction with the revision schedule of the housing and transportation elements of local general plans. Second, the MPOs are required to create a sustainable communities strategy (SCS) that provides a plan for meeting regional targets. The SCS and the regional transportation plan (RTP) must be consistent, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an alternative planning strategy that details an alternative plan for meeting the target. Third, SB 375 requires planning strategy that details an alternative plan for meeting the target. Third, SB 375 requires regional housing elements and transportation plans to be synchronized on 8-year schedules. In addition, regional housing needs allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years of adoption of the housing element. Finally, MPOs must use transportation

and air emissions modeling techniques that are consistent with the guidelines prepared by the CTC. Regional transportation planning agencies, cities, and counties are encouraged, but not required, to use travel demand models that are consistent with CTC guidelines.

Public Resources Code Section 21099(b)(1) (Senate Bill 743)

Public Resources Code (PRC) Section 21099(b)(1) requires the Office of Planning and Research (OPR) to develop revisions to the CEQA Guidelines, thereby establishing criteria for determining the significance of transportation impacts from projects that “promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses.” PRC Section 21099(b)(2) states that, upon certification of the revised guidelines for determining transportation impacts, pursuant to Section 21099(b)(1), automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity, or vehicular traffic congestion shall not be considered a significant impact on the environment under CEQA. In response to PRC Section 21099(b)(2), CEQA Guidelines Section 15064.3 notes that “Generally, vehicle miles traveled is the most appropriate measure of transportation impacts.” The Guidelines section further states that although a lead agency may elect to be governed by this section immediately, lead agencies are not required to utilize vehicle miles traveled (VMT) as the metric to determine transportation impacts until July 1, 2020. These recent changes to the CEQA guidelines and statutes are now in effect. This shift in transportation impact criteria is expected to better align transportation impact analysis and mitigation outcomes with the State’s goals to reduce GHG emissions, encourage infill development, and improve public health through more active transportation.

Previously, LOS measured the average amount of delay experienced by motorists at an intersection during the most congested time of day, while the new metric – VMT – measures the total number of daily miles traveled by vehicles on the roadway network. SB 743 changes the focus of transportation impact analysis in CEQA from measuring impacts on drivers to measuring the impact of driving.

In December 2018, the Governor’s Office of Planning and Research (OPR) published the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), which contains OPR’s technical recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. This Technical Advisory provides screening criteria for certain project types, including a daily trip threshold to define “small projects” with respect to their potential to result in significant transportation effects (Office of Planning and Research 2018).

The Technical Advisory recommends VMT significance thresholds for different project types not meeting the screening criteria. The VMT level is commonly assessed using an efficiency metric, such as VMT per capita or VMT per service population. Lead agencies have the discretion to set thresholds of significance or apply thresholds on a case-by-case basis.

Local Regulations

Inyo County Regional Transportation Plan

The Inyo County Regional Transportation Plan (RTP), adopted in 2019 by the Inyo County Local Transportation Commission, serves as the planning blueprint to guide transportation investments in the County involving local, state, and federal funding through the year 2039. Applicable goals and policies contained in the plan include the following:

- **Goal 2:** A transportation system that is safe, efficient and comfortable which meets the needs of people and goods and enhances the lifestyle of the County's residents.
 - **Policy 2.2.1: Proper access.** Provide proper access to residential, commercial, and industrial areas.
- **Goal 3:** Maintain adequate capacity on State and Local Routes in and surrounding Inyo County and the City of Bishop.
 - **Policy 3.3.1:** Support roadway improvements to optimize public safety. Improve County roads through specific safety improvements and maintenance.

Inyo County General Plan

- **Goal PT-1:** Provide effective, economically feasible, and efficient public transportation in Inyo County that is safe, convenient, efficient, reduces the dependence on privately owned vehicles, and meets the identified transportation needs of the County, with emphasis on service to the transportation disadvantaged.
- **Goal BT-1:** Encourage and promote greater use of non-motorized means of personal transportation within the region.

The Circulation Element of the General Plan (2001, as amended) addresses the movement of people and goods through a variety of transportation facilities, from roads to railroads, bicycle paths to transmission corridors. The Circulation Element presents goals and policies for roadways and highways; scenic highways; public transportation; bicycles and trails; railroads; aviation; canals, pipelines and transmission cables; parking and information technology/telecommuting. Applicable goals and policies include the following:

- **Goal RH-1:** A transportation system that is safe, efficient and comfortable which meets the needs of people and goods and enhances the lifestyle of the County's residents.
 - **Policy RH-1.4: Level of Service.** Maintain a minimum of LOS C on all roadways in the County of Inyo. For highways within the County of Inyo, LOS C should be maintained except where roadways expansion or reconfigurations will adversely impact the small community character and economic viability of designated Central Business Districts.
 - **Policy RH-1.5: Proper Access.** Provide proper access to residential, commercial, and industrial areas.
- **Goal GOV-11: Access and Transportation**
 - **Policy Gov-11.1: Balanced Transportation.** It is the policy of the County to develop and maintain a transportation system that optimizes accessibility and that minimizes the cost of movement within the planning area and connecting corridors consistent with County, state and federal roadways and travel ways; therefore, it is the policy of the County that:

- a. Any and all proposed route closures should be coordinated with the County and be highlighted in the appropriate environmental document.
 - b. Most railroad rights of way have been abandoned. Any remaining railroad right of way being considered for conversion to a different use should be reviewed by the County to determine that the use is temporary and not preclude future railroad use or that it is not viable for future railroad or other transportation use.
 - c. All routes causing no actual resource damage should remain open.
 - d. All off-road closure policies must contain adequate exemptions for administrative, management and public functions. These should include but not be limited to:
 1. Agency administration.
 2. Livestock management.
 3. Scientific research.
 - e. Interagency Notification – The County, when affected by land use planning on public lands, shall be consulted and coordinated with in accordance with all applicable state and federal laws. Federal and state agencies shall coordinate with the County for the purpose of planning and managing lands within the geographic boundaries of the planning area or within the socio-economic sphere of the County.
- **Policy LU-2.14: Access.** The County shall require that adequate vehicle access is provided to all neighborhoods and developments consistent with the intensity of residential development.

4.17.1.2 Existing Conditions

Transportation Network

Transportation planning within Inyo County is geared toward the high influx of pass-through traffic (primarily tourists and trucks) and maintaining a satisfactory level of transportation services to the local population and local industry. The present road and highway system consists of approximately 3,396 miles as follows:

- 424 miles of State highways,
- 1,126 miles of County roads,
- 10 miles of city streets (in the City of Bishop), and
- 1,836 miles of privately and federally controlled roads.

Of the total system miles, approximately 850 are paved. Of the 1,126 miles of County roads and 10 miles of city streets, less than 425 miles are paved. Travel on all roads in Inyo County averaged 1,240,000

vehicle miles each day (Inyo County 2001). Of the total miles traveled, 84 percent is on the State highway system and 16 percent on the remaining roads (Inyo County 2001). Many existing County roads and city streets have extremely light use, and due to funding constraints, many roads receive only minimal or emergency maintenance.

US Highway 395

U.S. Highway 395 is the major transportation corridor in and through Inyo County. This highway is by far the most traveled route in the County and is part of a major transportation corridor connecting the Eastern Sierra Region and Western Central Nevada to the Southern California Region. This corridor (along with Route 14) is the lifeline of all the major communities along the Eastern Sierra. The corridor branches in northeastern Kern County and provides access to the Eastern Sierra from the Los Angeles, San Fernando, and Antelope Valley areas via Route 14 and from San Diego, San Bernardino, Orange County and Ridgecrest areas via US Highway 395. In Inyo County, US Highway 395 is generally a four lane highway with some sections that are two lanes. In downtown Bishop, US Highway 395 is four lanes with limited on street parking and a posted speed limit of 25 miles per hour.

State Route 168

In Inyo County, State Route (SR) 168 originates near Lake Sabrina in the Inyo National Forest, approximately 18 miles southwest of Bishop. In the Sierra Nevada (for approximately 10 miles), the roadway is two lanes with long, steep grades. This section of roadway is primarily used for recreation and to provide access to residential areas within the forest. During the winter the higher elevations of the road receive considerable snowfall, but the road is kept open between Aspendell and Bishop. Near Bishop, the roadway is two lanes with a continuous two-way left-turn lane, and it is designated as a bicycle route.

At U.S. Highway 395, there is a break in the continuity of SR 168. It continues northeast from Big Pine, approximately 15 miles south of Bishop, providing access to the ancient bristlecone pine area and Deep Springs Valley. The route then passes into Mono County and Nevada. The road is steep and winding as it traverses the White Mountains.

Public Transportation

No passenger or freight rail service currently exists in Inyo County, and air travel is limited. The Eastern Sierra Transit Authority (ESTA) was formed through a joint powers agreement (JPA) between Inyo County, Mono County, City of Bishop, and Town of Mammoth Lakes in 2006. Public transit service consists of a variety of demand-response, fixed route, and deviated fixed route and intercity connections to multiple communities in both Inyo and Mono Counties (LSC 2019). Existing fixed route bus routes along U.S. Highway 395 include stops at Pearsonville, Coso Junction, Olancho, Lone Pine, Independence, Aberdeen, Big Pine, and Bishop. Dial-a-ride service is provided in Lone Pine and Bishop.

Bicycle Facilities

Inyo County communities can be traversed in under 20 minutes by bicycle, making bicycling a practical alternative travel mode for trips within the unincorporated towns and their nearby vicinities. Intercity bicycle commuting is limited by long distances, limited availability of alternatives to U.S. Highway 395, and weather.

The County has Class I, II, and III bicycle facilities in the Bishop area and communities of Wilkerson, Death Valley, and Tecopa, and hundreds of miles of striped shoulder that are legal for bicycle use, including the full length of U.S. Highway 395 (LSC 2019). The striped shoulders of U.S. Highway 395, U.S. Highway 6, and SR 168 are used by bicyclists for utility trips near Bishop and also for touring and day rides.

4.17.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant transportation impact if the project would:

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

4.17.3 Impact Analysis

TRA-1 The proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

The County's General Plan includes a number of policies and goals related to transportation and circulation systems. Many of these policies relate to the goal of preserving and improving the efficiency of existing transportation facilities, and of making public transit and alternative mode transit choices (besides the automobile) more viable and attractive.

Because the County is rural and contains substantial areas of wilderness and distance between communities, there are limited facilities within the County that support alternate modes of transportation. Automobiles comprise the principal travel mode within the County. Bus transit services are provided for the larger communities along the U.S. Highway 395 corridor, and bicycle facilities are also provided within the more populated communities. While the General Plan and Inyo County RTP contain goals and policies that support expansion of public transit and non-motorized transportation modes, implementation of the proposed project would not conflict with those goals and policies, nor would it preclude implementation of planned future transportation improvements. The project parcels are located in developed communities in the County, and future development of those parcels would include sidewalk infrastructure that would contribute to the development of bicycle and pedestrian facilities that are not currently available or planned. Therefore, impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

TRA-2 The proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

On September 27, 2013, California Governor Jerry Brown signed SB 743 into law and started a process that changed the way transportation impact analysis is conducted as part of CEQA compliance. These changes include elimination of automobile delay, LOS, and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. According to SB 743, these changes are intended to “more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions.”

In December 2018, the OPR completed an update to the CEQA Guidelines to implement the requirements of SB 743. The Guidelines state that VMT must be the metric used to determine significant transportation impacts. The Guidelines require all lead agencies in California to use VMT-based thresholds of significance in CEQA documents published after July 2020.

The OPR Guidelines recommend developing screening criteria for development projects that meet certain criteria that can readily lead to the conclusion that they would not cause a significant impact on VMT. The OPR Guidelines also recommend evaluating VMT impacts using an efficiency-based version of the metric, such as VMT per resident for residential developments and/or VMT per worker for office or other employment-based developments. Since the County has not developed their screening criteria or thresholds of significance, this analysis uses the screening criteria and thresholds of significance recommended by the OPR Guidelines.

CEQA Guideline Section 15064.3, subdivision (b)(1), states that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these uses) proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor would have a less than significant impact on VMT. This presumption would not apply, however, if project-specific or location-specific information indicates that the project would still generate significant levels of VMT. For example, the presumption might not be appropriate if the project:

- Has a floor area ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the Lead Agency, with input from the Metropolitan Planning Organization); or,
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

None of the exceptions listed above apply to the proposed project. Transit service in Inyo County is provided by ESTA which provides a variety of demand-response, fixed route, and deviated fixed route and intercity connections throughout Inyo and Mono counties. Fixed bus routes along U.S. Highway 395 include stops in Lone Pine, Independence, and Bishop, among others. The bus stop in Lone Pine is located approximately 0.3 miles southwest of the Lone Pine parcels at the corner of B Street and West Gene Autry Lane. The bus stop in Bishop is located at 1190 North Main Street, which is approximately

one mile north of Bishop parcel APN 008-190-01 and approximately 1.2 miles north of the other two Bishop parcels, APN 008-240-01 and APN 008-240-02. The bus stop in Independence is located in front of the courthouse at 168 Edwards Street, which is approximately 0.6 miles northwest of the Independence parcel.

OPR has released guidelines for the evaluation of VMT impacts, including guidelines as to when a project can be presumed to have a less than significant impact. However, the proposed project does not meet any of these criteria. If a proposed project were to be located within 0.5 miles of an existing major transit stop or stop along a high-quality transit corridor the impact to VMT would be presumed to be less than significant. While the Lone Pine parcels are located within 0.5 miles of a transit stop, the bus stop in Lone Pine does not meet the definition of an existing major transit stop or high-quality transit corridor. As defined by OPR Guidelines, an existing major transit stop would contain an existing rail transit station, a ferry terminal served by either bus or rail service, or at the intersection of two or more major bus routes with a frequency of service of 15 minutes or less during the morning and afternoon peak commute periods. A high-quality transit corridor refers to a corridor with fixed-route bus service with intervals no longer than 15 minutes during peak commute hours. While the Lone Pine bus stop is located along several major ESTA bus routes, each route only runs once per day due to limited demand and the rural nature of the County and therefore does not meet the frequency required to qualify as a major transit stop under OPR's guidelines.

Based on the VMT analysis prepared for this project (**Appendix F**), the Countywide average VMT per service population was estimated to be 36.4 in 2020 and is expected to increase to 39.5 in 2040. VMT in the community regions of Inyo County along U.S. Highway 395 (including Lone Pine, Big Pine, West Bishop, and Bishop) have a VMT per service population that is approximately 6.5 percent below the county average. The proposed project would allow for the development of up to 492 units of housing at higher densities in the communities of Lone Pine, Bishop, and Independence, which have approximately 6.5 percent lower VMT than the county average. The VMT modeling presented in Appendix F shows that it is estimated that the addition of these units to these communities would reduce VMT in these areas by a further 8 percent below the county average. Therefore, the proposed VMT per service population for the additional residential development that would be allowed under the proposed project would be 14.5 percent below the Inyo County average.

Per OPR Guidelines, a proposed residential, office, or retail project with a VMT reduction of less than 15 percent indicates a potentially significant impact. Because the VMT reduction that would result from the proposed project is 14.5 percent and does not meet the 15 percent threshold, the proposed project's VMT impact would be potentially significant. However, higher density development results in greater reductions in VMT and the VMT analysis prepared for this project demonstrated that residential densities greater than 4.5 dwelling units per acre would achieve the necessary 15 percent reduction in VMT below countywide averages. As described in Section 3.4 of the Project Description, the proposed project would rezone some of the Bishop parcels to the RH General Plan designation which has an allowable density of 15.1 to 24 dwelling units per acre and other parcels to the CBD General Plan designation which has an allowable density of 7.6 to 24 dwelling units per acre. The Lone Pine parcels would also be re-designated to RH. The proposed project would also change the General Plan designation of the parcels in Independence to RM, which has an allowable density of 4.6 to 7.5 dwelling units per acre. All of the parcels that would be rezoned and re-designated under the proposed project would have a minimum density greater than 4.5 dwelling units per acre which would meet the criteria for reducing VMT at least 15 percent below the County average.

To ensure that the proposed project would lead to a reduction in VMT at least 15 percent below the Countywide average, Mitigation Measure TRA-1 would be implemented requiring applicants proposing to develop on the parcels included in the proposed project to demonstrate to the County that their development has a density equal to or greater than 4.5 dwelling units per acre. With the implementation Mitigation Measure TRA-1, the impacts of the proposed project related to VMT would be less than significant.

Significance without Mitigation: Potentially significant.

Mitigation Measure TRA-1: Ensure VMT Reduction

In order to ensure the reduction of total VMT in the County, Inyo County shall require that applicants seeking to develop residential units on the parcels included in the proposed project to demonstrate that the proposed development would have a residential density equal to or greater than 4.5 dwelling units per acre prior to the issuance of a grading permit.

Significance with Mitigation: Less than significant impact.

TRA-3 The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Potential road hazards can occur due to a design feature or physical configuration of existing or proposed access roads that can affect the safe movement of vehicles along a roadway. Future development of the project parcels would require construction of access roads that would intersect with existing local roadways. These access roads would be designed in compliance with County private roadway standards to allow safe passage of vehicles, including oversized trucks, and would provide safe, adequate sight distances from project driveways and intersections. Adequate sight distance would be verified by completion of a project-specific sight distance analysis. Additionally, future development of the project parcels would not likely include curves, slopes, walls, landscaping, or other barriers that would create potential conflicts for vehicles accessing the project sites. Therefore, the proposed project would not introduce or increase hazards due to a geometric design feature, and impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

TRA-4 The proposed project would not result in inadequate emergency access.

The primary emergency evacuation routes in the vicinity of the project parcels include the U.S. Highway 395, U.S. Highway 6, and SR 136. The U.S. Highway 395 would be utilized during construction and operation of future development on the project parcels, particularly for the Bishop parcels. Traffic control measures, such as the use of flaggers and guide vehicles, may be required at specific times to facilitate construction vehicle ingress and egress from the project parcels to local roads and highways. On-site access roads would also be provided within the project parcels upon development to allow for sufficient emergency vehicle access. A traffic control plan would be prepared and include measures to avoid disruptions or delays in access for emergency vehicles and to notify emergency service providers of any road or traffic conditions that may impede emergency access. Therefore, implementation of the

proposed project would result in inadequate emergency access, and impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

4.17.4 Cumulative Impacts

TRA-5 The proposed project would not contribute to a significant cumulative impact with respect to transportation.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would directly or indirectly have a substantial adverse effect on transportation, VMT, and circulation. The analysis of cumulative impacts is based on impacts of the proposed project and the other cumulative projects in the County as listed in Table 4-1, Inyo County Cumulative Projects List. As discussed above, the proposed project would not have a significant impact on a transportation plan, program, or policy, VMT, street design, or emergency access.

Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp cultivation, dispensaries, and/or retail projects that are less than 1 acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels). Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide.

Because the locations of the project parcels and other cumulative projects are dispersed throughout the County, the cumulative context for analyzing cumulative traffic impacts is the County as a whole. Construction of the proposed projects along with the other cumulative project could result in short-term impacts to local roadways and highways, but those projects would be both intermittent and temporary. The proposed project's contribution to cumulative construction transportation impacts would be less than significant.

As discussed above in Impact TRA-2, the proposed project's impacts on VMT could be potentially significant prior to the implementation of mitigation. However, with the implementation of Mitigation Measure TRA-1 the County would ensure that development on the project parcels would achieve a density of at least 5 dwelling units per acre and which would achieve VMT reductions at least 15 percent below the County average. Therefore, with the implementation of this mitigation measure, the proposed project's VMT impact would be less than significant.

Significance without Mitigation: Less than significant impact.

4.17.5 References

California Department of Transportation (Caltrans). 2021. California Transportation Plan 2050. Published February. Available at: <https://dot.ca.gov/-/media/dot-media/programs/transportation-planning/documents/ctp-2050-v3-a11y.pdf>.

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<https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes>.

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LSC Transportation Consultants, Inc. (LSC). 2019. Inyo County Regional Transportation Plan 2019 – 2039.
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4.18 Tribal Cultural Resources

This section describes the regulatory framework and existing conditions related to tribal cultural resources, evaluates the potential impacts that could occur as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.18.1 Environmental Setting

4.18.1.1 Regulatory Framework

Federal Regulations

National Historic Preservation Act (54 United States Code 300101 et seq.)

The National Historic Preservation Act (NHPA) establishes the federal government policy on historic preservation and the programs, including the National Register of Historic Places (NRHP), through which this policy is implemented. Under the NHPA, significant cultural resources, referred to as historic properties, include any prehistoric or historic district, site, building, structure, object, or landscape included in, or determined eligible for inclusion in, the NRHP. Historic properties also include resources determined to be a National Historic Landmark. National Historic Landmarks are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting United States heritage. A property is considered historically significant if it meets one or more of the NRHP criteria and retains sufficient historic integrity to convey its significance. This act also established the Advisory Council on Historic Preservation (ACHP), an independent agency that promotes the preservation, enhancement, and productive use of our nation's historic resources, and advises the President and Congress on national historic preservation policies. The ACHP also provides guidance on implementing Section 106 of the NHPA by developing procedures to protect cultural resources included in, or eligible for inclusion in, the NRHP. Regulations are published in 36 CFR Parts 60, 63, 800.

Section 106 of the NHPA affords the ACHP and the State Historic Preservation Officer, as well as other consulting parties, a reasonable opportunity to comment on any undertaking that would adversely affect historic properties. State Historic Preservation Officers administer the national historic preservation program at the state level, review NRHP nominations, maintain data on historic properties that have been identified but not yet nominated, and consult with federal agencies during Section 106 review.

The NRHP eligibility criteria (36 CFR Section 60.4) is used to evaluate significance of potential historic properties. Properties meeting any of the following criteria are considered eligible for listing in the NRHP if they retain integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

- a. Associated with events that have made a significant contribution to the broad patterns of our history.
- b. Associated with the lives of persons significant to our past.

- c. Embody the distinctive characteristics of a type, period, or method of construction, 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.
- d. Have yielded, or may be likely to yield, information important in prehistory or history.

Section 101(d)(6)(A) of the NHPA allows properties of traditional religious and cultural importance to a Native American tribe to be determined eligible for NRHP inclusion. In addition, a broader range of Traditional Cultural Properties are also considered and may be determined eligible for or listed in the NRHP. Traditional Cultural Properties are places associated with the cultural practices or beliefs of a living community that are rooted in that community's history and that may be eligible because of their association with cultural practices or beliefs of living communities that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. In the NRHP programs, "culture" is understood to mean the traditions, beliefs, practices, lifeways, arts, crafts, and social institutions of any community, be it an Indian tribe, a local ethnic group, or the nation as a whole.

State Regulations

Native American Heritage Commission

Section 5097.91 of the PRC established the Native American Heritage Commission (NAHC), whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Under Section 5097.9 of the PRC, a State policy of noninterference with the free expression or exercise of Native American religion was articulated along with a prohibition of severe or irreparable damage to Native American sanctified cemeteries, places of worship, religious or ceremonial sites, or sacred shrines located on public property. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Government Code Sections 6254(R) AND 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the NAHC, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Assembly Bill 52 and Related Public Resources Code Sections

Assembly Bill (AB) 52 (Chapter 532, Statutes of 2014) amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which an NOP or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015.

The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as Tribal Cultural Resources (TCR). PRC Section 21074(a)(1) and (2) defines TCRs as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a Lead Agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for the TCRs update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC Section 21080.3.1 requires that within 14 days of a Lead Agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the Lead Agency shall: provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project and who have requested in writing to be informed by the Lead Agency. Tribes interested in consultation must respond in writing within 30 days from receipt of the Lead Agency’s formal written notification and the Lead Agency must begin consultation within 30 days of receiving the tribe’s request for consultation.

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of TCRs; the significance of the project’s impacts on the TCRs; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a TCR; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

If a California Native American Tribe has requested consultation pursuant to PRC Section 21080.3.1 and has failed to provide comments to the Lead Agency, or otherwise failed to engage in the consultation process, or if the Lead Agency has complied with Section 21080.3.1(d) and the California Native American Tribe has failed to request consultation within 30 days, the Lead Agency may certify an EIR or adopt an MND.

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the TCRs, that is submitted by a California Native American Tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the Lead Agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the Lead Agency publishes any information submitted by a California Native American Tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Local Regulations

Inyo County Code

Chapter 9.52 of the Inyo County Code (ICC) covers the disturbance of archaeological, paleontological, and historical features. Under ICC Chapter 9.52, the excavation or exploration for archaeological, educational, or artifact collection purposes of any Native California Indian burial site is prohibited.

Additionally, when archaeological or historical evidence indicates that a site was set aside for a Native California Indian burial site, all plans for a project that may cause disturbance must be submitted to the Big Pine Paiute Tribe of the Owens Valley, the Bishop Paiute Tribe, the Death Valley Timbisha Shoshone Tribe, the Fort Independence Indian Community of Paiute Indians, the Lone Pine Paiute-Shoshone Tribe, the Owens Valley-Paiute-Shoshone Band, and/or other representatives for review and comment.

In the event that a Native California Indian burial site is discovered in the course of a project development, the person responsible for the project must notify the County planning commission and interested California Native Indians in the County. The planning commission will weigh the archaeological, paleontological, or historical value of the burial site against the economic detriment to the project; based on the outcome, either the project or the burial site may be relocated.

Inyo County General Plan

Cultural resources are addressed within the Conservation/Open Space Element of the Inyo County General Plan. Section 8.7, Cultural Resources, of the Conservation/Open Space Element contains the following goals and policies to protect cultural resources within the County:

- **Goal CUL-1:** Preserve and promote the historic and prehistoric cultural heritage of the county.
 - **Policy CUL-1.1: Partnerships in Cultural Programs.** Encourage and promote private programs and public/private partnerships that express the cultural heritage of the area.
 - **Policy CUL-1.2: Interpretive Opportunities.** Support and promote the development of interpretive facilities that highlight the county's cultural resources.
 - **Policy CUL-1.3: Protection of Cultural Resources.** Preserve and protect key resources that have contributed to the social, political, and economic history and prehistory of the area, unless overriding circumstances are warranted.
 - **Policy CUL-1.4: Regulatory Compliance.** Development and/or demolition proposals shall be reviewed in accordance with the requirements of CEQA and the National Historic Preservation Act.
 - **Policy CUL-1.5: Native American Consultation.** The County and private organizations shall work with appropriate Native American groups when potential Native American resources could be affected by development proposals.

4.18.1.2 Environmental Setting

NAHC Sacred Lands File Search

HELIX requested a search of the Sacred Lands File (SLF) maintained by the Native American Heritage Commission (NAHC) for the proposed project. On September 20, 2021, the NAHC provided the SLF search results, which were negative. However, absence of specific cultural resource information in the SLF does not negate the potential presence of cultural resources within the project area and eight parcels. As outlined in the tribal consultation and outreach efforts described below, the County

requested cultural resource information from the tribes noted on the SLF search results. All correspondence relevant to tribal consultations are included in **Appendix G** to this document.

Senate Bill 18 and Assembly Bill 52 Consultation

On November 4, 2020, Inyo County transmitted written requests for consultation with multiple tribal representatives to eight tribal governments that previously requested consultation under AB 52. On November 5, 2020, Inyo County transmitted written requests for consultation with multiple tribal representatives to eight tribal governments under SB 18 per the results of the SLF search.

The County received an email request to consult from the Big Pine Paiute Tribe of the Owens Valley (BPPT) by their Environmental Director, Sally Manning, on November 9, 2021. The correspondence suggested that a meeting be scheduled between County Supervisors and BPPT Tribal leaders.

The County received a written request for consultation from the BPPT on November 19, 2020. The County responded to the written request for consultation regarding scheduling a meeting to consult via email on December 8, 2020, January 6, 2021, and January 20, 2021. The County did not receive a response from the tribe for consultation. In addition, phone calls were made to the tribal administrator that went unreturned.

The County discussed the project with a tribal representative from Fort Independence Indian Community of Paiutes. This tribe did not request formal consultation but asked that they be informed as to the selected parcels for the proposed project in and around the unincorporated communities of Lone Pine and Independence.

4.18.2 Significance Thresholds

In accordance with Appendix G of the CEQA Guidelines, the proposed project would have a significant impact associated with tribal cultural resources if the project would:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
 - a. Listed or eligible for listing in the California Register of Historical Resources, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
 - b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

4.18.3 Impact Analysis

TCR-1 The proposed project may cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: 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).

No evidence has been provided by the tribes that TCRs may be present in the project parcels, and the thresholds under PRC Section 21074(a)(1) have not been met. However, the County acknowledges that TCRs may be present within the project parcels, and the proposed project could cause a significant impact to unknown TCRs within the footprint of the project parcels. Therefore, implementation of Mitigation Measure TCR-1 would address unanticipated discoveries of TCRs, and the proposed project's potential impacts to unknown TCRs would be less than significant.

Significance without Mitigation: Potentially significant impact.

Mitigation Measure TCR-1: Inadvertent Discovery of TCRs

In the event that tribal cultural resources are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards shall then be retained to evaluate the resource's significance under CEQA. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and shall be discussed in consultation with the County.

Significance with Mitigation: Less than significant impact.

TCR-2 The proposed project may cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geologically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No evidence has been provided by the tribes that TCRs may be present in the project parcels, and the thresholds under PRC Section 21074(a)(1) have not been met. However, the County acknowledges that TCRs may be present within the project parcels, and the proposed project could cause a significant impact to unknown TCRs within the footprint of the project parcels. Therefore, implementation of

Mitigation Measure TCR-1 would address unanticipated discoveries of TCRs, and the proposed project's potential impacts to unknown TCRs would be less than significant.

Significance without Mitigation: Potentially significant impact.

See Impacts TCR-1 for Mitigation Measure TCR-1.

Significance with Mitigation: Less than significant impact.

4.18.4 Cumulative Impacts

TCR-3 The proposed project may result in a cumulative impact with respect to tribal cultural resources.

Cumulative tribal cultural resource impacts may occur when a series of actions leads to the loss of historically or archaeologically significant type of site, building, deposit, or tribal cultural resource. For example, while the loss of a single historic building may not be significant to the character of a neighborhood or streetscape, continued loss of such historic resources on a project-by-project basis could amount to a significant cumulative effect. As discussed above, with the implementation of Mitigation Measure TCR-1 for the inadvertent discovery of TCRs during construction, the proposed project would have less than significant impacts on unknown TCRs. However, the analysis of cumulative impacts to tribal cultural resources is based on impacts of the proposed project plus the other cumulative projects in the County. Several cumulative projects are proposed and/or pending within or surrounding the City of Bishop and the unincorporated communities of Lone Pine, Keeler, Pearsonville, Trona, and Charleston View. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp cultivation, dispensaries, and/or retail projects that are less than 1-acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels).

Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide. As such, each cumulative project that would be subject to CEQA would be required to conduct AB 52 consultation with the local tribes. The AB 52 consultation processes that are conducted for each cumulative project would ensure that impacts to TCRs are minimized to the maximum extent feasible. Therefore, with implementation of Mitigation Measure TCR-1 and the requirement for the other cumulative projects subject to CEQA to conduct AB 52 consultation processes with local tribes, no cumulatively considerable impact to TCRs would occur with approval of the proposed project.

Significance without Mitigation: Potentially significant impact.

See Impacts TCR-1 for Mitigation Measure TCR-1.

Significance with Mitigation: Less than significant impact.

4.18.5 References

Inyo County. 2021. Inyo County Code: Title 9 Public Peace, Morals, and Safety. Section VI Offenses Against Property. Chapter 9.52 Disturbance of Archaeological, Paleontological, and Historical Features. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2001. Goals and Policies Report for the Inyo County General Plan. Conservation and Open Space Element. Section 8.7 – Cultural Resources. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

4.19 Utilities and Service Systems

This section describes the regulatory framework and existing conditions related to utilities and service systems, evaluates the potential impacts to water, sanitary sewers, storm drainage, solid waste facilities, and energy systems as a result of implementation of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.19.1 Environmental Setting

4.19.1.1 Regulatory Framework

Federal Regulations

Clean Water Act

Section 304 of the Clean Water Act (CWA) establishes primary drinking water standards and requires states to ensure that potable water retailed to the public meets these standards. State primary and secondary drinking water standards are promulgated in California Code of Regulations Title 22, Sections 64431–64501. Secondary drinking water standards incorporate non-health risk factors including taste, odor, and appearance. The National Pollutant Discharge Elimination System (NPDES) regulates the discharge of drainage to surface waters. Municipal storm drainage is required to meet board standards under waste discharge regulations and NPDES permits. Federal NPDES regulations are administered by the State Water Resources Control Board (SWRCB) and through Regional Water Quality Control Boards (RWQCB). Because the proposed project area drains to the Great Basin, it is under the jurisdiction of the Lahontan RWQCB.

State Regulations

Porter-Cologne Water Quality Control Act (Section 13000 et seq.)

The State Water Resources Control Board and nine RWQCBs are responsible for implementing the CWA and the Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act directs the SWRCB and RWQCBs to prepare water quality control plans (basin plans) that establish water quality objectives and beneficial uses for each body of water, including groundwater basins, within the regional boundaries. The Basin Plan is the basis for each RWQCBs regulatory programs. The County is located within the purview of the Lahontan RWQCB and must comply with applicable elements of the region's Basin Plan, as well as the Porter-Cologne Water Quality Control Act.

California Energy Commission

The California Energy Commission (CEC) regulates the provision of natural gas and electricity within the state. The CEC is the state's primary energy policy and planning agency and has five major responsibilities: forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 megawatts or larger, promoting energy efficiency through appliance and building standards, developing energy technologies and supporting renewable energy, and planning for and directing the state response to energy emergencies.

California Integrated Waste Management Act

The California Integrated Waste Management Act of 1989 (Assembly Bill 939) was adopted to redefine waste management practices and to minimize the volume and toxicity of solid waste that is disposed at landfill facilities in the state. The California Integrated Waste Management Board is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. The California Integrated Waste Management Board develops laws and regulations to control and manage waste; enforcement authority is typically delegated to the local government. The board works jointly with local government to implement regulations and fund programs.

Pursuant to the California Integrated Solid Waste Management Act of 1989, all cities in California are required to reduce the amount of solid waste disposed in landfills. Contracts that include work that will generate solid waste, including construction and demolition debris, have been targeted for participation in source-reduction, reuse, and recycling programs. Contractors are urged to manage solid waste to divert waste from landfills (particularly Class III landfills) and to maximize source reduction, reuse, and recycling of construction and demolition debris.

Assembly Bill 1826

AB 1826 requires that state agencies, businesses, and multifamily complexes that generate specific quantities of organic or solid waste each week enroll in organic recycling programs through an applicable solid waste disposal company. Organic recycling programs may take the form of composting, mulching, or anaerobic digestion. Businesses and multifamily residential housing complexes that generate the following quantities are required to implement organic or solid waste recycling programs under AB 1826:

- Eight or more cubic yards of organic waste per week as of April 1, 2016.
- Four or more cubic yards of organic waste per week as of January 1, 2017.
- Four or more cubic yards of solid waste per week as of January 1, 2019.
- Two or more cubic yards of solid waste per week as of January 1, 2020, if statewide disposal of organic waste is not already reduced by half.

The California Department of Resources Recycling and Recovery (CalRecycle) has determined that California has not achieved its statewide organic disposal goal of reducing organic waste disposal to 50 percent of 2014 levels by 2020, and therefore organic composting and recycling requirements have been expanded such that businesses that generate 2 or more cubic yards of solid waste per week must comply with the requirements of AB 1826 (CalRecycle 2021a).

Local Regulations

Inyo County Code Title 7: Construction and Debris Ordinance

ICC Title 7, Chapter 7.11 contains the County's construction and debris ordinance. Compliance with this ordinance is required for all construction, demolition, and renovation projects within the County for

which a building permit is required, and which exceeds 18 cubic yards per day of generated construction and demolition debris. Inyo County Integrated Waste Management District (ICIWMD) would visit project sites that meet the criteria identified above and discuss plans for managing construction and demolition debris, including best management methods to dispose of or recycle debris. ICIWMD would also advise project applicants about the peak daily limits at local landfills and encourage the project applicants to schedule deliveries of construction and demolition debris. This ordinance requires diversion of all materials from the solid waste stream that can be reasonably diverted for alternative use.

The Inyo County Municipal Code has several provisions that govern solid waste:

- **Title 7.08, Solid Waste Collection and Disposal:** Regulates the collection and disposal of solid waste regarding storage and removal of solid waste, issuance of permits, and equipment standards for vehicles transporting solid waste.
- **Title 7.10, Solid Waste Disposal Sites:** Regulates solid waste disposal sites regarding locations of public disposal sites, unlawful dumping, and hazardous and liquid wastes.
- **Title 7.11, Construction and Debris Ordinance:** The Inyo County Waste Management Department (IWM) is responsible for monitoring construction and demolition material which is accepted or diverted at County landfills. IWM coordinates with construction entities regarding daily landfill limits and project schedule, permitting, and BMPs for disposing of recycling debris.

Inyo County General Plan

The following are goals and policies from the General Plan (Inyo County 2001) that are relevant to the analysis of utilities and service systems.

Land Use Element

Section 4.2, Land Use, in the Land Use Element of the General Plan (Inyo County 2001) provides the following goals and policies related to utilities and service systems:

- **Goal LU-1:** Create opportunities for the reasonable expansion of communities in a logical and contiguous manner that minimizes environmental impacts, minimizes infrastructure and service costs, and furthers the countywide economic development goals. Guide high-density population growth to those areas where services (community and water systems, schools, commercial centers, etc.) are available or can be created through new land development, while providing and protecting open space areas.
 - **Policy LU-1.17: Impacts of New Development on Infrastructure Improvements, Public Facilities, and Services.** The impacts of discretionary projects shall be assessed as required by the California Environmental Quality Act and appropriate, feasible, mitigation will be required at the time such projects are approved and as provided by law. Mitigation required for such projects may include the collection of fees to offset impacts to infrastructure, public facilities, and services.

Section 4.3, Public Services and Utilities, in the Land Use Element of the General Plan (Inyo County 2001) provides the following goals and policies related to utilities and service systems:

- **Goal PSU-1:** To ensure the timely development of public facilities and the maintenance of adequate service levels for these facilities to meet the needs of existing and future County residents.
 - **Policy PSU-1.1: Facilities and Services for New Development.** The County shall ensure through the development review process that public facilities and services will be developed, operational, and available to serve new development. The County shall not approve new development where existing facilities are inadequate unless the applicant can demonstrate that all necessary public facilities will be installed or adequately financed and maintained (through fees or other means).
 - **Policy PSU-1.2: On-Site Infrastructure.** The County shall require all new development, including major modifications to existing development, to construct necessary on-site infrastructure to serve the project in accordance with County standards.
- **Goal PSU-2:** To ensure that adequate facility and service standards are achieved and maintained through the use of equitable funding methods.
 - **Policy PSU-2.2: Fair Share of Costs.** The County shall require that new development pays its fair share of the cost of developing new facilities and services and upgrading existing public facilities and services. Exceptions may be made when new development generates significant public benefits (e.g., low income housing) or when alternative sources of funding can be identified to offset foregone revenues.
- **Goal PSU-3:** To ensure that there will be a safe and reliable water supply sufficient to meet the future needs of the County.
 - **Policy PSU-3.1: Efficient Water Use.** The County shall promote efficient water use and reduced water demand by:
 - Requiring water-conserving design and equipment in new construction;
 - Encouraging water-conserving landscaping and other conservation measures;
 - Encouraging the retrofitting of existing development with water-conserving devices;
 - Providing public education programs;
 - Distributing outdoor lawn watering guidelines
 - Promoting water audit and leak detection programs; and ☐ Enforcing water conservation programs.
- **Goal PSU-4:** To ensure adequate wastewater collection, treatment, and disposal.
 - **Policy PSU-4.1: Community Wastewater Treatment Facilities.** The County shall limit the expansion of unincorporated, urban density communities to areas where community wastewater treatment facilities can be provided.

- **Goal PSU-5:** To collect and dispose of stormwater in a manner that minimizes inconvenience to the public, minimizes potential water-related damage, and enhances the environment.
 - **Policy PSU-5.2: Maintenance.** The County shall require the maintenance of all drainage facilities, including detention basins and both natural and manmade channels, to ensure that their full carrying capacity is not impaired.
 - **Policy PSU-5.3: Natural Systems.** The County shall encourage the use of natural stormwater drainage systems in a manner that preserves and enhances natural features.
 - **Policy PSU-5.4: Runoff Quality.** The County shall improve the quality of runoff from urban and suburban development through use of appropriate and feasible mitigation measures including, but not limited to, artificial wetlands, grassy swales, infiltration/sedimentation basins, riparian setbacks, oil/grit separators, and other best management practices.
 - **Policy PSU-5.5: Drainage Disposal.** New development shall have surface drainage disposal accommodated in one of the following ways:
 - Positive drainage – positive drainage to a County-approved storm drain or retention/detention facility.
 - On-site drainage – drainage retained on-site within the development.
 - Drainage directly to a natural system (i.e., stream, creek) is discouraged and is subject to the Lahontan Regional Water Quality Control Board (LRWQCB) and California Department of Fish and Game [Wildlife] provisions.
 - **Policy PSU-5.6: Drainage System Requirements.** Future drainage system requirements shall comply with applicable state and federal non-point source pollutant discharge requirements.
- **Goal PSU-6:** To ensure the safe and efficient disposal or recycling of solid waste generated in Inyo County.
 - **Policy PSU-6.1: Solid Waste Reduction and Recycling.** The County shall promote maximum use of solid waste reduction, recycling, composting, and environmentally safe transformation of wastes.
- **Goal PSU-8:** To protect the residents of and visitors to Inyo County from injury and loss of life and to protect property from fires.
 - **Policy PSU-8.1: Fire protection for new development.** Prior to the approval of development projects, the County shall determine the need for fire protection services. New development in unincorporated areas of the County shall not be approved unless adequate fire protection facilities can be provided.

- **Goal PSU-10:** To provide efficient and cost-effective utilities that serves the existing and future needs of people in the unincorporated areas of the County.
 - **Policy PSU-10.1: Expansion of Services.** The County shall work with local electric utility companies to design and locate appropriate expansion of electric systems, while minimizing impacts to agriculture and minimizing noise, electromagnetic, visual, and other impacts on existing and future residents.
 - **Policy PSU-10.2: Improvements.** The County shall promote technological improvements and upgrading of utility services in Inyo County.
 - **Policy PSU-10.3: Provision of Services.** The County shall encourage the provision of adequate gas and electric service and facilities to serve existing and future needs.

Conservation/Open Space Element

Section 8.5, Water Resources, in the Conservation/Open Space Element of the General Plan (Inyo County 2001) provides the following goals and policies related to utilities and service systems:

- **Goal WR-1:** To provide an adequate and high quality water supply to all users within the County.
 - **Policy WR-1.1: Water Provisions.** The County shall review development proposals to ensure adequate water is available to accommodate projected growth.
 - **Policy WR-1.3: Water Reclamation.** Encourage the use of reclaimed wastewater, where feasible, to augment groundwater supplies and to conserve potable water for domestic purposes.
 - **Policy WR-1.4: Regulatory Compliance.** Continue the review of development proposals and existing uses pursuant to the requirements of the Clean Water Act, LRWQCB, and local ordinances to reduce polluted runoff from entering surface waters.

Lahontan Regional Water Quality Control Board

The Lahontan Regional Water Quality Control Board (LRWQCB) is a regional division of the SWRCB. The Lahontan Region extends from the Oregon border to the northern Mojave Desert. The South Lahontan Basin includes three major surface water systems (the Mono Lake, Owens River, and Mojave River watersheds) and a number of separate, closed groundwater basins. LRWQCB adopts and implements Water Quality Control Plans (Basin Plans), set by the SWRCB, which recognize regional differences in natural water quality, actual and potential beneficial uses, and water quality problems associated with human activities.

Water quality standards and control measures for surface and ground waters of the Lahontan Region are contained in the 1995 Water Quality Control Plan for the Lahontan Region (Basin Plan). The Basin Plan designates beneficial uses for water bodies and establishes water quality objectives, waste discharge prohibitions, and other implementation measures to protect those beneficial uses.

4.19.1.2 Existing Conditions

Water

The Inyo County Environmental Health Services has been delegated authority as the Local Primacy Agency (LPA) by the California State Water Board Division of Drinking Water. The agency's Small Water System Program includes the regulation of 94 active public and State small water systems located throughout the County, including 30 community systems with 25-199 residential service connections and 25 or more yearlong residents, 10 non-transient noncommunity systems such as schools, institutions, and places of employment, 40 non-transient noncommunity systems such as restaurants, campgrounds, and resorts, and 14 State small systems that serve between 5 and 14 residential service connections but less than 25 yearlong residents (Inyo County 2021a). There are also at least nine other larger water systems throughout the County that are regulated by the State of California. Community service districts and private systems, including groundwater wells, also provide domestic water in other parts of Inyo County.

The Inyo County Public Works Department currently operates community water systems located in Laws, Independence, and Lone Pine. These three water systems are governed by the 2021 Town Water Systems Master Plan, which projects that population in these areas will remain relatively flat over the next 10 years and the existing water systems will have sufficient quantities of water to serve their existing and projected future populations (Inyo County Public Works Department 2021). In other parts of the County, community service districts or private systems provide domestic water. The proposed project includes parcels in the Independence, Lone Pine, and Bishop communities. As described in Chapter 3, through rezoning and processing General Plan land use designation changes, the project proposes to allow for residential or higher density residential uses in order to create more housing opportunity for residents. Part of the selection criteria for parcels during the inventory included that parcels be located within or adjacent to a water and/or sanitary sewer service district. The eight parcels included in the proposed project are located in the existing communities of Independence, Lone Pine, and Bishop, which are currently served by existing water service providers. In the City of Bishop and the surrounding community, water service is provided by the City of Bishop. Independence has a town water system operated by Inyo County (Inyo County 2001). Treated, potable water in Lone Pine and Independence is supplied by Public Works Water Systems (PWWS). The PWWS is governed by the Long-Term Water Agreement and Town Water Transfer Agreements between the County of Inyo and LADWP and requires that the City of Los Angeles Department of Water and Power (LADWP) provide 450 acre-feet (AF) of water per year to Independence and 550 AF of water per year to Lone Pine (Inyo County 2021b).

There are 517 groundwater basins and subbasins in California, and the California Department of Water Resources (DWR) is required to prioritize these groundwater basins and subbasins as either high, medium, low, or very low. The Owens Valley groundwater basin covers a 660,648-acre area and is a low priority groundwater basin. All of the proposed project parcels are located over the Owens Valley groundwater basin. The Owens Valley groundwater basin supplies a total of 1,054 wells, 130 of which are public supply wells. The estimated groundwater use in this basin is 134,680 acre-feet which is 84 percent of the basin's groundwater supply. The estimated volume of non-adjudicated water in the Owens Valley groundwater basin is estimated to be 24,346 acre-feet (DWR 2020).

Wastewater

There are many wastewater service providers in the County, ranging from wastewater treatment facilities in some of the primary population centers of the County (i.e., Bishop, Lone Pine, and Independence) to individual septic systems in the less populated areas of the County. All parcels included in the proposed project are served by a wastewater service provider. In the City of Bishop and the surrounding community, wastewater service is provided by the City of Bishop. Independence has a sewer system operated by the LADWP. Sewer service in Lone Pine is provided by Lone Pine Sewer District (Inyo County 2001).

Stormwater Drainage

Stormwater drainage is managed by the Inyo County Public Works Road Department. Street and surface water storm drainage is managed through a storm water culvert system which moves water from west to east, daylighting into natural channels that eventually terminate in Los Angeles Department of Water and Power irrigation systems (Inyo County 2021b).

Electric Power

Electricity within the County is primarily provided by two service providers: LADWP and Southern California Edison (SoCal Edison). LADWP has transmission lines that run along the east side of the Owens Valley, beginning in the Owens River Gorge and continuing into the San Fernando Valley. The SoCal Edison transmission line service area includes Inyo County and has ties into LADWP lines (Inyo County 2001). Certain areas of the County to the east of Chicago Valley are provided electricity by Las Vegas Power and Light through an agreement with SoCal Edison. The LADWP has a 500kV transmission line which traverses the Owens Valley corridor. SoCal Edison also has a 115kV transmission line traversing the Owens Valley corridor, which serves San Bernardino, Kern, Inyo, and Mono counties and has ties into LADWP lines (Inyo County 2013). Unless the demand for electrical generating capacity exceeds estimates, and provided that there are no unexpected outages to major sources of electrical supply, these electric power providers are expected to meet electrical requirements with current facilities for the next several years in Inyo County (Inyo County 2001).

Telecommunications

Internet service in Inyo County is available through 11 internet service providers, with seven of those offering residential service. Approximately 2,000 people in Inyo County do not have access to any wired internet, and an additional 3,000 people in Inyo County only have access to wired internet at significantly slower speeds than what is available to most California residents. Wired internet providers in the County include Lone Pine Communications, Frontier Communications, Inyo Networks, and Suddenlink Communications. Outside of larger population centers such as Bishop, Lone Pine, Big Pine, and Independence, there are large portions of the County in which no wired internet service providers operate and internet connections are available only via satellite through providers such as Viasat and HughesNet. (Broadband Now 2021)

Solid Waste

The ICIWMD provides management of liquid and solid wastes in the County. The ICIWMD is responsible for the operation of five landfills, four transfer stations, and four bin transfer sites in the County (ICIWMD 2021). The five permitted Inyo County landfills are Class III municipal solid waste disposal

facilities. Each site is permitted to accept general residential, commercial, and industrial refuse for disposal, including municipal solid waste, construction and demolition debris, ash, and dead animals. The County landfills and some of the landfill characteristics are also summarized in Table 4.19-1. Solid waste can also be disposed at one of the four transfer stations operated by the ICIWMD. These stations are located in Big Pine, Keeler, Homewood Canyon, and Olancha.

**Table 4.19-1
INYO COUNTY LANDFILLS**

Landfill	Maximum Daily Throughput (tons/day)	Remaining Capacity (cubic yards)	Estimated Cease Operation Year	Waste Types Accepted
Lone Pine Landfill Substation Road Lone Pine, CA	22	1,002,586	2052	Industrial, mixed municipal, agricultural, construction/demolition, dead animals, ash
Independence Landfill Dump Road Independence, CA	10	126,513	2068	Agricultural, ash, industrial, mixed municipal, tires, dead animals, construction/demolition
Bishop Sunland Solid Waste Site 110 Sunland Reservation Road Bishop, CA	160	3,314,752	2064	Industrial, mixed municipal, agricultural, construction/demolition, other designated, asbestos, contaminated soil, dead animals, sludge (biosolids), ash
Shoshone Landfill* 1 mile east of Shoshone Shoshone, CA	1	8,038	2069	Mixed municipal, construction/demolition, dead animals, green materials
Tecopa Landfill* 1 mile east of Tecopa Tecopa, CA	1	37,048	2190	Mixed municipal, construction/demolition, dead animals, green materials

Source: CalRecycle 2021b; CalRecycle 2021c; CalRecycle 2021d; CalRecycle 2021e.

*The Shoshone and Tecopa Landfills are not open to the public.

Inyo Waste Management (IWM) is responsible for the operation of five landfills, four transfer stations, and four bin transfer sites in the County. IWM offers recycling of numerous materials at the landfills and manned transfer stations, and accepts construction and demolition materials, including broken concrete. The closest landfills to the project sites are the Independence Landfill for the parcel located in Independence and the Bishop Sunland Solid Waste Site for the parcels located in near Bishop. These landfills are expected to remain in operation until 2068 and 2064, respectively, which is well past expected buildout of the proposed project. The only landfill in Inyo County permitted to accept non-friable asbestos and contaminated soil is the Bishop-Sunland Landfill. Bishop-Sunland Landfill has a daily permitted intake of 120 tons and a remaining capacity of approximately 3.3 million cubic yards. Both the Lone Pine Landfill and Bishop-Sunland Landfill operate at approximately half their annual capacity. Table

4.19-2 lists the landfills where solid and industrial waste, such as construction and demolition debris, can be disposed, and the types of materials accepted at each landfill.

There are 4 solid waste service providers in Inyo County. Benz Sanitation provides waste collection services from the Homewood Canyon Transfer Station to the Ridgecrest Landfill in Kern County. The amount of waste transferred to Kern County is estimated by the Source Reduction and Recycling Element to be less than 1 percent of the total County waste stream. Serving the Lone Pine area, Sierra Disposal transports waste from both Keeler Transfer Station and the Olancha Transfer Station to the Lone Pine Landfill. Bishop Waste Disposal, serving Bishop, Big Pine, and surrounding area with individual services, transports waste from the Big Pine Transfer Station to the Bishop-Sunland Landfill. Pahrump Valley Disposal collects waste from disposal bins dispersed throughout the town of Shoshone to the Tecopa Landfill (General Plan).

4.19.2 Significance Thresholds

According to Appendix G of the CEQA Guidelines, the following criteria may be considered in establishing the significance of utilities and service systems:

1. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;
2. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
4. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.19.3 Impact Analysis

UTL-1 The proposed project may require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Development associated with the project is expected to occur in areas already sufficiently served by utilities and service systems as the project serves to allow for increased density on vacant parcels in existing communities. As described in Chapter 3, through rezoning and processing General Plan land use designation changes, the project proposes to allow for residential or higher density residential uses in order to create more housing opportunity for residents. Part of the selection criteria for parcels during

the inventory included that parcels be located within or adjacent to a water and/or sanitary sewer service district. The eight parcels included in the proposed project are located in the existing communities of Independence, Lone Pine, and Bishop, which are currently served by existing utilities. While the parcels are currently vacant, utilities can be extended to serve the development associated with the proposed project.

Future development associated with project implementation would be required to comply with all General Plan conditions requiring development only in areas with adequate infrastructure capacity. If development were to occur in areas not currently served by adequate infrastructure capacity additional infrastructure may be required, the construction of which may cause significant environmental effects. As discussed below in impact UTL-3, the proposed project is located in areas which have adequate wastewater treatment capacity to serve the proposed project. Therefore, project would not require the relocation or construction of new or expanded facilities and the impact would be less than significant. **Significance without Mitigation:** Less than significant impact.

UTL-2 The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

The eight parcels that comprise the proposed project are located in the communities of Bishop, Independence, and Lone Pine. In the City of Bishop and the surrounding community, water service is provided by the City of Bishop. Independence has a town water system operated by Inyo County (Inyo County 2001). Treated, potable water in Lone Pine and Independence is supplied by PWWS which is governed by the Long-Term Water Agreement and Town Water Transfer Agreements between the County of Inyo and LADWP and requires that LADWP provide 450 AF of water per year to Independence and 550 AF of water per year to Lone Pine (Inyo County 2021b).

Over the past ten years, the annual total water use in Independence averages approximately 400 AF, which is less than the 450 AF allotted by the Long-Term Water Agreement and Town Water Transfer Agreements between the County of Inyo and LADWP. Future buildout of the proposed project would add up to 128 housing units and up to 279 residents to the town of Independence. Given that the current population of Independence is 603 persons, the addition of 279 residents would represent a significant increase in population and would result in a corresponding increase in water demand which could not be met under the current agreement. The impact of the proposed project on water supply in the community of Independence would be potentially significant. However, Mitigation Measure UTL-2 would require any development as a result of the proposed project in the town of Independence to demonstrate adequate water supply to support development prior to project approval. Therefore, with the implementation of Mitigation Measure UTL-2 the impact would be less than significant.

The annual total water use in Lone Pine over the past ten years has averaged approximately 515 AF per year, which is less than the 550 AF allotted annually by the Long-Term Water Agreement and Town Water Transfer Agreements between the County of Inyo and LADWP. The proposed project would add up to 20 housing units and up to 44 residents to the town of Lone Pine. While the addition of up to 44 residents to Lone Pine's existing population of 1,807 would not represent a large percentage increase, the additional water demand from these residents may bring the town close to its allotted annual water supply of 550 AF. Therefore, the impact of the proposed project on water supply in the community of Lone Pine is potentially significant. However, implementation of Mitigation Measure UTL-2 would require any development as a result of the proposed project in the town of Lone Pine to demonstrate

adequate water supply to support development prior to project approval. Therefore, with the implementation of Mitigation Measure UTL-2 the impact would be less than significant.

The current water use in Independence is roughly 0.65 AF per capita annually (Inyo County Water Systems

Although water availability in the City of Bishop is currently unknown, all eight of the proposed project parcels are located over the Owens Valley groundwater basin which is a low priority groundwater basin. The Owens Valley groundwater basin supplies a total of 1,054 wells, 130 of which are public supply wells. The estimated groundwater use in this basin is 134,680 acre-feet which is 84 percent of the basin's groundwater supply, and the Sustainable Groundwater Management Act (SGMA) 2019 Basin Prioritization report estimated an 8 percent population growth in the Owens Valley Groundwater Basin from 2010 to 2030. As discussed in Section 4.14, Population and Housing, the population growth rate between 2010 (18,546 people) and 2020 (18,584 people) is less than 0.01 percent. It is estimated that construction of each project parcel at maximum buildout would add 1,073 residents to Inyo County's current population of 18,548 people, which would be a 6.0 percent growth rate from 2010 and less than the assumed 8 percent population growth in the SGMA 2019 Basin Prioritization report (DWR 2020). Therefore, the portion of the proposed project located in the City of Bishop is anticipated to have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

Significance without Mitigation: Potentially significant impact.

Mitigation Measure UTL-1: Demonstrate Adequate Water Supply

Future project applicants would be required to demonstrate that adequate water supply exists to serve the planned development project. Applicants must provide the County with a water supply study demonstrating adequate water supply to serve the development prior to County approval of the grading plans.

Significance with Mitigation: Less than significant with mitigation.

UTL-3 The proposed project may result in a determination by the wastewater treatment provider which serves or may serve the project that it has **adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.**

The eight parcels that comprise the proposed project are located in the communities of Bishop, Independence, and Lone Pine. Wastewater treatment for the Bishop parcels would be provided by the City of Bishop. Connections to the system are available in the adjacent utility easements along the roads bordering the parcels. According to Deston Dishion, the Public Works Director for the City of Bishop, the City has adequate capacity to provide wastewater services to the maximum number of proposed units in Bishop (D. Dishion, personal communication, August 3, 2021). Wastewater treatment for the Lone Pine parcels would be provided by the Lone Pine Sewer District. According to Emma Bills, a board member of the Lone Pine Community Services District, the Lone Pine Sewer District has adequate capacity to serve the maximum of 20 proposed units (E. Bills, personal communication, December 3, 2021). Per a personal communication with the LADWP Independence Chief Plant Operator, the wastewater system in

Independence was designed to serve a population roughly three times the size of Independence's existing population and therefore has capacity to serve the maximum number of additional units proposed by this project (XXXXXXXX). All three wastewater systems that would serve the proposed project have adequate capacity to serve the maximum number of proposed units. Therefore, the impact of the proposed project would be less than significant. .

Significance without Mitigation: Less than significant impact. .

UTL-4 The proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

UTL-5 The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Population increase associated with project implementation is not expected to create substantial amounts of solid waste. For example, if the maximum anticipated number of 492 new units were built out as a result of project implementation, an increase in population of up to 1,073 new individuals in the county could result. This increased population would result in a subsequent increase in solid waste generated. At the current statewide average solid waste disposal rate of 4.7 pounds per day per resident, the 1,073 residents would generate 5,043 pounds per day of solid waste, or approximately 2.43 tons per day of solid waste (CalRecycle 2016). This accounts for only 1.2 percent of the combined maximum daily throughput capacity of the Lone Pine Landfill, Independence Landfill, and Bishop Sunland Solid Waste Site. The increase in waste from the additional residents would represent a small portion of the available permitted capacity at these sites.

Multifamily units that may be constructed as part of the project would be subject to AB 1826, which requires that state agencies, businesses, and multifamily complexes that generate 2 or more cubic yards of solid waste per week enroll in organic recycling programs, which would reduce anticipated solid waste generation. It is not anticipated that future development under the project would result in substantially different solid waste generation rates than the County's 2018 CalRecycle solid waste disposal rates, in which the county meets all established disposal goals. Therefore, the project would not exceed state or local solid waste standards or infrastructure capacity, nor would it fail to comply with solid waste reduction goals. Impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

4.19.4 Cumulative Impacts

UTL-6 The proposed project would result in a significant cumulative impact with respect to utilities.

Cumulative impacts would occur when the proposed project, in combination with other projects in Inyo County, would require or result in the construction of new or expanded utilities, have insufficient water supplies to serve the projects, result in a determination by a wastewater treatment provider that it has inadequate capacity to serve the project's projected demand, generate solid waste in excess of local capacity, or not comply with federal, state, and local solid waste regulations. Potential impacts to

utilities are evaluated on the level at which the service is provided, which may be countywide or more local depending on the service. As discussed above, the proposed project would result in less than significant impacts with mitigation to utilities.

Potential development under the proposed project could result in residential development projects being constructed concurrently with, and in proximity to, other land use and development projects in Inyo County as shown in Table 4-1, Inyo County Cumulative Projects List. Each cumulative project would result in a small but incremental impact to utilities. All projects in Inyo County, including the proposed project and the cumulative projects considered in this analysis, would be subject to the General Plan policies that require projects to demonstrate adequate utility infrastructure prior to project approval. Because the proposed project would result in less than significant impacts with mitigation, its contribution to cumulatively considerable impacts would also be less than significant with mitigation.

Significance without Mitigation: Potentially significant impact.

See Impact UTIL-2 for Mitigation Measure UTL-1.

Significance with Mitigation: Less than significant impact with mitigation.

4.19.5 References

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4.20 Wildfire

This section describes the regulatory framework and existing conditions related to wildfire hazards and risks in the vicinity of the proposed project, evaluates the potential impacts to wildfire hazards and risks that could occur as a result of the proposed project, and details mitigation measures needed to reduce significant impacts, as necessary.

4.20.1 Environmental Setting

4.20.1.1 Regulatory Framework

Federal Regulations

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 provides the legal basis for FEMA's mitigation planning requirements for state, local, and tribal governments as a precursor to mitigation grant assistance. The Disaster Mitigation Act of 2000 requires that local governments prepare a Local Hazard Mitigation Plan that must be reviewed by the State Mitigation Officer, approved by FEMA, and renewed every 5 years. The plan must include a planning process, a risk assessment, a mitigation strategy, and plan maintenance and updating procedures to identify the natural hazards, risks, and vulnerabilities of the area under the jurisdiction of the government. Natural hazards include earthquakes, tsunamis, tornadoes, hurricanes, floods, and wildfires.

State Regulations

California Fire Code

The California Fire Code (CFC) is Part 9 of California Code of Regulations (CCR) Title 24, Building Standards Code. The CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, fire hydrant locations and distribution, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. Chapter 49 of the CFC contains requirements for Wildland-Urban Interface (WUI) areas and prescribes construction materials and methods in fire hazard severity zones; requirements generally parallel California Building Code (CBC) Chapter 7A. The CFC is updated on a three-year cycle; the current 2019 CFC took effect in January 2020.

California Public Resources Code

California Public Resources Code (PRC) Sections 4291 *et seq.* require that brush, flammable vegetation, or combustible growth within 100 feet of buildings be removed. Vegetation that is more than 30 feet from the building, less than 18 inches high, and important for soil stability, may be maintained; as may single specimens of trees or other vegetation that are maintained so as to manage fuels and not form a means of rapid fire transmission from other nearby vegetation to a structure. Requirements regarding hazardous vegetation and fuel management are also contained in Sections 4906 and 4907 of the CFC.

State Responsibility Areas (SRA) are defined by PRC Section 4102 as areas of the State in which the Board of Forestry and Fire Protection has determined that the financial responsibility for preventing and suppressing fires lies with the State of California. SRAs are lands in California where the California

Department of Forestry and Fire Protection (CAL FIRE) has legal and financial responsibility for wildfire protection. SRA lands typically are unincorporated areas of a county, are not federally owned, have wildland vegetation cover, have housing densities lower than three units per acre, and have watershed or range/forage value. In practice, some local government agencies (in this case, local volunteer fire districts), may also provide first due direct protection of some SRAs in coordination with their local CAL FIRE unit. PRC 4202 directs lands within SRAs to be classified into fire hazard severity zones (FHSZ).

Federal Responsibility Areas (FRA) are lands owned and managed by the federal government, which bears regulatory and financial responsibility for wildfire prevention and suppression on those lands. The majority of lands in Inyo County are FRAs.

Local Responsibility Areas (LRA) include lands that do not meet criteria for SRAs or FRAs, or are lands in incorporated areas, cultivated agricultural lands, and nonflammable areas in the unincorporated parts of a county. LRAs can include flammable vegetation and wildland-urban interface areas. LRA fire protection is provided by city or local fire departments, fire protection districts, county fire departments, or by contract with CAL FIRE.

PRC Section 4290 requires the California Board of Forestry and Fire Protection to adopt regulations implementing minimum fire safety standards for defensible space that would be applicable to lands within SRAs and lands within very high fire hazard severity zones (VHFHSZ) of LRAs.

Government Code 51177: Very High Fire Hazard Severity Zones

VHFHSZs are defined by Government Code Section 51177 as areas designated by the Director of Forestry and Fire Protection as having the highest possibility of having wildfires. These zones are based on consistent statewide criteria and the severity of fire hazard that is expected to prevail in those areas. The zones are also based on fuel loading, slope, fire weather, and other factors, such as wind, that have been identified by CAL FIRE as a major cause of the spreading of wildfires. FHSZ maps are produced and maintained for each county.

Senate Bill 1241 (Statutes of 2012, Kehoe)

Senate Bill 1241 revised the safety element requirements for counties and cities with State Responsibility Areas and/or VHFHSZs with LRAs within their boundaries. The bill requires that any revisions of a general plan's housing element after January 2014 must also include the revision and updating of the safety element, as necessary, to address the risk of fire in SRAs and VHFHSZs with LRAs.

2018 California Strategic Fire Plan

The Board of Forestry and Fire Protection's Strategic Fire Plan provides an overall vision for a built and natural environment that is more fire resilient through coordination and partnerships of local, state, federal, tribal, and private entities. First developed in the 1930s, the Strategic Fire Plan is periodically updated; the current plan was prepared in 2018. The Plan analyzes and addresses the effects of climate change, overly dense forests, prolonged drought, tree mortality, and increased severity of wildland fires through goals and strategies. The primary goals of the 2018 Strategic Fire Plan are to do the following.

- Improve the availability and use of consistent, shared information on hazard and risk assessment.

- Promote the role of local planning processes, including general plans, new development, and existing developments, and recognize individual landowner/homeowner responsibilities.
- Foster a shared vision among communities and the multiple fire protection jurisdictions, including county-based plans and community-based plans such as Community Wildfire Protection Plans.
- Increase awareness and actions to improve fire resistance of man-made assets at risk and fire resilience of wildland environments through natural resource management.
- Integrate implementation of fire and vegetative fuels management practices consistent with the priorities of landowners or managers.
- Determine and seek the needed level of resources for fire prevention, natural resource management, fire suppression and related services.
- Implement needed assessments and actions for post-fire protection and recovery.

Local Regulations

Inyo County General Plan

Section 9.5, Wildfire Hazard, in the Public Safety Element of the County General Plan (2001, as amended) identifies a number of potential issues related to wildfire hazards, including associated risks to public safety and property. The principal goal identified to address these concerns, Goal WF-1, is to “Prevent wildfires and provide public safety from wildfire hazards.” Several associated policies and implementation measures are applicable to the proposed project, as summarized below.

- **Policy WF-1.1: Fire Protection Agencies.** This policy is intended to support the expansion of fire protection agencies and volunteer fire departments, and to maintain cooperation with regulatory agencies and private landowners to provide greater fire protection within the County. Associated implementation measures include efforts to: (1) coordinate with fire agencies and work to establish additional fire protection organizations; and, (2) work with local fire districts and volunteer fire departments to identify appropriate service levels and achievement methods.
- **Policy WF-1.2: Limitations in Fire Hazard Zones.** This policy is intended to discourage development in high fire hazard zones. Associated implementation measures include efforts to: (1) maintain a current fire hazards map based on input from CAL FIRE and local fire districts; (2) require appropriate structure setbacks and fuel modification zones; and, (3) review development plans and provide recommendations regarding fire prevention and protection (e.g., access, sprinkler and water pressure requirements).
- **Policy WF-1.3: Fuel Modification.** This policy requires that fuel modification be implemented for structures within fire hazard zones. Associated implementation measures are the same as Nos. 1 and 2 identified above for Policy WF-1.2.
- **Policy WF-1.4: Public Education/Notification.** This policy provides for public education regarding wildfire hazards and related hazard reduction methods. The associated

implementation policy involves generating guidance on appropriate fuel modification criteria for public distribution.

- **Policy WF-1.5: Emergency Access.** This policy notes that all County public roads shall be developed and maintained at adequate standards to provide safe circulation for emergency equipment. The associated implementation policy is the same as No. 3 identified above for Policy WF-1.2.

Inyo County Emergency Operations Plan

The Inyo County Emergency Operations Plan, adopted in 2016, establishes the necessary emergency management organization and assigns functions and tasks consistent with California’s Standardized Emergency Management System (SEMS) and the National Incident Management System (NIMS). The plan provides for the integration and coordination of planning efforts of the County/Operational Area with those of its city, special districts, and the state region. The plan provides a framework for assessing threats and scenarios, preparing for emergencies, and responding to emergencies including wildfire.

Community Wildfire Protection Plan

The Community Wildfire Protection Plan (CWPP) for Inyo County, adopted in April 2009, provides a comprehensive analysis of wildfire hazards and risks in the wildland-urban interface of Inyo County. The CWPP assesses the hazards and risks to define “areas of concern” for Inyo County and allows for prioritization of mitigation efforts. The plan also offers solutions and mitigation that aid homeowners, land managers, and other interested parties in developing short-term and long-term fuels and fire management plans.

4.20.1.2 Existing Conditions

Many rural homes are located near public rangeland or forests, increasing their exposure to wildfire unless owners have created and maintained defensible space. Most communities in the County are protected by local volunteer fire departments.

Fire organizations in the County – federal, state, and local – train to operate under mutual aid agreements. Federal and state agencies have extensive agreements to provide assistance during major incidents. These agencies maintain Incident Command teams to respond to large fires or complexes. Local fire departments elect an Operational Area Fire & Rescue Coordinator (usually one of the fire chiefs), who can request firefighting and rescue resources from the California Governor’s Office of Emergency Services (CalOES) Mutual Aid Region VI when local resources are not sufficient (Inyo County 2016).

The Eastern Sierra wildland fire season normally lasts from mid-June through early October, although drought years or unusual weather may extend that period (Inyo County 2016). Extreme conditions occur during periods of low humidity, low fuel moisture (percentage of water in vegetation), and high winds. Lightning is a major cause of wildfire, but human causes are also common and can include unattended campfires, ignitions from transportation incidents (e.g., chains dragging and creating sparks, auto accidents, parking vehicles with hot engines on dry grass, etc.), and the spread of structure, vehicle, or trash fires to adjacent wildlands.

In Inyo County, the vast majority of wildland fire suppression is the responsibility of the US Forest Service (USFS), Bureau of Land Management (BLM), National Park Service (NPS), other federal resources, and CAL FIRE. The local USFS resources protect lands within Inyo National Forest. BLM resources protect lands owned or managed by that agency. NPS provides wildland fire protection for Death Valley National Park and Manzanar Historic Site. CAL FIRE protects areas, mostly in the Owens Valley, designated as state responsibility areas. Local volunteer fire protection districts provide protection to communities within the County, some of which also include SRAs. In these areas, CAL FIRE and local resources may both respond to incidents.

These federal and state agencies provide the following resources during the declared fire season (Inyo County 2016):

- USFS staffs five fire stations and one helicopter
- BLM maintains three fire stations
- CAL FIRE staffs two fire stations, a fire dozer, and five hand crews
- NPS staffs two wildland engines in Death Valley National Park; one of these is available for out-of-park assignments. NPS has a structure fire protection brigade with two additional engines.
- The Naval Weapons Center at the southern end of the County has its own fire department.
- An interagency dispatch center is located at the Inyo NF Supervisor's Office in Bishop. An additional interagency dispatch center in San Bernardino may provide support for major incidents.

Inyo County is located within the CAL FIRE San Bernardino/Inyo/Mono Unit (BDU). Given that most land in the County is federally owned, only two CAL FIRE BDU stations are located in the County: the CAL FIRE BDU Independence Fire Station, located at 250 East Park Street, Independence, CA, and the CAL FIRE BDU Bishop Fire Station, located at 2784 South Round Valley Road, Bishop, CA. Local government fire departments are discussed independently below.

Independence Parcel

The undeveloped Independence parcel is 16.9 acres and located in the community of Independence in western Inyo County along Mazourka Canyon Road, east of Edwards Street. The project parcel is identified as Assessor's Parcel Number (APN): 002-160-08. It is currently vacant and undeveloped, with the exception of two dirt roads that transverse the parcel and intersect in the center. Fuels on and around the site consist of alkali desert scrub. Site topography is generally flat. It is located within a High FHSZ of SRA (CAL FIRE 2021). The nearest CAL FIRE station is the CAL FIRE Independence Fire Station, located 0.1 mile to the west. The nearest local government station is the Independence Volunteer Fire Department, located 0.4 mile to the northwest at 200 South Jackson Street, Independence, CA. Both stations would likely provide a response to most incidents at the Independence parcel.

Bishop Parcels

The undeveloped Bishop parcels are 14.3 acres combined and located adjacent to but outside of the City of Bishop city limits in northwestern Inyo County. The three Bishop parcels are identified by the

following APNs: 008-240-01; 008-240-02; and 008-190-01. Two of the Bishop parcels (APNs 008-240-01 and -02) are adjacent to the south and west of the City of Bishop city limits, southwest of the intersection of S. Main Street (also US 395) and Jay Street, and the other Bishop parcel (APN 008-190-01) is adjacent to the south and east of the City of Bishop city limits, southeast of the intersection of E. South Street and S. 3rd Street. Prevailing winds typically come from the west, and April is the windiest month with an average hourly wind speed of 7.1 miles per hour (Weather Spark 2021a).

The Bishop Fire Department is a cooperation between the Bishop Rural Fire Protection District and the City of Bishop that provides fire protection and other emergency services in the Bishop area (City of Bishop 2021). The Bishop Fire Department also serves the Bishop Paiute Reservation under contract with the Tribe. As a result, the Department's service area includes Bishop, West Bishop, North Bishop, the Bishop Paiute Reservation, Rocking K, Laws, and Wilkerson.

The Bishop Fire Department is a volunteer department with one full time paid Fire Chief and one part-time paid Assistant Chief (City of Bishop 2021). As a cooperation between the Bishop Rural Fire Protection District and the City of Bishop, the Department works under both the District Board and the City Council. The Department operates three stations in and around the City of Bishop.

APNs 008-240-01 and -02

Both of these parcels are located within a High FHSZ of SRA (CAL FIRE 2021). The parcels are currently vacant and undeveloped. Fuels on and surrounding the parcel consist of annual grasslands and scattered mature trees, including Fremont cottonwood (*Populus fremontii*) and American elm (*Ulmus americana*). Site topography is generally flat. The nearest CAL FIRE station to these two parcels is the CAL FIRE BDU Bishop Station, located 10.3 miles to the northwest. The nearest local government station to these two parcels is Bishop Fire Department Station One, located 0.6 mile to the north at 209 West Line Street, Bishop, CA. CAL FIRE bears ultimate financial responsibility for wildfire protection within SRA, and may send additional resources from their nearest station for major incidents, but given the distance to the nearest CAL FIRE station, initial attack and response to smaller and less complex incidents would be provided by the nearby Bishop Fire Department.

APN 008-190-01

This parcel is located within a High FHSZ of SRA (CAL FIRE 2021). It is currently vacant and undeveloped. Fuels on and surrounding the parcel consist of grass and scattered mature Fremont cottonwoods (*Populus fremontii*), along with Oregon ash (*Fraxinus latifolia*), American elm, and red willow (*Salix laevigata*) forming a subcanopy. A canal borders the parcel to the east and a drainage ditch borders the parcel to the south; fuels in and around the ditch consist of red willow and common bulrush. Site topography is generally flat. The nearest CAL FIRE station to this parcel is the CAL FIRE BDU Bishop Station, located 10.2 miles to the northwest. The nearest local government station to the parcel is the Bishop Fire Department Station One, located 0.5 mile to the northwest at 209 West Line Street, Bishop, CA. CAL FIRE bears ultimate financial responsibility for wildfire protection within SRA, and may send additional resources from their nearest station for major incidents, but given the distance to the nearest CAL FIRE station, initial attack and response to smaller and less complex incidents would be provided by the nearby Bishop Fire Department.

Lone Pine Parcels

The Lone Pine parcels are developed, 0.8 acre combined, and located in the community of Lone Pine in western Inyo County, north of E. Mountain View Street and between N. Hay Street and N. Lone Pine Avenue. The four Lone Pine parcels are located adjacent to each other and identified by the following APNs: 005-072-06; 005-072-07; 005-072-24; and 005-072-30. The Lone Pine parcels are located in a High FHSZ of SRA (CAL FIRE 2021). They are completely surrounded by developed parcels consisting of single-family residential and light commercial uses. The parcels are currently developed with parking lots and a large storage shed and are used by the County to store and stage highway equipment. Site topography is generally flat. Prevailing winds typically come from the west, and April is the windiest month with an average hourly wind speed of 7.3 miles per hour (Weather Spark 2021b).

The nearest CAL FIRE station to the parcels is the CAL FIRE BDU Independence Station located 15.7 miles to the northwest. The nearest local government fire station is the Lone Pine Fire Protection District (FPD) station located 0.2 miles to the west at 130 N Jackson St, Lone Pine, CA. CAL FIRE bears ultimate financial responsibility for wildfire protection within SRA, and may send additional resources from their nearest station for major incidents, but given the distance to the nearest CAL FIRE station, initial attack and response to smaller and less complex incidents would be provided from the nearby Lone Pine FPD station.

4.20.2 Significance Thresholds

According to Appendix G of the CEQA Guidelines, the following criteria may be considered for lands located in or near SRAs or areas classified as very high FHSZs in establishing the significance of Wildfire:

1. Substantially impair an adopted emergency response plan or emergency evacuation plan;
2. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;
3. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment;
4. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

4.20.3 Impact Analysis

FIRE-1 The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.

The proposed project would not involve any changes to public streets, roads, or evacuation infrastructure and would not include the construction of any features that would impair the implementation of the Inyo County EOP or CWPP. No construction is proposed as part of this EIR, and thus impacts from any future construction-related traffic or temporary roadway impediments are not evaluated here. All parcels considered in this EIR have multiple potential routes of ingress and egress, along with nearby access to US 395, which is a major north/south route through the County and could

serve as an evacuation route if needed. Additionally, all parcels considered here also have access to other routes of travel to evacuate the areas if a portion of US 395 were to become unusable. Therefore, the proposed project would not impair an adopted emergency response or evacuation plan or access routes within Inyo County, and any impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

FIRE-2 Due to slope, prevailing winds, and other factors, the project would not exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Independence Parcel

The Independence Parcel is located just east of the developed areas of the community of Independence; it is surrounded to the west, north and east by alkali desert scrub and to the south by Mazourka Canyon Road. Though the parcel does abut areas of unmanaged native vegetation, the vegetation is sparse, well-spaced, and low to the ground, and could be adequately managed in the case of an approaching wildland fire by local fire agencies. Any development on the parcel would be required to comply with all CBC and SRA regulations to maintain fire safety, site access, water supply, and defensible space. By complying with these requirements, any future development on the site would not significantly exacerbate wildfire risk. The site is provided with adequate levels of fire protection by both CAL FIRE and local government, with two stations located within 0.4 mile of the parcel. The parcel would be served by multiple routes of ingress and egress, as any potential future occupants could proceed west along Mazourka Canyon Road approximately 0.3 mile to reach US 395, a major north/south route through the County that could serve as an evacuation route if needed. Additionally, site occupants could also proceed east along Mazourka Canyon Road to evacuate the area if needed. The proposed action would not significantly exacerbate wildfire risks or significantly increase the exposure of any potential future occupants of the site to risks from wildfire. Impacts would be less than significant.

Bishop Parcels

APNs 008-240-01 and -02

These parcels are located along the southern and western edge of the City of Bishop. APN 008-240-02 is bordered by US 395 to the east, West Jay Street and urban development to the north, undeveloped APN 008-240-01 to the west, and a developed site (the Inyo County Road Department Body Shop) to the south. APN 008-240-01 is bordered by an extension of West Jay Street, a small area of natural vegetation, and an urbanized area to the north, by natural vegetation to the south and west, and by undeveloped APN 008-240-02 to the east. Fuels on and surrounding the parcel consist of annual grasslands and scattered mature trees, including Fremont cottonwood and American elm, and could be adequately managed by existing fire protection resources in the case of an approaching wildfire. Any development on the parcel would be required to comply with all CBC and SRA regulations to maintain fire safety, site access, water supply, and defensible space.

By complying with these requirements, any future development on the site would not significantly exacerbate wildfire risk. The parcels are provided adequate levels of fire protection, with the nearest local government station approximately 0.6 mile to the north. The parcels are immediately adjacent to US 395, a major north/south route through the County, which could be used as an emergency evacuation route if needed. The proposed action would not significantly exacerbate wildfire risks or

significantly increase the exposure of any potential future occupants of the site to risks from wildfire. Impacts would be less than significant.

APN 008-190-01

This parcel is located just south and east of the City of Bishop and is bordered on its west by South Third Street and on its north by East South Street. The parcel adjoins an area of existing urban development to the north and west. It is bordered to the east by a canal, red willows, and an open Fremont cottonwood woodland, and to the south by one developed parcel near the southwestern corner and Fremont cottonwood woodland and red willow along the remainder of the southern boundary. Fuels bordering the site to the south and east consist mostly of short annual grasses and scattered cottonwoods, red willows, and other trees; these fuels could be adequately managed by existing fire protection resources in the case of an approaching wildland fire. Additionally, the canal along the eastern boundary of the site and drainage ditch along the southern boundary could serve as natural fuel breaks for smaller wildfires.

Any development on the parcel would be required to comply with all CBC and SRA regulations to maintain fire safety, site access, water supply, and defensible space. By complying with these requirements, any future development on the site would not significantly exacerbate wildfire risk. The parcel is provided adequate levels of fire protection, with the nearest local government station approximately 0.5 mile to the northwest. The parcel has multiple routes of ingress and egress and is located approximately 0.2 mile east of US 395, a major north/south route through the County that could serve as an evacuation route if needed. The site is also accessible via numerous other streets, and occupants could also proceed north 0.2 mile to East Line Street and follow it east or west out of Bishop if US 395 were to become obstructed.

With adherence to the California Building Code and SRA fire safe regulations, along with maintenance of defensible space accompanying future development on these parcels, the project would not significantly increase wildfire risk or significantly increase the exposure of any potential future occupants of the site to risks from wildfire. Impacts would be less than significant.

Lone Pine Parcels

The Lone Pine parcels are located within an area of existing single-family residential and light commercial development. They are surrounded by roads and by developed properties and do not adjoin any areas of natural vegetation. The likelihood of any current use or future development within these parcels contributing to the ignition or spread of a wildfire is low, given the significant distance to any areas of natural vegetation (approximately 1,000 feet) and the development separating these parcels from natural vegetation. Adequate fire protection exists for these parcels, as the nearest local government fire station is located 0.2 miles west of the parcels. The parcels have multiple routes of ingress and egress and are situated approximately 0.1 mile east of US 395, a major north/south route through the County that could serve as an emergency evacuation route if needed.

With adherence to the California Building Code and SRA fire safe regulations, along with maintenance of defensible space accompanying any future development on these parcels, the project would not significantly increase wildfire risk or significantly increase the exposure of any potential future occupants of the site to risks from wildfire. Impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

FIRE-3 The proposed project would not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Independence Parcel

The Independence Parcel is located just east of the developed areas of the community of Independence; it is surrounded to the west, north and east by alkali desert scrub and to the south by Mazourka Canyon Road. Though the parcel does abut areas of unmanaged native vegetation, the vegetation is sparse, well-spaced, and low to the ground, and could be adequately managed in the case of an approaching wildland fire by local fire agencies.

Any development on the parcel would be required to comply with all CBC and SRA regulations to maintain fire safety, site access, water supply, and defensible space. Compliance with these requirements, and maintenance of defensible space on the project site, would adequately reduce risk of wildfire to the parcel. Additional fuel breaks or other infrastructure offsite would not be required. The parcel would be served by extensions of existing utilities and would not require the installation of utilities that may exacerbate fire risk. Any impacts would be less than significant.

Bishop Parcels

APNs 008-240-01 and -02

These parcels are located along the southern and western edge of the City of Bishop. APN 008-240-02 is bordered by US 395 to the east, West Jay Street and urban development to the north, undeveloped APN 008-240-01 to the west, and a developed site (the Inyo County Road Department Body Shop) to the south. APN 008-240-01 is bordered by an extension of West Jay Street, a small area of natural vegetation, and an urbanized area to the north, by natural vegetation to the south and west, and by undeveloped APN 008-240-02 to the east. Natural vegetation bordering the parcels consists mostly of consist of annual grasslands and scattered mature trees, including Fremont cottonwood and American elm, and could be adequately managed by existing fire protection resources in the case of an approaching wildfire.

Any development on the parcels would be required to comply with all CBC and SRA regulations to maintain fire safety, site access, water supply, and defensible space. Compliance with these requirements, and maintenance of defensible space on the project site, would adequately reduce risk of wildfire to the parcels. Additional fuel breaks or other infrastructure off-site would not be required. The parcel would be served by extensions of existing utilities and would not require the installation of utilities that may exacerbate fire risk. Any impacts would be less than significant.

APN 008-190-01

This parcel is located just south and east of the City of Bishop and bordered on its west by South Third Street and on its north by East South Street. Existing road access to the parcel is adequate and no public road construction would be required. The parcel adjoins an area of existing urban development to the north and west and could be served by extensions of existing infrastructure. The parcel is bordered to the east by a canal, red willows and scattered trees and annual grasses as part of a Fremont cottonwood woodland, and to the south by one developed parcel near the southwestern corner and natural

vegetation along the remainder of the southern boundary. A drainage ditch also borders the parcel to the south. Fuel breaks would not be applicable on the northern and western sides of the parcel, as those sides border areas of existing urban development. The canal along the eastern boundary of the site and drainage ditch along the southern boundary could serve as natural fuel breaks for smaller wildfires. Fuels bordering the site to the south and east consist mostly of short annual grasses and red willows and Fremont cottonwood woodland; these fuels could be adequately managed by existing fire protection resources in the case of an approaching wildland fire.

Any development on the parcels would be required to comply with all CBC and SRA regulations to maintain fire safety, site access, water supply, and defensible space. Compliance with these requirements, and maintenance of defensible space on the project site, would adequately reduce risk of wildfire to the parcel. The parcel would not require any offsite fuel breaks or other infrastructure to reduce wildfire risks or the installation of any infrastructure to reduce wildfire risk that may have a significant temporary or ongoing impact to the environment. The parcel would be served by extensions of existing utilities and would not require the installation of utilities that may exacerbate fire risk. Impacts for this parcel would be less than significant.

Lone Pine Parcels

The Lone Pine parcels are located within an area of existing single-family residential and light commercial development. They are surrounded by roads and by developed properties and do not adjoin any areas of natural vegetation and could be served by connections with existing infrastructure. No fuel breaks or other infrastructure would be required for these parcels that would exacerbate wildfire risk or that would be installed to reduce wildfire risk. Impacts from the Lone Pine Parcels would be less than significant.

Significance without Mitigation: Less than significant impact.

FIRE-4 The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

The Independence parcel is not located within a 100-year floodplain (FEMA 2011a). None of the Bishop parcels are located within a 100-year floodplain (FEMA 2020). None of the Lone Pine parcels are located within a 100-year floodplain (FEMA 2011b). Due to the relatively flat topography of the project sites, stormwater infrastructure that would be installed as part of any development, and lack of change in topography and vegetation, the proposed project would not result in substantial runoff, post-fire slope instability or drainage changes and therefore would not expose people or structures to significant risks from flooding or slope instability in the aftermath of a wildland fire. Therefore, impacts would be less than significant.

Significance without Mitigation: Less than significant impact.

4.20.4 Cumulative Impacts

FIRE-5 The proposed project would be located in a State Responsibility Area but would not contribute to a significant cumulative impact with respect to wildfire.

The areas considered for cumulative impacts related to wildfire are the SRAs in which the project parcels and cumulative projects are located, and all eight parcels evaluated in this EIR are located within SRAs. Most of the cumulative projects included in this analysis are related to the cannabis industry, including hemp and cannabis cultivation, dispensaries, and/or retail projects that are less than 1 acre in size and located over 50 miles from the nearest project parcel (except for the hemp cultivation project located approximately 1.7 miles southwest of the Lone Pine parcels). Mojave Precious Metals is an exploratory drilling project located approximately 18 miles southeast of the Lone Pine parcels, and the Robbie Barker Solar project is a solar development project located approximately 65 miles south of the Lone Pine parcels. The remaining cumulative projects are land use planning projects that are within or surrounding the City of Bishop or apply Countywide.

The proposed project and other cumulative projects would involve the addition of new residents to the area, cultivation of cannabis or hemp, installation of a utility-scale solar development, and exploratory drilling; however, the proposed project and other cumulative projects would not include components that would exacerbate wildfire risk. The County and other project applicants would be required to coordinate with CAL FIRE to ensure firefighter access in an emergency and provide training and planning to manage on-site vegetation to minimize fire risk and keep emergency fire kits on-site during project construction and operation of the cannabis cultivation facilities, solar facility, and exploratory drilling. Projects would be required to install and maintain a fire prevention and automatic sprinkler system in compliance with the Uniform Fire Code. Additionally, similar to the proposed project, the other cumulative projects would be required to comply with the CFC, California Building Code, the California PRC, CWPP for Inyo County, Inyo County EOP, and other State and local regulations that would ensure adequate evacuation capabilities in the area.

Compliance with these requirements would reduce cumulative impacts relating to wildfire hazards and emergency response. Accordingly, the development and approval of the other cumulative projects would not result in a cumulatively significant impact to wildfire hazards, and impacts from the proposed project would not be cumulatively considerable. Therefore, approval of the proposed project would not contribute to a significant cumulative increase in wildland fire hazards in the immediate vicinity of the project parcels or throughout the County, and the potential for cumulative impacts associated with wildfire hazards would be less than significant.

Significance without Mitigation: Less than significant impact.

4.20.5 References

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5.0 PROJECT ALTERNATIVES

This section of the EIR evaluates whether there may be feasible alternatives to the proposed project that could avoid or substantially lessen any of the identified significant effects of the project as proposed. Section 15126.6(a), Consideration and Discussion of Alternatives to the Project, of the CEQA Guidelines states that:

An EIR shall describe a range of reasonable alternatives to the project, or 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. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

The following discussion is intended to inform the public and decision makers of a reasonable range of feasible alternatives to the proposed project that would avoid or substantially lessen any significant effect of the proposed project. This section describes the purpose of the alternative's discussion; provides a summary of the reasonable range of alternatives, including a summary of potentially significant impacts and the relationship of each alternative to the project objectives; and, as required, identifies the environmentally superior alternative.

5.1 RATIONALE FOR ALTERNATIVE SELECTION

Section 15126.6(c) of the CEQA Guidelines states:

The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly describe the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination. Additional information explaining the choice of alternatives may be included in the administrative record. Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts.

According to the CEQA Guidelines Section 15364, feasibility is defined as:

[The capability] of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.

5.2 PROJECT OBJECTIVES AND SIGNIFICANT IMPACTS

As described in Chapter 3.0, Project Description, the following objectives have been established for the proposed project:

- Provide for increased housing opportunities in Inyo County by processing General Plan land use designation and zoning changes for select parcels within existing and established communities to allow for residential or higher density residential uses;
- Focus future housing opportunities to vacant land located adjacent to existing public transit stops and public utilities and services;
- Minimize direct and indirect impact from increased housing opportunities on the physical, biological, cultural, political, and socioeconomic environments; and
- Identify zone changes to be consistent with General Plan land use designations to maximize density.

As described in Section 4.19, the proposed project would result in significant and unavoidable impacts to Utilities and Service Systems. The proposed project may be located in areas that do not have adequate water supplies or wastewater treatment capacity which would result in a significant and unavoidable impact. Although Mitigation Measure UTL-1, which requires future project applicants to demonstrate that adequate wastewater treatment capacity exists prior to County issuance of grading permits, would be implemented to reduce this impact, no feasible mitigation measures have been identified to reduce the impact to a less than significant level.

5.3 ALTERNATIVES ANALYSIS

This EIR analyzes two project alternatives, the No Project Alternative and Reduced Housing Opportunity Alternative, in detail to compare to the proposed project because of their potential to reduce the potential impacts. The two alternatives are discussed in more detail in the following subsections.

5.3.1 No Project Alternative

This alternative is required under Section 15126.6(e) of the State CEQA Guidelines and represents a possible scenario that could occur if the proposed project is not approved. According to Section 15126.6 (e)(3)(B) of the State CEQA Guidelines, 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. The No Project Alternative would result in no changes to the project site, and it is assumed that the eight vacant project parcels would be developed to the maximum extent allowable under the existing land use. See below for the existing General Plan land use designations and zoning and maximum development allowed under the No Project Alternative for the eight project parcels, discussed by community. In sum, under the No Project Alternative, the development of the eight project parcels combined under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure.

5.3.1.1 Independence Parcel

The Independence parcel is currently designated for Residential Ranch (RR) in the County's General Plan and zoned for Rural Residential, 1-acre minimum (RR-1.0). See below for a summary of allowable uses and minimum development standards for the existing RR General Plan land use designation and RR-1.0 zoning district.

Allowable density for RR is 1 DU per 10 acres, and the Independence parcel is 16.9 acres. Therefore, under the No Project Alternative, a maximum of 1 DU would be developed on the Independence parcel (Inyo County 2001). As noted above, the Independence parcel is zoned for RR-1.0, and the RR-1.0 zone district allows for one single-family dwelling on a lot, including single-family mobile homes subject to the requirements of Section 18.78.350 of the County's code and orchards, vegetable and field crops, nurseries, and gardens as principal permitted uses. The maximum building height for the principal structure would be two and one-half stories or up to 30 feet tall. The front yard setback would be 50 feet; rear yard setback would be 30 feet; side yard setbacks would be 20 feet (Inyo County 2021).

The No Project Alternative assumes maximum buildout of the parcel as allowed by the existing General Plan land use designation and zoning, and that the entire 16.9 acres would be developed with one single-family dwelling with the remainder of the parcel used for orchards, vegetable and field crops, nurseries, and gardens.

5.3.1.2 Bishop Parcels

APN 008-240-01 is currently designated for Public Service Facilities (PF) in the County's General Plan and zoned for Public (P). Under the No Project Alternative, maximum allowable non-residential intensity (Floor Area Ratio [FAR]) is 0.9, and this parcel is 5.8 acres (Inyo County 2001). As noted above, this parcel is zoned for P, and the P zone district allows for buildings and causes of governmental agencies (Inyo County 2021). The No Project Alternative assumes maximum buildout of this parcel as allowed by the existing General Plan land use designation and zoning, and that the entire 5.8 acres would be developed with a public building up to 0.9 FAR and ancillary infrastructure.

APN 008-240-02 is currently designated for Agriculture (A) in the County's General Plan and zoned for Light Industrial (M2-PP). Under the No Project Alternative, maximum allowable density for the Agriculture General Plan land uses designation is either 1 DU per 10 acres, 0.1 FAR for non-residential structures, or 0.25 FAR for agriculturally oriented services (Inyo County 2001). Because this parcel is 3.3 acres, the development of a single-family dwelling would not be allowed by right as it does not meet the minimum acreage requirement in the General Plan, and it is assumed that this parcel would be developed for non-residential uses.

As noted above, this parcel is zoned for M2-PP, and the M2-PP zone district allows for agriculture uses of any kind (excluding feedlots, poultry ranches, or slaughterhouses), all types of manufacture, processing, treatment, or assembly of products other than those which may be obnoxious or offensive by reason of odor, dust, smoke, noise, or other similar causes including mineral processing or ore stockpiling, wholesale business, storage building, and warehouses, furniture manufacture, trucking terminal, laboratory, experimental, or testing, wood lot, public and quasi-public buildings and uses of an administrative, recreational, educational, religious, cultural, or public utility or service nature, or any other use or service establishment determined by the Planning Commission to be of the same general character as the foregoing uses, and which would not impair the present or potential use of adjacent

properties (Inyo County 2021). The No Project Alternative assumes maximum buildout of this parcel as allowed by the existing General Plan land use designation and zoning, and that the entire 3.3 acres would be developed with an agriculturally-oriented service up to 0.25 FAR and ancillary infrastructure.

APN 008-190-01 is currently designated for Residential Medium Density (RM) in the County's General Plan and zoned for One Family Residential, 7,200 sf minimum (R-1). Under the No Project Alternative, between 4.6 and 7.5 dwelling units/per acre are allowed and the maximum allowable non-residential intensity (FAR) is 0.4, and this parcel is 5.2 acres (Inyo County 2001). As noted above, this parcel is zoned for R-1, and the R-1 zone district allows for one single-family dwelling on a lot, including single-family mobile homes subject to the requirements of Section 18.78.350 of the County's code and garden or orchard field crop where no building is involved as principal permitted uses (Inyo County 2021).

The No Project Alternative assumes maximum buildout of the parcels as allowed by the existing General Plan land use designations and zoning, and the entire 14.3 acres would be developed as described above.

5.3.1.3 Lone Pine Parcels

Three of the Lone Pine parcels (APNs 005-072-07, 005-072-24, and 005-072-30) are currently designated for PF in the County's General Plan and zoned for P. Under the No Project Alternative, maximum allowable non-residential intensity (FAR) is 0.9, and these parcels are 0.6 acre combined (Inyo County 2001). As noted above, these parcels are zoned for P, and the P zone district allows for buildings and causes of governmental agencies (Inyo County 2021). The No Project Alternative assumes maximum buildout of these parcels as allowed by the existing General Plan land use designation and zoning, and that the entire 0.6 acre would be developed with a public building up to 0.9 FAR and ancillary infrastructure.

APN 005-072-06 is currently designated for Residential Medium-High Density (RMH) by the County's General Plan and zoned for Multifamily Residential, 6,500 sf minimum (R-2). Under the No Project Alternative, allowable density for RMH is between 7.6 and 15.0 du/ac, and because this parcel is 0.2 acre, the maximum number of dwelling units allowed to be developed on this parcel would be 3 dwelling units (Inyo County 2001). As noted above, this parcel is zoned for R-2, and the R-2 zone district allows for one single-family dwelling on a lot or two separate single-family dwellings (including single-family mobile homes subject to the requirements of Section 18.78.350 of the County's code), duplex (including two-family mobile homes subject to the requirements of Section 18.78.350, and garden, orchard, field crop where no building is involved as principal permitted uses. The maximum building height for the principal structure would be three stories or up to 40 feet tall. The front yard setback would be 25 feet; rear yard setback would be 20 feet; side yard setbacks would be 5 feet (Inyo County 2021).

The No Project Alternative assumes maximum buildout of the parcels as allowed by the existing General Plan land use designations and zoning, and the entire 0.8-acre area would be developed as described above.

5.3.2 Reduced Housing Opportunity Alternative

Under the Reduced Housing Opportunity Alternative, the project would eliminate the Independence (Mazourka Canyon) parcel; the General Plan land use designation and zoning of the Independence Parcel would not be amended. However, the General Plan land use designation and zoning for the Bishop and Lone Pine parcels would be amended as proposed in Chapter 3.0, Project Description. With the elimination of the proposed land use changes for the Independence Parcel, the Reduced Housing Opportunity Alternative would propose General Plan land use designation and zoning changes to seven project parcels located within the community of Lone Pine and adjacent to and outside the City of Bishop city limits. The seven project parcels range in size from 0.2-acre up to 5.8 acres for a combined total of 15.1 acres under this alternative. The Reduced Housing Opportunity Alternative would allow for a combined maximum of 364 dwelling units (DU) on the seven project parcels proposed for General Plan land use designation and zoning changes. With an average household size of 2.18 persons per household in Inyo County (US Census 2019), this alternative would provide additional housing to accommodate approximately 794 persons (US Census 2019), and water demand would be approximately 13.9 million gallons (or 42.7 acre-feet) of water per year (DWR 2021).

5.3.3 Assumptions and Methodology

The alternatives analysis compares the impacts of the alternatives to the proposed project. The No Project Alternative assumes no General Plan land use or zoning changes, and the project parcels would be developed to the maximum extent allowable under their current land use designations and zoning. The Reduced Housing Opportunity Alternative is similar to the proposed project, but the alternative would eliminate the proposed General Plan land use designation change from RR to Residential Medium Density (RM) and zoning change from RR-1.0 to Multiple Family Residential (R-3) for the Independence parcel. As described in Section 4.4, Biological Resources, Section 4.5, Cultural Resources, Section 4.7, Geology and Soils, Section 4.10, Hydrology and Water Quality, Section 4.13, Noise, and Section 4.18, Tribal Cultural Resources, mitigation measures would be required to reduce potentially significant impacts for the proposed project. Additionally, this EIR concluded in Section 4.19, Utilities and Service Systems (for inadequate wastewater treatment capacity) that the proposed project would result in significant and unavoidable impacts.

The following analysis compares the potentially significant environmental impacts of the project alternatives with the project-related impacts for each of the environmental topics analyzed in detail in Sections 4.1 through 4.20 of this EIR. Table 5-1 summarizes the impacts of each of the alternatives compared to the proposed project.

**Table 5-1
COMPARISON OF PROJECT ALTERNATIVES**

Topic	No Project Alternative	Reduced Housing Opportunity Alternative
Aesthetics	=	-
Agriculture and Forestry Resources	-	=
Air Quality	=	-
Biological Resources	=	-
Cultural Resources	=	-
Energy	=	-

Topic	No Project Alternative	Reduced Housing Opportunity Alternative
Geology and Soils	=	-
Greenhouse Gas Emissions	=	-
Hazards and Hazardous Materials	=	-
Hydrology and Water Quality	=	-
Land Use and Planning	-	-
Mineral Resources	=	=
Noise	=	-
Population and Housing	-	-
Public Services	-	-
Recreation	=	=
Transportation	=	-
Tribal Cultural Resources	=	-
Utilities and Service Systems	=	-
Wildfire	=	-

Notes:

- Reduced impact in comparison to the proposed project.
- = Similar impacts in comparison to the proposed project.
- + Greater impact, or loss of beneficial impact, in comparison to the proposed project.

5.4 COMPARATIVE IMPACT ANALYSIS

5.4.1 No Project Alternative

Under the No Project Alternative, the land uses of the eight project parcels would not be amended, and it is assumed that the eight vacant project parcels would be developed to the maximum extent allowable under the existing land use.

5.4.1.1 Aesthetics

The proposed project would not result in a significant impact on aesthetics. The proposed project involves land use changes to allow for the development of residential uses on the eight project parcels, and development of the eight project parcels would not result in significant impacts to a scenic vista or the visual character of the area. The Bishop and Lone Pine project parcels are located adjacent to parcels developed with residential and non-residential structures, and development of those parcels would be compatible with the surrounding area. The lands adjacent to the Independence parcel are not developed, however, future development of the Independence parcel would not obstruct views of a scenic vista or degrade the visual character of the area. Additionally, no direct impacts on trees, rock outcroppings, or historic buildings would occur with the land use change and future development of the project parcels, and there would be a less than significant impact on lighting and glare.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar aesthetic impacts to that of the proposed project, and impacts would be less than significant.

5.4.1.2 Agriculture and Forestry Resources

The proposed project would not result in a significant impact on agricultural or forestry resources. None of the parcels included in the proposed project are located on Important Farmland, within a Williamson Act contract, on forest or timberland, or would convert forest land. Furthermore, none of the parcels included in the proposed project are currently in agricultural production or zoned for agricultural use. However, one parcel in Bishop, APN 008-240-02, currently has an agricultural land use designation under the General Plan. However, the parcel is zoned as light industrial (M2-PP) and is currently vacant. The land use designation and zoning changes proposed by the project would not convert existing farmland, forest land, or timberland to non-agricultural or non-forest uses, and impacts would be less than significant.

Overall, neither the No Project Alternative nor the proposed project would result in a significant impact to agriculture or forestry resources. However, implementation of the proposed project would change the existing General Plan land use designation for one of the Bishop parcels (APN 008-240-02) from Agricultural to Central Business District. Therefore, the No Project Alternative would have fewer impacts than the proposed project.

5.4.1.3 Air Quality

As discussed in Section 4.3, Air Quality, the proposed project would have a less than significant impact on the implementation of an applicable air quality plan, net increase of criteria pollutants for which the project region is in non-attainment, and exposure of sensitive receptors to DPM, CO, or odors.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. The No Project Alternative would result in short-term construction and long-term operation impacts similar to the proposed project, including ongoing dust emissions impacts from agricultural use of one of the Bishop parcels (APN 008-240-02), and overall, the No Project Alternative would have similar air quality impacts to the proposed project.

5.4.1.4 Biological Resources

The proposed project would result in potentially significant impacts to biological resources that would be mitigated to below a level of significance. As discussed in Section 4.4, Biological Resources, the proposed project could have potentially significant impacts to rare plants, Owens Valley vole, Owens sucker and Owens speckled dace, Swainson's hawk, nesting birds, and jurisdictional waters. However, with implementation of mitigation measures identified in Section 4.4, all potentially significant impacts would be reduced to a less than significant level. Impacts related to interference with movement of native resident wildlife species or with established native resident or migratory wildlife corridors and conflicts with local policies or ordinances protecting biological resources would be less than significant.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar biological resources impacts to that of the proposed project, and impacts would be less than significant with

mitigation. All mitigation measures identified in Section 4.4, Biological Resources, for the proposed project would apply to the No Project Alternative.

5.4.1.5 Cultural Resources

As discussed in Section 4.5, Cultural Resources, one historic-era site (P-14-012764) and one multicomponent (i.e., both historic and prehistoric) site (P-14-0013447) are located within the project's APEs. Neither site has been evaluated for inclusion in the CRHR. Should either site prove to qualify as a historical resource under CEQA, implementation of the proposed project could directly affect that site, resulting in a potentially significant impact. If unknown historical resources, site P-14-012764 or site P-14-0013447 cannot be avoided, substantial adverse changes to the significance of historical resources resulting from implementation of the proposed project would be reduced to below the level of significance with mitigation. Additionally, impacts from future development of the project parcels that could inadvertently damage unknown archaeological resources and/or human remains would be less than significant with mitigation.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar cultural resources impacts to that of the proposed project, and impacts would be less than significant with mitigation. All mitigation measures identified in Section 4.5, Cultural Resources, for the proposed project would apply to the No Project Alternative.

5.4.1.6 Energy

The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct State or local plans for renewable energy or energy efficiency, and impacts would be less than significant.

Overall, the No Project Alternative would have similar energy impacts to that of the proposed project, and impacts would be less than significant.

5.4.1.7 Geology and Soils

The proposed project, with implementation of mitigation measures, would have a less than significant impact involving rupture of known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction or landslides, unstable geologic or soil units, expansive soils, and paleontological resources. The proposed project would have a less than significant or no impact involving soil erosion or loss of topsoil and soils to adequately support septic tanks or alternative wastewater disposal.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar geology and soils impacts to that of the proposed project, and impacts would be less than significant with mitigation. All mitigation measures identified in Section 4.7, Geology and Soils, for the proposed project would apply to the No Project Alternative.

5.4.1.8 Greenhouse Gas Emissions

As discussed in Section 4.8, Greenhouse Gas Emissions, the proposed project would have a less than significant impact on direct or indirect GHG emissions and plans, policies, and regulations related to GHG emission reductions.

Overall, the No Project Alternative would have similar greenhouse gas emissions impacts to that of the proposed project, and impacts would be less than significant.

5.4.1.9 Hazards and Hazardous Materials

The proposed project would have a less than significant impact on hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, airport related safety hazards or excessive noise, and adopted emergency response plan or emergency evacuation plans. The proposed project would have no impact regarding hazardous sites pursuant to Section 65962.5 of the California Government Code.

Overall, the No Project Alternative would have similar hazards and hazardous materials impacts to that of the proposed project, and impacts would be less than significant.

5.4.1.10 Hydrology and Water Quality

The proposed project, with mitigation, would have a less than significant impact regarding water quality standards, waste discharge requirements, or degradation of surface or groundwater quality. The proposed project would have a less than significant impact on groundwater supplies or interference with groundwater recharge, the alteration of the drainage patterns on site, release of pollutants due to flood hazard, tsunami, or seiche, and water quality control plans or sustainable groundwater management plans.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar hydrology and water quality impacts to that of the proposed project, and impacts would be less than significant with mitigation. All mitigation measures identified in Section 4.10, Hydrology and Water Quality, for the proposed project would apply to the No Project Alternative.

5.4.1.11 Land Use and Planning

The proposed project would have no impact on dividing an established community. County approval of the proposed project would amend the General Plan land use designations and zoning for the eight project parcels, resulting in less than significant impacts.

Although the proposed project would result in less than significant impacts to land use and planning, the No Project Alternative would not result in an amendment to the County's General Plan land use designations or zoning change compared to the proposed project. Therefore, the No Project Alternative would result in fewer land use and planning impacts than the proposed project.

5.4.1.12 Mineral Resources

The proposed project would have no impact on mineral resources. The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or affect any plan-identified mineral resource recovery site.

The No Project Alternative would have similar impacts compared to the proposed project.

5.4.1.13 Noise

Exposure of people to excessive groundborne vibrations or noise levels during project operation, substantial permanent increase in ambient noise levels in the project vicinity, and cumulative impacts would be less than significant with the proposed project. Construction activities under the proposed project could expose people to unacceptable noise and vibration levels during the construction periods; however, these impacts would be reduced to less than significant levels with the implementation of mitigation measures.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar noise and vibration impacts to that of the proposed project, and impacts would be less than significant with mitigation. All mitigation measures identified in Section 4.13, Noise, for the proposed project would apply to the No Project Alternative.

5.4.1.14 Population and Housing

The proposed project would not induce substantial unplanned population growth as it would support the goals and policies of the County's Housing Element, would help the County meet its RHNA requirements, and would provide housing that is needed to support Inyo County's existing population due to its tight housing market and aging housing stock. The proposed project would not displace existing people or housing because the eight project parcels are vacant.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Although the proposed project would result in less than significant impacts to population and housing, the No Project Alternative would only result in the construction of four (4) dwelling units compared to 492 dwelling units planned for the proposed project. Therefore, the No Project Alternative would result in fewer population and housing impacts than the proposed project.

5.4.1.15 Public Services

The proposed project parcels are distributed throughout the existing population centers in the County and are assumed to be developed over the next 20 years; demand for public services associated with the proposed project would be spread out geographically and is not expected to contribute to substantial service demand increases for any public services including fire protection, police protection, schools, parks, or other public facilities.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Although the proposed project would result in less than significant impacts to public services, the No Project Alternative would only provide housing for approximately 9 residents compared to the 1,073 residents that would be supported by the proposed project. Therefore, the No Project Alternative would result in fewer public services impacts, particularly related to service demand increases for schools, than the proposed project.

5.4.1.16 Recreation

The proposed project would have less than significant impacts on existing neighborhood or regional parks and would not require the construction or expansion of recreational facilities. While residents associated with project implementation and future development would likely use some existing recreational features, these residents would be located throughout the County and their use of park and recreational facilities would be widely dispersed and not concentrated on any one recreational facility. Furthermore, Inyo County offers ample open space for recreation on publicly owned lands.

Overall, the No Project Alternative would have similar recreation impacts to that of the proposed project, and impacts would be less than significant.

5.4.1.17 Transportation

The proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, substantially increase hazards due to a geometric design feature, or result in inadequate emergency access. With the implementation of Mitigation Measure TRA-1, the proposed project would lead to a less than significant impact on VMT..

Unlike the proposed project, the No Project Alternative would not increase vehicle trips to or from the project parcels or have an effect on VMT. Like the proposed project, the No Project Alternative would not conflict with adopted policies and plans regarding public transit, bicycle, or pedestrian facilities, substantially increase hazards due to a geometric design feature, or result in inadequate emergency access. Because impacts related to transportation would be similar to those of the proposed project but would not require mitigation to minimize effects on VMT, the No Project Alternative would have less impacts to transportation than the proposed project.

5.4.1.18 Tribal Cultural Resources

The proposed project would not result in a significant impact on tribal cultural resources. Impacts from future development of the project parcels that could inadvertently damage unknown tribal cultural resources would be less than significant with mitigation.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar tribal cultural resources impacts to that of the proposed project, and impacts would be less than significant with

mitigation. All mitigation measures identified in Section 4.18, Tribal Cultural Resources, for the proposed project would apply to the No Project Alternative.

5.4.1.19 Utilities and Service Systems

Construction of the proposed project would result in less than significant impacts to water supply, electric power, natural gas, telecommunications, and solid waste utilities. The proposed project may exceed the capacity of a wastewater treatment provider and require the construction of new wastewater treatment facilities or expansion of existing facilities. Although Mitigation Measure UTL-1, which requires future project applicants to demonstrate that adequate wastewater treatment capacity exists prior to County issuance of grading permits, would be implemented to reduce this impact, no feasible mitigation measures have been identified to reduce the impact to a less than significant level.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar utilities and service systems impacts to that of the proposed project, and impacts regarding adequate wastewater treatment capacity would be significant and unavoidable.

5.4.1.20 Wildfire

The project parcels are located within a High Fire Hazard Severity Zone (FHSZ) of a State Responsibility Area (SRA). The proposed project would not impair an adopted emergency response plan or emergency evacuation plan. Any future development on the project parcels would be required to comply with all California Building Code and SRA regulations to maintain fire safety, site access, water supply, and defensible space. Compliance with these requirements, and maintenance of defensible space on the project parcels, would adequately reduce risk of wildfire to the parcels. Additional fuel breaks or other infrastructure off-site would not be required, and the parcels would be served by extensions of existing utilities and not require the installation of utilities that may exacerbate fire risk.

Under the No Project Alternative, future development of the eight project parcels under existing conditions would result in the development of 32 acres with a total of four dwelling units, agricultural uses, public buildings, and ancillary infrastructure in the communities of Independence and Lone Pine and surrounding the City of Bishop. Overall, the No Project Alternative would have similar wildfire impacts to that of the proposed project, and impacts would be less than significant.

5.4.1.21 Conclusion and Relationship to Project Objectives

The No Project Alternative would result in fewer impacts to land use and planning, population and housing, and public services when compared to the proposed project. However, the No Project Alternative would not fulfill any of the project objectives for providing increased housing opportunities in Inyo County by processing General Plan land use designation and zoning changes for select parcels within existing and established communities to allow for residential or higher density residential uses, focus future housing opportunities to vacant land located adjacent to existing public transit stops and public utilities and service systems; minimize direct and indirect impacts from increased housing opportunities on the physical, biological, cultural, political, and socioeconomic environments, and/or identifying zone changes to be consistent with General Plan land use designations to maximum density described in Section 5.2, Project Objectives and Significant Impacts, because it would not upsize or

change the existing General Plan land use designations or zoning for the project parcels to allow residential or higher density residential uses.

5.4.2 Reduced Housing Opportunity Alternative

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended and remain vacant, but the other seven project parcels evaluated as part of the proposed project in the community of Lone Pine and adjacent to and outside the City of Bishop city limits would be proposed for General Plan land use designation and zoning changes. The proposed General Plan land use designation and zoning changes for the other seven project parcels, not including the Independence parcel, would allow for up to 364 residential DUs to be developed on a total of 15.1 acres in the future on those seven parcels.

5.4.2.1 Aesthetics

The proposed project would not result in a significant impact on aesthetics. The proposed project involves land use changes to allow for the development of residential uses on the eight project parcels, and development of the eight project parcels would not result in significant impacts to a scenic vista or the visual character of the area. The Bishop and Lone Pine project parcels are located adjacent to parcels developed with residential and non-residential structures, and development of those parcels would be compatible with the surrounding area. The lands adjacent to the Independence parcel are not developed, however, future development of the Independence parcel would not obstruct views of a scenic vista or degrade the visual character of the areal. Additionally, no direct impacts on trees, rock outcroppings, or historic buildings would occur with the land use change and future development of the project parcels, and there would be a less than significant impact on lighting and glare.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint with less DUs to be developed in the future and fewer aesthetic impacts compared to the proposed project.

5.4.2.2 Agriculture and Forestry Resources

The proposed project would not result in a significant impact on agricultural or forestry resources. None of the parcels included in the proposed project are located on Important Farmland, within a Williamson Act contract, on forest or timberland, or would convert forest land. Furthermore, none of the parcels included in the proposed project are currently in agricultural production or zoned for agricultural use. However, one parcel in Bishop, APN 008-240-02, currently has an agricultural land use designation under the General Plan. However, the parcel is zoned as light industrial (M2-PP) and is currently vacant. The land use designation and zoning changes proposed by the project would not convert existing farmland, forest land, or timberland to non-agricultural or non-forest uses, and impacts would be less than significant.

Overall, neither the Reduced Housing Opportunity Alternative nor the proposed project would result in a significant impact to agriculture or forestry resources. Therefore, the Reduced Housing Opportunity Alternative would have similar agriculture or forestry resources impacts to the proposed project.

5.4.2.3 Air Quality

As discussed in Section 4.3, Air Quality, the proposed project would have a less than significant impact on the implementation of an applicable air quality plan, net increase of criteria pollutants for which the project region is in non-attainment, and exposure of sensitive receptors to DPM, CO, or odors.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint with less DUs to be developed in the future and fewer air quality impacts compared to the proposed project.

5.4.2.4 Biological Resources

The proposed project would result in potentially significant impacts to biological resources that would be mitigated to below a level of significance. As discussed in Section 4.4, Biological Resources, the proposed project could have potentially significant impacts to rare plants, Owens Valley vole, Owens sucker and Owens speckled dace, Swainson's hawk, nesting birds, and jurisdictional waters. However, with implementation of mitigation measures identified in Section 4.4, all potentially significant impacts would be reduced to a less than significant level. Impacts related to interference with movement of native resident wildlife species or with established native resident or migratory wildlife corridors and conflicts with local policies or ordinances protecting biological resources would be less than significant.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint and slightly fewer biological resources impacts as potentially significant impacts to rare plants and nesting birds on and near the Independence parcel would be avoided. However, all mitigation measures identified in Section 4.4, Biological Resources, for the proposed project would also apply to the Reduced Housing Opportunity Alternative.

5.4.2.5 Cultural Resources

As discussed in Section 4.5, Cultural Resources, one historic-era site (P-14-012764) and one multicomponent (i.e., both historic and prehistoric) site (P-14-0013447) are located within the project's APEs. Neither site has been evaluated for inclusion in the CRHR. Should either site prove to qualify as a historical resource under CEQA, implementation of the proposed project could directly affect that site, resulting in a potentially significant impact. If unknown historical resources, site P-14-012764 or site P-14-0013447 cannot be avoided, substantial adverse changes to the significance of historical resources resulting from implementation of the proposed project would be reduced to below the level of significance with mitigation. Additionally, impacts from future development of the project parcels that could inadvertently damage unknown archaeological resources and/or human remains would be less than significant with mitigation.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the

Reduced Housing Opportunity Alternative would result in a smaller development footprint, and it is anticipated that fewer cultural resources impacts would occur with less ground disturbance compared to the proposed project.

5.4.2.6 Energy

The proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct State or local plans for renewable energy or energy efficiency, and impacts would be less than significant.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint with less DUs to be developed in the future and fewer energy impacts compared to the proposed project.

5.4.2.7 Geology and Soils

The proposed project, with implementation of mitigation measures, would have a less than significant impact involving rupture of known earthquake fault, strong seismic ground shaking, or seismic-related ground failure, including liquefaction or landslides, unstable geologic or soil units, expansive soils, and paleontological resources. The proposed project would have a less than significant or no impact involving soil erosion or loss of topsoil and soils to adequately support septic tanks or alternative wastewater disposal.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint, and it is anticipated that fewer geology and soils impacts would occur with less ground disturbance compared to the proposed project. However, all mitigation measures identified in Section 4.7, Geology and Soils, for the proposed project would apply to the Reduced Housing Opportunity Alternative.

5.4.2.8 Greenhouse Gas Emissions

As discussed in Section 4.8, Greenhouse Gas Emissions, the proposed project would have a less than significant impact on direct or indirect GHG emissions and plans, policies, and regulations related to GHG emission reductions.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint with less DUs to be developed in the future and fewer greenhouse gas emissions impacts compared to the proposed project.

5.4.2.9 Hazards and Hazardous Materials

The proposed project would have a less than significant impact on hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials, or reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, airport related safety hazards or excessive noise, and adopted emergency response plan or emergency evacuation plans. The proposed project would have no impact regarding hazardous sites pursuant to Section 65962.5 of the California Government Code.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint, and it is anticipated that fewer hazards and hazardous materials impacts would occur with less ground disturbance compared to the proposed project.

5.4.2.10 Hydrology and Water Quality

The proposed project, with mitigation, would have a less than significant impact regarding water quality standards, waste discharge requirements, or degradation of surface or groundwater quality. The proposed project would have a less than significant impact on groundwater supplies or interference with groundwater recharge, the alteration of the drainage patterns on site, release of pollutants due to flood hazard, tsunami, or seiche, and water quality control plans or sustainable groundwater management plans.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint, and it is anticipated that fewer hydrology and water quality impacts would occur with less ground disturbance compared to the proposed project. However, all mitigation measures identified in Section 4.10, Hydrology and Water Quality, for the proposed project would apply to the Reduced Housing Opportunity Alternative.

5.4.2.11 Land Use and Planning

The proposed project would have no impact on dividing an established community. County approval of the proposed project would amend the General Plan land use designations and zoning for the eight project parcels, resulting in less than significant impacts.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, but the other seven project parcels evaluated as part of the proposed project in the community of Lone Pine and adjacent to and outside the City of Bishop city limits would be proposed for General Plan land use designation and zoning changes. Therefore, the Reduced Housing Opportunity Alternative would result in slightly fewer land use and planning impacts compared to the proposed project.

5.4.2.12 Mineral Resources

The proposed project would have no impact on mineral resources. The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or affect any plan-identified mineral resource recovery site.

The Reduced Housing Opportunity Alternative would have similar impacts compared to the proposed project.

5.4.2.13 Noise

Exposure of people to excessive groundborne vibrations or noise levels during project operation, substantial permanent increase in ambient noise levels in the project vicinity, and cumulative impacts would be less than significant with the proposed project. Construction activities under the proposed project could expose people to unacceptable noise and vibration levels during the construction periods; however, these impacts would be reduced to less than significant levels with the implementation of mitigation measures.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Overall, the Reduced Housing Opportunity Alternative would have slightly fewer noise impacts to that of the proposed project, and impacts would be less than significant with mitigation. All mitigation measures identified in Section 4.13, Noise, for the proposed project would apply to the Reduced Housing Opportunity Alternative.

5.4.2.14 Population and Housing

The proposed project would not induce substantial unplanned population growth as it would support the goals and policies of the County's Housing Element, would help the County meet its RHNA requirements, and would provide housing that is needed to support Inyo County's existing population due to its tight housing market and aging housing stock. The proposed project would not displace existing people or housing because the eight project parcels are vacant.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended. Although the proposed project would result in less than significant impacts to population and housing, the Reduced Housing Opportunity Alternative would result in the construction of 364 DUs with approximately 794 residents compared to 492 DUs with approximately 1,073 residents for the proposed project. Therefore, the Reduced Housing Opportunity Alternative would result in fewer population and housing impacts than the proposed project.

5.4.2.15 Public Services

The proposed project parcels are distributed throughout the existing population centers in the County and are assumed to be developed over the next 20 years; demand for public services associated with the proposed project would be spread out geographically and is not expected to contribute to substantial service demand increases for any public services including fire protection, police protection, schools, parks, or other public facilities.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Although the proposed project would result in less than significant impacts to public services, the Reduced Housing Opportunity Alternative would provide housing for approximately 794 residents compared to the 1,073 residents that would be supported by the proposed project and would not introduce new residential units in the community of Independence. Therefore, the Reduced Housing Opportunity Alternative would result in fewer public services impacts, particularly related to service demand increases in the community of Independence.

5.4.2.16 Recreation

The proposed project would have less than significant impacts on existing neighborhood or regional parks and would not require the construction or expansion of recreational facilities. While residents associated with project implementation and future development would likely use some existing recreational features, these residents would be located throughout the County and their use of park and recreational facilities would be widely dispersed and not concentrated on any one recreational facility. Furthermore, Inyo County offers ample open space for recreation on publicly owned lands.

Overall, the Reduced Housing Opportunity Alternative would have fewer recreation impacts to that of the proposed project, and impacts would be less than significant.

5.4.2.17 Transportation

The proposed project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, substantially increase hazards due to a geometric design feature, or result in inadequate emergency access. The proposed project would lead to a potentially significant increase in VMT, which would be reduced to a less than significant level after the implementation of Mitigation Measure TRA-1.

Similar to the proposed project, the Reduced Housing Opportunity Alternative would not conflict with adopted policies and plans regarding public transit, bicycle, or pedestrian facilities, substantially increase hazards due to a geometric design feature, or result in inadequate emergency access. The Reduced Housing Opportunity Alternative would introduce fewer vehicle trips to or from areas within Inyo County compared to the proposed project. However, mitigation measure TRA-1 would still be necessary to ensure that VMT does not exceed acceptable levels.

5.4.2.18 Tribal Cultural Resources

The proposed project would not result in a significant impact on tribal cultural resources. Impacts from future development of the project parcels that could inadvertently damage unknown tribal cultural resources would be less than significant with mitigation.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint, and it is anticipated that fewer tribal cultural resources impacts would occur with less ground disturbance compared to the proposed project. However, all mitigation measures identified in Section 4.18, Tribal

Cultural Resources, for the proposed project would also apply to the Reduced Housing Opportunity Alternative.

5.4.2.19 Utilities and Service Systems

Construction of the proposed project would result in less than significant impacts to water supply, electric power, natural gas, telecommunications, and solid waste utilities. The proposed project may exceed the capacity of a wastewater treatment provider and require the construction of new wastewater treatment facilities or expansion of existing facilities. Although MM UTIL-1, which requires future project applicants to demonstrate that adequate wastewater treatment capacity exists prior to County issuance of grading permits, would be implemented to reduce this impact, no feasible mitigation measures have been identified to reduce the impact to a less than significant level.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed with up to 364 DUs compared to the proposed project that assumes development of 32 acres with up to 492 DUs in the future. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint with less DUs to be developed in the future and fewer utilities and service systems impacts compared to the proposed project. However, the Reduced Housing Opportunity Alternative would have similar utilities and service systems impacts regarding wastewater treatment capacity to that of the proposed project, and impacts regarding adequate wastewater treatment capacity would be significant and unavoidable.

5.4.2.20 Wildfire

The project parcels are located within a High Fire Hazard Severity Zone (FHSZ) of a State Responsibility Area (SRA). The proposed project would not impair an adopted emergency response plan or emergency evacuation plan. Any future development on the project parcels would be required to comply with all California Building Code and SRA regulations to maintain fire safety, site access, water supply, and defensible space. Compliance with these requirements, and maintenance of defensible space on the project parcels, would adequately reduce risk of wildfire to the parcels. Additional fuel breaks or other infrastructure off-site would not be required, and the parcels would be served by extensions of existing utilities and not require the installation of utilities that may exacerbate fire risk.

Under the Reduced Housing Opportunity Alternative, the existing General Plan land use designation and zoning of the Independence Parcel would not be amended, and it is assumed that 15.1 acres would be developed compared to the proposed project that assumes development of 32 acres. Therefore, the Reduced Housing Opportunity Alternative would result in a smaller development footprint, and it is anticipated that fewer wildfire impacts would occur.

5.4.2.21 Conclusion and Relationship to Project Objectives

The Reduced Housing Opportunity Alternative would result in fewer impacts to all resources except for agriculture and forestry resources and mineral resources which would have similar impacts compared to the proposed project. However, the Reduced Housing Opportunity Alternative would reduce the number of residential DUs that could be developed in the future from 492 DUs to 364 DUs compared to the proposed project by eliminating proposed General Plan land use designation and zoning changes on the Independence parcel that would allow for increased residential development opportunities in the community of Independence. This elimination would lessen the proposed project's contribution to

providing increased housing opportunities in Inyo County by processing General Plan land use designation and zoning changes for select parcels within existing and established communities to allow for residential or higher density residential uses and/or focusing future housing opportunities to vacant land located adjacent to existing public transit stops and public utilities and service systems as described in Section 5.2, Project Objectives and Significant Impacts, because it would not upsize the existing General Plan land use designation and zoning for the Independence parcel to allow for higher density residential uses. The Reduced Housing Opportunity Alternative would, however, meet the objectives of minimizing direct and indirect impacts from increased housing opportunities on the physical, biological, cultural, political, and socioeconomic environments and/or identifying zone changes to be consistent with General Plan land use designations to maximum density. Overall, the Reduced Housing Opportunity Alternative would meet all four of the project objectives.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The environmentally superior alternative is the alternative expected to generate the least amount of significant impacts. In addition to the discussion and comparison of impacts of the project and the alternatives, Section 15126.6 of the State CEQA Guidelines requires that an “environmentally superior” alternative be identified. Identification of the environmentally superior alternative is an informational procedure and the alternative identified may not be the alternative that best meets the goals or needs of Inyo County.

As shown in Table 5-1, the Reduced Housing Opportunity Alternative would result in fewer impacts to all resources except for agriculture and forestry resources, mineral resources, and recreation which would have similar impacts compared to the proposed project, and it is the environmentally superior alternative. The Reduced Housing Opportunity Alternative would also meet the objectives of the proposed project. However, as noted above, the Reduced Housing Opportunity Alternative does not meet the project objectives as well as the proposed project. The Reduced Housing Opportunity Alternative would reduce the number of residential DUs that could be developed in the future from 492 DUs to 364 DUs compared to the proposed project and would lessen the proposed project’s contribution to providing increased housing opportunities in Inyo County by processing General Plan land use designation and zoning changes for select parcels within existing and established communities to allow for residential or higher density residential uses and/or focusing future housing opportunities to vacant land located adjacent to existing public transit stops and public utilities and service systems

5.6 REFERENCES

California Department of Water Resources (DWR). 2021. Public Review Draft Report to the Legislature on Results of the Indoor Residential Water Use Study. Water Use Efficiency. Accessed on September 3, 2021 and available at: <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Water-Use-And-Efficiency/AB-1668-and-SB-606-Conservation/IRWUS-Public-Review-Draft-ReportPAO7May21-v1.pdf>.

Inyo County. 2021. Inyo County Code: Title 18 Zoning. Current through Ordinance 1264, effective March 21, 2021. Accessible at: <http://www.qcode.us/codes/inyocounty/>.

2001. Goals and Policies Report for the Inyo County General Plan. December. Accessible at: <https://www.inyocounty.us/sites/default/files/2020-02/GP%20Goals%20and%20Policy%20Report%2012.2001.pdf>.

US Census Bureau. 2019. American Community Survey 5-Year Estimates. Table S1101: Household and Families, Inyo County. Accessed April 30, 2021 and available at: <https://data.census.gov/cedsci/table?text=s1101&g=0500000US06027&tid=ACSST5Y2019.S1101>.

6.0 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Section 15126.2(c) of the CEQA Guidelines requires an EIR to discuss the extent to which a proposed project or plan would commit nonrenewable resources to uses that future generation would probably be unable to reverse. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources. The three CEQA-required categories of irreversible changes are discussed below.

6.1 LAND USE CHANGES THAT COMMIT FUTURE GENERATIONS

As discussed in Section 2.0 Project Setting and Location, the proposed project consists of eight parcels in the communities of Independence, Lone Pine, and Bishop. The Independence parcel is 16.9 acres of undeveloped, open space land. The three Bishop parcels are a combined total of 14.3 acres of undeveloped land outside of the City of Bishop. The four Lone Pine parcels are a combined total of 0.8 acres of undeveloped land. The proposed project consists of General Plan and zoning amendments to promote housing opportunities. The transformation of the sites from undeveloped open space land to housing or other developed uses would, from a practical perspective, be a significant and irreversible change.

6.2 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Potential environmental accidents of concern include those that would have adverse effects on the environment or public health due to the nature or quantity of material released during an accident and the receptors exposed to that release. Demolition and construction activities associated redevelopment of the proposed project would involve some risk for environmental accidents. These activities would be monitored, however, by local, State, and federal agencies that would follow industry standards governing the use, storage, transport, and disposal of hazardous materials. Additionally, the proposed land use would not include any activities that are likely to contribute to or be the cause of a significant environmental accident. As a result, the proposed project would not pose a substantial risk of environmental accidents.

6.3 LARGE COMMITMENT OF NON-RENEWABLE RESOURCES

The proposed project consists of General Plan and zoning amendments to promote housing opportunities. Implementation of the proposed project will allow for development of these sites into housing, the construction and operation of which will require the use and consumption of non-renewable resources such as steel and other metals used to construct the residential units. Renewable resources, such as lumber and other wood byproducts, will also be used. Unlike renewable resources, non-renewable resources cannot be regenerated.

Non-renewable resources include fossil fuels and metals. Energy will be consumed during both construction and operation of the development that would take place as a result of the proposed project. Construction would require the use of non-renewable construction material, such as concrete,

metals, and plastics. Non-renewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the sites, and construction of the residential units. The operational phase will consume energy for multiple purposes including lighting and electronics. Energy in the form of fossil fuels will be used by vehicles traveling to and from the project area.

7.0 GROWTH INDUCEMENT

Section 15126.2(d) of the CEQA Guidelines requires that an EIR discuss the ways in which a proposed project or plan could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

A project could be considered to have growth-inducing effects if it: 1) either directly or indirectly fosters economic or population growth or the construction of additional housing in the surrounding area; 2) removes obstacles to population growth; 3) requires the construction of new community facilities that could cause significant environmental effects; or, 4) encourages and facilitates other activities that could significantly affect the environment, either individually or cumulatively. Growth-related impacts are those that are expected to occur later in time or are farther removed in distance, but which are still reasonably foreseeable.

A project's potential to induce growth does not automatically mean that it will result in growth. This potential growth-inducing effect is regulated by local governments in California through the development, adoption, and implementation of land use plans and policies intended to avoid or minimize the growth inducing potential or pressure created by projects, individually or cumulatively. Growth occurs through capital investment in new economic opportunities from both public and private entities. Development occurs as a result of economic investment in a particular region. New economic (i.e., employment) opportunities will naturally create the need for infrastructure to support an increased population.

Growth typically is the result of numerous factors that affect the location, size, direction, timing, type, and rate of population increase and does not necessarily result from a single project or factor. Such factors include local government planning, availability of public services, natural resources, the economic climate, and political and environmental concerns. Local planning agencies adopt and administer general and specific plans, zoning maps and ordinances, and other planning documents that contain policies and maps to identify the intensity and type of development allowed in specific locations.

Although local governments play a major role in growth management, the location and timing of growth also depends on economic factors such as the availability and cost of developable land, regional and national economic cycles, and mortgage interest rates and the demand for new housing. Political factors that affect growth include state and local laws that mandate businesses to comply with certain rules and regulations, permitting requirements that address environmental and community concerns, and tax incentives designed to attract businesses.

7.1 GROWTH INDUCING IMPACTS

Economic growth in a community that is caused by a project can induce secondary development or growth. The following discussion focuses on the proposed project's potential to result in physical changes in the environment, from development of new housing, employment, or infrastructure.

7.1.1 Additional Housing Growth

The proposed project consists of General Plan and zoning changes for eight vacant parcels throughout the County to promote increased housing opportunities. As shown in Table 2-1, Existing and Proposed Land Uses for Project Parcels, the proposed project would change the General Plan designations for the parcels to Residential Medium Density (RM), Residential High Density (RH), and Central Business District (CBD), and the zoning to Multiple Family Residential (R-3) and Central Business (CB). As discussed in Ch. 3 Project Description, these general plan and zoning changes are expected to allow the development of up to 492 units. The proposed project would directly induce housing growth by allowing for the development of up to 492 units on currently vacant sites. However, it would not induce additional housing growth beyond what has been evaluated in this EIR as the proposed project.

7.1.2 Additional Economic Growth

Development of the proposed project will result in short-term economic growth for the area. These are short-term jobs directly tied to the construction phases of the project. It is expected that some of these jobs will be filled by local residents, employees, and suppliers already in the area, and some of the jobs may be filled by people who will temporarily transfer to the area during the construction phase. Given that these are temporary jobs, it would be speculative to assume that these jobs would induce substantial new housing or commercial development.

The proposed project would generate tax revenues for Inyo County. The project will require services that would increase expenditures for County departments. As discussed in Section 4.15, Public Services, all of the public facilities are adequate to serve the proposed project. Police protection would be provided by the Inyo County Sheriff's Department, while fire protection would be provided by local fire protection districts. The proposed project would be adequately served by the existing fire protection, police protection, library, recreation, and other services in the County and would not require expansion of these services that could induce growth beyond the proposed project. As discussed in Section 4.19, Utilities and Service Systems, the project may require the expansion of wastewater treatment facilities. All other utilities including water supply, electric power, natural gas, and telecommunications facilities are adequate to serve the proposed project and would not require expansion which could potentially induce growth beyond the proposed project.

One of CEQA's primary purposes in addressing "growth inducing impacts" is to identify the environmental impacts or consequences of growth that results from implementing a project. To attempt to predict specifically where growth would occur would be speculative. It is known that this indirect growth could result in transportation, air quality, noise, and water quality impacts. These indirect impacts could also include temporary construction impacts related to air quality, noise, and water quality. The severity of these impacts depends on the size and location of the induced growth. Based upon the limited possible amount of growth that could occur as a result of the proposed project, the proposed project would not result in a significant growth inducing impact.

8.0 SIGNIFICANT UNAVOIDABLE IMPACTS

8.1 BACKGROUND

Sections 21067, 15126(b), and 15126.2(b) of the CEQA Guidelines require that an EIR describe any potentially significant project impacts, including those that can be mitigated but not reduced to a less than significant level.

8.2 PROJECT SIGNIFICANT AND UNAVOIDABLE IMPACTS

This EIR identified no significant and unavoidable impacts.

9.0 LIST OF PREPARERS

This document has been completed by the County of Inyo, as CEQA Lead Agency for the proposed project, with support from the following organizations and professional staff:

ENVIRONMENTAL IMPACT REPORT

County of Inyo

Cathreen Richards, Planning Director

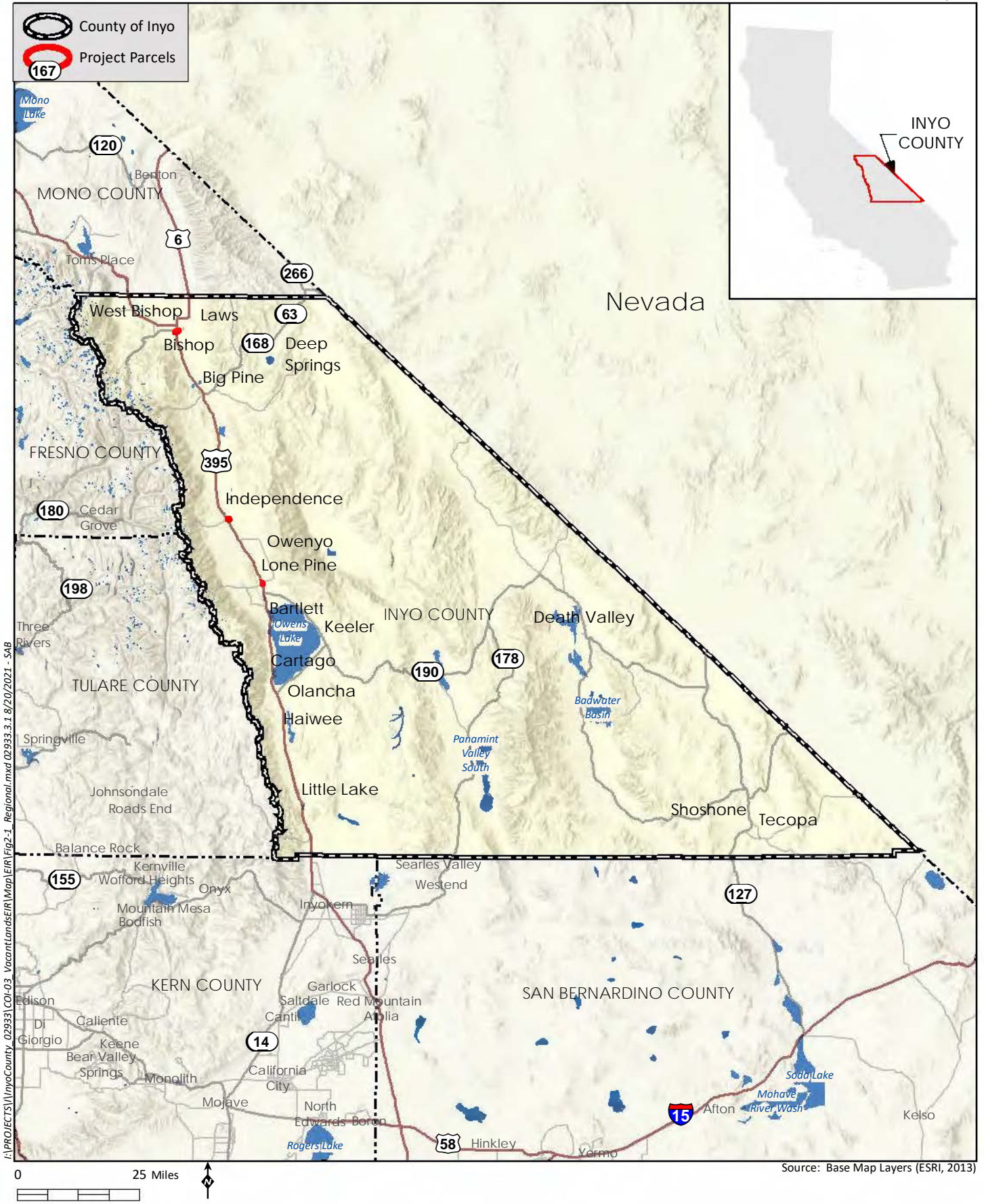
HELIX Environmental Planning, Inc.

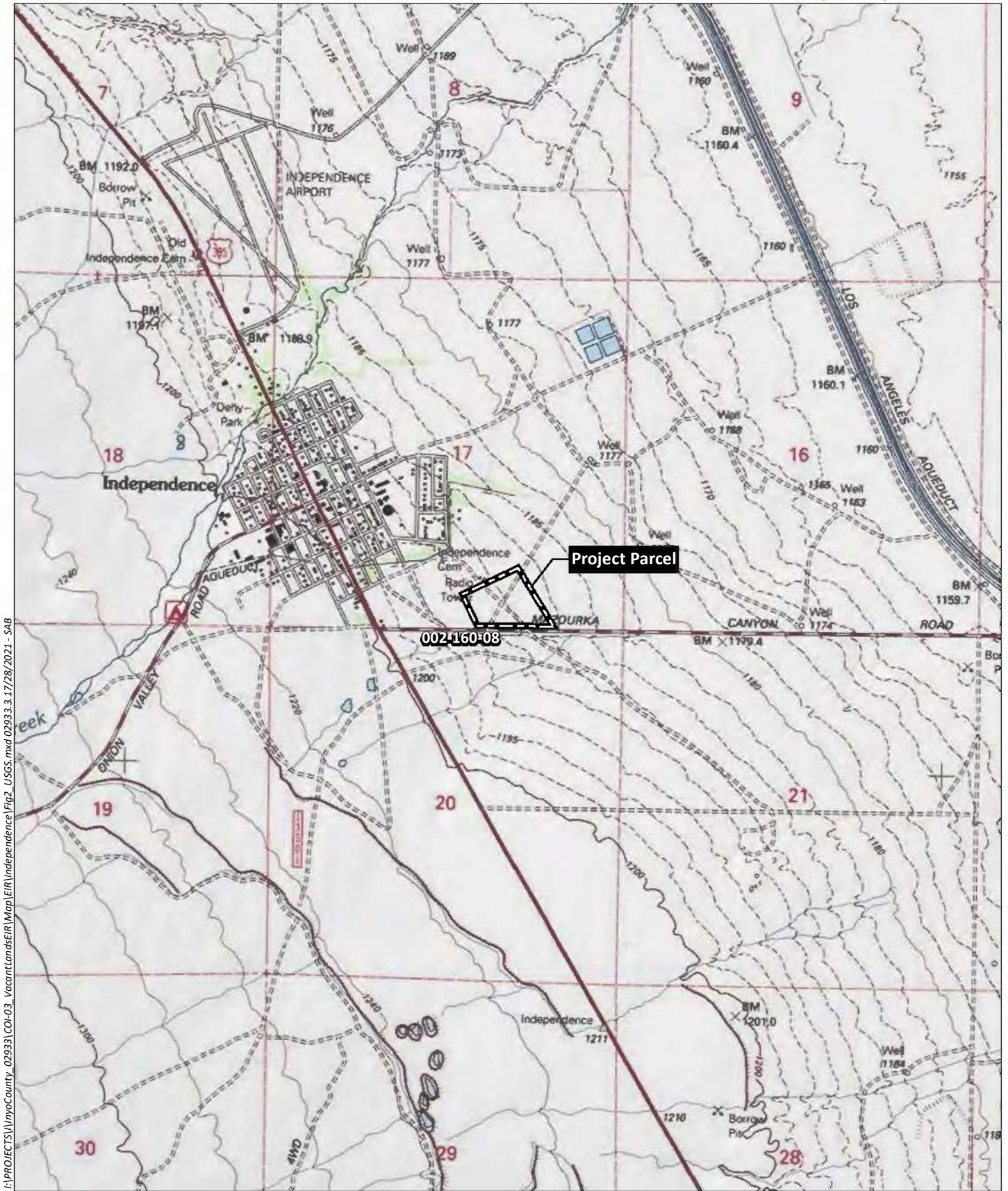
Robert Edgerton, Project Manager
Lesley Owing, Deputy Project Manager
Erin Gustafson, Lead Environmental Planner
David Ludwig, Environmental Planner
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Stephen Stringer, Senior Biologist
Stephanie McLaughlin, Field Biologist
Clarus Backes, Senior Archaeologist
Andrea Van Schmus, Field Archaeologist
Sean Bohac, Geographic Information Systems

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Appendix A


Figures





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Source: INDEPENDENCE 7.5' Quad (USGS)

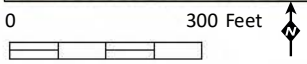
 Project Parcel



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Mazourka Canyon

002-160-08



Source: Aerial (Maxar, 2020)



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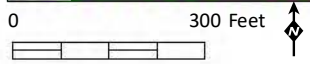
Independence Parcel

General Plan Data

- LI (Light Industrial)
- NR (Natural Resources)
- PF (Public Service Facilities)
- RM (Residential Medium Density)
- RR (Residential Ranch)
- A (Agricultural)
- OSR (Open Space and Recreation)

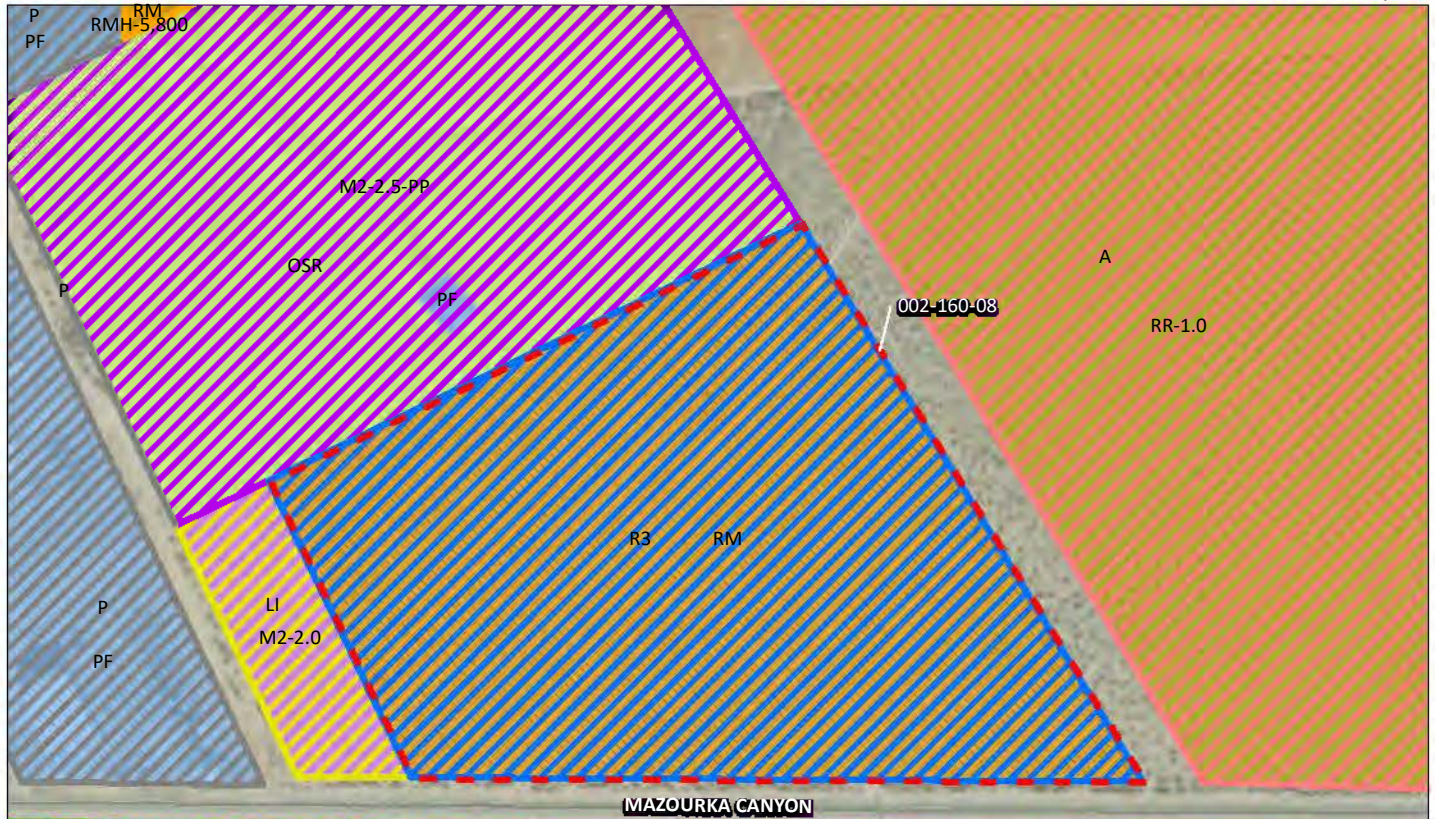
Zoning Designation

- M2-2.0 (Light Industrial - 2 acre minimum)
- M2-2.5-PP (Light Industrial - 2.5 acre minimum - precise plan)
- OS-40 (Open Space - 40 acre minimum)
- P (Public)
- RMH-5,800 (Single Residence Mobile Home Combined - 5,800 sq ft minimum)
- RR-1.0 (Rural Residential - 1 acre minimum)

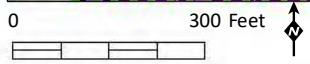
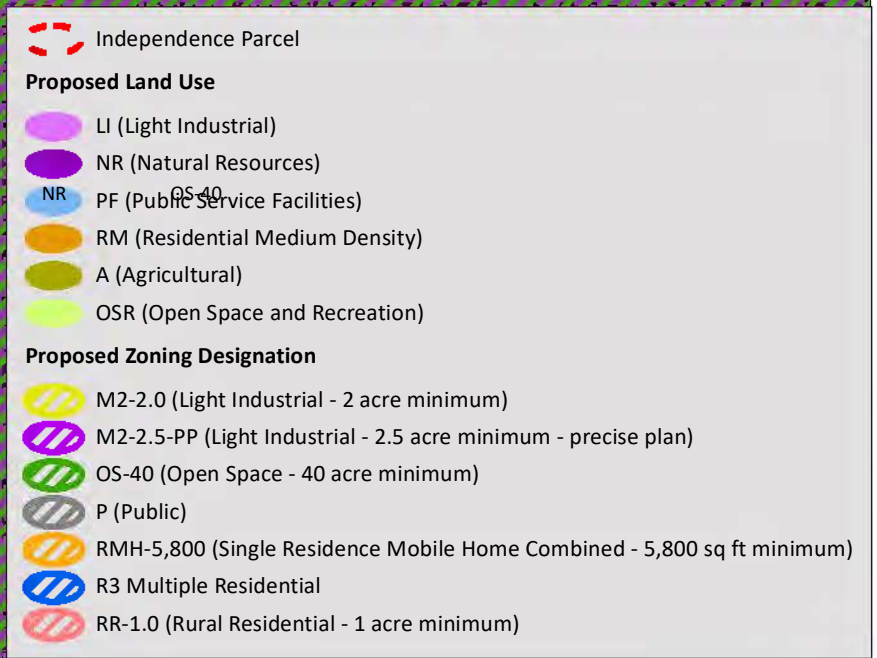


Source: Base Map Layers (SanGIS, 2016)

Existing General Plan Land Use Designation and Zoning – Independence Parcel

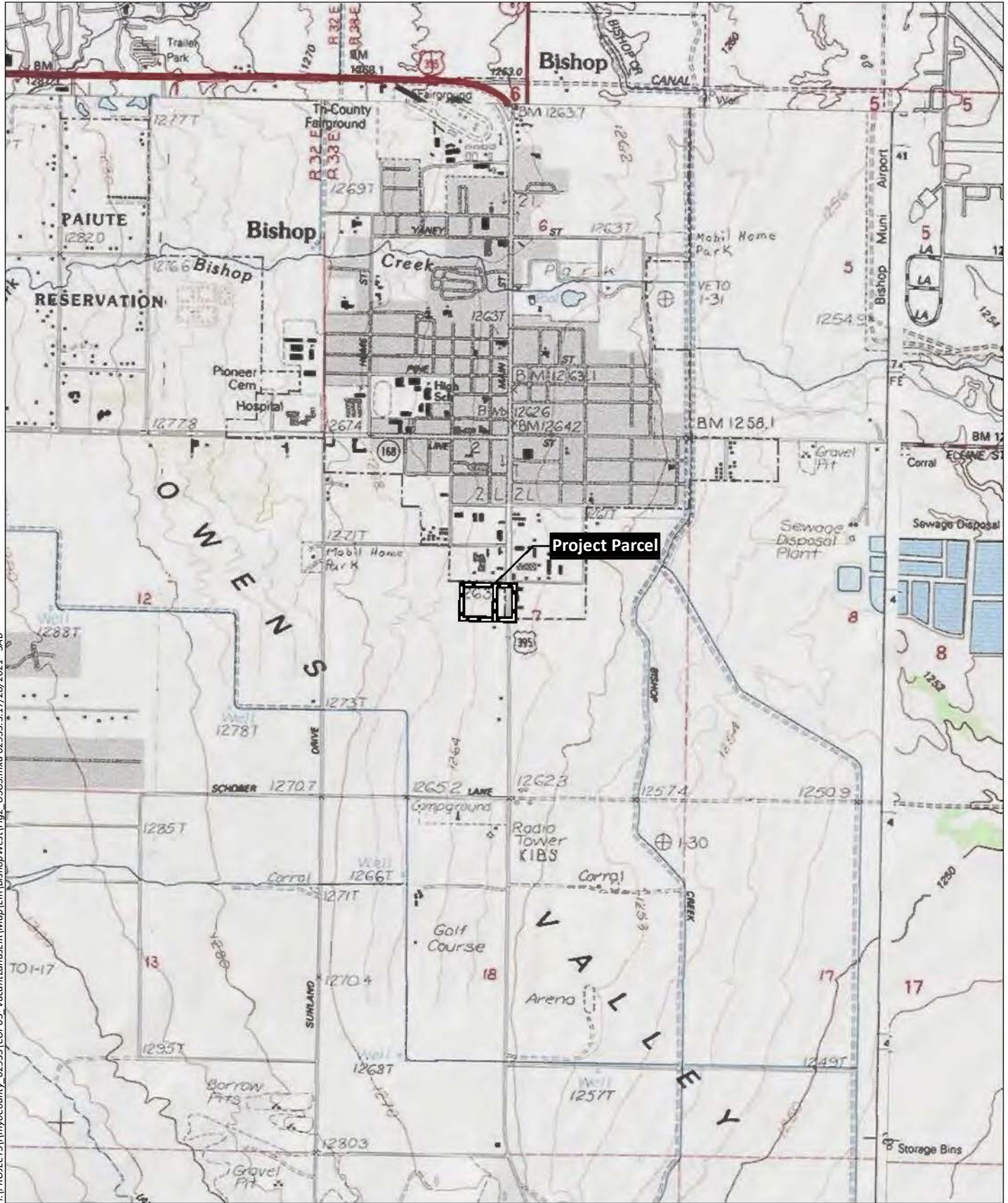


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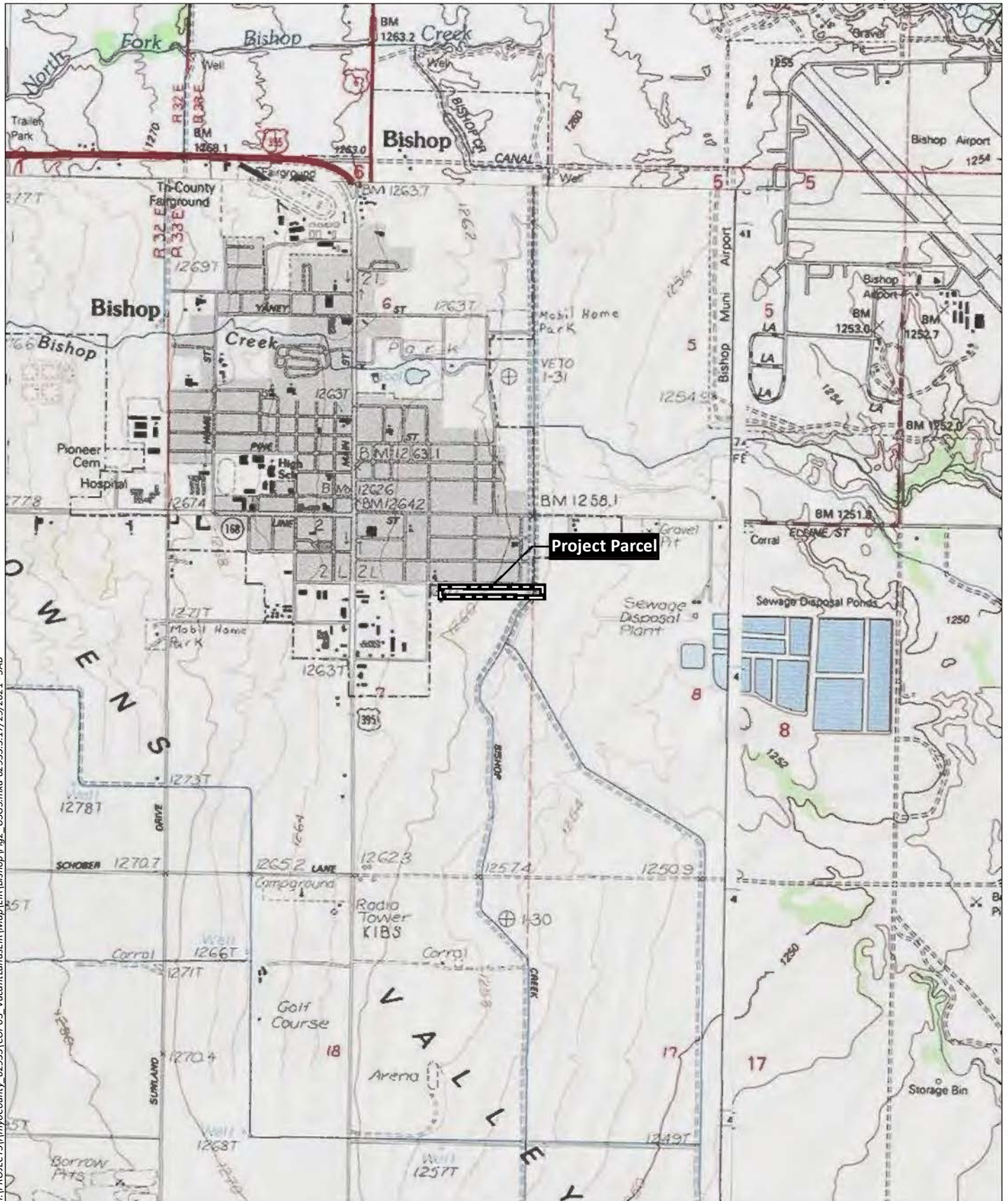
Source: Base Map Layers (SanGIS, 2016)

Proposed General Plan Land Use Designation and Zoning – Independence Parcel




Source: WEST BISHOP 7.5' Quad (USGS)

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Source: WEST BISHOP 7.5' Quad (USGS)

 Project Parcel




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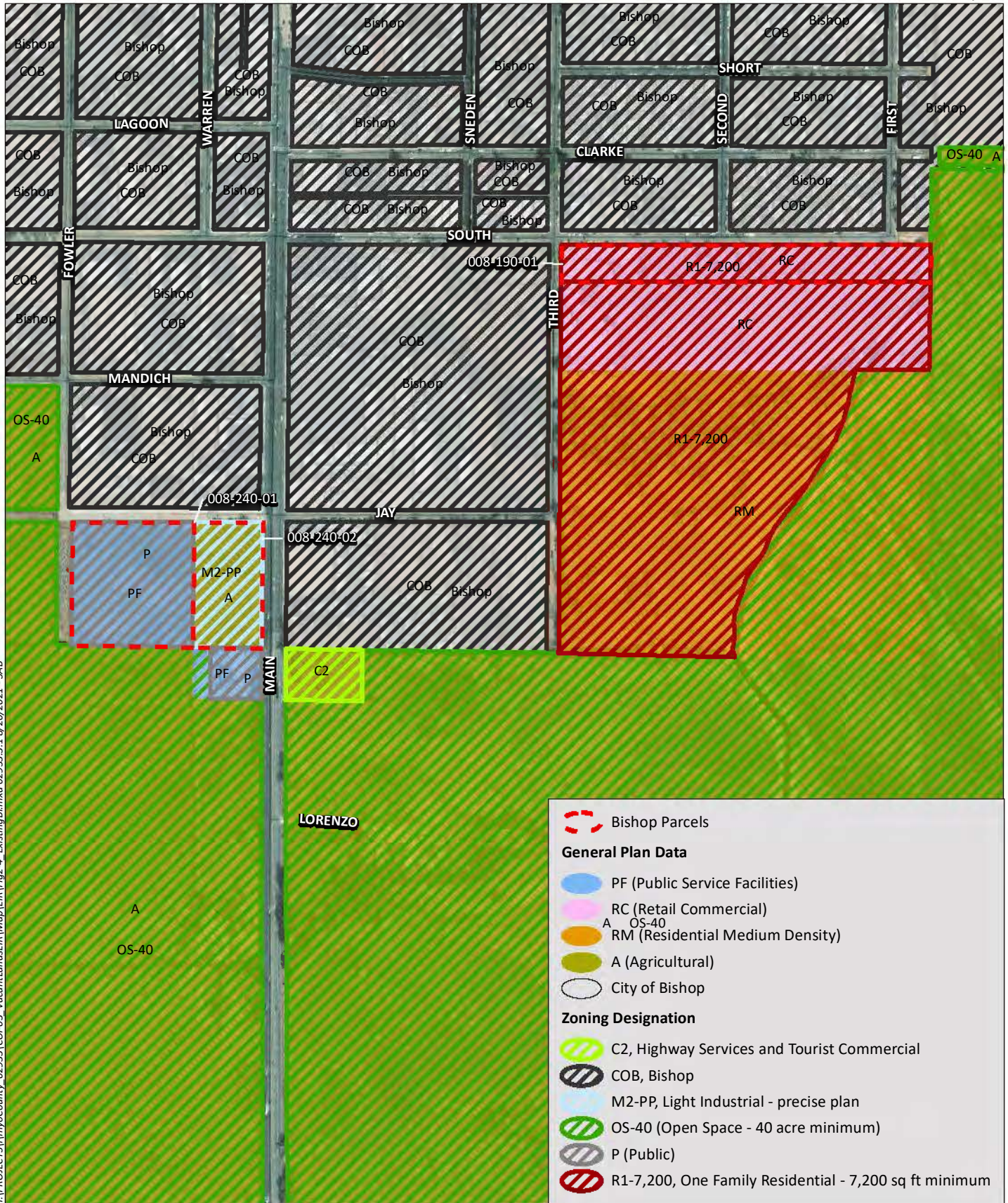
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0 200 Feet 

Source: Aerial (Maxar, 2020)



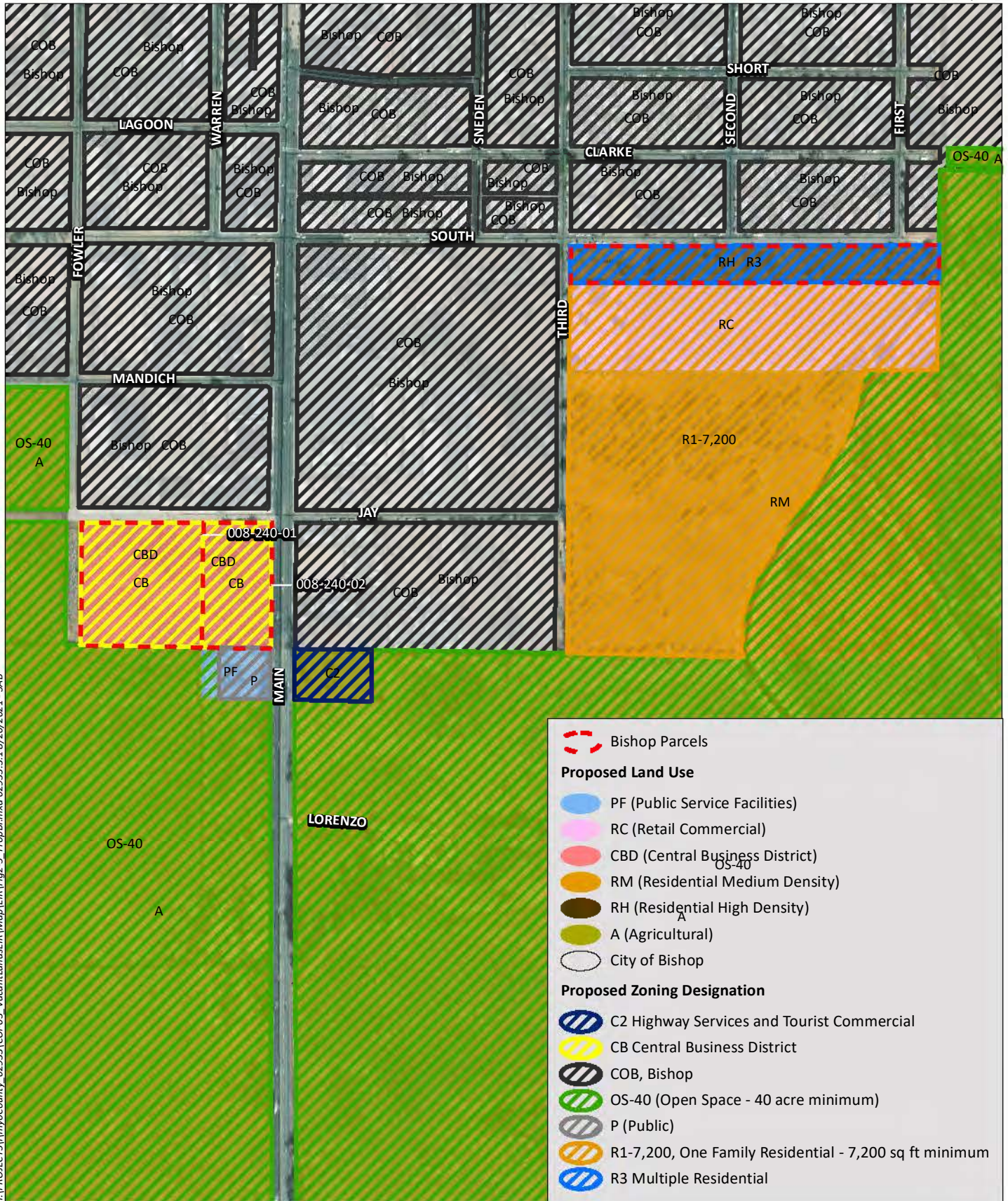
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Source: Base Map Layers (SanGIS, 2016)

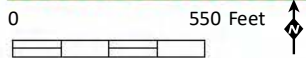
Existing General Plan Land Use Designation and Zoning – Bishop Parcels

Figure 2-8



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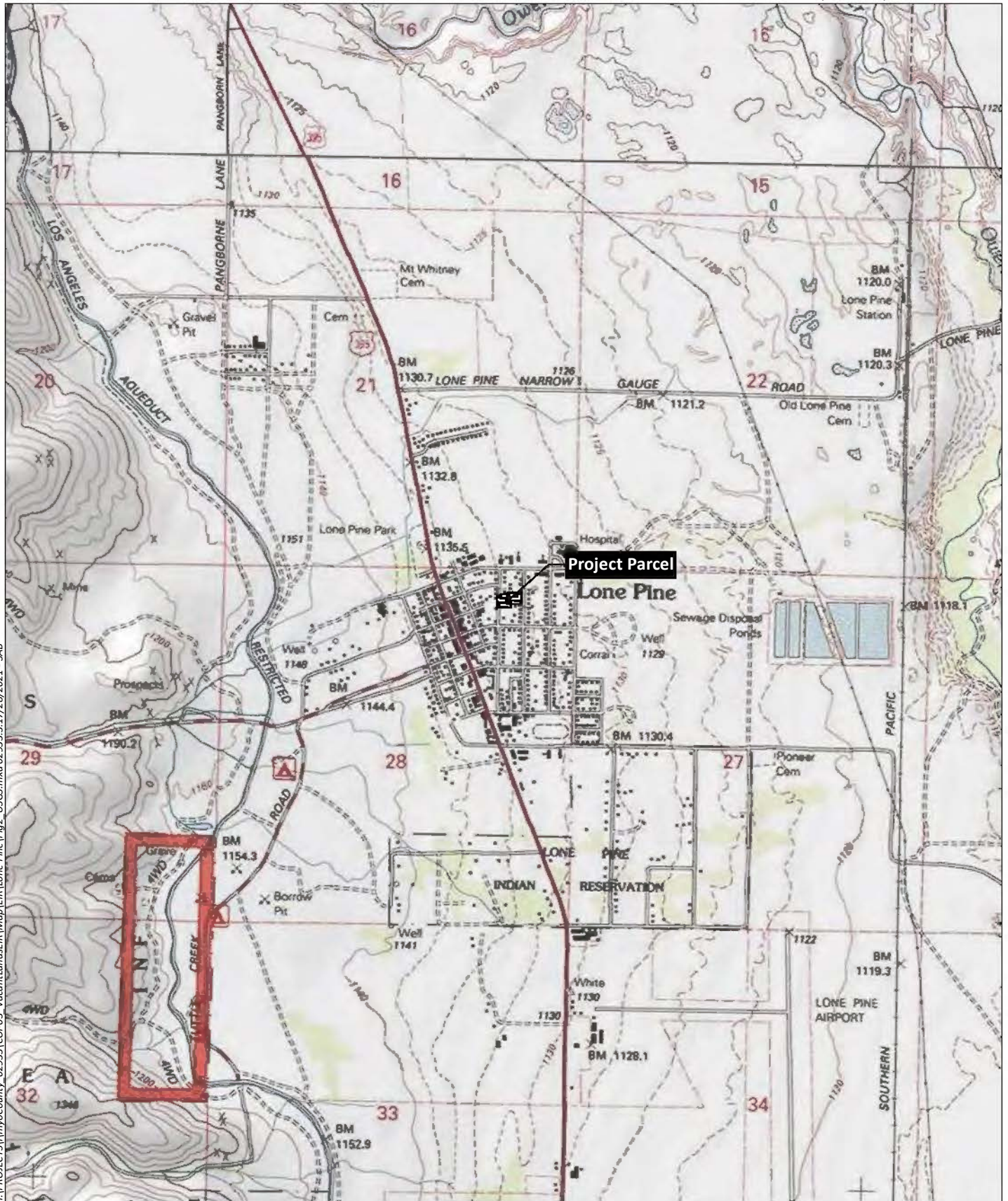
Source: Base Map Layers (SanGIS, 2016)



Proposed General Plan Land Use Designation and Zoning – Bishop Parcels

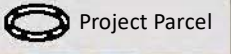


Figure 2-9



I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\Map\Fig2_USGS.mxd 02.93.3.17/28/2021 - SAB

Source: LONE PINE 7.5' Quad (USGS)

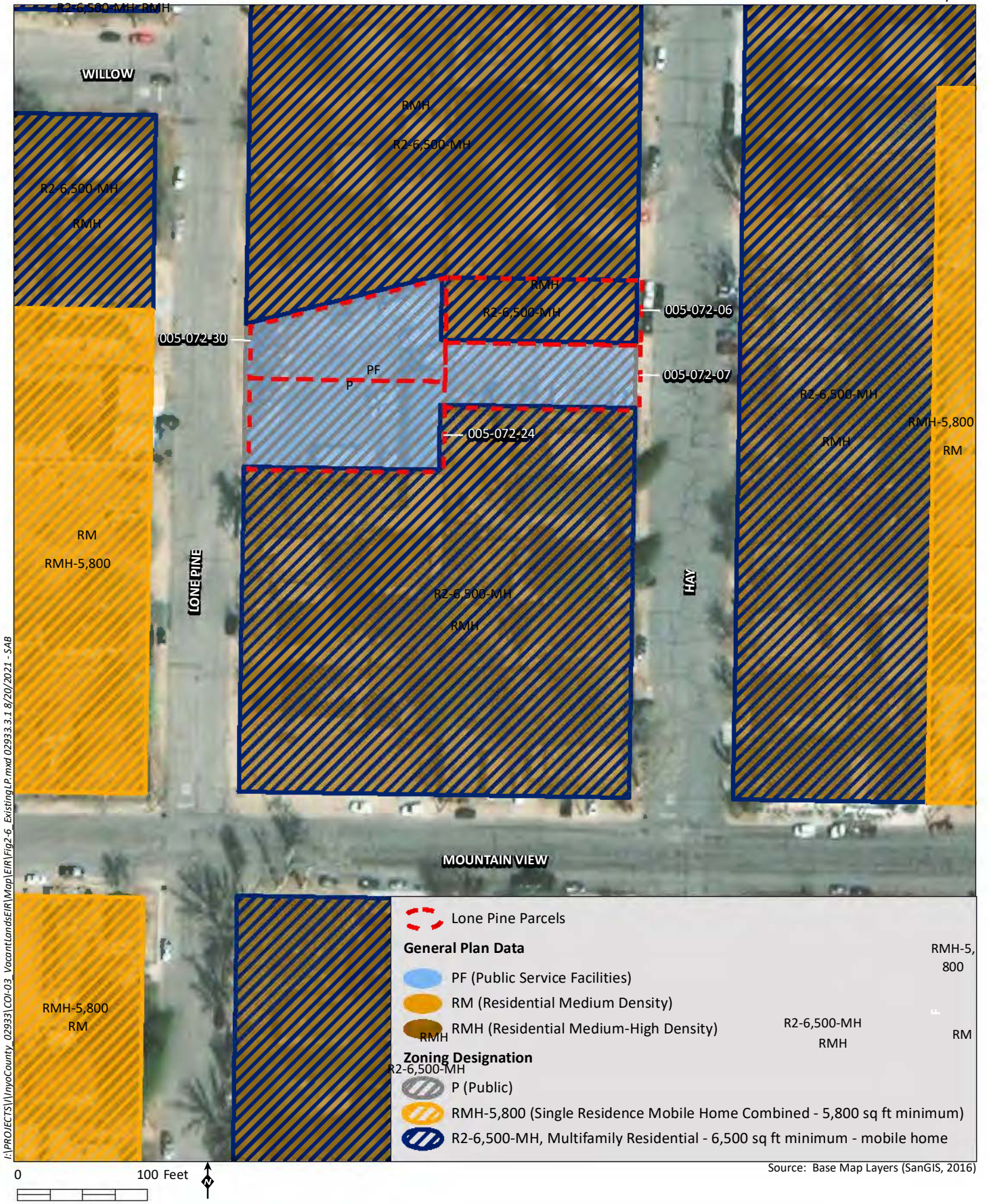


Project Parcel



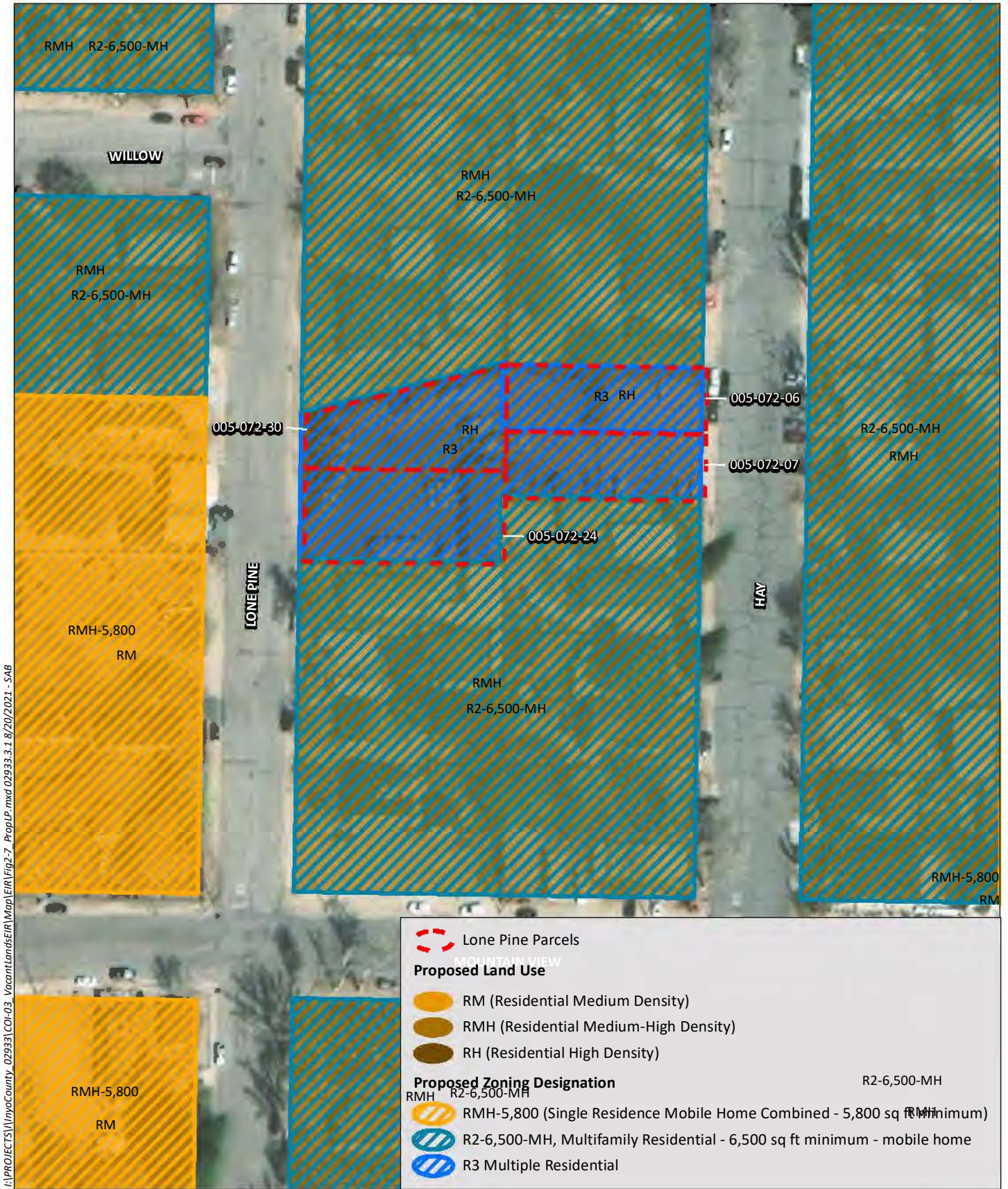
Source: Aerial (Maxar, 2020)

I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\Map\Lone Pine\Fig3_Aerial.mxd 02933.3.1.7/28/2021 - SAB



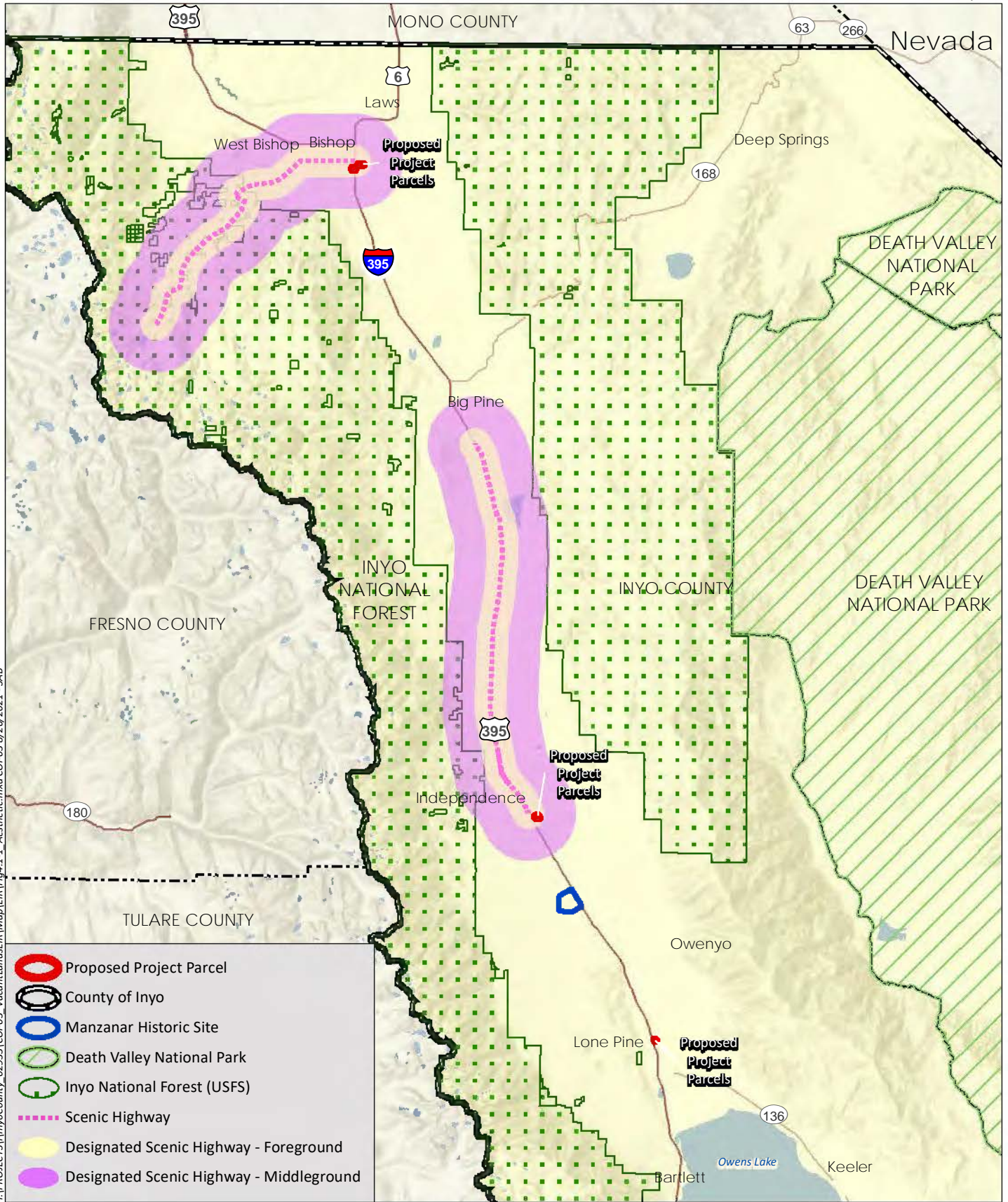
Existing General Plan Land Use Designation and Zoning – Lone Pine Parcels

Figure 2-12











Proposed General Plan Land Use Designation and Zoning – Lone Pine Parcels

Figure 2-13



I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\Fig4.1-1_Aesthetic.mxd COI-03 8/26/2021 - SAB

-  Proposed Project Parcel
-  County of Inyo
-  Manzanar Historic Site
-  Death Valley National Park
-  Inyo National Forest (USFS)
-  Scenic Highway
-  Designated Scenic Highway - Foreground
-  Designated Scenic Highway - Middleground


0 8 Miles

Source: Base Map Layers (ESRI, USGS, County of Inyo)




Aesthetic Resources

Figure 4.1-1

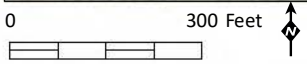
 Project Parcel

USDA Soils

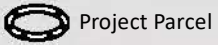
 223 - Inyo gravelly loamy coarse sand, 0 to 5 percent slopes



I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\EIR\Independence\Fig4_Soils.mxd 02933.3.1 7/28/2021 - SAB



Source: Aerial (Maxar, 2020)



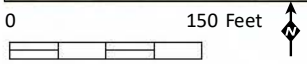
Project Parcel

USDA Soils


184 - Dehy loam, 0 to 2 percent slopes




I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\EIR\BishopWest\Fig4_Soils.mxd 02933.3.1 7/28/2021 - SAB



Source: Aerial (Maxar, 2020)

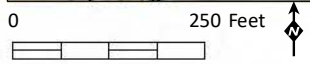
 Project Parcel

USDA Soils

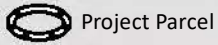
 184 - Dehy loam, 0 to 2 percent slopes



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Source: Aerial (Maxar, 2020)



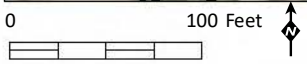
Project Parcel

USDA Soils

-  223 - Inyo gravelly loamy coarse sand, 0 to 5 percent slopes
-  311 - Shabbell sandy loam, 0 to 2 percent slopes



I:\PROJECTS\InyoCounty_02993\COI-03_VacantLandsEIR\Map\Map Lone Pine\Fig4_Soils.mxd 029933.3.1 7/28/2021 - SAB




Source: Aerial (Maxar, 2020)




USDA Soils - Lone Pine

Figure 4.4-3

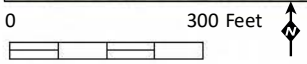
 Project Parcel

Vegetation


 Alkali Desert Scrub (16.9 acres)






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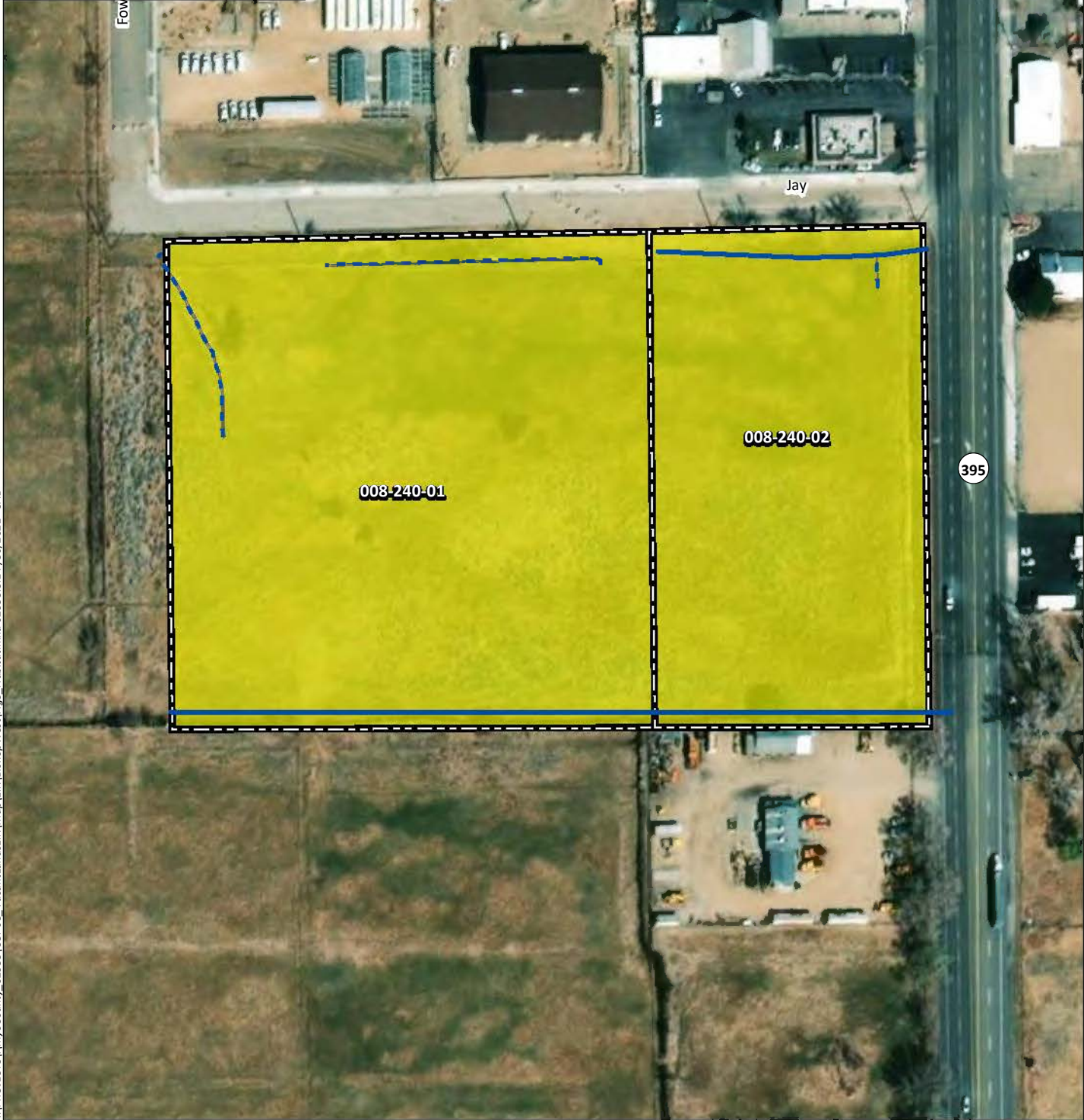


Source: Aerial (Maxar, 2020)

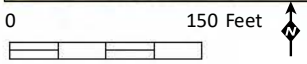
 Project Parcel

Vegetation

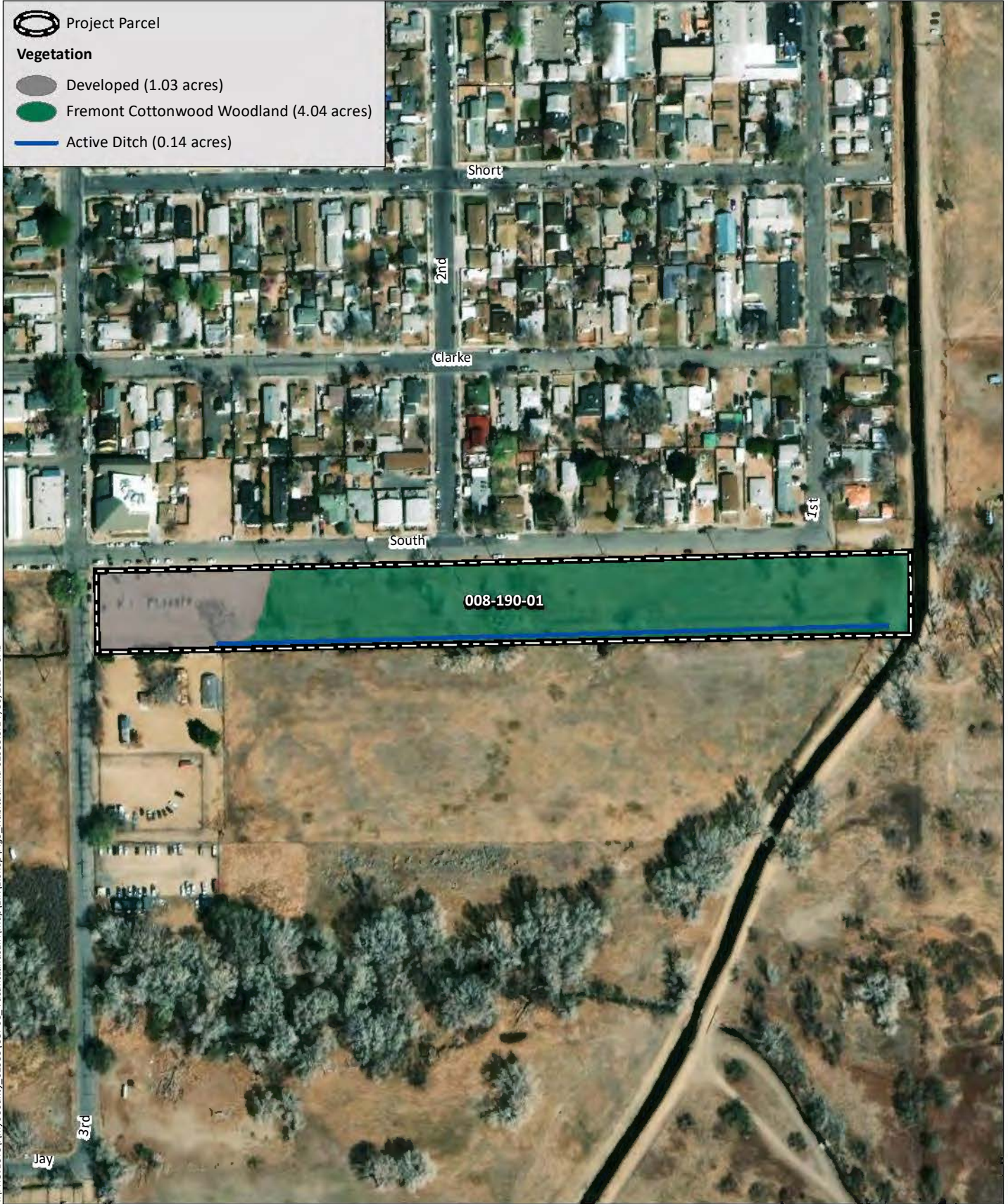
-  Alkali Meadow (9.04 acres)
-  Active Ditch (0.08 acres)
-  Inactive Ditch (0.02 acres)




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Source: Aerial (Maxar, 2020)



I:\PROJECTS\InyoCounty_029933\COI-03_VacantLandsEIR\Map\Bishop\Fig5_Habitat.mxd 029933.3.1.7/30/2021 - SAB

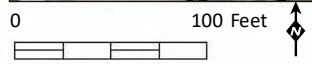
 Project Parcel

Vegetation

 Developed (0.78 acre)



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Source: Aerial (Maxar, 2020)

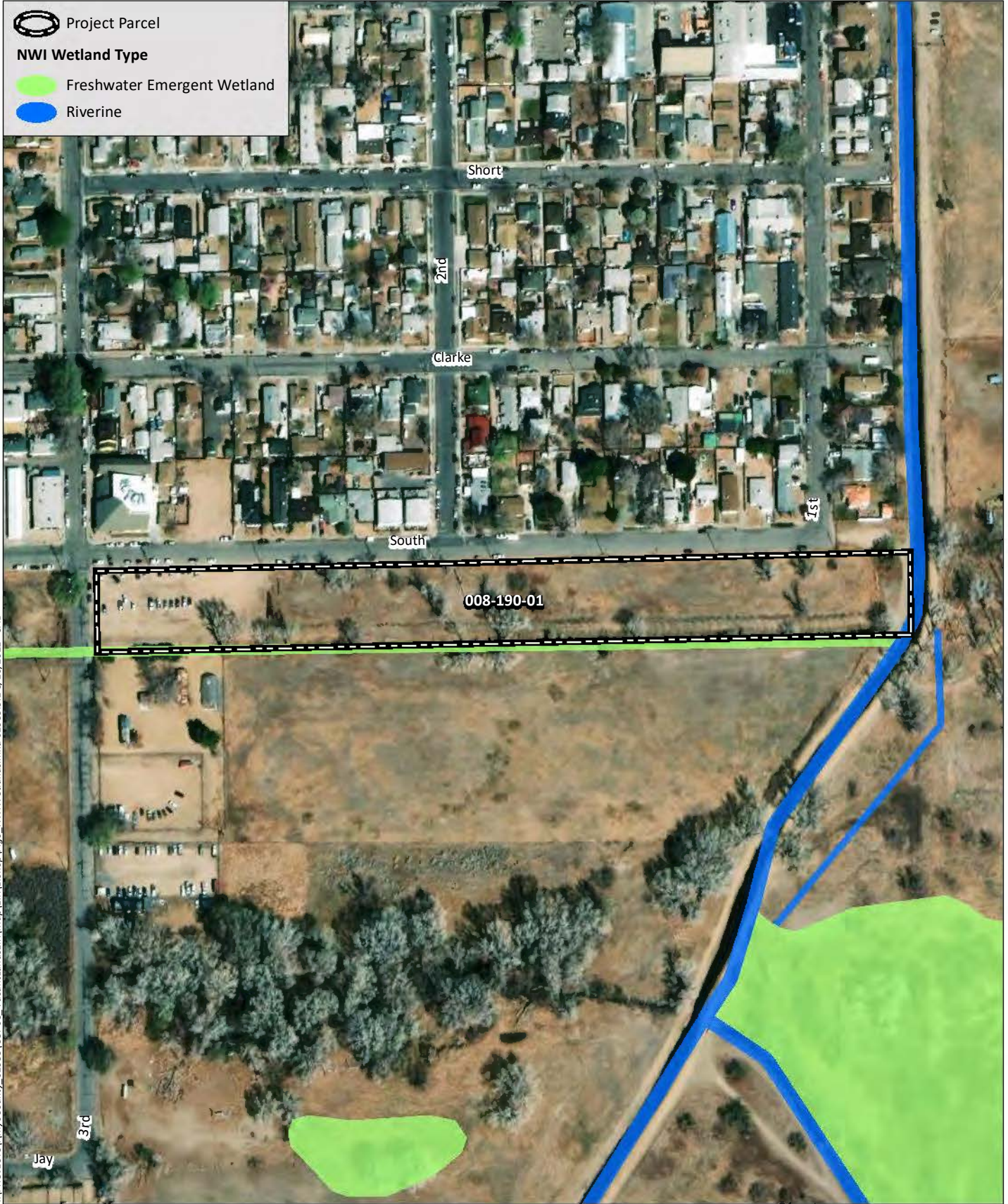




I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\EIR\Bishop West\Fig6_NWIWetlands.mxd 0.2933.3.1 8/16/2021 - SAB

0 300 Feet

Source: Aerial (Maxar, 2020)



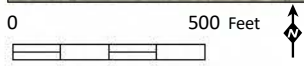
I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\Bishop\Fig6_NWIWetlands.mxd 02933.3.1 8/16/2021 - SAB

○ Area of Potential Effect



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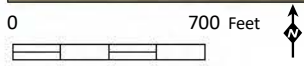
Source: Aerial (ESRI)



Area of Potential Effect



I:\PROJECTS\InyoCounty_029331\01-03_VacantLandsEIR\Map\EIR\Fig4.5-2_APEBis.mxd 02933.3.1.8/23/2021 - SAB

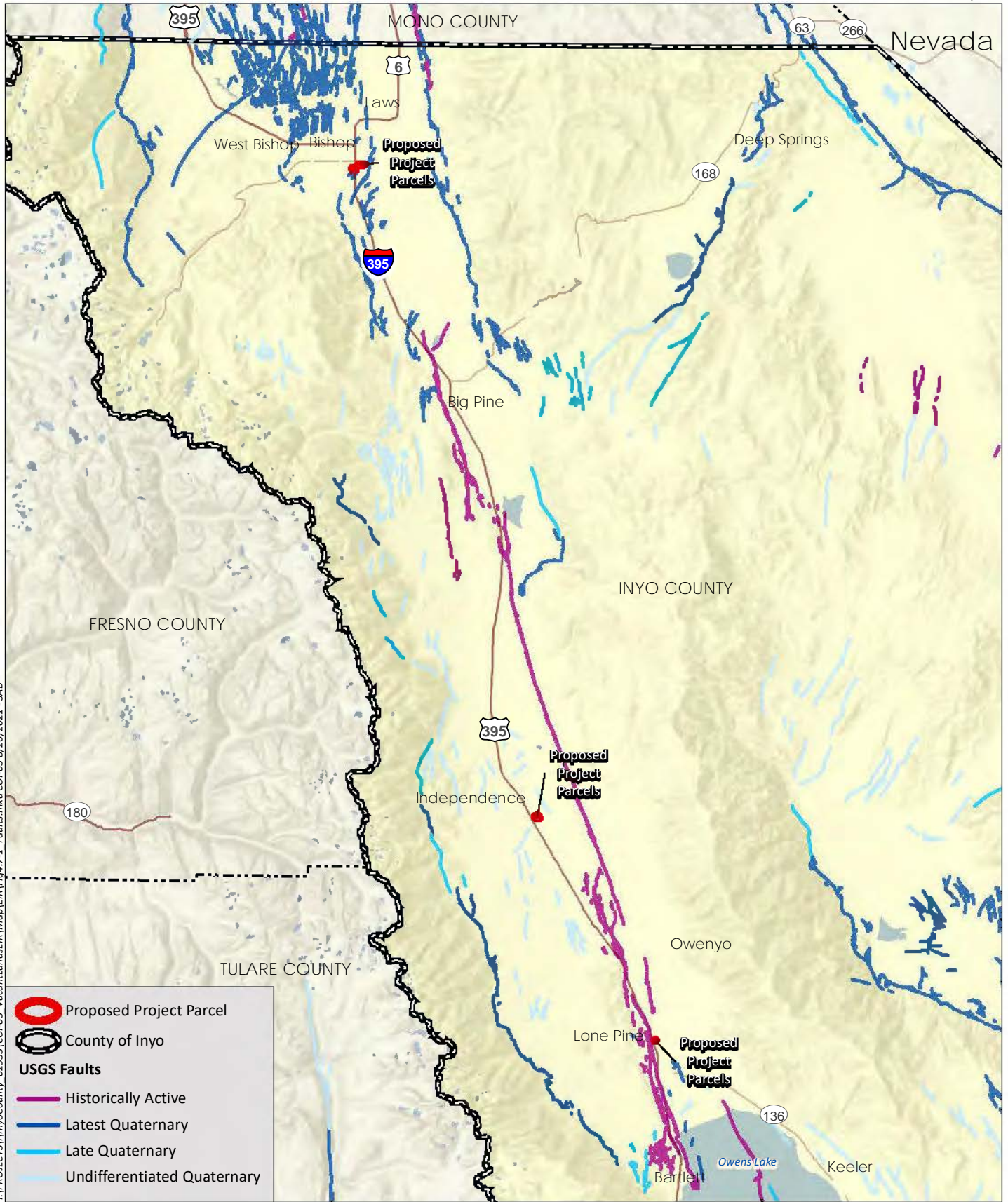


Source: Aerial (ESRI)

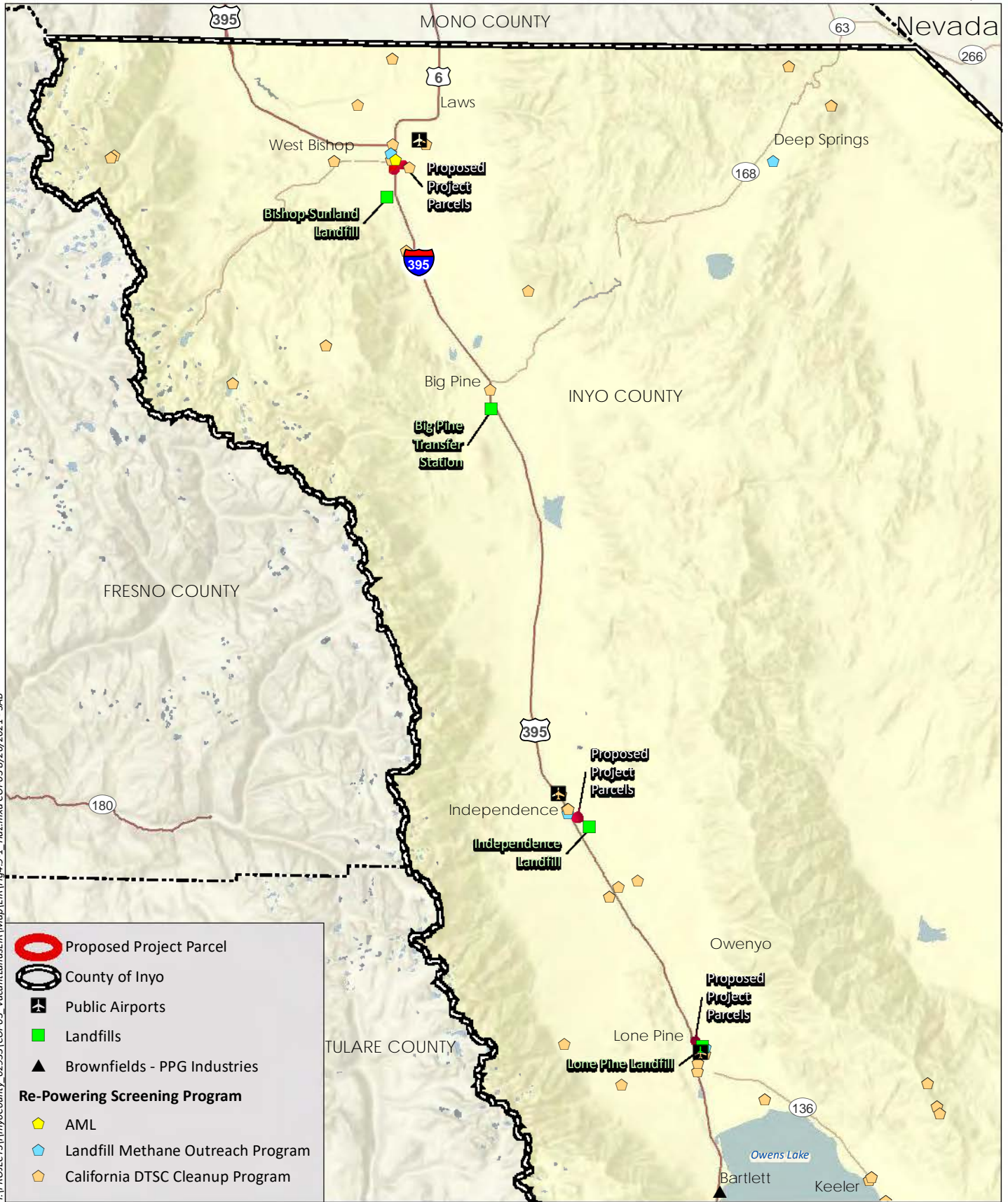


I:\PROJECTS\InyoCounty_029331\COI-03_VacantLandsEIR\Map\EIR\Fig4.5-3_APELP.mxd 02933.3.1 8/23/2021 - 548

Source: Aerial (ESRI)

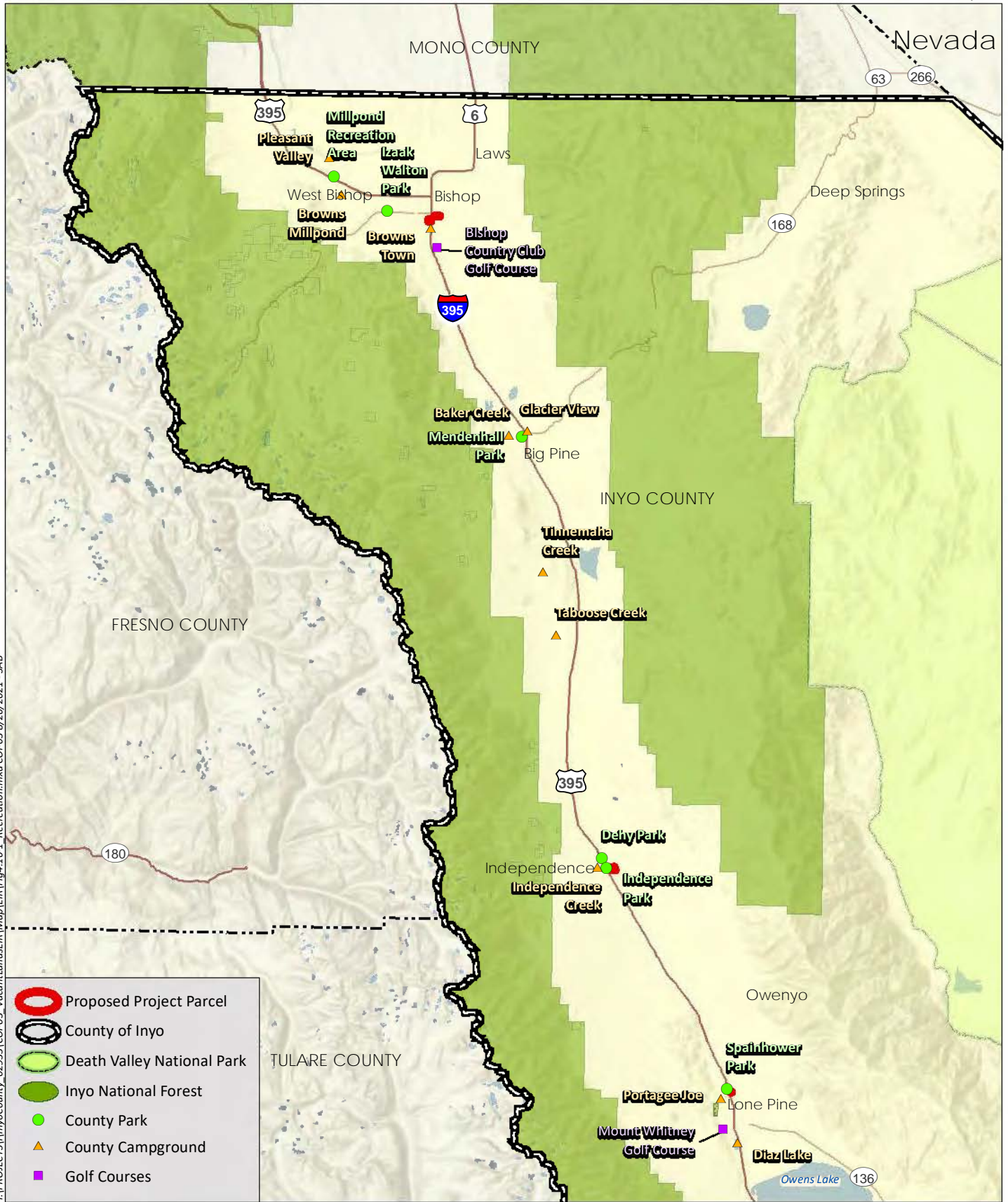


Source: Base Map Layers (ESRI, USGS, County of Inyo)



I:\PROJECTS\InyoCounty_02933\COI-03_VacantLandsEIR\Map\EIR\Fig4.9-1_Haz.mxd COI-03 8/26/2021 - SAB

Source: Base Map Layers (ESRI, USGS, County of Inyo, Envirostor)



I:\PROJECTS\InyoCounty_029933\COI-03_VacantLandsEIR\Map\EIR\Fig4.16-1_Recreation.mxd COI-03 8/26/2021 - SAB

-  Proposed Project Parcel
-  County of Inyo
-  Death Valley National Park
-  Inyo National Forest
-  County Park
-  County Campground
-  Golf Courses

0 8 Miles

Source: Base Map Layers (ESRI, USGS, County of Inyo)

Appendix B

Notice of Preparation
and Scoping Report

Memorandum

HELIX Environmental Planning, Inc.
11 Natoma Street, Suite 155
Folsom, CA 95630
916.365.8700 tel
619.462.0552 fax
www.helixepi.com



Date: December 15, 2020

To: Cathreen Richards, Planning Director

From: Robert Edgerton, AICP CEP, HELIX Environmental Planning
Erin Gustafson, AICP, HELIX Environmental Planning

Subject: Vacant Lands Inventory Public Scoping Comment Summary

HELIX Project: COI-03

Message: This Memorandum summarizes written and verbal comments received during the public scoping period conducted by Inyo County (County) and HELIX Environmental Planning to support the Draft Environmental Impact Report (DEIR) for the Vacant Lands Inventory and Zoning/General Plan Evaluation to Possible Changes to the General Plan and Zoning Designations to Promote Housing Opportunities (proposed project). The proposed project involves conducting a vacant lands inventory and General Plan/zoning designations review of private properties located throughout the County to identify land that may be appropriate for designation changes to promote housing opportunities, primarily by increasing allowable residential density.

This summary includes topics raised by members of the public during the scoping meeting and written comments submitted during the Notice of Preparation (NOP) comment period.

Overview

To assist the County in determining the focus and scope of the analysis for the EIR for the proposed project and in accordance with the requirements of the California Environmental Quality Act (CEQA), the County issued a NOP per CEQA Guidelines Section 15082 on November 5, 2020 to government agencies, special service districts, and individuals with an interest in or jurisdiction over the project. This step ensures early consultation on the scope of the EIR. The comment period closed on December 4, 2020.

The NOP is a brief notice sent by the County as CEQA Lead Agency for the proposed project to inform responsible agencies, trustee agencies, and potentially affected federal, state, and local agencies that the County plans to prepare an EIR. Inyo County conducted one virtual public scoping meeting for this project, held on Wednesday November 18th, 2020 via Zoom.

The meeting was attended by two County elected officials and a single community member. County staff provided an overview of the proposed project and potential environmental impacts, as identified in the

NOP. Participants were then provided an opportunity to ask questions and clarify their understanding of the project description, and to provide comments regarding potential environmental impacts, content of the proposed project, and the CEQA processes associated with the proposed project.

Questions and Answers

During the public scoping meeting, participants were given an opportunity to ask questions to clarify their understanding of the proposed project and CEQA process. Questions were addressed by County staff. Several questions addressed the following issues, with corresponding responses from the project team:

- **Which parcels belonging to LADWP were included in the evaluation?** Only Tier 1 LADWP disposal lands were included in the evaluation.
- **Can abandoned housing be included in this analysis?** The Lead Agency is striving to avoid spot zoning, but any abandoned housing that falls within the parameters of the project will be considered.
- **Will the airport proximity impact the selection of parcels?** Selected parcels will be evaluated against the list of environmental factors identified in Appendix G of the CEQA Guidelines, which includes an analysis of project impacts related to airport land use plans and/or safety hazards.

Scoping Comments and Key Findings

Scoping meeting participants provided input on a wide variety of issues. Several key findings emerged from the scoping meeting comments.

- A commenter noted that there is an environmental constraints document that was produced by the City of Bishop around 2012 that might have relevant information to this proposed project. County staff indicated that they would obtain this study, review its findings, and incorporate the document by reference as relevant/necessary in the Draft EIR.
- A commenter suggested that the Lead Agency better define which LADWP parcels to include, perhaps defining a sphere of influence for each neighborhood or town within which to include parcels.
- Community members expressed support for mixed use commercial and residential zoning.
- A commenter suggested that the Lead Agency include LADWP lands, particularly lots on Main Street in Lone Pine, even if they are not on divestment lists because it may be possible to request divestment.
- A commenter suggested that the County consider bringing in a large septic tank to support additional housing in areas such as Charleston View or Cartago even if these areas would otherwise fall outside the boundaries of the parcels under review because they do not fall within a sewer or water district.
- A commenter suggested that the County include vacant or lightly developed County-owned lands for consideration.
- Commenters offered several suggestions for increasing residential density, including easing restrictions for renting rooms in existing housing and changing existing zoning to allow for duplexes and accessory dwelling units (ADU) in certain zones.

NOP Comment Letters

In addition to the comments received during the public scoping meeting, the County also received one comment letter during the public comment period. The comment letter was received on November 6, 2020^h from the Department of Toxic Substances Control (DTSC). The letter recommended that the Lead Agency evaluate several issues related to the potential presence of hazardous materials at sites evaluated in the EIR. This information will be incorporated into the EIR as appropriate. The comment letter is included as Appendix B.

Next Steps

The County will document and consider comments received during the NOP scoping meetings and identified in NOP comment letters during the public review period in the Draft EIR prepared for the proposed project. The Draft EIR is anticipated to be available for public review and comment in spring and summer 2021.

Appendices

- A. Notice of Preparation
- B. NOP Comment Letters

Notice of Preparation

Notice of Preparation

To: State Clearinghouse From: Inyo County Planning Dept.
P.O. Box 3044 P.O. Drawer L
Sacramento, CA 95812 Independence, CA 93526

Subject: Notice of Preparation of a Draft Environmental Impact Report

Inyo County will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (is is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Cathreen Richards, Planning Director at the address shown above. We will need the name for a contact person in your agency.

Project Title: Vacant Lands Inventory and Zoning Evaluation for Possible Rezoning to Promote Housing Opportunities

Project Applicant, if any: Not applicable

Date November 5, 2020

Signature 
Title Planning Director
Telephone 760-878-0263

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Description of Proposed Project

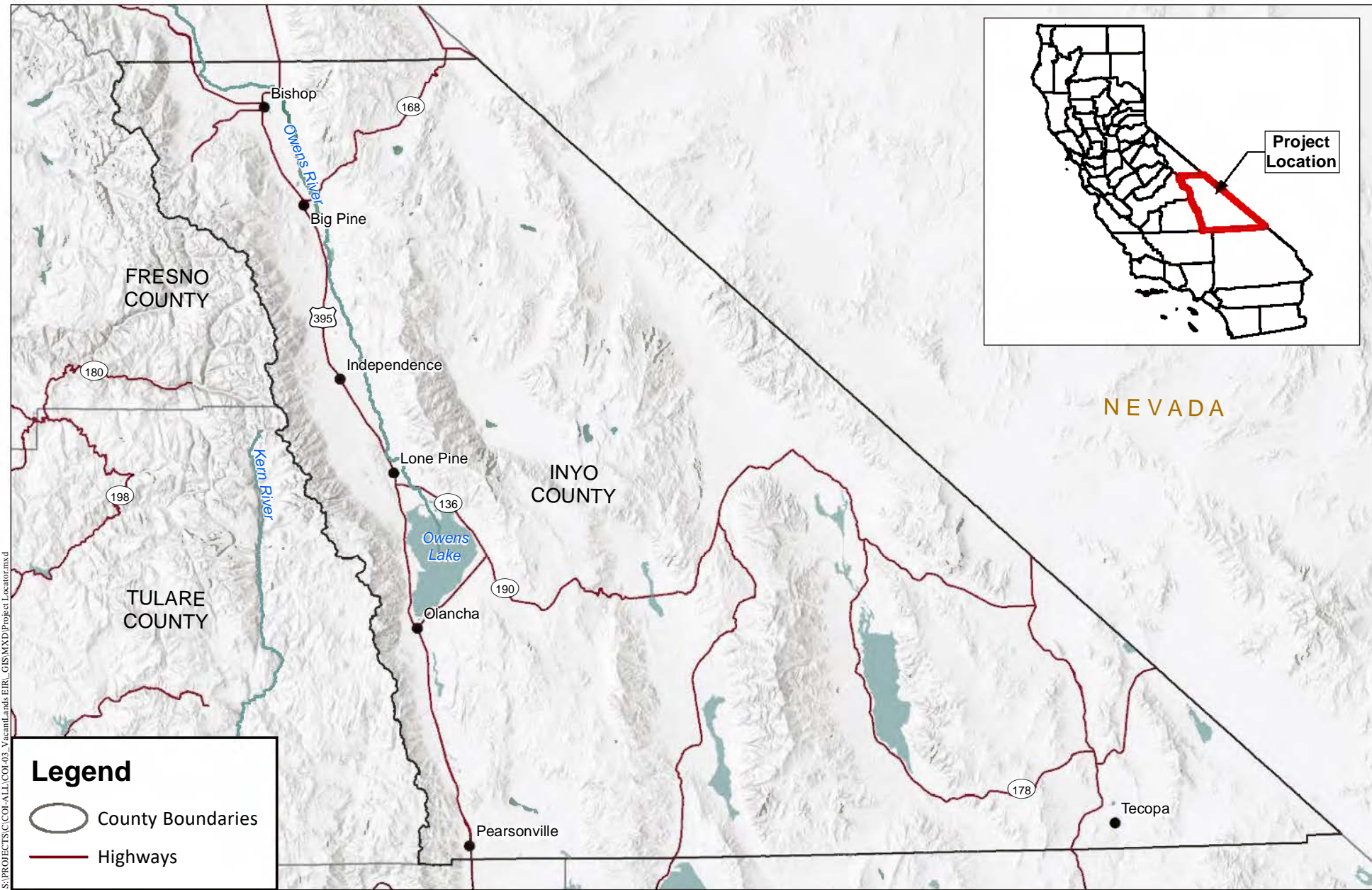
Introduction

The Vacant Lands Inventory and Zoning Evaluation for Possible Rezoning to Promote Housing Opportunities Project (proposed project) proposes to conduct a vacant lands inventory and zoning review of private properties located throughout the County. This information would be used identify land that may be appropriate for zone change(s) to promote housing opportunities, primarily by increasing allowable residential density. This may include increasing the amount of multi-family zoning available in the County, lowering some of the minimum lot size requirements, and additional zoning areas with principal permitting for mobile home parks. The review of the County's current zoning would also focus on commercial zones for opportunities for infill (residential) development. Areas near public transportation and other services would be considered prime, but due to the County's rural nature, other properties located in remote communities without these services might also be identified for potential zone changes. A review of the zoning code language addressing accessory dwelling units would also be conducted for infill opportunities. A primary component of this work would include public outreach meetings and communication with potentially affected property owners.



Once land for zone changes and updates to current zoning for infill opportunities are identified, a CEQA evaluation (most likely an EIR) would be conducted for the identified parcels proposed for a zone change, and on changes to the current zoning ordinance for infill opportunities. This may result in changes from single-family to multi-family, and changes to ministerially allow for mobile home parks, as well as allowing for multi-family residential uses in certain commercial zones without requiring discretionary approval.

Any changes to the County's General Plan designations that might be necessary for consistency with the changes to the zoning would also be conducted. Changes to General Plan designations would be necessary with regard to allowed density by district and the potential/proposed, up-zoning.

After the CEQA evaluation is completed, the draft zoning changes and General Plan Amendments would be presented to the Planning Commission and Board of Supervisors for consideration. Adoption of the updates would result in permitting by right for more multi-family housing and an overall increase in residential density.



Legend

-  County Boundaries
-  Highways

S:\PROJECTS\COC-ALL\COI-03_Vacant_Lands_EIR_GIS\MXD\Project_Location.mxd

Project Location Map



Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Gavin Newsom
Governor

November 6, 2020

Ms. Cathreen Richards
Inyo County Planning Department
PO Drawer L
Independence, CA 93526
CRichards@inyocounty.us

VACANT LANDS INVENTORY AND ZONING EVALUATION FOR POSSIBLE
REZONING TO PROMOTE HOUSING OPPORTUNITIES – DATED NOVEMBER 5,
2020 (STATE CLEARINGHOUSE NUMBER: 2020110088)

Ms. Richards:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of an Environmental Impact Report (EIR) for the Vacant Lands Inventory and Zoning Evaluation for Possible Rezoning to Promote Housing Opportunities (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, work in close proximity to mining or suspected mining or former mining activities, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the EIR. Hazards and Hazardous Materials section:

1. The EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, 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 the government agency who will be responsible for providing appropriate regulatory oversight.
2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This

practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.

3. If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the EIR. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 Abandoned Mine Land Mines Preliminary Assessment Handbook (https://dtsc.ca.gov/wp-content/uploads/sites/31/2018/11/aml_handbook.pdf).
4. 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).
5. 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).
6. 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>).

Ms. Cathreen Richards
November 6, 2020
Page 3

DTSC appreciates the opportunity to comment on the EIR. 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,

A handwritten signature in blue ink that reads "Gavin McCreary". The signature is written in a cursive style.

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

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

Appendix C

Mitigation Monitoring and Reporting Program

MITIGATION MONITORING AND REPORTING PROGRAM

INTRODUCTION

Mitigation Monitoring and Reporting Programs (MMRPs) are required by the California Environmental Quality Act (CEQA) Section 21081.6 to be adopted by CEQA Lead Agencies for projects having the potential to cause significant environmental impacts. The MMRP describes changes to the project or conditions of project approval that mitigate or avoid the project’s potential significant effects on the environment. This MMRP addresses the Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities Project proposed by Inyo County. A brief description of the proposed project is provided below. The proposed project is located within Inyo County (County); the County is the Lead Agency under CEQA and has discretionary authority over the proposed project.

MMRP FORMAT AND IMPLEMENTATION

Mitigation measures that would reduce or eliminate potential environmental impacts of the proposed project are identified in the Vacant Lands Inventory and Zoning Evaluation for Possible Housing Opportunities Project EIR. These mitigation measures will become conditions of project approval if the project is approved. The County is required to verify that all adopted mitigation measures are implemented properly and to ensure compliance, this MMRP (including the checklist) has been formulated. The MMRP shall be adopted, along with CEQA Findings, by the County (Lead Agency) and must be administered by County personnel from the Planning and Public Works departments. Specific responsibilities are delineated for each measure in the attached checklist table and these responsibilities may be delegated to qualified County staff or consultants.

The checklist, which follows as Table B-1, is intended to be used by the applicant, grading/construction contractors, and personnel from the above-listed County Departments, as the appointed mitigation implementation and monitoring entities. Information contained within the checklist clearly identifies each mitigation measure, defines the conditions required to verify compliance, and delineates the monitoring schedule. Following is an explanation of the three columns that constitute each MMRP checklist.

Column 1 *Mitigation Measure:* An inventory of each mitigation measure is provided.

Column 2 *Monitoring Responsibility:* Identifies who are responsible for determining compliance with each mitigation measure (e.g., Inyo County Planning Department, construction contractor, project applicant, qualified biologist).

Column 3 *Implementation Schedule:* As scheduling is dependent upon the progression of the overall project, specific dates are not used within the “Schedule” column. Instead, scheduling describes a logical succession of events (e.g., prior to ground-disturbing activities, etc.) and, if necessary, delineates a follow-up program.

Column 4 *Monitoring Compliance Record Name/Date:* Column is left blank and is to be signed and dated when compliance with the mitigation measure has been met.

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
Biological Resources			
<p>BIO-1: Floristically appropriate botanical surveys shall be conducted to determine the presence or absence of special-status plant species on the proposed Independence project parcel prior to commencement of construction. The surveys shall be floristic in nature and shall be seasonally timed to coincide with the blooming period of regionally occurring special-status plant species (generally March through August, with a peak in April and May). Surveys shall be conducted to determine the status of these species in the project parcel. If special-status plants are not found during the focused surveys, then no further action is required.</p> <ul style="list-style-type: none"> • If special-status plants are documented on the parcel, a report shall be submitted to CNDDDB to document the status of the species on the parcel. If the project is designed to avoid impacts to special-status plant individuals and habitat, no further mitigation for these species would be necessary. • If special-status plants are documented on the parcel and project impacts to these species are anticipated, consultation with CDFW shall be conducted to develop a mitigation strategy. The proponent shall notify CDFW, providing a complete description of the location, size, and condition of the occurrence, and the extent of proposed direct and indirect impacts to it. The project proponent shall comply with any mitigation requirements imposed by CDFW. Mitigation requirements could include but are not limited to, development of a plan to relocate the special-status plants (seed) to a suitable location outside of the impact area and monitoring the relocated population to demonstrate transplant success or 	Inyo County Planning Department; Qualified Biologist	Prior to construction on the Independence parcel; seasonally timed to coincide with the blooming period of regionally occurring special-status plant species	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>preservation of this species or its habitat at an on or offsite location.</p>			
<p>BIO-2: Owens Valley vole have the potential to burrow and forage within all of the proposed Bishop parcels. The following mitigation shall be implemented for Owens Valley vole:</p> <ul style="list-style-type: none"> • Prior to construction at all Bishop parcels, small mammal trapping shall be conducted in order to assess the presence/absence of Owens Valley vole. Traps are to be opened only at night for 3 nights and set up along a standard 100 X 100-m grid with traps at 10-m intervals. Large (7.6 X 8.9 X 22.cm) Sherman live-traps shall be used and baited with plain rolled oats and peanut butter. All captured animals are to be identified to species, sexed, measured, marked, and released. Surveys of Owens Valley vole sign (burrowing, feces, grass clippings, grazing, and runways) shall also be used to obtain additional information on Owens Valley vole distribution. Sign that may have been attributable to other small mammal species (i.e. burrows and grazing) shall only be considered if associated with sign distinctly characteristic of Owens Valley vole activity (i.e. runways and feces). Owens Valley vole fecal pellets were readily distinguishable from those of other small mammal species by their large size, crescent shape, and coarse texture. If Owens Valley vole are not found during the focused surveys, then a letter report should be prepared to document the survey, and no additional measures are recommended. • If Owens Valley vole are present on or within 100 feet of the proposed project footprint, then avoidance and mitigation 	<p>Inyo County Planning Department; Qualified Biologist</p>	<p>Prior to construction on all Bishop parcels</p>	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
measures, such as relocation, shall be developed in coordination with CDFW.			
<p>BIO-3: Owens sucker and Owens speckled dace have the potential to occur in the drainage ditches on the three Bishop parcels or from the project vicinity downstream to the Bishop Creek Canal. The following mitigation shall be implemented for these special-status fish species:</p> <ul style="list-style-type: none"> •Measures to Reduce Impacts to Water Quality <ul style="list-style-type: none"> • Activities conducted in or near Bishop Creek Canal and the active drainage ditches shall be limited to the winter months (generally November – March) when flows are lowest. • All disturbed soils shall undergo erosion control treatment prior to October 15 and/ or immediately after construction is terminated. Erosion control blankets shall be installed on any disturbed soils on a 2:1 slope or steeper. • Standard construction BMPs shall be implemented throughout construction to avoid and minimize adverse effects to water quality within Bishop Creek Canal and the active drainage ditches in and adjacent to the project site. Appropriate erosion control measures shall be used (e.g., hay bales, filter fences, vegetative buffer strips or other accepted equivalents) to reduce siltation and contaminated runoff from the project site. The integrity and effectiveness of the BMPs shall be inspected daily. Corrective actions and repairs shall be carried out immediately. • No construction shall occur within the wetted portion of waterways, including access by construction equipment or personnel. If work in the wetted portion of waterways is unavoidable, the work area shall be dewatered and the flow 	Inyo County Planning Department; Construction Contractor; Qualified Biologist	Prior to construction on the Bishop parcels; and ongoing construction	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>diverted around the work area. The flow shall be diverted only once the construction of the diversion is completed.</p> <ul style="list-style-type: none"> • Construction activities and ground disturbance within the waterways in the project site shall be confined to the minimal area necessary to facilitate construction activities. To ensure that construction equipment and personnel do not affect sensitive aquatic habitat in Bishop Creek Canal and the active drainage ditches up and downstream of the project site, orange barrier fencing shall be erected to clearly define the habitat to be avoided. This shall delineate the Environmentally Sensitive Area (ESA) on the project. The integrity and effectiveness of ESA fencing shall be inspected daily. Corrective actions and repairs shall be carried out immediately for fence breaches. • Construction by-products and pollutants such as petroleum products, chemicals, or other deleterious materials shall not be allowed to enter streams or other waters. A plan for the emergency clean-up of any spills of fuel or other materials shall be available when construction equipment is in use. • Construction vehicles and equipment shall be maintained to prevent contamination of soil or water from external grease and oil or from leaking hydraulic fluid, fuel, oil, and grease. Leaking vehicles and equipment shall be removed from the site. • Equipment shall be re-fueled, washed, and serviced at the designated construction staging area or off-site. All construction and fill materials shall be stored and contained in a designated area that is located away from Bishop Creek Canal and the active drainage ditches to prevent transport of materials into these waterways. Equipment maintenance and storage, and materials storage shall be 100 feet or more away from waterways. In addition, a silt fence shall be installed 			

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>around the staging and materials storage areas to collect any discharge, and adequate materials should be available for spill clean-up and during storm events.</p> <ul style="list-style-type: none"> • No litter, debris, or sidecast shall be dumped or permitted to enter Bishop Creek Canal and the active drainage ditches. Trash and debris shall be removed from the site regularly. Following construction, all trash and construction debris shall be removed from work areas. • Building materials storage areas containing hazardous or potentially toxic materials such as herbicides and petroleum products shall be located outside of the 100-year flood zone, have an impermeable membrane between the ground and the hazardous material, and shall be bermed to prevent the discharge of pollutants to ground water and runoff water. • Worker education and awareness training regarding sensitive habitats (e.g., aquatic and riparian habitats) and special-status species shall be conducted for all construction personnel. The contractor will ensure that all new personnel shall receive the mandatory training before starting work. <p>•Fish Salvage Measures</p> <ul style="list-style-type: none"> • If dewatering is required, the contractor shall prepare a creek dewatering plan that complies with all applicable permit conditions. Water diversion activities shall be conducted under the supervision of a qualified biologist. The biologist shall survey the area to be dewatered immediately after installation of the dewatering device and prior to the continuation of dewatering activities. The approved biologist shall use a net to capture trapped fish present in the area to be dewatered. 			

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>Captured native organisms shall be released into the creek/ditch up or downstream of the construction zone.</p> <ul style="list-style-type: none"> If dewatering the work area in the creek is necessary, and it would be dewatered by pumping, intakes shall be completely screened with wire mesh not larger than five millimeters to prevent fish from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the soil substrate. 			
<p>BIO-4: Pre-construction surveys shall be conducted to determine if there are nesting Swainson's hawk within 0.5-mile of all of Bishop parcels. The purpose of the survey requirement is to ensure that construction activities do not agitate nesting hawks, potentially resulting in nest abandonment or other harm to nesting success. Prior to initiation of construction activities during the Swainson's hawk breeding season (March 1 through September 15), the applicant shall determine the presence of active Swainson's hawk nests in and within 0.5 mile of the Bishop parcels using the most recent published survey protocols (i.e., 3 surveys by a qualified biologist in each of the two periods preceding the construction start date; SHTAC 2000). If an active Swainson's hawk nest is discovered, the applicant shall initiate consultation with CDFW to determine what measures need to be implemented in order to ensure that nesting hawks remain undisturbed. The measures selected would depend on many variables, including the distance of activities from the nest, the types of activities, and whether the landform between the nest and activities provides any kind of natural screening. If no active nests are discovered, no further action is required.</p>	<p>Inyo County Planning Department; Project Applicant; Qualified Biologist</p>	<p>Prior to construction activities during the Swainson's hawk breeding season</p>	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>BIO-5: If project activities such as vegetation removal activities commence during the avian breeding season (February 1 through August 31), a qualified biologist should conduct a pre-construction nesting bird survey no more than 7 days prior to initiation of project activities. The survey area should include suitable raptor nesting habitat within 500 feet of the project boundary (inaccessible areas outside of the project parcels can be surveyed from the parcel or from public roads using binoculars or spotting scopes). Pre construction surveys are not required in areas where project activities have been continuous since prior to February 1, as determined by a qualified biologist. Areas that have been inactive for more than 14 days during the avian breeding season must be re-surveyed prior to resumption of project activities. If no active nests are identified, no further mitigation is required. If active nests are identified, the following measure should be implemented:</p> <ul style="list-style-type: none"> • A suitable buffer (e.g., 500 feet for Cooper’s hawk and white-tailed kite; 300 feet for common raptors; 100 feet for non-raptors) should be established by a qualified biologist around active nests and no construction activities within the buffer should be allowed until a qualified biologist has determined that the nest is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest, or the nest has failed). Encroachment into the buffer may occur at the discretion of a qualified biologist. Any encroachment into the buffer should be monitored by a qualified biologist to determine whether nesting birds are being impacted. 	Inyo County Planning Department; Qualified Biologist	No more than 7 days prior to initiation of project activities	
BIO-6: Prior to any impacts to any of the Bishop parcels, a formal jurisdictional delineation shall be conducted. The U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW shall be contacted prior to commencement of any	Inyo County Planning Department; Qualified Biologist	Prior to impacts to any Bishop parcels	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>construction activity that would impact jurisdictional waters and permits shall be obtained as required. Impacts to jurisdictional waters shall be mitigated in accordance with agency requirements to ensure no net loss of acreage or value to waters of the U.S. and/or waters of the state. The loss of jurisdictional waters shall be mitigated for at a minimum ratio of 1:1 (i.e., 1 acre created per 1 acre impacted) to ensure no net loss of acreage or value to waters of the U.S. and/or waters of the state, except where exempted by regulation. The 1:1 mitigation must be replaced in-kind. This may be accomplished by purchasing credits in a mitigation bank approved by the USACE, RWQCB, and CDFW, or creation/preservation/or enhancement of waters in the project parcels or off-site reserves.</p>			
Cultural Resources			
<p>CUL-1: In the event that cultural resources are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards shall then be retained to evaluate the resource's significance under CEQA. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and shall be discussed in consultation with the County.</p>	<p>Inyo County Planning Department; Qualified Archaeologist</p>	<p>Immediately upon discovery</p>	
<p>CUL-2: Inyo County shall ensure that potentially impacted prehistoric and historic archaeological sites be assessed to determine if they qualify as historical resources as defined in CEQA Guidelines Section 15064.5(a). Per CEQA Guidelines Section 15064.5(c), archaeological sites that fail to qualify as historical resources under CEQA must also be assessed to determine if they qualify as unique archaeological resources as defined in PRC Section 21083.2(g). Impacts to those sites found to be significant, either as historical resources or as unique archaeological resources, shall be mitigated to below the level of</p>	<p>Inyo County Planning Department; Qualified Archaeologist</p>	<p>Prior to initiation of construction activities</p>	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>significance through a Phase III data recovery program. Resources found to be not significant shall not require mitigation.</p> <p><i>Phase II Evaluations</i></p> <p>One historic-era site (P-14-0013447) and one multicomponent site (P-14-0013447) shall be assessed for significance through the implementation of Phase II investigations prior to the initiation of construction activities in those areas where the sites are located. This may require some or all of the following:</p> <ul style="list-style-type: none"> • Development of a research design that guides assessments of site significance and scientific potential. • Mapping and systematic collection of a representative sample of surface artifacts • Subsurface investigation through shovel test pits, surface scrapes, or 1 by 1 meter excavation units; a combination of such methods; or equivalent methods • Analysis of recovered material to determine significance pursuant to the State CEQA Guidelines • Preparation of a report, including an evaluation of site significance, and recommendations for mitigation, if appropriate • Appropriate curation of collected artifacts <p><i>Phase III</i></p> <p>A Phase III data recovery effort, in accordance with CEQA Guidelines, shall be implemented by Inyo County for those sites determined to be significant through Phase II testing and evaluation. Inyo County shall ensure that data recovery conducted to the level that reduces impacts</p>			

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>to below the level of significance has been completed prior to project implementation for any area containing a site determined to be significant and for which it can be demonstrated that consequential scientific information can be recovered. The Phase III data recovery program shall include:</p> <ul style="list-style-type: none"> • Development of a comprehensive research design to answer questions addressed during the Phase II on a broader regional level and to provide a procedural framework for the collection of data at sites determined to be significant • Mapping and systematic collection of surface artifacts, possibly complete data recovered depending on site size • Subsurface investigation through methods, such as controlled hand-excavation units, machine excavations, deep testing, or a combination of methods. When applicable, other techniques, such as geophysical testing methods, may also be used • Analysis of recovered material through visual inspection and chemical analysis when applicable • Preparation of a report • Appropriate curation of collected artifacts 			
<p>CUL-3: The discovery of human remains is always a possibility during a project. If such an event did occur, the specific procedures outlined by the NAHC, in accordance with Section 7050.5 of the California Health and Safety Code and Section 5097.98 of the Public Resources Code, must be followed:</p> <ol style="list-style-type: none"> 1. All excavation activities within 60 feet of the remains will immediately stop, and the area will be protected with flagging or by posting a monitor or construction worker to ensure that no additional disturbance occurs. 2. The project owner or their authorized representative will contact the Inyo County Coroner. 	Inyo County Planning Department; Project Owner; County Coroner	Immediately upon discovery	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>3. The coroner will have two working days to examine the remains after being notified in accordance with HSC 7050.5. If the coroner determines that the remains are Native American and are not subject to the coroner's authority, the coroner will notify NAHC of the discovery within 24 hours.</p> <p>4. NAHC will immediately notify the Most Likely Descendant (MLD), who will have 48 hours after being granted access to the location of the remains to inspect them and make recommendations for their treatment. Work will be suspended in the area of the find until the County approves the proposed treatment of human remains</p>			
Geology and Soils			
<p>GEO-1: Prior to issuance of a grading permit for each site included in the proposed project, a geotechnical firm with local expertise in geotechnical investigation shall prepare a site-specific geotechnical report. The report shall be prepared by a California-licensed geotechnical engineer or engineering geologist and be submitted to the County building department for approval prior to the issuance of a grading permit. This report shall be based on data collected from subsurface exploration, laboratory testing of samples of surface mapping, and address the potential for surface fault rupture, ground shaking, slope failure, expansive soils, and unstable cut or fill slopes and make recommendations based on those findings. The developer shall implement recommendations identified in the site-specific geotechnical report.</p>	<p>Inyo County Public Works Department; Project Applicant; CA Licensed Geotechnical Engineer or Engineering Geologist</p>	<p>Prior to issuance of a grading Permit for all parcels</p>	
<p>GEO-2: In the event a paleontological or other geologically sensitive resource (such as fossils or fossil formations) are identified during any phase of project construction, all excavations within 100 feet of the find shall be temporarily halted until the find is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology</p>	<p>Inyo County Planning Department; Construction Contractor; Qualified Paleontologist</p>	<p>Immediately upon discovery</p>	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
<p>standards. The paleontologist shall notify the appropriate representative at the County of Inyo who shall coordinate with the paleontologist as to any necessary investigation of the find. If the find is determined to be significant under CEQA, the County shall implement those measures which may include avoidance, preservation in place, or other appropriate measures, as outlined in Public Resources Code Section 21083.2.</p>			
<p>Hydrology and Water Quality</p>			
<p>HYD-1: The project applicant shall file an NOI to comply with the Construction General Permit with the Lahontan RWQCB prior to each phase of construction. Individual SWPPPs shall be prepared for each NOI and shall detail the treatment measures and BMPs to control pollutants that shall be implemented and complied with during the construction and post-construction phases of the project. The SWPPPs are subject to approval by the Lahontan RWQCB, which makes the final determination on which BMPs are required for the project. The construction contracts for each project phase shall include the requirement to implement the BMPs in accordance with the SWPPPs, and proper implementation of the specified BMPs is subject to inspection by the Lahontan RWQCB staff. Example BMPs may include practices such as: designation of restricted-entry zones, sediment tracking control measures (e.g., crushed stone or riffle metal plate at construction entrance), truck washdown areas, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, provision mulching for soil stabilization during construction, and provision for revegetation upon completion of construction within a given area. The SWPPPs will also prescribe treatment measures to trap sediment once it has been mobilized, such as straw bale barriers, straw mulching, fiber rolls and wattles, silt fencing, and siltation or sediment ponds.</p>	<p>Inyo County Planning Department; Project Applicant; Construction Contractor</p>	<p>Prior and post each phase of construction</p>	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
Noise			
<p>NOI-1: If project development would occur within 500 feet of a residence or other noise sensitive receptor, the following measures shall be implemented to reduce construction noise to the extent feasible:</p> <ul style="list-style-type: none"> • Whenever feasible, electrical power will be used to run air compressors and similar power tools. • Equipment staging areas will be located as far as feasible from occupied residences or schools. • All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers. • Stationary equipment shall be placed such that emitted noise is directed away from sensitive noise receptors. • Stockpiling and vehicle staging areas shall be located as far as practical from occupied dwellings. 	Inyo County Planning Department; Construction Contractor	Ongoing during project construction	
<p>NOI-2: The County shall ensure that, during project construction activities, all vibratory rollers are used in static mode only (no vibrations) when operating within 20 feet of any occupied structure. If construction activity is to be performed by contractors, the County shall specify the vibratory roller use limitations on contract documents.</p>	Inyo County Planning Department; Construction Contractor	Ongoing during project construction	
Transportation			
<p>TRA-1: In order to ensure the reduction of total VMT in the County, Inyo County shall require that applicants seeking to develop residential units on the parcels included in the proposed project to demonstrate that</p>	Inyo County Planning Department	Prior to issuance of a grading Permit for all parcels	

Mitigation Measure	Monitoring Responsibility	Implementation Schedule	Monitoring Compliance Record Name/Date
the proposed development would have a residential density equal to or greater than 4.5 dwelling units per acre prior to the issuance of a grading permit.			
Tribal Cultural Resources			
TCR-1: In the event that tribal cultural resources are exposed during ground-disturbing activities, construction activities (e.g., grading, grubbing, or vegetation clearing) shall be halted in the immediate vicinity of the discovery. An archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards shall then be retained to evaluate the resource's significance under CEQA. If the discovery proves to be significant, additional work, such as data recovery excavation, may be warranted and shall be discussed in consultation with the County.	Inyo County Planning Department; Qualified Archaeologist	Immediately upon discovery	
Utilities and Service Systems			
UTL-1: Future project applicants would be required to demonstrate that adequate water supply exists to serve the planned development project. Applicants must provide the County with a water supply study demonstrating adequate water supply to serve the development prior to County approval of the grading plans.	Inyo County Planning Department; Project Applicant	Prior to County approval of grading plans	

Appendix D

CalEEMod and
OFFROAD2017 Emissions
Inventory Outputs

Inyo County Vacant Lands - Inyo County, Annual

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

Inyo County Vacant Lands

Inyo County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	492.00	Dwelling Unit	32.00	492,000.00	1073

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	34
Climate Zone	9			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	691.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 492 multi-family units with occupancy rating of 2.18 persons per household on a combined total of 32 acres.

Construction Phase -

Architectural Coating - Mandatory compliance with GBUAPCD Rule 417

Woodstoves - No wood burning devices

Construction Off-road Equipment Mitigation -

Energy Mitigation - 2019 Title 24 requires a system rated at 891 kW based on the CalEEMod default sqft for 492 units in Lone Pine, Bishop, and Independence. Berkeley Lab, Utility-Scale Solar 2018 Edition states CA average PV Capacity Factor is 28.9%.
 $891 \text{ kW} \times 24\text{hr/day} \times 365.24 \text{ days/yr} \times 28.9\% = 2,255,958 \text{ kWhr}$.

Water Mitigation - CALGreen requires 20% reduction over CalEEMod defaults

Waste Mitigation - AB341 requires 75% diversion rate. 25% entered to account for limited diversion already included in CalEEMod defaults.

Inyo County Vacant Lands - Inyo County, Annual

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	270.60	0.00
tblFireplaces	NumberNoFireplace	49.20	492.00
tblFireplaces	NumberWood	172.20	0.00
tblLandUse	LotAcreage	30.75	32.00
tblLandUse	Population	1,407.00	1,073.00
tblWoodstoves	NumberCatalytic	24.60	0.00
tblWoodstoves	NumberNoncatalytic	24.60	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Inyo County Vacant Lands - Inyo County, Annual

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

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.1786	1.5575	1.3797	3.0000e-003	0.4664	0.0683	0.5347	0.2000	0.0631	0.2632	0.0000	266.2677	266.2677	0.0624	4.2000e-003	269.0793
2023	0.4162	2.3148	3.5384	8.3200e-003	0.4163	0.0954	0.5117	0.1117	0.0898	0.2014	0.0000	752.3478	752.3478	0.0831	0.0278	762.7169
2024	1.3411	1.8880	2.9893	6.9300e-003	0.3354	0.0749	0.4102	0.0899	0.0703	0.1602	0.0000	627.3258	627.3258	0.0757	0.0212	635.5220
2025	0.5304	7.7000e-003	0.0209	5.0000e-005	3.4300e-003	3.3000e-004	3.7600e-003	9.1000e-004	3.3000e-004	1.2400e-003	0.0000	4.2379	4.2379	1.6000e-004	7.0000e-005	4.2643
Maximum	1.3411	2.3148	3.5384	8.3200e-003	0.4664	0.0954	0.5347	0.2000	0.0898	0.2632	0.0000	752.3478	752.3478	0.0831	0.0278	762.7169

Inyo County Vacant Lands - Inyo County, Annual

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

2.1 Overall Construction

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	0.1786	1.5575	1.3797	3.0000e-003	0.2444	0.0683	0.3126	0.0993	0.0631	0.1624	0.0000	266.2675	266.2675	0.0624	4.2000e-003	269.0791
2023	0.4162	2.3148	3.5384	8.3200e-003	0.4163	0.0954	0.5117	0.1117	0.0898	0.2014	0.0000	752.3475	752.3475	0.0831	0.0278	762.7166
2024	1.3411	1.8880	2.9893	6.9300e-003	0.3354	0.0749	0.4102	0.0899	0.0703	0.1602	0.0000	627.3255	627.3255	0.0757	0.0212	635.5216
2025	0.5304	7.7000e-003	0.0209	5.0000e-005	3.4300e-003	3.3000e-004	3.7600e-003	9.1000e-004	3.3000e-004	1.2400e-003	0.0000	4.2379	4.2379	1.6000e-004	7.0000e-005	4.2643
Maximum	1.3411	2.3148	3.5384	8.3200e-003	0.4163	0.0954	0.5117	0.1117	0.0898	0.2014	0.0000	752.3475	752.3475	0.0831	0.0278	762.7166

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	18.18	0.00	15.20	25.04	0.00	16.10	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	7-1-2022	9-30-2022	0.6986	0.6986
2	10-1-2022	12-31-2022	1.0516	1.0516
3	1-1-2023	3-31-2023	0.6903	0.6903
4	4-1-2023	6-30-2023	0.6784	0.6784
5	7-1-2023	9-30-2023	0.6858	0.6858
6	10-1-2023	12-31-2023	0.7057	0.7057
7	1-1-2024	3-31-2024	0.6551	0.6551
8	4-1-2024	6-30-2024	0.6367	0.6367

Inyo County Vacant Lands - Inyo County, Annual

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

9	7-1-2024	9-30-2024	0.6437	0.6437
10	10-1-2024	12-31-2024	1.3173	1.3173
11	1-1-2025	3-31-2025	0.5129	0.5129
		Highest	1.3173	1.3173

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	2.8007	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102
Energy	0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	1,172.8923	1,172.8923	0.0438	0.0121	1,177.5958
Mobile	2.2369	2.5916	19.0005	0.0373	3.8544	0.0330	3.8874	1.0285	0.0309	1.0594	0.0000	3,517.2680	3,517.2680	0.2316	0.1615	3,571.1775
Waste						0.0000	0.0000		0.0000	0.0000	45.9409	0.0000	45.9409	2.7150	0.0000	113.8167
Water						0.0000	0.0000		0.0000	0.0000	10.1698	201.4842	211.6540	1.0542	0.0258	245.7046
Total	5.0805	3.0000	22.8062	0.0398	3.8544	0.0829	3.9373	1.0285	0.0808	1.1093	56.1107	4,897.6119	4,953.7226	4.0503	0.1994	5,114.4048

Inyo County Vacant Lands - Inyo County, Annual

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

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.8007	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102
Energy	0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	464.7993	464.7993	0.0101	8.0100e-003	467.4389
Mobile	2.2369	2.5916	19.0005	0.0373	3.8544	0.0330	3.8874	1.0285	0.0309	1.0594	0.0000	3,517.2680	3,517.2680	0.2316	0.1615	3,571.1775
Waste						0.0000	0.0000		0.0000	0.0000	34.4557	0.0000	34.4557	2.0363	0.0000	85.3625
Water						0.0000	0.0000		0.0000	0.0000	8.1359	161.1874	169.3232	0.8433	0.0207	196.5637
Total	5.0805	3.0000	22.8062	0.0398	3.8544	0.0829	3.9373	1.0285	0.0808	1.1093	42.5916	4,149.2221	4,191.8136	3.1269	0.1902	4,326.6528

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24.09	15.28	15.38	22.80	4.65	15.40

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/12/2022	9/8/2022	5	20	
2	Grading	Grading	9/9/2022	11/10/2022	5	45	
3	Building Construction	Building Construction	11/11/2022	10/10/2024	5	500	

Inyo County Vacant Lands - Inyo County, Annual

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

4	Paving	Paving	10/11/2024	11/28/2024	5	35
5	Architectural Coating	Architectural Coating	11/29/2024	1/16/2025	5	35

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 996,300; Residential Outdoor: 332,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45

Trips and VMT

Inyo County Vacant Lands - Inyo County, Annual

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

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	354.00	53.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	71.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 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					0.1966	0.0000	0.1966	0.1010	0.0000	0.1010	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098
Total	0.0317	0.3308	0.1970	3.8000e-004	0.1966	0.0161	0.2127	0.1010	0.0148	0.1159	0.0000	33.4394	33.4394	0.0108	0.0000	33.7098

Inyo County Vacant Lands - Inyo County, Annual

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

3.2 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	8.1000e-004	5.0000e-004	5.4000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2328	1.2328	5.0000e-005	4.0000e-005	1.2459
Total	8.1000e-004	5.0000e-004	5.4000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2328	1.2328	5.0000e-005	4.0000e-005	1.2459

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					0.0885	0.0000	0.0885	0.0455	0.0000	0.0455	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0317	0.3308	0.1970	3.8000e-004		0.0161	0.0161		0.0148	0.0148	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097
Total	0.0317	0.3308	0.1970	3.8000e-004	0.0885	0.0161	0.1046	0.0455	0.0148	0.0603	0.0000	33.4394	33.4394	0.0108	0.0000	33.7097

Inyo County Vacant Lands - Inyo County, Annual

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

3.2 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	8.1000e-004	5.0000e-004	5.4000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2328	1.2328	5.0000e-005	4.0000e-005	1.2459
Total	8.1000e-004	5.0000e-004	5.4000e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.2328	1.2328	5.0000e-005	4.0000e-005	1.2459

3.3 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					0.2071	0.0000	0.2071	0.0822	0.0000	0.0822	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0816	0.8740	0.6534	1.4000e-003		0.0368	0.0368		0.0338	0.0338	0.0000	122.7029	122.7029	0.0397	0.0000	123.6950
Total	0.0816	0.8740	0.6534	1.4000e-003	0.2071	0.0368	0.2439	0.0822	0.0338	0.1161	0.0000	122.7029	122.7029	0.0397	0.0000	123.6950

Inyo County Vacant Lands - Inyo County, Annual

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

3.3 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	2.0200e-003	1.2500e-003	0.0135	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.0821	3.0821	1.1000e-004	1.0000e-004	3.1148
Total	2.0200e-003	1.2500e-003	0.0135	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.0821	3.0821	1.1000e-004	1.0000e-004	3.1148

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					0.0932	0.0000	0.0932	0.0370	0.0000	0.0370	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0816	0.8740	0.6534	1.4000e-003		0.0368	0.0368		0.0338	0.0338	0.0000	122.7027	122.7027	0.0397	0.0000	123.6948
Total	0.0816	0.8740	0.6534	1.4000e-003	0.0932	0.0368	0.1300	0.0370	0.0338	0.0708	0.0000	122.7027	122.7027	0.0397	0.0000	123.6948

Inyo County Vacant Lands - Inyo County, Annual

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

3.3 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	2.0200e-003	1.2500e-003	0.0135	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.0821	3.0821	1.1000e-004	1.0000e-004	3.1148
Total	2.0200e-003	1.2500e-003	0.0135	3.0000e-005	3.6200e-003	2.0000e-005	3.6400e-003	9.6000e-004	2.0000e-005	9.8000e-004	0.0000	3.0821	3.0821	1.1000e-004	1.0000e-004	3.1148

3.4 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	0.0307	0.2811	0.2945	4.8000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	41.7105	41.7105	9.9900e-003	0.0000	41.9604
Total	0.0307	0.2811	0.2945	4.8000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	41.7105	41.7105	9.9900e-003	0.0000	41.9604

Inyo County Vacant Lands - Inyo County, Annual

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

3.4 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	3.1800e-003	0.0521	0.0246	2.2000e-004	6.3600e-003	4.6000e-004	6.8200e-003	1.8400e-003	4.4000e-004	2.2700e-003	0.0000	20.4579	20.4579	1.4000e-004	2.6400e-003	21.2476
Worker	0.0286	0.0177	0.1912	4.7000e-004	0.0513	3.2000e-004	0.0516	0.0136	2.9000e-004	0.0139	0.0000	43.6422	43.6422	1.6200e-003	1.4200e-003	44.1059
Total	0.0318	0.0699	0.2158	6.9000e-004	0.0577	7.8000e-004	0.0584	0.0155	7.3000e-004	0.0162	0.0000	64.1000	64.1000	1.7600e-003	4.0600e-003	65.3535

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	0.0307	0.2811	0.2945	4.8000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	41.7105	41.7105	9.9900e-003	0.0000	41.9603
Total	0.0307	0.2811	0.2945	4.8000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	41.7105	41.7105	9.9900e-003	0.0000	41.9603

Inyo County Vacant Lands - Inyo County, Annual

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

3.4 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	3.1800e-003	0.0521	0.0246	2.2000e-004	6.3600e-003	4.6000e-004	6.8200e-003	1.8400e-003	4.4000e-004	2.2700e-003	0.0000	20.4579	20.4579	1.4000e-004	2.6400e-003	21.2476
Worker	0.0286	0.0177	0.1912	4.7000e-004	0.0513	3.2000e-004	0.0516	0.0136	2.9000e-004	0.0139	0.0000	43.6422	43.6422	1.6200e-003	1.4200e-003	44.1059
Total	0.0318	0.0699	0.2158	6.9000e-004	0.0577	7.8000e-004	0.0584	0.0155	7.3000e-004	0.0162	0.0000	64.1000	64.1000	1.7600e-003	4.0600e-003	65.3535

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3462	301.3462	0.0717	0.0000	303.1383

Inyo County Vacant Lands - Inyo County, Annual

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

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.3319	0.1633	1.5100e-003	0.0460	2.2800e-003	0.0482	0.0133	2.1800e-003	0.0155	0.0000	143.8833	143.8833	8.5000e-004	0.0184	149.3859
Worker	0.1930	0.1129	1.2634	3.3100e-003	0.3704	2.1500e-003	0.3725	0.0984	1.9800e-003	0.1004	0.0000	307.1183	307.1183	0.0105	9.4300e-003	310.1927
Total	0.2117	0.4448	1.4267	4.8200e-003	0.4163	4.4300e-003	0.4208	0.1117	4.1600e-003	0.1158	0.0000	451.0017	451.0017	0.0114	0.0278	459.5786

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	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380
Total	0.2045	1.8700	2.1117	3.5000e-003		0.0910	0.0910		0.0856	0.0856	0.0000	301.3458	301.3458	0.0717	0.0000	303.1380

Inyo County Vacant Lands - Inyo County, Annual

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

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0187	0.3319	0.1633	1.5100e-003	0.0460	2.2800e-003	0.0482	0.0133	2.1800e-003	0.0155	0.0000	143.8833	143.8833	8.5000e-004	0.0184	149.3859
Worker	0.1930	0.1129	1.2634	3.3100e-003	0.3704	2.1500e-003	0.3725	0.0984	1.9800e-003	0.1004	0.0000	307.1183	307.1183	0.0105	9.4300e-003	310.1927
Total	0.2117	0.4448	1.4267	4.8200e-003	0.4163	4.4300e-003	0.4208	0.1117	4.1600e-003	0.1158	0.0000	451.0017	451.0017	0.0114	0.0278	459.5786

3.4 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1501	1.3713	1.6490	2.7500e-003		0.0626	0.0626		0.0588	0.0588	0.0000	236.4861	236.4861	0.0559	0.0000	237.8841
Total	0.1501	1.3713	1.6490	2.7500e-003		0.0626	0.0626		0.0588	0.0588	0.0000	236.4861	236.4861	0.0559	0.0000	237.8841

Inyo County Vacant Lands - Inyo County, Annual

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

3.4 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0138	0.2551	0.1217	1.1700e-003	0.0361	1.7600e-003	0.0378	0.0104	1.6900e-003	0.0121	0.0000	110.8389	110.8389	6.2000e-004	0.0141	115.0583
Worker	0.1421	0.0786	0.9145	2.5100e-003	0.2906	1.5900e-003	0.2922	0.0772	1.4600e-003	0.0787	0.0000	234.9959	234.9959	7.4500e-003	6.8400e-003	237.2206
Total	0.1559	0.3337	1.0362	3.6800e-003	0.3267	3.3500e-003	0.3300	0.0876	3.1500e-003	0.0908	0.0000	345.8348	345.8348	8.0700e-003	0.0210	352.2789

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	0.1501	1.3713	1.6490	2.7500e-003		0.0626	0.0626		0.0588	0.0588	0.0000	236.4858	236.4858	0.0559	0.0000	237.8839
Total	0.1501	1.3713	1.6490	2.7500e-003		0.0626	0.0626		0.0588	0.0588	0.0000	236.4858	236.4858	0.0559	0.0000	237.8839

Inyo County Vacant Lands - Inyo County, Annual

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

3.4 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0138	0.2551	0.1217	1.1700e-003	0.0361	1.7600e-003	0.0378	0.0104	1.6900e-003	0.0121	0.0000	110.8389	110.8389	6.2000e-004	0.0141	115.0583
Worker	0.1421	0.0786	0.9145	2.5100e-003	0.2906	1.5900e-003	0.2922	0.0772	1.4600e-003	0.0787	0.0000	234.9959	234.9959	7.4500e-003	6.8400e-003	237.2206
Total	0.1559	0.3337	1.0362	3.6800e-003	0.3267	3.3500e-003	0.3300	0.0876	3.1500e-003	0.0908	0.0000	345.8348	345.8348	8.0700e-003	0.0210	352.2789

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298

Inyo County Vacant Lands - Inyo County, Annual

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

3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	5.7000e-004	6.6500e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7084	1.7084	5.0000e-005	5.0000e-005	1.7246
Total	1.0300e-003	5.7000e-004	6.6500e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7084	1.7084	5.0000e-005	5.0000e-005	1.7246

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	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0173	0.1667	0.2560	4.0000e-004		8.2000e-003	8.2000e-003		7.5400e-003	7.5400e-003	0.0000	35.0464	35.0464	0.0113	0.0000	35.3298

Inyo County Vacant Lands - Inyo County, Annual

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

3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	5.7000e-004	6.6500e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7084	1.7084	5.0000e-005	5.0000e-005	1.7246
Total	1.0300e-003	5.7000e-004	6.6500e-003	2.0000e-005	2.1100e-003	1.0000e-005	2.1200e-003	5.6000e-004	1.0000e-005	5.7000e-004	0.0000	1.7084	1.7084	5.0000e-005	5.0000e-005	1.7246

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0800e-003	0.0140	0.0208	3.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	2.9362	2.9362	1.7000e-004	0.0000	2.9404
Total	1.0136	0.0140	0.0208	3.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	2.9362	2.9362	1.7000e-004	0.0000	2.9404

Inyo County Vacant Lands - Inyo County, Annual

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

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2100e-003	1.7800e-003	0.0207	6.0000e-005	6.5700e-003	4.0000e-005	6.6100e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.3139	5.3139	1.7000e-004	1.5000e-004	5.3642
Total	3.2100e-003	1.7800e-003	0.0207	6.0000e-005	6.5700e-003	4.0000e-005	6.6100e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.3139	5.3139	1.7000e-004	1.5000e-004	5.3642

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	1.0115					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.0800e-003	0.0140	0.0208	3.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	2.9362	2.9362	1.7000e-004	0.0000	2.9404
Total	1.0136	0.0140	0.0208	3.0000e-005		7.0000e-004	7.0000e-004		7.0000e-004	7.0000e-004	0.0000	2.9362	2.9362	1.7000e-004	0.0000	2.9404

Inyo County Vacant Lands - Inyo County, Annual

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

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2100e-003	1.7800e-003	0.0207	6.0000e-005	6.5700e-003	4.0000e-005	6.6100e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.3139	5.3139	1.7000e-004	1.5000e-004	5.3642
Total	3.2100e-003	1.7800e-003	0.0207	6.0000e-005	6.5700e-003	4.0000e-005	6.6100e-003	1.7500e-003	3.0000e-005	1.7800e-003	0.0000	5.3139	5.3139	1.7000e-004	1.5000e-004	5.3642

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0300e-003	6.8700e-003	0.0109	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	1.5320	1.5320	8.0000e-005	0.0000	1.5340
Total	0.5288	6.8700e-003	0.0109	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	1.5320	1.5320	8.0000e-005	0.0000	1.5340

Inyo County Vacant Lands - Inyo County, Annual

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

3.6 Architectural Coating - 2025

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5700e-003	8.3000e-004	0.0100	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.7059	2.7059	8.0000e-005	7.0000e-005	2.7303
Total	1.5700e-003	8.3000e-004	0.0100	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.7059	2.7059	8.0000e-005	7.0000e-005	2.7303

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	0.5278					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0300e-003	6.8700e-003	0.0109	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	1.5320	1.5320	8.0000e-005	0.0000	1.5340
Total	0.5288	6.8700e-003	0.0109	2.0000e-005		3.1000e-004	3.1000e-004		3.1000e-004	3.1000e-004	0.0000	1.5320	1.5320	8.0000e-005	0.0000	1.5340

Inyo County Vacant Lands - Inyo County, Annual

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

3.6 Architectural Coating - 2025

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5700e-003	8.3000e-004	0.0100	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.7059	2.7059	8.0000e-005	7.0000e-005	2.7303
Total	1.5700e-003	8.3000e-004	0.0100	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.7059	2.7059	8.0000e-005	7.0000e-005	2.7303

Inyo County Vacant Lands - Inyo County, Annual

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.2369	2.5916	19.0005	0.0373	3.8544	0.0330	3.8874	1.0285	0.0309	1.0594	0.0000	3,517.2680	3,517.2680	0.2316	0.1615	3,571.1775
Unmitigated	2.2369	2.5916	19.0005	0.0373	3.8544	0.0330	3.8874	1.0285	0.0309	1.0594	0.0000	3,517.2680	3,517.2680	0.2316	0.1615	3,571.1775

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,601.44	4,004.88	3089.76	10,263,959	10,263,959
Total	3,601.44	4,004.88	3,089.76	10,263,959	10,263,959

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.30	19.60	38.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.505397	0.063057	0.195289	0.142654	0.036975	0.008461	0.004325	0.007030	0.000632	0.000792	0.029689	0.000702	0.004996

Inyo County Vacant Lands - Inyo County, Annual

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive 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	40.4645	40.4645	1.9300e-003	2.3000e-004	40.5825
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	748.5575	748.5575	0.0357	4.3300e-003	750.7394
NaturalGas Mitigated	0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3348	424.3348	8.1300e-003	7.7800e-003	426.8564
NaturalGas Unmitigated	0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3348	424.3348	8.1300e-003	7.7800e-003	426.8564

Inyo County Vacant Lands - Inyo County, Annual

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Condo/Townhouse	7.95173e+006	0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3348	424.3348	8.1300e-003	7.7800e-003	426.8564
Total		0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3348	424.3348	8.1300e-003	7.7800e-003	426.8564

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					
Condo/Townhouse	7.95173e+006	0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3348	424.3348	8.1300e-003	7.7800e-003	426.8564
Total		0.0429	0.3664	0.1559	2.3400e-003		0.0296	0.0296		0.0296	0.0296	0.0000	424.3348	424.3348	8.1300e-003	7.7800e-003	426.8564

Inyo County Vacant Lands - Inyo County, Annual

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

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	2.38488e+006	748.5575	0.0357	4.3300e-003	750.7394
Total		748.5575	0.0357	4.3300e-003	750.7394

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Condo/Townhouse	128919	40.4645	1.9300e-003	2.3000e-004	40.5825
Total		40.4645	1.9300e-003	2.3000e-004	40.5825

6.0 Area Detail

6.1 Mitigation Measures Area

Inyo County Vacant Lands - Inyo County, Annual

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.8007	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102
Unmitigated	2.8007	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102

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	0.7696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1096	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102
Total	2.8007	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102

Inyo County Vacant Lands - Inyo County, Annual

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.7696					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.9215					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1096	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102
Total	2.8007	0.0420	3.6497	1.9000e-004		0.0203	0.0203		0.0203	0.0203	0.0000	5.9674	5.9674	5.7100e-003	0.0000	6.1102

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Inyo County Vacant Lands - Inyo County, Annual

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

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	169.3232	0.8433	0.0207	196.5637
Unmitigated	211.6540	1.0542	0.0258	245.7046

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	32.0558 / 20.2091	211.6540	1.0542	0.0258	245.7046
Total		211.6540	1.0542	0.0258	245.7046

Inyo County Vacant Lands - Inyo County, Annual

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Condo/Townhouse	25.6446 / 16.1673	169.3232	0.8433	0.0207	196.5637
Total		169.3232	0.8433	0.0207	196.5637

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	34.4557	2.0363	0.0000	85.3625
Unmitigated	45.9409	2.7150	0.0000	113.8167

Inyo County Vacant Lands - Inyo County, Annual

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

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	226.32	45.9409	2.7150	0.0000	113.8167
Total		45.9409	2.7150	0.0000	113.8167

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Condo/Townhouse	169.74	34.4557	2.0363	0.0000	85.3625
Total		34.4557	2.0363	0.0000	85.3625

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Inyo County Vacant Lands - Inyo County, Annual

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Inyo County Vacant Lands - Inyo County, Summer

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

Inyo County Vacant Lands

Inyo County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	492.00	Dwelling Unit	32.00	492,000.00	1073

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	34
Climate Zone	9			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	691.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 492 multi-family units with occupancy rating of 2.18 persons per household on a combined total of 32 acres.

Construction Phase -

Architectural Coating - Mandatory compliance with GBUAPCD Rule 417

Woodstoves - No wood burning devices

Construction Off-road Equipment Mitigation -

Energy Mitigation - 2019 Title 24 requires a system rated at 891 kW based on the CalEEMod default sqft for 492 units in Lone Pine, Bishop, and Independence. Berkeley Lab, Utility-Scale Solar 2018 Edition states CA average PV Capacity Factor is 28.9%.
 $891 \text{ kW} \times 24\text{hr/day} \times 365.24 \text{ days/yr} \times 28.9\% = 2,255,958 \text{ kWhr}$.

Water Mitigation - CALGreen requires 20% reduction over CalEEMod defaults

Waste Mitigation - AB341 requires 75% diversion rate. 25% entered to account for limited diversion already included in CalEEMod defaults.

Inyo County Vacant Lands - Inyo County, Summer

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	270.60	0.00
tblFireplaces	NumberNoFireplace	49.20	492.00
tblFireplaces	NumberWood	172.20	0.00
tblLandUse	LotAcreage	30.75	32.00
tblLandUse	Population	1,407.00	1,073.00
tblWoodstoves	NumberCatalytic	24.60	0.00
tblWoodstoves	NumberNoncatalytic	24.60	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Inyo County Vacant Lands - Inyo County, Summer

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.7203	38.8918	29.6822	0.0668	19.8049	1.6359	21.4183	10.1417	1.5050	11.6261	0.0000	6,643.473 9	6,643.473 9	1.9495	0.2402	6,732.891 6
2023	3.2963	17.5773	27.8270	0.0656	3.2674	0.7338	4.0012	0.8748	0.6904	1.5653	0.0000	6,537.925 3	6,537.925 3	0.6986	0.2282	6,623.405 2
2024	88.4365	16.5027	26.8628	0.0645	3.2674	0.6462	3.9136	0.8748	0.6078	1.4826	0.0000	6,447.297 3	6,447.297 3	0.7172	0.2193	6,529.796 4
2025	88.4081	1.2656	3.5775	8.0300e-003	0.5833	0.0545	0.6377	0.1547	0.0542	0.2090	0.0000	808.9168	808.9168	0.0289	0.0126	813.3823
Maximum	88.4365	38.8918	29.6822	0.0668	19.8049	1.6359	21.4183	10.1417	1.5050	11.6261	0.0000	6,643.473 9	6,643.473 9	1.9495	0.2402	6,732.891 6

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

Inyo County Vacant Lands - Inyo County, Summer

2.2 Overall Operational
Unmitigated Operational

Category	lb/day											CO _{2e}				
	ROG	NOx	CO	SO ₂	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO ₂		NBio-CO ₂	Total CO ₂	CH ₄	N ₂ O
Area	15.9636	0.4671	40.5522	2.1400e-003	0.2250	0.2250	0.2250	0.2250	0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375
Energy	0.2349	2.0077	0.8543	0.0128	0.1623	0.1623	0.1623	0.1623	0.1623	0.1623	2.563,008	2.563,008	0.0491	0.0470	2.578,239	
Mobile	15.2253	14.4805	115.6947	0.2395	24.1366	24.3396	6.4301	0.1900	6.6201	6.6201	24,924.75	24,924.75	1.4697	1.0271	25,267.57	
Total	31.4239	16.9553	157.1012	0.2544	24.1366	24.7269	6.4301	0.5773	7.0074	7.0074	27,560.84	27,560.84	1.5888	1.0741	27,920.65	

Mitigated Operational

Category	lb/day											CO _{2e}				
	ROG	NOx	CO	SO ₂	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio-CO ₂		NBio-CO ₂	Total CO ₂	CH ₄	N ₂ O
Area	15.9636	0.4671	40.5522	2.1400e-003	0.2250	0.2250	0.2250	0.2250	0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375
Energy	0.2349	2.0077	0.8543	0.0128	0.1623	0.1623	0.1623	0.1623	0.1623	0.1623	2,563.008	2,563.008	0.0491	0.0470	2,578,239	
Mobile	15.2253	14.4805	115.6947	0.2395	24.1366	24.3396	6.4301	0.1900	6.6201	6.6201	24,924.75	24,924.75	1.4697	1.0271	25,267.57	
Total	31.4239	16.9553	157.1012	0.2544	24.1366	24.7269	6.4301	0.5773	7.0074	7.0074	27,560.84	27,560.84	1.5888	1.0741	27,920.65	

Inyo County Vacant Lands - Inyo County, Summer

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/12/2022	9/8/2022	5	20	
2	Grading	Grading	9/9/2022	11/10/2022	5	45	
3	Building Construction	Building Construction	11/11/2022	10/10/2024	5	500	
4	Paving	Paving	10/11/2024	11/28/2024	5	35	
5	Architectural Coating	Architectural Coating	11/29/2024	1/16/2025	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 996,300; Residential Outdoor: 332,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Inyo County Vacant Lands - Inyo County, Summer

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

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	354.00	53.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	71.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Inyo County Vacant Lands - Inyo County, Summer

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

3.2 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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0859	0.0435	0.5766	1.4200e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		144.2530	144.2530	4.7300e-003	4.0300e-003	145.5710
Total	0.0859	0.0435	0.5766	1.4200e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		144.2530	144.2530	4.7300e-003	4.0300e-003	145.5710

Inyo County Vacant Lands - Inyo County, Summer

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.8457	1.6126	10.4582	4.5461	1.4836	6.0297	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0859	0.0435	0.5766	1.4200e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		144.2530	144.2530	4.7300e-003	4.0300e-003	145.5710
Total	0.0859	0.0435	0.5766	1.4200e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		144.2530	144.2530	4.7300e-003	4.0300e-003	145.5710

Inyo County Vacant Lands - Inyo County, Summer

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

3.3 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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	9.2036	1.6349	10.8385	3.6538	1.5041	5.1579		6,011.4105	6,011.4105	1.9442		6,060.0158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0955	0.0483	0.6407	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		160.2811	160.2811	5.2500e-003	4.4700e-003	161.7456
Total	0.0955	0.0483	0.6407	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		160.2811	160.2811	5.2500e-003	4.4700e-003	161.7456

Inyo County Vacant Lands - Inyo County, Summer

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	4.1416	1.6349	5.7765	1.6442	1.5041	3.1483	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0955	0.0483	0.6407	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		160.2811	160.2811	5.2500e-003	4.4700e-003	161.7456
Total	0.0955	0.0483	0.6407	1.5800e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		160.2811	160.2811	5.2500e-003	4.4700e-003	161.7456

Inyo County Vacant Lands - Inyo County, Summer

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

3.4 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1779	2.7679	1.3395	0.0120	0.3594	0.0253	0.3847	0.1035	0.0242	0.1277		1,252.1654	1,252.1654	8.9600e-003	0.1610	1,300.3630
Worker	1.6895	0.8550	11.3406	0.0279	2.9080	0.0177	2.9257	0.7713	0.0163	0.7876		2,836.9749	2,836.9749	0.0930	0.0792	2,862.8964
Total	1.8674	3.6230	12.6801	0.0398	3.2674	0.0430	3.3104	0.8748	0.0405	0.9153		4,089.1404	4,089.1404	0.1019	0.2402	4,163.2594

Inyo County Vacant Lands - Inyo County, Summer

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

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1779	2.7679	1.3395	0.0120	0.3594	0.0253	0.3847	0.1035	0.0242	0.1277		1,252.1654	1,252.1654	8.9600e-003	0.1610	1,300.3630
Worker	1.6895	0.8550	11.3406	0.0279	2.9080	0.0177	2.9257	0.7713	0.0163	0.7876		2,836.9749	2,836.9749	0.0930	0.0792	2,862.8964
Total	1.8674	3.6230	12.6801	0.0398	3.2674	0.0430	3.3104	0.8748	0.0405	0.9153		4,089.1404	4,089.1404	0.1019	0.2402	4,163.2594

Inyo County Vacant Lands - Inyo County, Summer

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1451	2.4375	1.2315	0.0116	0.3594	0.0175	0.3769	0.1035	0.0167	0.1202		1,218.8713	1,218.8713	7.2700e-003	0.1554	1,265.3549
Worker	1.5784	0.7549	10.3514	0.0270	2.9080	0.0166	2.9246	0.7713	0.0153	0.7866		2,763.8441	2,763.8441	0.0835	0.0729	2,787.6443
Total	1.7235	3.1924	11.5830	0.0386	3.2674	0.0341	3.3015	0.8748	0.0320	0.9068		3,982.7154	3,982.7154	0.0908	0.2282	4,052.9992

Inyo County Vacant Lands - Inyo County, Summer

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1451	2.4375	1.2315	0.0116	0.3594	0.0175	0.3769	0.1035	0.0167	0.1202		1,218.8713	1,218.8713	7.2700e-003	0.1554	1,265.3549
Worker	1.5784	0.7549	10.3514	0.0270	2.9080	0.0166	2.9246	0.7713	0.0153	0.7866		2,763.8441	2,763.8441	0.0835	0.0729	2,787.6443
Total	1.7235	3.1924	11.5830	0.0386	3.2674	0.0341	3.3015	0.8748	0.0320	0.9068		3,982.7154	3,982.7154	0.0908	0.2282	4,052.9992

Inyo County Vacant Lands - Inyo County, Summer

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1364	2.3888	1.1676	0.0114	0.3594	0.0172	0.3767	0.1035	0.0165	0.1200		1,196.6602	1,196.6602	6.7400e-003	0.1519	1,242.0966
Worker	1.4791	0.6702	9.5284	0.0261	2.9080	0.0156	2.9236	0.7713	0.0144	0.7857		2,694.9382	2,694.9382	0.0751	0.0674	2,716.8921
Total	1.6155	3.0589	10.6960	0.0375	3.2674	0.0328	3.3003	0.8748	0.0309	0.9057		3,891.5984	3,891.5984	0.0819	0.2193	3,958.9888

Inyo County Vacant Lands - Inyo County, Summer

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1364	2.3888	1.1676	0.0114	0.3594	0.0172	0.3767	0.1035	0.0165	0.1200		1,196.6602	1,196.6602	6.7400e-003	0.1519	1,242.0966
Worker	1.4791	0.6702	9.5284	0.0261	2.9080	0.0156	2.9236	0.7713	0.0144	0.7857		2,694.9382	2,694.9382	0.0751	0.0674	2,716.8921
Total	1.6155	3.0589	10.6960	0.0375	3.2674	0.0328	3.3003	0.8748	0.0309	0.9057		3,891.5984	3,891.5984	0.0819	0.2193	3,958.9888

Inyo County Vacant Lands - Inyo County, Summer

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

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0627	0.0284	0.4038	1.1100e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		114.1923	114.1923	3.1800e-003	2.8500e-003	115.1226
Total	0.0627	0.0284	0.4038	1.1100e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		114.1923	114.1923	3.1800e-003	2.8500e-003	115.1226

Inyo County Vacant Lands - Inyo County, Summer

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

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0627	0.0284	0.4038	1.1100e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		114.1923	114.1923	3.1800e-003	2.8500e-003	115.1226
Total	0.0627	0.0284	0.4038	1.1100e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		114.1923	114.1923	3.1800e-003	2.8500e-003	115.1226

Inyo County Vacant Lands - Inyo County, Summer

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	88.1398	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2967	0.1344	1.9111	5.2400e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		540.5102	540.5102	0.0151	0.0135	544.9134
Total	0.2967	0.1344	1.9111	5.2400e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		540.5102	540.5102	0.0151	0.0135	544.9134

Inyo County Vacant Lands - Inyo County, Summer

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	88.1398	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2967	0.1344	1.9111	5.2400e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		540.5102	540.5102	0.0151	0.0135	544.9134
Total	0.2967	0.1344	1.9111	5.2400e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		540.5102	540.5102	0.0151	0.0135	544.9134

Inyo County Vacant Lands - Inyo County, Summer

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	88.1299	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2782	0.1201	1.7684	5.0600e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		527.4688	527.4688	0.0136	0.0126	531.5504
Total	0.2782	0.1201	1.7684	5.0600e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		527.4688	527.4688	0.0136	0.0126	531.5504

Inyo County Vacant Lands - Inyo County, Summer

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	88.1299	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.2782	0.1201	1.7684	5.0600e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		527.4688	527.4688	0.0136	0.0126	531.5504
Total	0.2782	0.1201	1.7684	5.0600e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		527.4688	527.4688	0.0136	0.0126	531.5504

Inyo County Vacant Lands - Inyo County, Summer

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.2253	14.4805	115.6947	0.2395	24.1366	0.2029	24.3396	6.4301	0.1900	6.6201		24,924.75 03	24,924.75 03	1.4697	1.0271	25,267.57 66
Unmitigated	15.2253	14.4805	115.6947	0.2395	24.1366	0.2029	24.3396	6.4301	0.1900	6.6201		24,924.75 03	24,924.75 03	1.4697	1.0271	25,267.57 66

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,601.44	4,004.88	3,089.76	10,263,959	10,263,959
Total	3,601.44	4,004.88	3,089.76	10,263,959	10,263,959

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.30	19.60	38.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.505397	0.063057	0.195289	0.142654	0.036975	0.008461	0.004325	0.007030	0.000632	0.000792	0.029689	0.000702	0.004996

Inyo County Vacant Lands - Inyo County, Summer

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391
NaturalGas Unmitigated	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391

Inyo County Vacant Lands - Inyo County, Summer

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	21785.6	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391
Total		0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	21.7856	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391
Total		0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391

6.0 Area Detail

6.1 Mitigation Measures Area

Inyo County Vacant Lands - Inyo County, Summer

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375
Unmitigated	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.5288					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2176	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250		73.0877	73.0877	0.0700		74.8375
Total	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375

Inyo County Vacant Lands - Inyo County, Summer

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.5288					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2176	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250		73.0877	73.0877	0.0700		74.8375
Total	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Inyo County Vacant Lands - Inyo County, Summer

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Inyo County Vacant Lands - Inyo County, Winter

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

Inyo County Vacant Lands

Inyo County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Condo/Townhouse	492.00	Dwelling Unit	32.00	492,000.00	1073

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	34
Climate Zone	9			Operational Year	2025
Utility Company	Los Angeles Department of Water & Power				
CO2 Intensity (lb/MWhr)	691.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 492 multi-family units with occupancy rating of 2.18 persons per household on a combined total of 32 acres.

Construction Phase -

Architectural Coating - Mandatory compliance with GBUAPCD Rule 417

Woodstoves - No wood burning devices

Construction Off-road Equipment Mitigation -

Energy Mitigation - 2019 Title 24 requires a system rated at 891 kW based on the CalEEMod default sqft for 492 units in Lone Pine, Bishop, and Independence. Berkeley Lab, Utility-Scale Solar 2018 Edition states CA average PV Capacity Factor is 28.9%.
 $891 \text{ kW} \times 24\text{hr/day} \times 365.24 \text{ days/yr} \times 28.9\% = 2,255,958 \text{ kWhr}$.

Water Mitigation - CALGreen requires 20% reduction over CalEEMod defaults

Waste Mitigation - AB341 requires 75% diversion rate. 25% entered to account for limited diversion already included in CalEEMod defaults.

Inyo County Vacant Lands - Inyo County, Winter

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

Table Name	Column Name	Default Value	New Value
tblArchitecturalCoating	EF_Residential_Exterior	250.00	50.00
tblArchitecturalCoating	EF_Residential_Interior	250.00	50.00
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblFireplaces	FireplaceWoodMass	3,078.40	0.00
tblFireplaces	NumberGas	270.60	0.00
tblFireplaces	NumberNoFireplace	49.20	492.00
tblFireplaces	NumberWood	172.20	0.00
tblLandUse	LotAcreage	30.75	32.00
tblLandUse	Population	1,407.00	1,073.00
tblWoodstoves	NumberCatalytic	24.60	0.00
tblWoodstoves	NumberNoncatalytic	24.60	0.00
tblWoodstoves	WoodstoveWoodMass	3,019.20	0.00

2.0 Emissions Summary

Inyo County Vacant Lands - Inyo County, Winter

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	4.0974	38.8934	29.6819	0.0667	19.8049	1.6359	21.4183	10.1417	1.5050	11.6261	0.0000	6,634.440 0	6,634.440 0	1.9495	0.2423	6,724.475 9
2023	3.7831	17.6939	27.8592	0.0655	3.2674	0.7339	4.0013	0.8748	0.6905	1.5654	0.0000	6,530.363 2	6,530.363 2	0.6986	0.2303	6,616.464 3
2024	88.5262	16.6160	26.8957	0.0644	3.2674	0.6463	3.9137	0.8748	0.6078	1.4827	0.0000	6,440.035 6	6,440.035 6	0.7172	0.2212	6,523.113 4
2025	88.4923	1.2695	3.5768	8.0100e-003	0.5833	0.0545	0.6377	0.1547	0.0542	0.2090	0.0000	806.9511	806.9511	0.0290	0.0128	811.4951
Maximum	88.5262	38.8934	29.6819	0.0667	19.8049	1.6359	21.4183	10.1417	1.5050	11.6261	0.0000	6,634.440 0	6,634.440 0	1.9495	0.2423	6,724.475 9

Inyo County Vacant Lands - Inyo County, Winter

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

**2.2 Overall Operational
Unmitigated Operational**

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	15.9636	0.4671	40.5522	2.1400e-003	0.2250	0.2250	0.2250	0.2250	0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375
Energy	0.2349	2.0077	0.8543	0.0128	0.1623	0.1623	0.1623	0.1623	0.1623	0.1623	2.563.008	2.563.008	0.0491	0.0470	2.578.239	
Mobile	18.5666	14.8904	116.0958	0.2388	24.1366	0.2030	24.3397	6.4301	0.1901	6.6202	24,856.06	24,856.06	1.4730	1.0410	25,203.10	
Total	34.7651	17.3652	157.5023	0.2538	24.1366	0.5904	24.7270	6.4301	0.5774	7.0075	27,492.16	27,492.16	1.5921	1.0880	27,856.18	

Category	lb/day											lb/day				
	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Area	15.9636	0.4671	40.5522	2.1400e-003	0.2250	0.2250	0.2250	0.2250	0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375
Energy	0.2349	2.0077	0.8543	0.0128	0.1623	0.1623	0.1623	0.1623	0.1623	0.1623	2,563.008	2,563.008	0.0491	0.0470	2,578.239	
Mobile	18.5666	14.8904	116.0958	0.2388	24.1366	0.2030	24.3397	6.4301	0.1901	6.6202	24,856.06	24,856.06	1.4730	1.0410	25,203.10	
Total	34.7651	17.3652	157.5023	0.2538	24.1366	0.5904	24.7270	6.4301	0.5774	7.0075	27,492.16	27,492.16	1.5921	1.0880	27,856.18	

Inyo County Vacant Lands - Inyo County, Winter

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

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

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	8/12/2022	9/8/2022	5	20	
2	Grading	Grading	9/9/2022	11/10/2022	5	45	
3	Building Construction	Building Construction	11/11/2022	10/10/2024	5	500	
4	Paving	Paving	10/11/2024	11/28/2024	5	35	
5	Architectural Coating	Architectural Coating	11/29/2024	1/16/2025	5	35	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 0

Residential Indoor: 996,300; Residential Outdoor: 332,100; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Building Construction	Cranes	1	7.00	231	0.29
Grading	Excavators	2	8.00	158	0.38
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Graders	1	8.00	187	0.41

Inyo County Vacant Lands - Inyo County, Winter

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

Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Building Construction	Welders	1	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
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	354.00	53.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	71.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

Inyo County Vacant Lands - Inyo County, Winter

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

3.2 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	lb/day										lb/day					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	19.6570	1.6126	21.2696	10.1025	1.4836	11.5860		3,686.0619	3,686.0619	1.1922		3,715.8655

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1120	0.0449	0.5763	1.4100e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		143.7122	143.7122	4.7400e-003	4.1100e-003	145.0563
Total	0.1120	0.0449	0.5763	1.4100e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		143.7122	143.7122	4.7400e-003	4.1100e-003	145.0563

Inyo County Vacant Lands - Inyo County, Winter

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

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.8457	0.0000	8.8457	4.5461	0.0000	4.5461			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	3.1701	33.0835	19.6978	0.0380	8.8457	1.6126	10.4582	4.5461	1.4836	6.0297	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1120	0.0449	0.5763	1.4100e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		143.7122	143.7122	4.7400e-003	4.1100e-003	145.0563
Total	0.1120	0.0449	0.5763	1.4100e-003	0.1479	9.0000e-004	0.1488	0.0392	8.3000e-004	0.0401		143.7122	143.7122	4.7400e-003	4.1100e-003	145.0563

Inyo County Vacant Lands - Inyo County, Winter

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

3.3 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	lb/day										lb/day					
Fugitive Dust					9.2036	0.0000	9.2036	3.6538	0.0000	3.6538			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041		6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	9.2036	1.6349	10.8385	3.6538	1.5041	5.1579		6,011.4105	6,011.4105	1.9442		6,060.0158

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1244	0.0499	0.6404	1.5700e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		159.6802	159.6802	5.2600e-003	4.5700e-003	161.1737
Total	0.1244	0.0499	0.6404	1.5700e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		159.6802	159.6802	5.2600e-003	4.5700e-003	161.1737

Inyo County Vacant Lands - Inyo County, Winter

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

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.1416	0.0000	4.1416	1.6442	0.0000	1.6442			0.0000			0.0000
Off-Road	3.6248	38.8435	29.0415	0.0621		1.6349	1.6349		1.5041	1.5041	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158
Total	3.6248	38.8435	29.0415	0.0621	4.1416	1.6349	5.7765	1.6442	1.5041	3.1483	0.0000	6,011.4105	6,011.4105	1.9442		6,060.0158

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.1244	0.0499	0.6404	1.5700e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		159.6802	159.6802	5.2600e-003	4.5700e-003	161.1737
Total	0.1244	0.0499	0.6404	1.5700e-003	0.1643	1.0000e-003	0.1653	0.0436	9.2000e-004	0.0445		159.6802	159.6802	5.2600e-003	4.5700e-003	161.1737

Inyo County Vacant Lands - Inyo County, Winter

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

3.4 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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1889	2.8575	1.3821	0.0120	0.3594	0.0255	0.3849	0.1035	0.0243	0.1278		1,253.7670	1,253.7670	8.7700e-003	0.1614	1,302.0701
Worker	2.2022	0.8832	11.3343	0.0278	2.9080	0.0177	2.9257	0.7713	0.0163	0.7876		2,826.3394	2,826.3394	0.0932	0.0809	2,852.7735
Total	2.3912	3.7407	12.7164	0.0397	3.2674	0.0431	3.3105	0.8748	0.0406	0.9154		4,080.1064	4,080.1064	0.1020	0.2423	4,154.8437

Inyo County Vacant Lands - Inyo County, Winter

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

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1889	2.8575	1.3821	0.0120	0.3594	0.0255	0.3849	0.1035	0.0243	0.1278		1,253.7670	1,253.7670	8.7700e-003	0.1614	1,302.0701
Worker	2.2022	0.8832	11.3343	0.0278	2.9080	0.0177	2.9257	0.7713	0.0163	0.7876		2,826.3394	2,826.3394	0.0932	0.0809	2,852.7735
Total	2.3912	3.7407	12.7164	0.0397	3.2674	0.0431	3.3105	0.8748	0.0406	0.9154		4,080.1064	4,080.1064	0.1020	0.2423	4,154.8437

Inyo County Vacant Lands - Inyo County, Winter

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

3.4 Building Construction - 2023

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1540	2.5296	1.2691	0.0117	0.3594	0.0176	0.3770	0.1035	0.0168	0.1203		1,221.6483	1,221.6483	7.0500e-003	0.1559	1,268.2877
Worker	2.0564	0.7795	10.3461	0.0269	2.9080	0.0166	2.9246	0.7713	0.0153	0.7866		2,753.5050	2,753.5050	0.0837	0.0744	2,777.7706
Total	2.2104	3.3090	11.6152	0.0386	3.2674	0.0342	3.3016	0.8748	0.0321	0.9069		3,975.1532	3,975.1532	0.0907	0.2303	4,046.0583

Inyo County Vacant Lands - Inyo County, Winter

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

3.4 Building Construction - 2023

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1540	2.5296	1.2691	0.0117	0.3594	0.0176	0.3770	0.1035	0.0168	0.1203		1,221.6483	1,221.6483	7.0500e-003	0.1559	1,268.2877
Worker	2.0564	0.7795	10.3461	0.0269	2.9080	0.0166	2.9246	0.7713	0.0153	0.7866		2,753.5050	2,753.5050	0.0837	0.0744	2,777.7706
Total	2.2104	3.3090	11.6152	0.0386	3.2674	0.0342	3.3016	0.8748	0.0321	0.9069		3,975.1532	3,975.1532	0.0907	0.2303	4,046.0583

Inyo County Vacant Lands - Inyo County, Winter

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

3.4 Building Construction - 2024

Unmitigated Construction On-Site

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

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1439	2.4804	1.2048	0.0115	0.3594	0.0173	0.3768	0.1035	0.0166	0.1201		1,199.4602	1,199.4602	6.5100e-003	0.1524	1,245.0501
Worker	1.9266	0.6918	9.5241	0.0260	2.9080	0.0156	2.9236	0.7713	0.0144	0.7857		2,684.8765	2,684.8765	0.0753	0.0688	2,707.2557
Total	2.0704	3.1722	10.7289	0.0375	3.2674	0.0329	3.3004	0.8748	0.0309	0.9058		3,884.3367	3,884.3367	0.0818	0.2212	3,952.3058

Inyo County Vacant Lands - Inyo County, Winter

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

3.4 Building Construction - 2024

Mitigated Construction On-Site

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

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1439	2.4804	1.2048	0.0115	0.3594	0.0173	0.3768	0.1035	0.0166	0.1201		1,199.4602	1,199.4602	6.5100e-003	0.1524	1,245.0501
Worker	1.9266	0.6918	9.5241	0.0260	2.9080	0.0156	2.9236	0.7713	0.0144	0.7857		2,684.8765	2,684.8765	0.0753	0.0688	2,707.2557
Total	2.0704	3.1722	10.7289	0.0375	3.2674	0.0329	3.3004	0.8748	0.0309	0.9058		3,884.3367	3,884.3367	0.0818	0.2212	3,952.3058

Inyo County Vacant Lands - Inyo County, Winter

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

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310		2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0816	0.0293	0.4036	1.1000e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		113.7660	113.7660	3.1900e-003	2.9100e-003	114.7142
Total	0.0816	0.0293	0.4036	1.1000e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		113.7660	113.7660	3.1900e-003	2.9100e-003	114.7142

Inyo County Vacant Lands - Inyo County, Winter

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

3.5 Paving - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.547 2	2,207.547 2	0.7140		2,225.396 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0816	0.0293	0.4036	1.1000e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		113.7660	113.7660	3.1900e-003	2.9100e-003	114.7142
Total	0.0816	0.0293	0.4036	1.1000e-003	0.1232	6.6000e-004	0.1239	0.0327	6.1000e-004	0.0333		113.7660	113.7660	3.1900e-003	2.9100e-003	114.7142

Inyo County Vacant Lands - Inyo County, Winter

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

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443
Total	88.1398	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609		281.4481	281.4481	0.0159		281.8443

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3864	0.1387	1.9102	5.2200e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		538.4922	538.4922	0.0151	0.0138	542.9807
Total	0.3864	0.1387	1.9102	5.2200e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		538.4922	538.4922	0.0151	0.0138	542.9807

Inyo County Vacant Lands - Inyo County, Winter

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

3.6 Architectural Coating - 2024

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1808	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443
Total	88.1398	1.2188	1.8101	2.9700e-003		0.0609	0.0609		0.0609	0.0609	0.0000	281.4481	281.4481	0.0159		281.8443

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3864	0.1387	1.9102	5.2200e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		538.4922	538.4922	0.0151	0.0138	542.9807
Total	0.3864	0.1387	1.9102	5.2200e-003	0.5833	3.1300e-003	0.5864	0.1547	2.8800e-003	0.1576		538.4922	538.4922	0.0151	0.0138	542.9807

Inyo County Vacant Lands - Inyo County, Winter

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

3.6 Architectural Coating - 2025

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319
Total	88.1299	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515		281.4481	281.4481	0.0154		281.8319

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3624	0.1240	1.7676	5.0400e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		525.5031	525.5031	0.0136	0.0128	529.6632
Total	0.3624	0.1240	1.7676	5.0400e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		525.5031	525.5031	0.0136	0.0128	529.6632

Inyo County Vacant Lands - Inyo County, Winter

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

3.6 Architectural Coating - 2025

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	87.9591					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1709	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319
Total	88.1299	1.1455	1.8091	2.9700e-003		0.0515	0.0515		0.0515	0.0515	0.0000	281.4481	281.4481	0.0154		281.8319

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3624	0.1240	1.7676	5.0400e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		525.5031	525.5031	0.0136	0.0128	529.6632
Total	0.3624	0.1240	1.7676	5.0400e-003	0.5833	2.9700e-003	0.5862	0.1547	2.7300e-003	0.1574		525.5031	525.5031	0.0136	0.0128	529.6632

Inyo County Vacant Lands - Inyo County, Winter

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

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	18.5666	14.8904	116.0958	0.2388	24.1366	0.2030	24.3397	6.4301	0.1901	6.6202		24,856.06 60	24,856.06 60	1.4730	1.0410	25,203.10 42
Unmitigated	18.5666	14.8904	116.0958	0.2388	24.1366	0.2030	24.3397	6.4301	0.1901	6.6202		24,856.06 60	24,856.06 60	1.4730	1.0410	25,203.10 42

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Condo/Townhouse	3,601.44	4,004.88	3,089.76	10,263,959	10,263,959
Total	3,601.44	4,004.88	3,089.76	10,263,959	10,263,959

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Condo/Townhouse	10.80	7.30	7.50	42.30	19.60	38.10	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Condo/Townhouse	0.505397	0.063057	0.195289	0.142654	0.036975	0.008461	0.004325	0.007030	0.000632	0.000792	0.029689	0.000702	0.004996

Inyo County Vacant Lands - Inyo County, Winter

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

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Kilowatt Hours of Renewable Electricity Generated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391
NaturalGas Unmitigated	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391

Inyo County Vacant Lands - Inyo County, Winter

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	21785.6	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391
Total		0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Condo/Townhouse	21.7856	0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391
Total		0.2349	2.0077	0.8543	0.0128		0.1623	0.1623		0.1623	0.1623		2,563.0084	2,563.0084	0.0491	0.0470	2,578.2391

6.0 Area Detail

6.1 Mitigation Measures Area

Inyo County Vacant Lands - Inyo County, Winter

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375
Unmitigated	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.5288					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2176	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250		73.0877	73.0877	0.0700		74.8375
Total	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375

Inyo County Vacant Lands - Inyo County, Winter

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

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	4.2172					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	10.5288					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2176	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250		73.0877	73.0877	0.0700		74.8375
Total	15.9636	0.4671	40.5522	2.1400e-003		0.2250	0.2250		0.2250	0.2250	0.0000	73.0877	73.0877	0.0700	0.0000	74.8375

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

Inyo County Vacant Lands - Inyo County, Winter

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

8.0 Waste Detail

8.1 Mitigation Measures Waste

Institute Recycling and Composting Services

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Construction Energy Use

Off-Road Construction Equipment Energy Use												
Phase	Equipment	Fuel	HP	Load Factor	Equipment Count	Hours/Day	Work Days	Gallons /HP-Hr	Gallons /Hour	Gallons /Day	Total Gallons	Total kBtu
Site Preparation	Rubber Tired Dozers	Diesel	247	0.4	3	8.0	20	0.0205133	2.02671	48.641	972.8	135,222
	Tractors/Loaders/Backhoes	Diesel	97	0.37	4	8.0	20	0.0191274	0.68648	21.967	439.3	61,069
Grading	Excavators	Diesel	158	0.38	2	8.0	45	0.0197573	1.18623	18.980	854.1	118,718
	Graders	Diesel	187	0.41	1	8.0	45	0.0211437	1.62109	12.969	583.6	81,119
	Rubber Tired Dozers	Diesel	247	0.4	1	8.0	45	0.0205133	2.02671	16.214	729.6	101,417
	Scrapers	Diesel	367	0.48	2	8.0	45	0.0249885	4.40197	70.431	3,169.4	440,549
	Tractors/Loaders/Backhoes	Diesel	97	0.37	2	8.0	45	0.0191274	0.68648	10.984	494.3	68,703
Paving	Pavers	Diesel	130	0.42	2	8.0	35	0.0215272	1.17539	18.806	658.2	91,492
	Paving Equipment	Diesel	132	0.36	2	8.0	35	0.0183326	0.87116	13.939	487.9	67,811
	Rollers	Diesel	80	0.38	2	8.0	35	0.0194042	0.58989	9.438	330.3	45,917
Building Construction	Cranes	Diesel	231	0.29	1	7.0	500	0.0148849	0.99714	6.980	3,490.0	485,107
	Forklifts	Diesel	89	0.2	3	8.0	500	0.0103806	0.18478	4.435	2,217.3	308,205
	Generator Sets	Diesel	84	0.74	1	8.0	500	0.0154785	0.96214	7.697	3,848.6	534,952
	Tractors/Loaders/Backhoes	Diesel	97	0.37	3	8.0	500	0.0191274	0.68648	16.476	8,237.8	1,145,052
	Welders	Diesel	46	0.45	1	8.0	500	0.0258535	0.53517	4.281	2,140.7	297,553
Architectural Coating	Air Compressors	Diesel	78	0.48	1	8.0	35	0.0154785	0.57951	4.636	162.3	22,555
Project Construction Off-Road Total											28,816.1	4,005,441

On-Road Construction Energy Use											
Phase	Trip Type (Fleet Mix)	Trips	Distance (miles)	Work Days	Total VMT	gallons diesel/VMT	Total diesel gallons	gallons gas/VMT	Total gasoline gallons	Total kBtu	
Site Preparation	Worker (LDA, LDT1, LDT2)	18	10.8	20	3888.0	9.30349E-05	0.36	0.038157909	148.36	18,447	
Grading/Underground Utilities	Worker (LDA, LDT1, LDT2)	20	10.8	45	9720.0	9.30349E-05	0.90	0.038157909	370.89	46,117	
Paving	Worker (LDA, LDT1, LDT2)	15	10.8	35	5670.0	9.30349E-05	0.53	0.038157909	216.36	26,901	
Building Construction	Worker (LDA, LDT1, LDT2)	354	10.8	500	1911600.0	9.30349E-05	177.85	0.038157909	72,942.66	9,069,610	
	Vendor (HHDT, MHDT)	53	7.3	500	193450.0	0.14314401	27691.21	0.014558750	2,816.39	4,198,310	
Architectural Coating	Worker (LDA, LDT1, LDT2)	71	10.8	35	26838.0	9.30349E-05	2.50	0.038157909	1,024.08	127,333	
Project Construction On-Road Total					2151166.0		27873.3		77518.7	13486718.5	

Notes:

1. Off-road equipment types and horsepower from CalEEMod defaults.
2. Off-road equipment count and hours from CalEEMod for the AQ/GHG report.
3. Off-road fuel consumption factors from CARB OFFROAD2017- Web Database, for San Diego County, aggregate model years. <https://arb.ca.gov/emfac/emissions-inventory/>.
4. On-road fleet mix and trip distances from CalEEMod for the AQ/GHG report.
5. On-road fuel consumption factors weighted average for fleet mix from CARB EMFAC2021, for San Diego County, aggregate model years, aggregate speeds. <https://arb.ca.gov/emfac/emissions-inventory/>
6. 1 Gallon of diesel = 139 kBtu; 1 gallon of gasoline = 124 kBtu

Construction Energy Summary			
Source	Gallons Diesel	Gallons Gas	kBtu
Off-Road Construction Equipment	28,816	-	4,005,441
On-Road Construction Traffic	27,873	77,519	13,486,718
Project Construction Total	56,689	77,519	17,492,160

Annual Operational Energy Use

Project VMT
10,263,959

Project On-Road Project Operational Energy Use						
Category	Mix	Diesel Gallons/VMT	Diesel Gallons	Gasoline Gallons/VMT	Gasoline Gallons	kBtu
LDA	50.5397%	0.035035	181,737.2	0.0000826	428.2	25,314,573
LDT1	6.3057%	0.042810	27,707.3	0.0000826	53.4	3,857,935
LDT2	19.5289%	0.043720	87,634.2	0.0001308	262.1	12,213,656
MDV	14.2654%	0.052462	76,814.0	0.0007535	1,103.3	10,813,959
LHDT1	3.6975%	0.059258	22,489.0	0.0260159	9,873.3	4,350,255
LHDT2	0.8461%	0.036725	3,189.3	0.0508548	4,416.4	990,949
MHDT	0.4325%	0.043284	1,921.5	0.0935563	4,153.1	782,070
HHTD	0.7030%	0.000068	4.9	0.1681591	12,133.6	1,505,250
OBUS	0.0632%	0.110268	715.3	0.0686076	445.0	154,611
UBUS	0.0792%	0.042392	344.6	0.0671810	546.1	115,619
MCY	2.9689%	-	0.0	0.0260596	7,941.1	984,692
SBUS	0.0702%	0.099978	720.4	-	0.0	100,132
MH	0.4996%	0.157225	8,062.3	0.0326477	1,674.1	1,328,254
Annual Total			411,339.9		43,029.8	62,511,954

Project Electricity and Natural Gas			
Type	Source	kWhr	kBtu
Natural Gas	Hot Water, Heating	-	7,951,730
Electricity	Buildings, Lighting	128,919	439,890
Total		128,919	8,391,620

Project Water and Wastewater Energy Use							
Indoor (Mgal)	Outdoor (Mgal)	Supply (kWhr/Mgal)	Treat Water (kWhr/Mgal)	Distribute (kWhr/Mgal)	Treat Wastewater (kWhr/Mgal)	kWhr	kBtu
25.6446	16.1673	9,727	111	1,272	1,911	495,426	1,690,464

Project Total		
Energy Type	Quantity	kBtu
Gasoline (Gallons)	43,030	5,335,701
Diesel (Gallons)	411,340	57,176,252
Natural Gas (kBtu)	7,951,730	7,951,730
Electricity (kWhr)	624,345	2,130,354
Total		72,594,037

Notes:

1. VMT, electricity, natural gas, and water use from project CalEEMod annual output.
2. Fleet mix from CalEEMod default for San Diego County
3. Fuel consumption factors weighted average for fleet mix from CARB EMFAC22021, for San Diego County, aggregate model years for 2025, aggregate speeds.
4. Water electricity intensity factors from CalEEMod default for San Diego County.
5. 1 Gallon of diesel = 139 kBtu; 1 gallon of gasoline = 124 kBtu; 1 kWhr = 3.412142 kBtu.
6. Electricity use includes reduction from on-site photovoltaic generation.

2019 Title 24 Solar Calculation

Residential DU	492
Residential CFA (SF)	492,000
A (zone 10)	0.590
B (zone 10)	1.22
kWPV Required	890.52
kWhr/year	2,255,958

Notes:

1. Residential CFA assumes average CalEEMod default of 1,800 square feet per single family residence.
2. Solar requirement calculation methodology from the 2019 Title 24 Part 6 Residential Compliance Manual, Chapter 7 (CEC 2019; https://www.energy.ca.gov/sites/default/files/2020-06/07-PV_BatteryStorage_and_SolarReady_ada.pdf):

$$\text{kW required} = (\text{CFA} \times \text{A}) / 1000 + (\text{NDwell} \times \text{B})$$

WHERE:

kW = kWdc size of the PV system

CFA = Conditioned floor area

NDwell = Number of dwelling units A = Adjustment factor (from Table 7-1 of the Residential Compliance Manual)

B = Dwelling adjustment factor (from Table 7-1 of the Residential Compliance Manual)

3. Climate zone 16 for the project site from the CEC EX Building Climate Zone Search tool (<https://caenergy.maps.arcgis.com/apps/webappviewer/index.html?id=4831772c00eb4f729924167244bbca22>)

4. Solar kWhr per year can be calculated by: kWhr/year = Power Output (kW) x 24 hours/day x 365.24 days/year x CF, where CF is a capacity factor which accounts for climate, daylight hours, roof pitch and orientation, and transmission loss. Berkeley Lab, Utility-Scale Solar 2018 Edition states CA average PV Capacity Factor is 28.9%.

OFFROAD2017 (v1.0.1) Emissions Inventory

Region Type: County

Region: San Diego

Calendar Year: 2022

Scenario: All Adopted Rules - Exhaust

Vehicle Classification: OFFROAD2017 Equipment Types

Units: Emissions: tons/day, Fuel Consumption: gallons/year, Activity: hours/year, HP-Hours: HP-hours/year

Region	CalYr	VehClass	MdlYr	HP_Bin	Fuel	Fuel_gpy	Total_Activity_hpy	Total_Population	Horsepower_Hours_hhpy	Gallons/hp-hour
San Diego	2022	ConstMin - Bore/Drill Rigs	Aggregated	300	Diesel	36843.19	6856.92	21.19	1432475.04	0.02571995
San Diego	2022	ConstMin - Cranes	Aggregated	300	Diesel	131378.96	40011.23	84.88	8826350.23	0.01488486
San Diego	2022	ConstMin - Excavators	Aggregated	175	Diesel	390620.20	135389.45	228.89	19770957.54	0.01975727
San Diego	2022	ConstMin - Graders	Aggregated	300	Diesel	503156.02	109922.67	144.76	23796957.47	0.02114371
San Diego	2022	ConstMin - Off-Highway Trucks	Aggregated	600	Diesel	1180060.23	158856.15	116.70	59735196.43	0.01975486
San Diego	2022	ConstMin - Pavers	Aggregated	175	Diesel	51639.14	15192.30	39.36	2398785.31	0.02152721
San Diego	2022	ConstMin - Paving Equipment	Aggregated	175	Diesel	21950.29	8245.97	17.92	1197337.91	0.01833257
San Diego	2022	ConstMin - Rollers	Aggregated	100	Diesel	124614.28	73567.69	221.70	6422022.25	0.01940421
San Diego	2022	ConstMin - Rubber Tired Dozers	Aggregated	300	Diesel	17301.60	3812.48	5.43	843434.30	0.02051328
San Diego	2022	ConstMin - Rubber Tired Loaders	Aggregated	300	Diesel	933658.54	239776.14	224.91	50039882.29	0.01865829
San Diego	2022	ConstMin - Scrapers	Aggregated	600	Diesel	1778960.15	168543.73	350.97	71191267.31	0.02498846
San Diego	2022	ConstMin - Tractors/Loaders/Backhoes	Aggregated	100	Diesel	1914739.32	1203674.54	1922.37	100104539.93	0.01912740
San Diego	2022	Industrial - Forklifts	Aggregated	100	Diesel	544150.42	635834.72	834.15	52419731.09	0.01038064
San Diego	2022	OFF - Light Commercial - Welders	Aggregated	50	Diesel	341994.05	287568.90	447.76	13228169.40	0.02585347
San Diego	2022	Portable Equipment - Non-Rental Compressor	Aggregated	100	Diesel	20277.1775	15412.53639	38.30483734	1310022.789	0.01547849
San Diego	2022	Portable Equipment - Non-Rental Generator	Aggregated	100	Diesel	101387.403	67002.09366	49.91236381	6550211.837	0.01547849

Source: EMFAC2021 (v1.0.0) Emissions Inventory

Region Type: County

Region: San Diego

Calendar Year: 2025

Season: Annual

Vehicle Classification: EMFAC2007 Categories

Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

2022 Construction Fleet Fuel Consumption								
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Fuel Consumption (1000 Gal.)	Gallons/VMT
Worker (LDA, LDT1, LDT2)								
San Diego	2025	LDA	Aggregate	Aggregate	Diesel	154640.35	3.859583186	
San Diego	2025	LDT1	Aggregate	Aggregate	Diesel	785.55983	0.034914244	
San Diego	2025	LDT2	Aggregate	Aggregate	Diesel	88769.85	2.963275015	
					Diesel Total	244195.76	6.857772445	9.30349E-05
San Diego	2025	LDA	Aggregate	Aggregate	Gasoline	46599752	1638.018244	
San Diego	2025	LDT1	Aggregate	Aggregate	Gasoline	4295869.4	183.9398963	
San Diego	2025	LDT2	Aggregate	Aggregate	Gasoline	22572001	990.7306792	
					Gas Total	73467622	2812.68882	0.038157909
					Total VMT	73711818		
Vendor (HHDT, MHDT)								
San Diego	2025	HHDT	Aggregate	Aggregate	Diesel	1880530.9	316.3086743	
San Diego	2025	MHDT	Aggregate	Aggregate	Diesel	752420.13	88.77524193	
					Diesel total	2632951	405.0839162	0.14314401
San Diego	2025	HHDT	Aggregate	Aggregate	Gasoline	477.72653	0.127569415	
San Diego	2025	MHDT	Aggregate	Aggregate	Gasoline	196476.03	41.07230594	
					Gas Total	196953.76	41.19987535	0.01455875
					Total VMT	2829904.8		
Hauling (HHDT)								
San Diego	2025	HHDT	Aggregate	Aggregate	Diesel	1880530.9	316.3086743	0.168201169
San Diego	2025	HHDT	Aggregate	Aggregate	Gasoline	7.0336916	477.7265269	0.000254037
					Total VMT	1880537.9		

2025 Operational Fleet Fuel Consumption								
Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	VMT	Consumption (1000 Gal.)	Gallons/VMT
LDA								
San Diego	2025	LDA	Aggregate	Aggregate	Diesel	154640.4	3.859583	8.25502E-05
San Diego	2025	LDA	Aggregate	Aggregate	Gasoline	46599752	1638.018	0.035034532
					Total VMT	46754393		
LDT1								
San Diego	2025	LDT1	Aggregate	Aggregate	Diesel	785.5598	0.034914	8.12591E-06
San Diego	2025	LDT1	Aggregate	Aggregate	Gasoline	4295869.4	183.9399	0.042810023
					Total VMT	4296655		
LDT2								
San Diego	2025	LDT2	Aggregate	Aggregate	Diesel	88769.85	2.963275	0.000130767
San Diego	2025	LDT2	Aggregate	Aggregate	Gasoline	22572001	990.7307	0.043720079
					Total VMT	22660770		
MDV								
San Diego	2025	MDV	Aggregate	Aggregate	Diesel	228362.5	10.10315	0.00075351
San Diego	2025	MDV	Aggregate	Aggregate	Gasoline	13179760	703.4119	0.052461628
					Total VMT	13408123		
LHDT1								
San Diego	2025	LHDT1	Aggregate	Aggregate	Diesel	1202471	74.74677	0.026015935
San Diego	2025	LHDT1	Aggregate	Aggregate	Gasoline	1670644	170.2548	0.059257907
					Total VMT	2873115		
LHDT2								
San Diego	2025	LHDT2	Aggregate	Aggregate	Diesel	493662.2	36.86156	0.050854764
San Diego	2025	LHDT2	Aggregate	Aggregate	Gasoline	231177.7	26.61973	0.036724979
					Total VMT	724839.9		
MHDT								
San Diego	2025	MHDT	Aggregate	Aggregate	Diesel	752420.1	88.77524	0.093556329
San Diego	2025	MHDT	Aggregate	Aggregate	Gasoline	196476	41.07231	0.0432843
					Total VMT	948896.2		
HHDT								
San Diego	2025	HHDT	Aggregate	Aggregate	Diesel	1880531	316.3087	0.168159079
San Diego	2025	HHDT	Aggregate	Aggregate	Gasoline	477.7265	0.127569	6.78197E-05
					Total VMT	1881009		
OBUS								
San Diego	2025	OBUS	Aggregate	Aggregate	Diesel	47739.06	6.985141	0.068607647
San Diego	2025	OBUS	Aggregate	Aggregate	Gasoline	54073.8	11.22668	0.110267783
					Total VMT	101812.9		
UBUS								
San Diego	2025	UBUS	Aggregate	Aggregate	Diesel	20914.61	2.347837	0.067181014
San Diego	2025	UBUS	Aggregate	Aggregate	Gasoline	14033.31	1.481509	0.042391901
					Total VMT	34947.92		
MCY								
San Diego	2025	MCY	Aggregate	Aggregate	Gasoline	425156.8	11.07942	0.026059618
SBUS								
San Diego	2025	SBUS	Aggregate	Aggregate	Gasoline	15799.4	1.579593	0.099978044
MH								
San Diego	2025	MH	Aggregate	Aggregate	Diesel	38958.33	4.15082	0.032647747
San Diego	2025	MH	Aggregate	Aggregate	Gasoline	88181.21	19.98955	0.157225244
					Total VMT	127139.5		

Appendix E

Biological Resource
Database Searches



Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad (Lone Pine (3611851) OR Union Wash (3611861) OR Mt. Langley (3611852) OR Manzanar (3611862))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Alkali Seep</i> Alkali Seep	CTT45320CA	None	None	G3	S2.1	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Astragalus hornii var. hornii</i> Horn's milk-vetch	PDFAB0F421	None	None	GUT1	S1	1B.1
<i>Astragalus serenoii var. shockleyi</i> Shockley's milk-vetch	PDFAB0F802	None	None	G4T3	S3	2B.2
<i>Batrachoseps campi</i> Inyo Mountains slender salamander	AAAAD02030	None	None	G3	S3	SSC
<i>Bombus morrisoni</i> Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calochortus excavatus</i> Inyo County star-tulip	PMLIL0D0F0	None	None	G2	S2	1B.1
<i>Calyptidium pygmaeum</i> pygmy pussypaws	PDPOR09070	None	None	G1G2	S1S2	1B.2
<i>Charadrius montanus</i> mountain plover	ABNNB03100	None	None	G3	S2S3	SSC
<i>Charadrius nivosus nivosus</i> western snowy plover	ABNNB03031	Threatened	None	G3T3	S2	SSC
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Cyprinodon radiosus</i> Owens pupfish	AFCNB02090	Endangered	Endangered	G1	S1	FP
<i>Draba sharsmithii</i> Mt. Whitney draba	PDBRA113F0	None	None	G2	S2	1B.3
<i>Elgaria panamintina</i> Panamint alligator lizard	ARACB01050	None	None	G3	S3	SSC
<i>Eremothera boothii ssp. boothii</i> Booth's evening-primrose	PDONA03052	None	None	G5T4	S3	2B.3
<i>Erethizon dorsatum</i> North American porcupine	AMAFJ01010	None	None	G5	S3	



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
<i>Euderma maculatum</i> spotted bat	AMACC07010	None	None	G4	S3	SSC
<i>Gopherus agassizii</i> desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	
<i>Greeneocharis circumscissa</i> var. <i>rosulata</i> rosette cushion cryptantha	PDBOR0A0G3	None	None	G5T2	S2	1B.2
<i>Hackelia sharsmithii</i> Sharsmith's stickseed	PDBOR0G0Q0	None	None	G3	S3	2B.3
<i>Hydromantes platycephalus</i> Mount Lyell salamander	AAAAD09020	None	None	G4	S4	WL
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
<i>Ivesia campestris</i> field ivesia	PDROS0X050	None	None	G3	S3	1B.2
<i>Martes caurina sierrae</i> Sierra marten	AMAJF01014	None	None	G4G5T3	S3	
<i>Microtus californicus vallicola</i> Owens Valley vole	AMAFF11033	None	None	G5T3	S3	SSC
<i>Ochotona princeps schisticeps</i> gray-headed pika	AMAEA0102L	None	None	G5T4	S2S4	
<i>Oryctes nevadensis</i> Nevada oryctes	PDSOL0Q010	None	None	G3	S2	2B.1
<i>Ovis canadensis sierrae</i> Sierra Nevada bighorn sheep	AMALE04015	Endangered	Endangered	G4T2	S2	FP
<i>Pekania pennanti</i> pop. 2 Fisher - Southern Sierra Nevada ESU	AMAJF01022	Endangered	Threatened	G5T1	S1	SSC
<i>Phacelia inyoensis</i> Inyo phacelia	PDHYD0C2F0	None	None	G2	S2	1B.2
<i>Plagiobothrys parishii</i> Parish's popcornflower	PDBOR0V0U0	None	None	G1	S1	1B.1
<i>Pyrgulopsis wongi</i> Wong's springsnail	IMGASJ0360	None	None	G2	S2	
<i>Rana muscosa</i> southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S1	WL
<i>Rana sierrae</i> Sierra Nevada yellow-legged frog	AAABH01340	Endangered	Threatened	G1	S1	WL
<i>Sabulina stricta</i> bog sandwort	PDCAR0G0U0	None	None	G5	S3	2B.3
<i>Sidalcea covillei</i> Owens Valley checkerbloom	PDMAL11040	None	Endangered	G2	S2	1B.1
<i>Siphoteles bicolor snyderi</i> Owens tui chub	AFCJB1303J	Endangered	Endangered	G4T1	S1	



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
<i>Triglochin palustris</i> marsh arrow-grass	PMJCG02040	None	None	G5	S2	2B.3
<i>Vireo bellii pusillus</i> least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
<i>Water Birch Riparian Scrub</i> Water Birch Riparian Scrub	CTT63510CA	None	None	GNR	SNR	

Record Count: 43

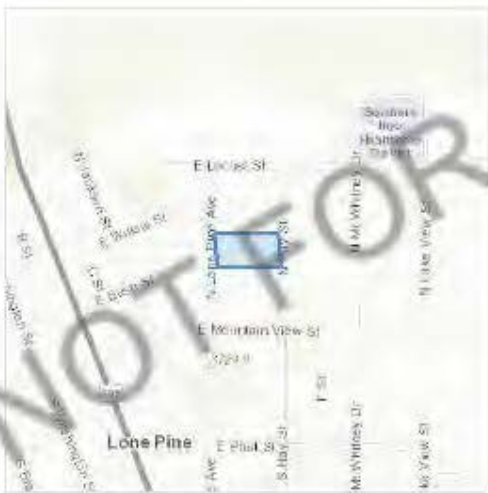
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Inyo County, California



Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147

<http://www.fws.gov/reno/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Fisher Pekania pennanti Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3651>

Sierra Nevada Bighorn Sheep Ovis canadensis sierrae Endangered

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3646>

Birds

NAME	STATUS
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Southwestern Willow Flycatcher Empidonax traillii extimus	Endangered
---	------------

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/6749>

Yellow-billed Cuckoo Coccyzus americanus	Threatened
--	------------

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3911>

Fishes

NAME	STATUS
------	--------

Owens Pupfish Cyprinodon radiosus	Endangered
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Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4982>

Owens Tui Chub Gila bicolor ssp. snyderi	Endangered
--	------------

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7289>

Insects

NAME	STATUS
------	--------

Monarch Butterfly Danaus plexippus	Candidate
------------------------------------	-----------

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Golden Eagle *Aquila chrysaetos*

Breeds Dec 1 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

<https://ecos.fws.gov/ecp/species/1680>

Le Conte's Thrasher *toxostoma lecontei*

Breeds Feb 15 to Jun 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/8969>

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 $0.05/0.25 = 0.2$.

- The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (☀)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (📊)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

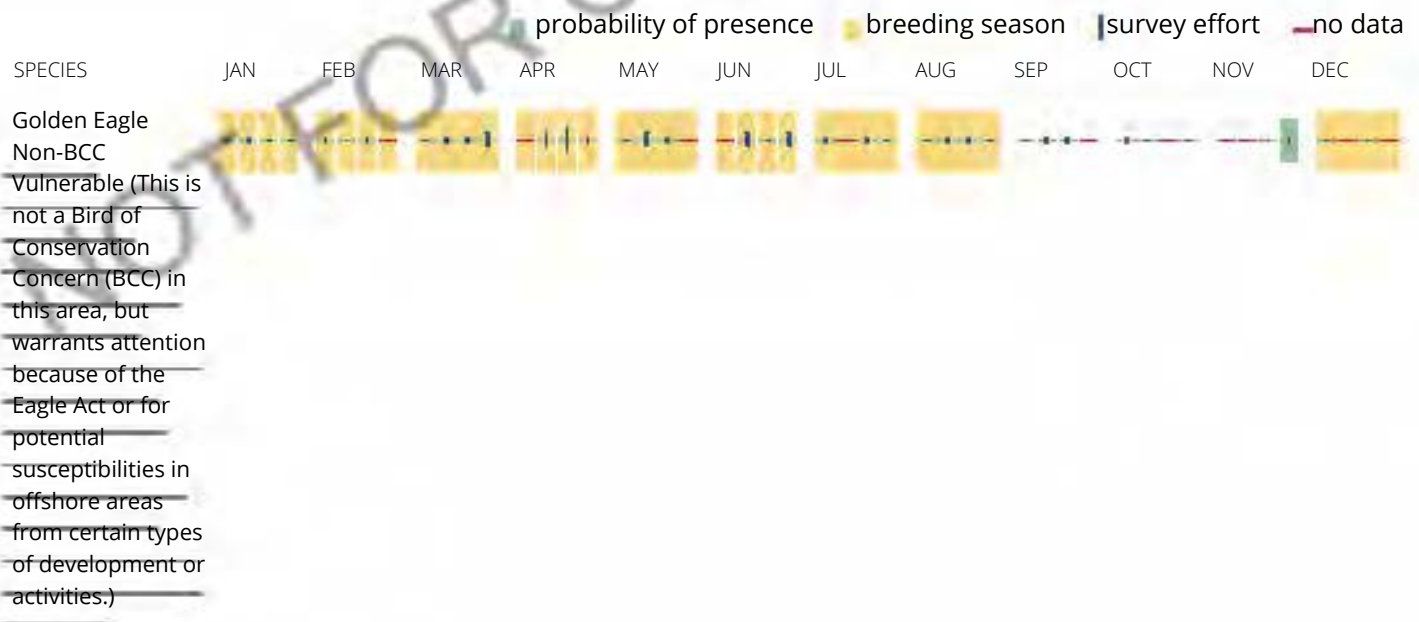
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (-)

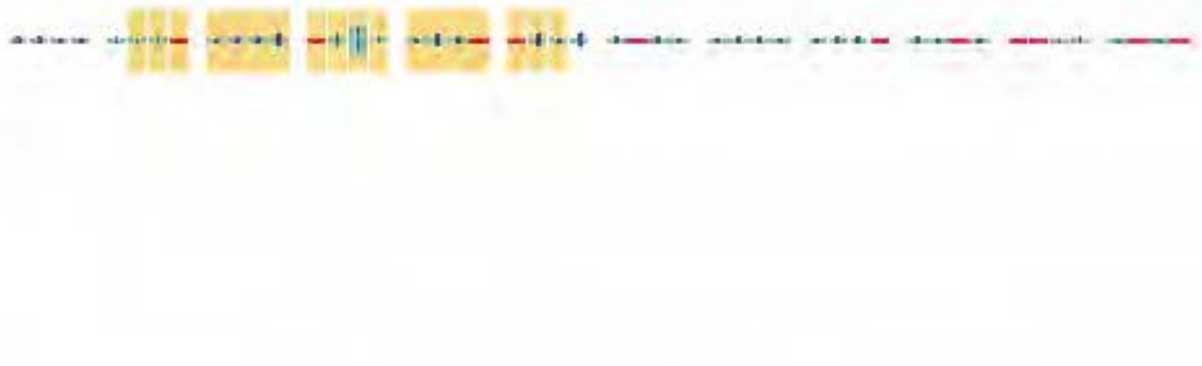
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Le Conte's
Thrasher
BCC Rangewide
(CON) (This is a
Bird of
Conservation
Concern (BCC)
throughout its
range in the
continental USA
and Alaska.)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters.

Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

12 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3],
 FESA is one of [Endangered, Threatened, Candidate, Not Listed],
 CESA is one of [Endangered, Threatened, Rare, Not Listed], Found in Quads 3611862, 3611861 3611852 and 3611851;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Astragalus hornii var. hornii	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	1B.1	S1	G4G5T1T2
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S3	G4
Calochortus excavatus	Inyo County star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jul	1B.1	S2	G2
Draba sharsmithii	Mt. Whitney draba	Brassicaceae	perennial herb	Jul-Aug	1B.3	S2	G2
Eremothera boothii ssp. boothii	Booth's evening-primrose	Onagraceae	annual herb	Apr-Sep	2B.3	S3	G5T4
Hackelia sharsmithii	Sharsmith's stickseed	Boraginaceae	perennial herb	Jul-Sep	2B.3	S3	G3
Ivesia campestris	field ivesia	Rosaceae	perennial herb	May-Aug	1B.2	S3	G3
Oryctes nevadensis	Nevada oryctes	Solanaceae	annual herb	Apr-Jun	2B.1	S2	G3
Phacelia inyoensis	Inyo phacelia	Hydrophyllaceae	annual herb	Apr-Aug	1B.2	S3	G3
Plagiobothrys parishii	Parish's popcornflower	Boraginaceae	annual herb	Mar-Jun(Nov)	1B.1	S1	G1
Sabalina stricta	bog sandwort	Caryophyllaceae	perennial herb	Jul-Sep	2B.3	S3	G5
Sidalcea covillei	Owens Valley checkerbloom	Malvaceae	perennial herb	Apr-Jun	1B.1	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed 19 May 2021].

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Contributors

[The Calflora Database](#)

[The California Lichen Society](#)

[California Natural Diversity Database](#)

[The Jepson Flora Project](#)

[The Consortium of California Herbaria](#)

[CalPhotos](#)

Questions and Comments

rareplants@cnps.org

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Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad (Union Wash (3611861) OR Manzanar (3611862) OR Independence (3611872) OR Bee Springs Canyon (3611871))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Aliciella ripleyi</i> Ripley's aliciella	PDPLM041E0	None	None	G3	S2	2B.3
<i>Aliciella triodon</i> coyote gilia	PDPLM041T0	None	None	G5	S2	2B.2
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Astragalus hornii var. hornii</i> Horn's milk-vetch	PDFAB0F421	None	None	GUT1	S1	1B.1
<i>Astragalus serenoii var. shockleyi</i> Shockley's milk-vetch	PDFAB0F802	None	None	G4T3	S3	2B.2
<i>Batrachoseps campi</i> Inyo Mountains slender salamander	AAAAD02030	None	None	G3	S3	SSC
<i>Bombus morrisoni</i> Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calochortus excavatus</i> Inyo County star-tulip	PMLIL0D0F0	None	None	G2	S2	1B.1
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<i>Coccyzus americanus occidentalis</i> western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Cyprinodon radiosus</i> Owens pupfish	AFCNB02090	Endangered	Endangered	G1	S1	FP
<i>Diplacus parryi</i> Parry's monkeyflower	PDSCR1B230	None	None	G4G5	S3	2B.3
<i>Elgaria panamintina</i> Panamint alligator lizard	ARACB01050	None	None	G3	S3	SSC
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
<i>Eremothera boothii ssp. boothii</i> Booth's evening-primrose	PDONA03052	None	None	G5T4	S3	2B.3
<i>Eremothera boothii ssp. intermedia</i> Booth's hairy evening-primrose	PDONA03056	None	None	G5T3T4	S3	2B.3
<i>Hydromantes platycephalus</i> Mount Lyell salamander	AAAAD09020	None	None	G4	S4	WL



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
<i>Icteria virens</i> yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
<i>Ixobrychus exilis</i> least bittern	ABNGA02010	None	None	G4G5	S2	SSC
<i>Mentzelia torreyi</i> Torrey's blazing star	PDLOA031S0	None	None	G4	S2	2B.2
<i>Microtus californicus vallicola</i> Owens Valley vole	AMAFF11033	None	None	G5T3	S3	SSC
<i>Orobanche ludoviciana var. arenosa</i> Suksdorf's broom-rape	PDORO04073	None	None	G5T5	S2	2B.3
<i>Oryctes nevadensis</i> Nevada oryctes	PDSOL0Q010	None	None	G3	S2	2B.1
<i>Ovis canadensis sierrae</i> Sierra Nevada bighorn sheep	AMALE04015	Endangered	Endangered	G4T2	S2	FP
<i>Plagiobothrys parishii</i> Parish's popcornflower	PDBOR0V0U0	None	None	G1	S1	1B.1
<i>Pyrgulopsis wongi</i> Wong's springsnail	IMGASJ0360	None	None	G2	S2	
<i>Sidalcea covillei</i> Owens Valley checkerbloom	PDMAL11040	None	Endangered	G2	S2	1B.1
<i>Siphateles bicolor snyderi</i> Owens tui chub	AFCJB1303J	Endangered	Endangered	G4T1	S1	
<i>Water Birch Riparian Scrub</i> Water Birch Riparian Scrub	CTT63510CA	None	None	GNR	SNR	

Record Count: 31

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Inyo County, California



Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147

<http://www.fws.gov/reno/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Fisher Pekania pennanti Endangered

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/3651>

Birds

NAME

STATUS

Southwestern Willow Flycatcher Empidonax traillii extimus Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/6749>

Yellow-billed Cuckoo Coccyzus americanus Threatened

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/3911>

Fishes

NAME

STATUS

Owens Pupfish Cyprinodon radiosus Endangered

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/4982>

Owens Tui Chub Gila bicolor ssp. snyderi Endangered

Wherever found

There is **final** critical habitat for this species. The location of the critical habitat is not available.

<https://ecos.fws.gov/ecp/species/7289>

Insects

NAME

STATUS

Monarch Butterfly Danaus plexippus Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED,

WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

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

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

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

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

Willet *Tringa semipalmata*

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 20 to Aug 5

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.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort ()

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

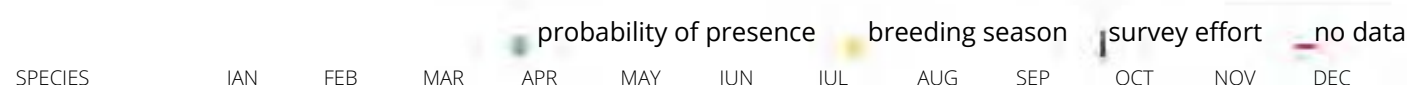
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data ()

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Brewer's Sparrow
 BCC - BCR (This is a
 Bird of
 Conservation
 Concern (BCC) only
 in particular Bird
 Conservation
 Regions (BCRs) in
 the continental
 USA)



Golden Eagle
 BCC - BCR (This is a
 Bird of
 Conservation
 Concern (BCC) only
 in particular Bird
 Conservation
 Regions (BCRs) in
 the continental
 USA)



Lesser Yellowlegs
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)



Olive-sided
 Flycatcher
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)

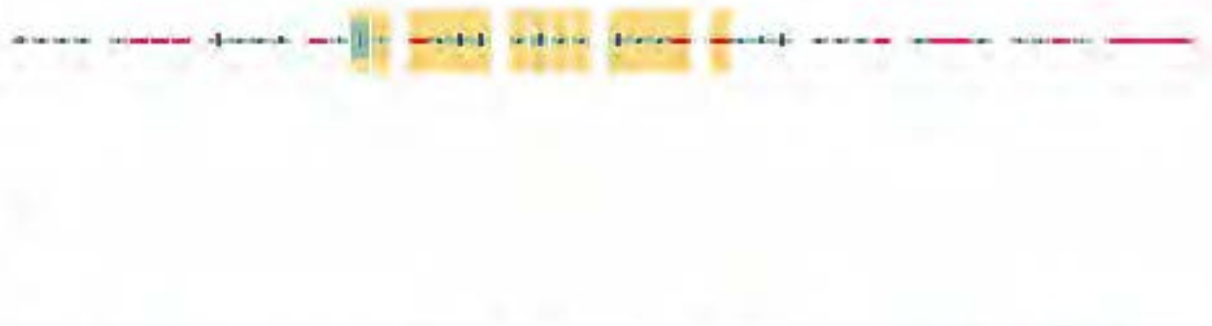


Sage Thrasher
 BCC - BCR (This is a
 Bird of
 Conservation
 Concern (BCC) only
 in particular Bird
 Conservation
 Regions (BCRs) in
 the continental
 USA)



DRAFT FOR CONSULTATION

Willet
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)



Willow Flycatcher
 BCC - BCR (This is a
 Bird of
 Conservation
 Concern (BCC) only
 in particular Bird
 Conservation
 Regions (BCRs) in
 the continental
 USA)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting

point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

THERE ARE NO KNOWN WETLANDS AT THIS LOCATION.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

14 matches found. [Click on scientific name for details](#)

Search Criteria

California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3],
 FESA is one of [Endangered, Threatened, Candidate, Not Listed],
 CESA is one of [Endangered, Threatened, Rare, Not Listed], Found in Quads 3611872, 3611871 3611862 and 3611861;

[Modify Search Criteria](#) [Export to Excel](#) [Modify Columns](#) [Modify Sort](#) [Display Photos](#)

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Aliciella ripleyi	Ripley's aliciella	Polemoniaceae	perennial herb	May-Jul	2B.3	S2	G3
Aliciella tridon	coyote gilia	Polemoniaceae	annual herb	Apr-Jun	2B.2	S2	G5
Astragalus hornii var. hornii	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	1B.1	S1	G4G5T1T2
Botrychium crenulatum	scalloped moonwort	Ophioglossaceae	perennial rhizomatous herb	Jun-Sep	2B.2	S3	G4
Calochortus excavatus	Inyo County star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jul	1B.1	S2	G2
Diplacus parryi	Parry's monkeyflower	Phrymaceae	annual herb	May-Jul	2B.3	S3	G4G5
Eremothera boothii ssp. boothii	Booth's evening-primrose	Onagraceae	annual herb	Apr-Sep	2B.3	S3	G5T4
Eremothera boothii ssp. intermedia	Booth's hairy evening-primrose	Onagraceae	annual herb	(May)Jun	2B.3	S3	G5T3T4
Mentzelia inyoensis	Inyo blazing star	Loasaceae	perennial herb	Apr-Oct	1B.3	S3	G3
Mentzelia torreyi	Torrey's blazing star	Loasaceae	perennial herb	Jun-Aug	2B.2	S2	G4
Orobanche ludoviciana var. arenosa	Suksdorf's broomrape	Orobanchaceae	perennial herb (achlorophyllous)	Jun-Sep(Oct)	2B.3	S2	G5T5
Oryctes nevadensis	Nevada oryctes	Solanaceae	annual herb	Apr-Jun	2B.1	S2	G3
Plagiobothrys parishii	Parish's popcornflower	Boraginaceae	annual herb	Mar-Jun(Nov)	1B.1	S1	G1
Sidalcea covillei	Owens Valley checkerbloom	Malvaceae	perennial herb	Apr-Jun	1B.1	S2	G2

Suggested Citation

California Native Plant Society, Rare Plant Program. 2021. Inventory of Rare and Endangered Plants of California

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Contributors

[The Calflora Database](#)

[The California Lichen Society](#)

[California Natural Diversity Database](#)

[The Jepson Flora Project](#)

[The Consortium of California Herbaria](#)

[CalPhotos](#)

Questions and Comments

rareplants@cnps.org

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Selected Elements by Scientific Name
California Department of Fish and Wildlife
California Natural Diversity Database



Query Criteria: Quad IS (Bishop (3711834) OR Fish Slough (3711844) OR Laws (3711843) OR Poleta Canyon (3711833))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
<i>Aliciella tridon</i> coyote gilia	PDPLM041T0	None	None	G5	S2	2B.2
<i>Alkali Meadow</i> Alkali Meadow	CTT45310CA	None	None	G3	S2.1	
<i>Anodonta californiensis</i> California floater	IMBIV04220	None	None	G3Q	S2?	
<i>Antrozous pallidus</i> pallid bat	AMACC10010	None	None	G4	S3	SSC
<i>Aquila chrysaetos</i> golden eagle	ABNKC22010	None	None	G5	S3	FP
<i>Astragalus argophyllus var. argophyllus</i> silver-leaved milk-vetch	PDFAB0F0S1	None	None	G5T4	S2	2B.2
<i>Astragalus lentiginosus var. piscinensis</i> Fish Slough milk-vetch	PDFAB0FB9E	Threatened	None	G5T1	S1	1B.1
<i>Astragalus serenoii var. shockleyi</i> Shockley's milk-vetch	PDFAB0F802	None	None	G4T3	S3	2B.2
<i>Athene cunicularia</i> burrowing owl	ABNSB10010	None	None	G4	S3	SSC
<i>Atriplex gardneri var. falcata</i> falcate saltbush	PDCHE040J0	None	None	G4T4Q	S2S3	2B.2
<i>Boecheria dispar</i> pinyon rockcress	PDBRA060F0	None	None	G3	S3	2B.3
<i>Bombus morrisoni</i> Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
<i>Buteo swainsoni</i> Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
<i>Calochortus excavatus</i> Inyo County star-tulip	PMLIL0D0F0	None	None	G2	S2	1B.1
<i>Catostomus fumeiventris</i> Owens sucker	AFCJC02090	None	None	G3G4	S3	SSC
<i>Circus hudsonius</i> northern harrier	ABNKC11011	None	None	G5	S3	SSC
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
<i>Crepis runcinata</i> fiddleleaf hawksbeard	PDAST2R0K0	None	None	G5	S3	2B.2
<i>Cyprinodon radiosus</i> Owens pupfish	AFCNB02090	Endangered	Endangered	G1	S1	FP



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
<i>Dedeckera eurekensis</i> July gold	PDPGN06010	None	Rare	G3	S3	1B.3
<i>Elgaria panamintina</i> Panamint alligator lizard	ARACB01050	None	None	G3	S3	SSC
<i>Elymus salina</i> Salina Pass wild-rye	PMPOA6P010	None	None	G4G5	S2S3	2B.3
<i>Elymus scribneri</i> Scribner's wheat grass	PMPOA2H170	None	None	G5	S3	2B.3
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
<i>Eremothera boothii ssp. intermedia</i> Booth's hairy evening-primrose	PDONA03056	None	None	G5T3T4	S3	2B.3
<i>Erythranthe calcicola</i> limestone monkeyflower	PDPHR01010	None	None	G3	S3	1B.3
<i>Euderma maculatum</i> spotted bat	AMACC07010	None	None	G4	S3	SSC
<i>Falco mexicanus</i> prairie falcon	ABNKD06090	None	None	G5	S4	WL
<i>Fimbristylis thermalis</i> hot springs fimbristylis	PMCYP0B0N0	None	None	G4	S1S2	2B.2
<i>Grusonia pulchella</i> beautiful cholla	PDCAC0D120	None	None	G4	S2	2B.2
<i>Ivesia kingii var. kingii</i> alkali ivesia	PDROS0X092	None	None	G4T3Q	S2	2B.2
<i>Lasionycteris noctivagans</i> silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
<i>Lasiurus cinereus</i> hoary bat	AMACC05030	None	None	G3G4	S4	
<i>Lepus townsendii townsendii</i> western white-tailed jackrabbit	AMAEB03041	None	None	G5T5	S3?	SSC
<i>Lithobates pipiens</i> northern leopard frog	AAABH01170	None	None	G5	S2	SSC
<i>Mentzelia torreyi</i> Torrey's blazing star	PDLOA031S0	None	None	G4	S2	2B.2
<i>Microtus californicus vallicola</i> Owens Valley vole	AMAFF11033	None	None	G5T3	S3	SSC
<i>Myotis ciliolabrum</i> western small-footed myotis	AMACC01140	None	None	G5	S3	
<i>Myotis volans</i> long-legged myotis	AMACC01110	None	None	G4G5	S3	
<i>Oryctes nevadensis</i> Nevada oryctes	PDSOL0Q010	None	None	G3	S2	2B.1



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
<i>Phacelia inyoensis</i> Inyo phacelia	PDHYD0C2F0	None	None	G2	S2	1B.2
<i>Plagiobothrys parishii</i> Parish's popcornflower	PDBOR0V0U0	None	None	G1	S1	1B.1
<i>Pyrgulopsis owensensis</i> Owens Valley springsnail	IMGASJ0280	None	None	G1G2	S1S2	
<i>Pyrgulopsis perturbata</i> Fish Slough springsnail	IMGASJ0290	None	None	G1	S1	
<i>Ranunculus hydrocharoides</i> frog's-bit buttercup	PDRAN0L190	None	None	G4	S1	2B.1
<i>Rhinichthys osculus ssp. 2</i> Owens speckled dace	AFCJB3705F	None	None	G5T1T2Q	S1S2	SSC
<i>Riparia riparia</i> bank swallow	ABPAU08010	None	Threatened	G5	S2	
<i>Sidalcea covillei</i> Owens Valley checkerbloom	PDMAL11040	None	Endangered	G2	S2	1B.1
<i>Siphateles bicolor snyderi</i> Owens tui chub	AFCJB1303J	Endangered	Endangered	G4T1	S1	
<i>Sphenopholis obtusata</i> prairie wedge grass	PMPOA5T030	None	None	G5	S2	2B.2
<i>Thelypodium integrifolium ssp. complanatum</i> foxtail thelypodium	PDBRA2N062	None	None	G5T4T5	S2	2B.2
<i>Transmontane Alkali Marsh</i> Transmontane Alkali Marsh	CTT52320CA	None	None	G3	S2.1	
<i>Vulpes vulpes necator</i> Sierra Nevada red fox	AMAJA03012	Proposed Endangered	Threatened	G5T1T2	S1	

Record Count: 53

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Inyo County, California



Local office

Reno Fish And Wildlife Office

☎ (775) 861-6300

📠 (775) 861-6301

1340 Financial Boulevard, Suite 234
Reno, NV 89502-7147

<http://www.fws.gov/reno/>

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME

STATUS

Sierra Nevada Bighorn Sheep <i>Ovis canadensis sierrae</i>	Endangered
There is final critical habitat for this species. The location of the critical habitat is not available.	
https://ecos.fws.gov/ecp/species/3646	

Birds

NAME	STATUS
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i>	Endangered
Wherever found	
There is final critical habitat for this species. The location of the critical habitat is not available.	
https://ecos.fws.gov/ecp/species/6749	
Yellow-billed Cuckoo <i>Coccyzus americanus</i>	Threatened
There is final critical habitat for this species. The location of the critical habitat is not available.	
https://ecos.fws.gov/ecp/species/3911	

Fishes

NAME	STATUS
Lahontan Cutthroat Trout <i>Oncorhynchus clarkii henshawi</i>	Threatened
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/3964	
Owens Pupfish <i>Cyprinodon radiosus</i>	Endangered
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/4982	
Owens Tui Chub <i>Gila bicolor ssp. snyderi</i>	Endangered
Wherever found	
There is final critical habitat for this species. The location of the critical habitat is not available.	
https://ecos.fws.gov/ecp/species/7289	

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i>	Candidate
Wherever found	
No critical habitat has been designated for this species.	
https://ecos.fws.gov/ecp/species/9743	

Flowering Plants

NAME	STATUS
Fish Slough Milk-vetch <i>Astragalus lentiginosus</i> var. <i>piscinensis</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/7947	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the

Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Bald Eagle *Haliaeetus leucocephalus*

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

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 <i>Tringa flavipes</i> 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
Lewis's Woodpecker <i>Melanerpes lewis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9408	Breeds Apr 20 to Sep 30
Long-billed Curlew <i>Numenius americanus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Marbled Godwit <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Olive-sided Flycatcher <i>Contopus cooperi</i> 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 <i>Gymnorhinus cyanocephalus</i> 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 <i>Oreoscoptes montanus</i> 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
Sagebrush Sparrow <i>Artemisiospiza nevadensis</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Mar 15 to Jul 31
Tricolored Blackbird <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10

Virginia's Warbler *Vermivora virginiae*

Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

<https://ecos.fws.gov/ecp/species/9441>

Willet *Tringa semipalmata*

Breeds Apr 20 to Aug 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Willow Flycatcher *Empidonax traillii*

Breeds May 20 to Aug 31

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>

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence ()

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season ()

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (↑)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

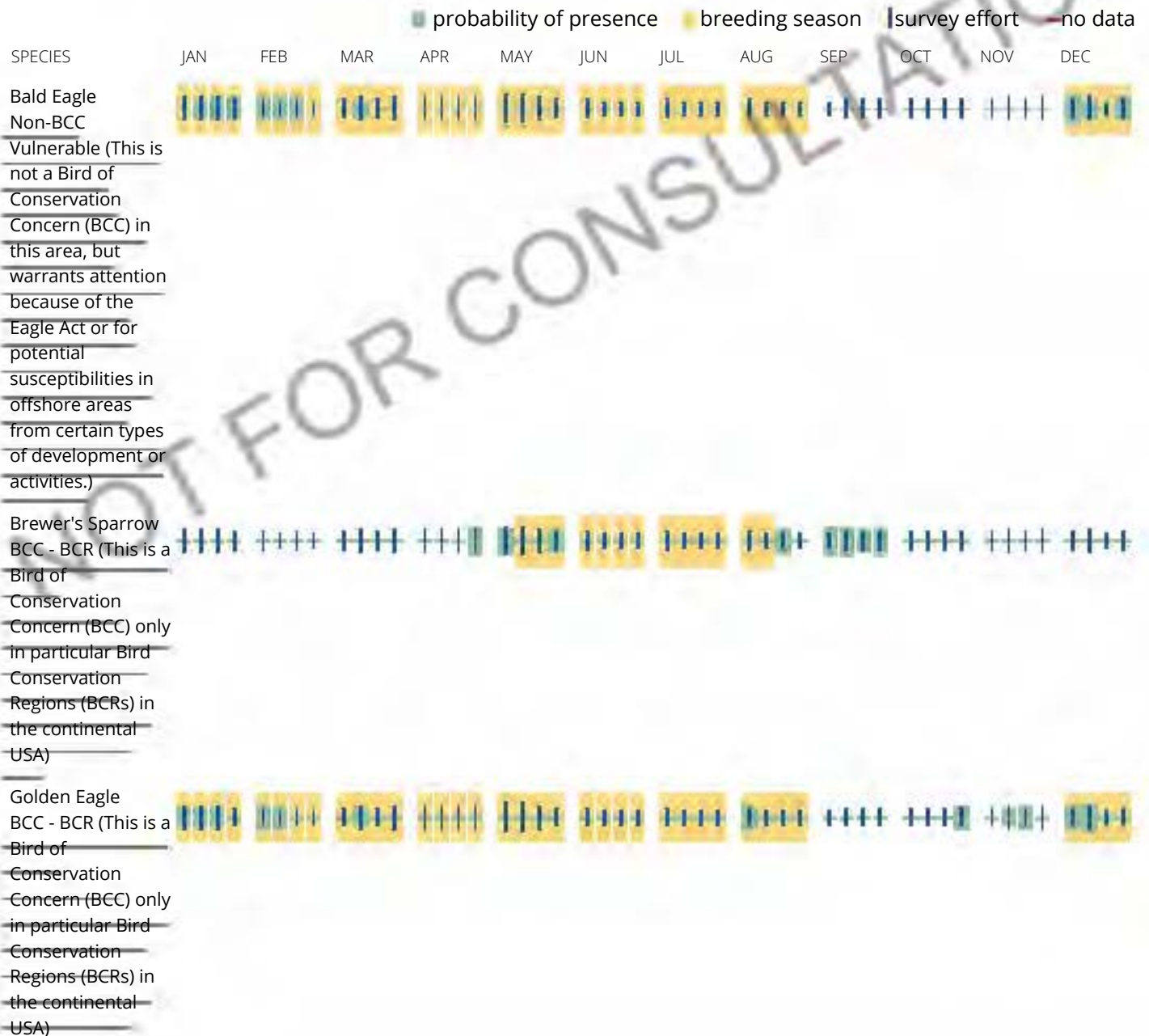
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (↔)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Green-tailed Towhee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Lesser Yellowlegs
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Lewis's Woodpecker
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Long-billed Curlew
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Marbled Godwit
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



NOT FOR CONSULTATION

Olive-sided Flycatcher
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Pinyon Jay
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Sage Thrasher
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Sagebrush Sparrow
 BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



SPECIES

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Tricolored Blackbird
 BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Virginia's Warbler
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)



Willet
 BCC Rangewide
 (CON) (This is a
 Bird of
 Conservation
 Concern (BCC)
 throughout its
 range in the
 continental USA
 and Alaska.)



Willow Flycatcher
 BCC - BCR (This is a
 Bird of
 Conservation
 Concern (BCC) only
 in particular Bird
 Conservation
 Regions (BCRs) in
 the continental
 USA)



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 to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

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.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND

[PEM1Cx](#)

RIVERINE

[R2UBHx](#)

[R5UBEx](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



*The database used to provide updates to the Online Inventory is under construction. [View updates and changes made since May 2019 here.](#)

Plant List

27 matches found. [Click on scientific name for details](#)

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California Rare Plant Rank is one of [1A, 1B, 2A, 2B, 3],
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Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Aliciella triodon	coyote gilia	Polemoniaceae	annual herb	Apr-Jun	2B.2	S2	G5
Astragalus argophyllus var. argophyllus	silver-leaved milk-vetch	Fabaceae	perennial herb	May-Jul	2B.2	S2	G5T4
Astragalus lentiginosus var. piscinensis	Fish Slough milk-vetch	Fabaceae	perennial herb	Jun-Jul	1B.1	S1	G5T1
Astragalus platytropis	broad-keeled milk-vetch	Fabaceae	perennial herb	Jun-Sep	2B.2	S3	G5
Astragalus serenoii var. shockleyi	Shockley's milk-vetch	Fabaceae	perennial herb	(Apr)May-Jul	2B.2	S2	G4T3
Atriplex gardneri var. falcata	falcate saltbush	Chenopodiaceae	perennial herb	May-Aug	2B.2	S2S3	G4T4Q
Boechera dispar	pinyon rockcress	Brassicaceae	perennial herb	Mar-Jun	2B.3	S3	G3
Calochortus excavatus	Inyo County star-tulip	Liliaceae	perennial bulbiferous herb	Apr-Jul	1B.1	S2	G2
Crepis runcinata	fiddleleaf hawksbeard	Asteraceae	perennial herb	May-Aug	2B.2	S3	G5
Dedeckera eurekaensis	July gold	Polygonaceae	perennial deciduous shrub	May-Aug	1B.3	S3	G3
Elymus salina	Salina Pass wild-rye	Poaceae	perennial rhizomatous herb	May-Jun	2B.3	S2S3	G4G5
Eremothera boothii ssp. intermedia	Booth's hairy evening-primrose	Onagraceae	annual herb	(May)Jun	2B.3	S3	G5T3T4
Erythranthe calcicola	limestone monkeyflower	Phrymaceae	annual herb	Apr-Jun	1B.3	S3	G3
Fimbristylis thermalis	hot springs fimbristylis	Cyperaceae	perennial rhizomatous herb	Jul-Sep	2B.2	S1S2	G4
Grusonia pulchella	beautiful cholla	Cactaceae	perennial stem	May(Jun)	2B.2	S2	G4

			succulent					
Hecastocleis shockleyi	prickle-leaf	Asteraceae	perennial evergreen shrub	May-Jul	3	S4	G4	
Ivesia kingii var. kingii	alkali ivesia	Rosaceae	perennial herb	May-Aug	2B.2	S2	G4T3Q	
Lupinus magnificus var. hesperius	McGee Meadows lupine	Fabaceae	perennial herb	Apr-Jun	1B.3	S1	G3T1Q	
Mentzelia inyoensis	Inyo blazing star	Loasaceae	perennial herb	Apr-Oct	1B.3	S3	G3	
Mentzelia torreyi	Torrey's blazing star	Loasaceae	perennial herb	Jun-Aug	2B.2	S2	G4	
Oryctes nevadensis	Nevada oryctes	Solanaceae	annual herb	Apr-Jun	2B.1	S2	G3	
Phacelia inyoensis	Inyo phacelia	Hydrophyllaceae	annual herb	Apr-Aug	1B.2	S3	G3	
Plagiobothrys parishii	Parish's popcornflower	Boraginaceae	annual herb	Mar-Jun(Nov)	1B.1	S1	G1	
Ranunculus hydrocharoides	frog's-bit buttercup	Ranunculaceae	perennial herb (aquatic)	(May)Jun-Sep	2B.1	S1	G4	
Sidalcea covillei	Owens Valley checkerbloom	Malvaceae	perennial herb	Apr-Jun	1B.1	S2	G2	
Sphenopholis obtusata	prairie wedge grass	Poaceae	perennial herb	Apr-Jul	2B.2	S2	G5	
Thelypodium integrifolium ssp. complanatum	foxtail thelypodium	Brassicaceae	annual / perennial herb	Jun-Oct	2B.2	S2	G5T4T5	

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Questions and Comments

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Appendix E
Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
Invertebrates					
<i>Danaus plexippus</i> monarch butterfly	Candidate FE/	Roosts in wind protected tree groves, especially with <i>Eucalyptus</i> sp., <i>Pinus radiata</i> , <i>Cupressus</i> sp., with nectar and water sources nearby. Winter roost sites extend along the coast from Mendocino County to Baja California. As caterpillars, monarchs feed exclusively on the leaves of milkweed (<i>Asclepias</i> sp.) (Nial et al. 2019).	Will Not Occur	There are no wind protected trees groves on any of the project sites and no milkweed was observed on any of the project sites. In addition, all of the project sites are outside of the species coastal wintering range.	Bishop, Independence, Lone Pine
Fishes					
<i>Catostomus fumeiventris</i> Owens sucker	--/--/SSC	The Owens sucker is endemic to the Owens River drainage and is widely distributed throughout the Owens Valley. Owens suckers are most abundant in areas with long runs and few riffles. Adults can thrive in lakes and reservoirs, but presumably need gravelly riffles in tributary streams for spawning (Moyle et al 1995).	May occur	There is no gravelly stream habitat on or near the Bishop parcels. However, because this species is known to occur in upstream reaches of South Fork Bishop Creek and in other hydrologically connected waterways this species could be present occasionally in the drainage ditches on the Bishop project parcels. The nearest recent CNDDDB occurrence is located 0.23-miles northwest of the Bishop parcels in China Slough. The record is dated to 1985 (CNDDDB 2021).	Bishop
<i>Cyprinodon radiosus</i> Owens pupfish	FE/CE/FP	Habitat for this species consists of clear, shallow water in spring pools, sloughs, irrigation ditches,	Will Not Occur	There is no suitable habitat on any of the	Bishop, Independence,

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		swamps, and flooded pastures in the Owens Valley from Fish Slough in Mono County to Lone Pine in Inyo County. It is now confined to several special refuges in the Owens Valley including three in Fish Slough (BLM Spring, BLM Ponds, and Marvin's Marsh), Mule Springs, Warm Springs, and Well 368 (USFWS 2009a)		project sites. In addition, the projects sites are all outside of the confirmed range of this species, which is confined to a few special refuges.	Lone Pine
<i>Oncorhynchus clarkii henshawi</i> Lahontan cutthroat trout	FT/	This species is found in a wide variety of cold-water habitats including large terminal alkaline lakes, alpine lakes, slow meandering rivers, mountain rivers, and small headwater tributary streams. Lahontan cutthroat trout are found in cool flowing water with available cover of well-vegetated and stable stream banks, in areas where there are stream velocity breaks, and in relatively silt free, rocky riffle-run areas (USFWS 2009c).	Will Not Occur	There is no suitable cold-water habitat on or near the Bishop project sites.	Bishop

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
<i>Rhinichthys osculus ssp. 2</i> Owens speckled dace	--/--/SSC	The Owens speckled dace has been extirpated from a majority of its historic range; however, three populations remain: in Fish Slough, Round Valley, and in irrigation ditches in and near the City of Bishop. Known to occupy a variety of habitats, ranging from small coldwater streams to hot-spring systems, although they are rarely found in water exceeding 29°C. They currently persist at two Long Valley sites (Whitmore Hot Springs and Little Alkali Lake), one East Fork Owens River site near Benton (a spring on Mathieu Ranch/Lower Marble Creek), and live sites in the northern Owens Valley (North McNally Ditch, North Fork Bishop Creek, irrigation ditch in north Bishop, Lower Horton Creek, and Lower Pine and Rock creeks) (Moyle et al 1995).	May Occur	Although the Bishop project parcels are outside the confirmed extant locations for the species, Owens speckled dace do persist in the canals and streams around Bishop (Sada 1989). There are two CNDDDB occurrences in drainage ditches within 0.6 miles of the western Bishop parcels dated to 1985 and 1988. Additionally, Owens speckled dace were observed in the Bishop Creek Canal in 1973 2.1 miles south of the eastern Bishop parcel (CDFW 2021).	Bishop
<i>Siphateles bicolor snyderi</i> Owens tui chub	FE/CE/--	As of the late 2000s, this subspecies was extant in six isolated sites, all of which were artificially created or altered in some fashion. Currently found in Hot Creek headwaters, Little Hot Creek Pond, Upper Owens Gorge below Long Valley Dam, Mule Spring, White Mountain Research Station, and Sotcher Lake. Requires clear, clean water, adequate cover and aquatic vegetation. (USFWS 2009b).	Will Not Occur	The project parcels lack suitable habitat and are outside the confirmed limited locations for the species.	Bishop, Independence, Lone Pine
Amphibians					
<i>Batrachoseps campi</i> Inyo Mountains slender salamander	--/--/SSC	The Inyo Mountains salamander is an uncommon species known only from several canyons of the west and east slopes of the Inyo Mountains east of Lone Pine in Inyo Co. Appears	Will Not Occur	The project parcels are outside of the species limited range in the Inyo Mountains and lack	Bishop, Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		to exist only in moist microhabitats surrounded by desert. Elevation 550 m to 2620 m (Zeiner et al. 1990).		suitable habitat.	
<i>Hydromantes platycephalus</i> Mount Lyell salamander	--/--/WL	The Mount Lyell salamander occurs only in the Sierra Nevada from Placer Co. south to Tulare Co and an isolated population in Sierra Co. Occurs in massive rock areas in mixed conifer, red fir, lodgepole pine, and subalpine habitats. Elevation range extends from 1260 m to about 3640 m (Jennings and Hayes 1994).	Will Not Occur	There is no coniferous forest or subalpine habitat with massive rock piles on or near the Independence or Lone Pine project parcels.	Independence, Lone Pine
<i>Lithobates pipiens</i> northern leopard frog	--/--/SSC	The northern leopard frog is highly aquatic and found in or near quiet, permanent and semi-permanent water in many habitats with shoreline cover and submerged and emergent aquatic vegetation. In the southern part of the state, this species occurs along the Colorado River and in irrigated portions of Imperial, Tulare and Kern cos. In northern California, the leopard frog is established in Modoc Co. and possibly eastern Lassen Co (Zeiner et al. 1990).	Will Not Occur	There are no current known occurrences of northern leopard frog in the vicinity of the Bishop parcels and the aquatic habitat on the parcels does not meet the habitat requirements of this species. There are three occurrences of northern leopard frog within 5-miles of Bishop; however, these occurrences are dated to 1953, 1960, and 1960 (CDFW 2021).	Bishop
<i>Rana muscosa</i> southern mountain yellow-legged frog	FE/CE/WL	The southern mountain yellow-legged frog occurs in the Sierra Nevada at elevations from 1370 m to over 3650 m. This species is associated with streams, lakes and ponds in montane riparian, lodgepole pine, subalpine conifer, and wet meadow habitats (Zeiner et al. 1990).	Will Not Occur	There is no aquatic habitat on or near the Lone Pine project parcels.	Lone Pine
<i>Rana sierrae</i> Sierra Nevada yellow-legged	FE/CT/WL	A high elevation frog that requires permanent water bodies that do not freeze solid over	Will Not Occur	There is no aquatic habitat on or near the	Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
frog		winter, which may include lakes, streams, tarns, perennial plunge pools in intermittent streams. Aquatic habitat for overwintering must be a minimum of 5.6 feet, but 8.2 feet or deeper or other habitat structures is preferred to avoid freezing conditions (USFWS 2016). Tadpoles require two years to develop, so water bodies that do not freeze solid or dry up during normal years are essential (USFWS 2016). This species has a maximum known upland movement of 82 feet from streams and up to 984 feet between water bodies around lakes (USFWS 2016).		Lone Pine project parcels.	
Reptiles					
<i>Elgaria panamintina</i> Panamint alligator lizard	--/--/SSC	The Panamint alligator lizard occurs only in Inyo and southeastern Mono counties. It has been found in the White and Inyo mountains to the north and west and in the Panamint range to the south and east. Elevations range from 960-2290 m. Found near permanent water in canyons, damp gullies, and rocky areas near dense vegetation (Zeiner et al. 1990).	Will Not Occur	There is no suitable habitat on or near any of the project parcels.	Bishop, Independence, Lone Pine
<i>Gopherus agassizii</i> desert tortoise	FT/CT/--	This species is widely distributed in the Mojave, Sonoran and Colorado deserts from below sea level to 2200 m. Most common in desert scrub, desert wash, and Joshua tree habitats. Requires friable, sandy, well-drained soil for excavation of nests. Highest densities are achieved in creosote bush communities with extensive annual wildflower blooms, such as occur in the western Mojave. However, tortoises can be found in areas of extensive lava formations, alkali flats and most other desert habitats (Zeiner et al. 1990).	Will Not Occur	The Lone Pine project parcels are well outside of the range of desert tortoise and there is no suitable desert scrub or Joshua tree habitat on or near the Lone Pine project parcels.	Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
Birds					
<i>Aquila chrysaetos</i> Golden eagle	--/--/FP	Typically occurs in rolling foothills, mountain areas, deserts and other open habitats up to 3,822 m amsl. Typically nests on cliff ledges or large trees in open areas in canyons. Will occasionally use other tall structures for nesting, such as electrical transmission towers. Prey consists mostly of rodents, carrion, birds, reptiles and occasionally small livestock (Zeiner et al. 1990).	Will not occur	The Bishop project parcels do not provide suitable nesting or foraging habitat. The parcels are too small in size to support eagle foraging and are bordered by development.	Bishop
<i>Athene cunicularia</i> burrowing owl	--/--/SSC	Inhabits open habitats including arid grasslands, pastures, disturbed areas, and deserts. Occupies burrows of small mammals, especially California ground squirrel (<i>Otospermophilus beecheyi</i>), or artificial burrows such as pipes and culverts. Hunts from low perches, fence posts, and mounds. Breeds from March through August (CDFW 2012).	Will not occur	The Bishop project parcels do not provide suitable nesting or foraging habitat. The parcels are too small in size to support burrowing owl foraging and are bordered by development. No suitable mammal burrows that could support nesting were observed on the parcels. In addition, this species is not currently known to occur in and around the City of Bishop.	Bishop
<i>Buteo swainsoni</i> Swainson's hawk	--/CT/--	Forages in grasslands, suitable grain or alfalfa fields, or livestock pastures adjacent to nesting habitat. Swainson's hawks forage opportunistically over a large area, soaring up to 10 miles from the nest to hunt small mammals and insects in agricultural fields and grasslands (Estep, 1989). Suitable foraging habitat is open, with low vegetation (less than 12 inches) and	May Occur	The Bishop parcels provide suitable nesting habitat in mature trees and are located adjacent to agricultural fields suitable for foraging. The nearest recent CNDDDB occurrence is located	Bishop, Independence, Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		abundant prey. Foraging activity is highest in agricultural fields during activities that drive prey into the open such as harvesting, disking, flooding, and burning. Swainson's hawk nests are usually located in trees near the edges of riparian stands, in lone trees or groves of trees in agricultural fields, and in mature roadside trees. (CDFW 1994).		4.37-miles northeast of the Bishop parcels in locust trees along the South McNally Canal. The record is dated to 2012 (CNDDDB 2021). The Independence and Lone Pine parcels do not provide suitable nesting or foraging habitat. Both parcels lack trees, suitable foraging habitat, and in the case of the Lone Pine parcels, are completely developed.	
<i>Circus hudsonius</i> northern harrier	--/--/SSC	Inhabits a variety of treeless habitats including freshwater marsh, brackish- and saltwater marsh, wet meadows, lake margins, grasslands, croplands, desert sinks, and sagebrush flats. Builds nests on large mounds of vegetation between March and August. Forages in most open habitats (Shuford and Gardali 2008).	Will not occur	None of the project parcels provide suitable nesting or foraging habitat.	Bishop, Independence, Lone Pine
<i>Charadrius montanus</i> mountain plover	--/--/SSC	A winter resident of the Central Valley, southern deserts, and southern coast, as well as Texas, Arizona, and northern Mexico; does not breed in California. Found in places with sparse, low-growing vegetation such as fallow or burned agricultural fields, heavily grazed pastures, and playas (Shuford and Gardali 2008).	Will not occur	The Lone Pine project parcels does not provide suitable nesting or foraging habitat.	Lone Pine
<i>Charadrius nivosus nivosus</i> western snowy plover	FT/--/SSC	Federal listing applies only to coastal populations that nest on sand beaches above the high tide line. Interior populations nest on barren to sparsely vegetated flats along the shores of lakes, braided river systems, salt ponds, and agricultural sumps. Adults feed on insects and	Will not occur	The Lone Pine project parcels does not provide suitable nesting or foraging habitat.	Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		brine shrimp (Shuford and Garaldi 2008).			
<i>Coccyzus americanus</i> yellow-billed cuckoo	FT/CE/--	Occurs at isolated sites in Sacramento Valley in northern California, and along Kern and Colorado River systems in southern California. Frequents valley foothill and desert riparian habitats. Inhabits open woodlands with clearings, and riparian habitats with dense understory foliage along slow-moving drainages, backwaters, or seeps. Prefers dense willows for roosting but will use adjacent orchard in the Sacramento Valley. Typically requires expansive riparian habitat for nesting (Zeiner et al. 1990).	Will not occur	The project parcels do not provide suitable dense riparian habitat.	Bishop, Independence, Lone Pine
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	FE/CE/--	Nests in expansive montane riparian or wet meadows in shrubs, typically willows up to 10 feet high. Forages in willow thickets or in adjacent meadows (Zeiner et al. 1990). Typically found nesting between 600 – 2,500 m amsl (Zeiner et al. 1990).	Will not occur	The project parcels do not provide suitable expansive riparian or wet meadow habitat.	Bishop, Independence, Lone Pine
<i>Falco mexicanus</i> prairie falcon	--/--/WL	An uncommon permanent resident of the deserts, Central Valley, inner Coast Ranges, and Sierra Nevada in California. Primarily found in grasslands, rangelands, desert scrub, and some agricultural areas. Requires sheltered cliffs and ledges for cover. Dives from a perch or from flight to take prey on the ground (Zeiner et al. 1990).	Will Not Occur	There is no cliff habitat on or near the Bishop project parcels and no suitable open expanses of foraging habitat.	Bishop

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
<i>Icteria virens</i> yellow-breasted chat	--/--/SSC	This species inhabits low dense riparian thickets of willow and blackberry as well as other brushy tangles near watercourses and occurs in the Klamath and North Coast Ranges, in the Central Valley, and locally through the Peninsular and South Coast Ranges and Sierra Foothills. This species nests and forages within 10 feet of the ground (Zeiner et al. 1990).	Will not occur	The Independence and Lone Pine project parcels do not provide suitable dense riparian habitat.	Independence, Lone Pine
<i>Ixobrychus exilis</i> least bittern	--/--/SSC	Rests, roosts, and hides in dense, emergent vegetation and in adjacent thickets of saltcedar in desert riparian habitat. In deserts and coastal lowlands, quite rare, but breeds locally in the Owens Valley and Mojave Desert (Zeiner et al. 1990).	Will not occur	The Independence project parcel does not provide suitable dense riparian habitat.	Independence
<i>Riparia riparia</i> bank swallow	--/CT/--	Primarily inhabits riparian and other lowland habitats west of the deserts during the spring-fall period. In summer, restricted to riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. In California, bank swallow primarily nests from Siskiyou, Shasta and Lassen Counties south along the Sacramento River to Yolo County. Also nests locally across much of state (Garrison 1999).	Will not occur	There are no suitable vertical banks, bluffs, or cliffs with fine textured soil and holes on or near the Bishop project parcels.	Bishop
<i>Vireo bellii pusillus</i> least Bell's vireo	FE/CE/--	Is an obligate riparian species during the breeding season that prefers early successional habitat (USFWS 1998). Typically found in structurally diverse habitat such as cottonwood-willow forests, oak woodlands, and mule fat scrub (USFWS 1998) that generally contains both canopy and shrub layers and includes some associated upland habitat. This species will winter in arroyos that contain mesquite scrub habitat and are not limited to willow dominated habitats. Previously considered to be limited to	Will not occur	The Lone Pine project parcels do not provide suitable dense riparian habitat.	Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		southern California, recent account of this species with successful breeding in Salinas Valley and in Yolo County show that this species is expanding back into its former range.			
Mammals					
<i>Antrozous pallidus</i> pallid bat	--/--/SSC	Occurs throughout California except for the high Sierra Nevada and the northern Coast Ranges. Habitats include grasslands, shrublands, woodlands, and forests from sea level to 6,000 feet. Most common in open, dry habitats with rocky areas for roosting; roosts also include cliffs, abandoned buildings, bird boxes, under bridges and occasionally in hollow trees. This species is also intolerant of roost disturbance, and it has a high loyalty to roosting sites. If members of this species experience frequent disturbance at a roost site, they will abandon the roost (Bolster, ed. 1998).	Will Not Occur	Although the dead cottonwood snags on the eastern Bishop parcel could provide potentially suitable habitat for the species, the parcel is located across the street from high-density residential housing and appears to be used for cattle grazing. Given this species sensitivity to disturbance of roosting sites, none of the project parcels provide suitable habitat for this species.	Bishop, Independence, Lone Pine
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	--/--/SSC	Widely distributed throughout California except alpine and subalpine habitats. This species eats moths, beetle and other insects which it catches on the wing or by gleaning from vegetation. Typically found near water since it is poor at concentrating its urine. This species uses caves, mines, tunnels, buildings and human made structures for roosting. Maternity roosts are typically in warm sites. Hibernation sites are typically cold, but not freezing. This species is very sensitive to disturbance and may abandon its roost after one visit (Zeiner et al. 1990).	Will Not Occur	There is no suitable rocky roosting habitat on or near any of the project parcels.	Bishop, Independence, Lone Pine
<i>Euderma maculatum</i> spotted bat	--/--/SSC	Occurs in deserts, grasslands and mixed coniferous forests up to 10,000 feet. Forages	Will Not Occur	There is no suitable rocky roosting habitat on or	Bishop, Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		<p>over water or close to the ground primarily on moths. Prefers to roost in rocky cliffs with crevices but may also use caves or buildings. This species also forages and roosts individually but may on occasion roost in groups. Spotted bat is considered to be one of the rarest mammals in North America (Zeiner et al. 1990).</p>		<p>near any of the project parcels.</p>	
<p><i>Lepus townsendii townsendii</i> western white-tailed jackrabbit</p>	<p>--/--/SSC</p>	<p>An uncommon to rare year-round resident of the crest and upper eastern slope of the Sierra Nevada, primarily from the Oregon border south to Tulare and Inyo counties. Preferred habitats include sagebrush, subalpine conifer, juniper, alpine dwarf-shrub, and perennial grassland. Found in open areas with scattered shrubs and exposed flat-topped ridges above 2600 meters. Open meadows and flat-topped hills with open stands of trees, some brush, and herbaceous understory are preferred for summer feeding. Young or stunted conifers, or shrubs, are required for day-time cover. Winters are spent in areas with sagebrush, or in thickets of young trees (Zeiner et al. 1990).</p>	<p>Will Not Occur</p>	<p>The elevation of the Bishop project parcels is significantly below the elevational range of this species and lacks suitable cover.</p>	<p>Bishop</p>
<p><i>Microtus californicus vallicola</i> Owens Valley vole</p>	<p>--/--/SSC</p>	<p>Found in a variety of habitats, including rush/sedge meadow, native meadow, riparian scrub, and ungrazed irrigated pasture. Prefers areas with shrubs (<i>Rosa</i> thickets), patches of dense herbaceous vegetation, fence lines, and waterways (Nelson et al 2006).</p>	<p>May Occur</p>	<p>The annual grassland on the western Bishop parcels and the herbaceous understory on the eastern Bishop parcel provide potentially suitable habitat for the species, although no small mammal burrows were observed during the biological reconnaissance survey. The nearest recorded occurrence for</p>	<p>Bishop, Independence, Lone Pine</p>

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
				the species is approximately 1.8 miles east of the eastern Bishop site in the vicinity of Bishop Creek (CDFW 2021). The Independence and Lone Pine project parcels do not provide suitable habitat for this species.	
<i>Ovis canadensis sierrae</i> Sierra Nevada Bighorn Sheep	FE/	The species uses rocky, steep terrain for escape and bedding, remains near rugged terrain while feeding in open habitat. Found in a variety of open habitats, including rocky barrens, meadows, and low, sparse brushlands (Zeiner et al. 1990).	Will not occur	There is no suitable rocky, open habitat on any of the project parcels.	Bishop, Independence, Lone Pine
<i>Pekania pennanti</i> fisher		Occupy late-successional conifer and mixed conifer-hardwood forests with an abundance of downed wood, snags, large trees, and a dense canopy (Zielinski 2014). Typically found at elevations from 1,070 – 2,135 m amsl, where persistent snow does not accumulate and impede movement (Zielinski 2014). Riparian forests and habitat close to open water such as streams are important. Cavities and branches in trees, snags, stumps, rock piles, and downed timber are used as resting sites, and large diameter live, or dead trees are selected for natal and maternal dens (Zielinski 2014). There is a significant gap in the range of fisher between the southern Sierra Nevada population and the northern Sierra Nevada/southern Cascade population that stretches approximately 400 km wide (Zielinski 2014).	Will not occur	There is no suitable conifer forest habitat on the Independence or Lone Pine project parcels.	Independence, Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
<i>Vulpes vulpes necator</i> Sierra Nevada red fox	Proposed FE/CT/--	Found in high elevation barren, conifer and shrub habitats; montane meadows; subalpine woodlands and fell-fields. Dens are found in natural cavities in talus slopes or rockslides. Sierra Nevada red foxes are seldom observed below 4,900 ft elevation and are most frequently observed between 6,900 ft and 11,800 ft (Weber and Meia, 1996).	Will Not Occur	The elevation of the Bishop parcels is significantly below the species preferred range and does not provide suitable habitat.	Bishop
Plants					
<i>Aliciella ripleyi</i> Ripley's aliciella	--/--/2B.3	A perennial herb found on carbonate soils in Mojavean desert scrub from 305 – 1,950 meters elevation. Blooms May – July (CNPS 2021).	Will Not Occur	There is no suitable desert scrub habitat with carbonate soils on the Independence parcel.	Independence
<i>Aliciella triodon</i> coyote gilia	--/--/2B.2	An annual herb found in Great Basin scrub and pinyon-juniper woodland on fine clayey sand or sand from 610 – 1,700 meters elevation. Blooms April – June (CNPS 2021).	May Occur	The Independence parcel contains scrub habitat and sandy soils and provides potentially suitable habitat for this species. The closest reported occurrence of this species to the Independence parcel is approximately 3.5 east of the parcel along the western slopes of the Nopah range (CDFW 2021). The Bishop project parcels do not provide suitable habitat for this species.	Bishop, Independence
<i>Astragalus argophyllus</i> var. <i>argophyllus</i> silver-leaved milk-vetch	--/--/2B.2	A perennial herb found in saline or alkaline meadows, seeps, and playas from 1,240 – 2,350 meters elevation. Blooms May – July (CNPS 2021).	May Occur	The western Bishop parcels contains alkali meadow habitat with loamy soils and provides suitable habitat for silver-	Bishop

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
				leaved milk-vetch. There are two CNDDDB occurrences within 5-miles of the western Bishop parcels; one occurrence is 3.5 miles east of the western Bishop parcels, the other occurrence is 3.75 miles east of the western Bishop parcels. Both occurrences are in alkali meadows along the flood plain adjacent to the Owens River (CDFW 2021).	
<i>Astragalus hornii</i> var. <i>hornii</i> Horn's milk-vetch	--/--/1B.1	An annual herb found in alkaline sites at lake margins, seeps, and playas from 60 – 850 meters elevation. Blooms May – October (CNPS 2021).	Will not occur	There is no suitable aquatic habitat on the Independence or Lone Pine project parcels.	Independence, Lone Pine
<i>Astragalus lentiginosus</i> var. <i>piscinensis</i> Fish Slough milk-vetch	FT/--/1B.1	A perennial herb found on alkaline meadows and playas from 1,130 – 1,300 meters elevation. This species is frequently found on mounds in alkali meadows with sparse vegetation. Currently known only from Fish Slough. Blooms June – July (CNPS 2021).	May Occur	The western Bishop parcels contains alkali meadow habitat with several mounds and provides suitable habitat for Fish Slough milk-vetch. The nearest CNDDDB occurrence is located 5.5 miles north of the western Bishop parcels along the Fish Slough channel (CDFW 2021).	Bishop
<i>Astragalus platytropis</i> broad-keeled milkvetch	--/--/2B.2	A perennial herb found in rocky sites in alpine boulder and rock fields, subalpine coniferous	Will Not Occur	There is no suitable alpine or forested habitat	Bishop

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		forest, and pinyon-juniper woodland from 2,345 – 3,550 meters elevation. Blooms June – September (CNPS 2021).		on the Bishop parcels.	
<i>Astragalus serenoii</i> var. <i>shockleyi</i> Shockley's milk-vetch	--/--/2B.2	A perennial herb found on alkaline granitic alluvium in chenopod scrub, Great Basin scrub, and pinyon-juniper woodland from 1,200 – 2,320 meters elevation. Blooms (April) May – July (CNPS 2021).	Will Not Occur	There is no suitable woodland or scrub habitat with suitable soils on any of the project parcels.	Bishop, Independence, Lone Pine
<i>Atriplex gardneri</i> var. <i>falcata</i> falcate saltbush	--/--/2B.2	A perennial herb found in chenopod scrub and Great Basin scrub from 1,200 – 1,700 meters elevation; often in alkaline microsites. Blooms May – August (CNPS 2021).	Will Not Occur	There is no suitable scrub habitat on the Bishop parcels.	Bishop
<i>Boechera dispar</i> pinyon rockcress	--/--/2B.3	A perennial herb found on gravelly granitic soils in Joshua tree woodland, pinyon-juniper woodland, and Mojavean desert scrub from 1,200 – 2,540 meters elevation. Blooms March – June (CNPS 2021).	Will Not Occur	There is no suitable soils or woodland or scrub habitat on the Bishop parcels.	Bishop
<i>Botrychium crenulatum</i> scalloped moonwort	--/--/2B.2	A perennial rhizomatous non-flowering plant (pteridophyte) found in bogs, fens, lower and upper montane coniferous forest, meadows and seeps, freshwater marshes, and swamps from 1,258 – 3,280 meters elevation. Reproduces June – September (CNPS 2021).	Will Not Occur	There is no suitable habitat on the Lone Pine parcels.	Lone Pine
<i>Calochortus excavatus</i> Inyo County star-tulip	--/--/1B.1	A perennial bulbiferous herb found in mesic, alkaline microsites in chenopod scrub, meadows, and seeps from 1,150 – 2,000 meters elevation. Widely distributed throughout the Owens and Chalfant Valleys. Blooms April – July (CNPS 2021).	May Occur	The western Bishop parcels contains alkali meadow habitat with fine, sandy, loamy soils and provides suitable habitat for Inyo County star-tulip. There are two CNDDDB occurrences within 1.5-miles of the western Bishop parcels. One occurrence is 0.9 miles northwest of the	Bishop, Independence, Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
				western Bishop parcels in a moist alkali meadow used as a horse pasture on the Paiute-Shoshone Indian Reservation. The other occurrence is 1.3 miles northeast of the western Bishop parcels in an alkali meadow in loamy soil along the Bishop Creek Canal (CDFW 2021).	
<i>Calyptridium pygmaeum</i> pygmy pussypaws	--/--/1B.2	An annual herb found in sandy or gravelly soils in subalpine coniferous forests and upper montane coniferous forests from 1980 – 3110 meters elevation. Blooms June – August (CNPS 2021).	Will Not Occur	There is no suitable forest habitat on the Lone Pine parcels and the parcels are below the elevational range of this species.	Lone Pine
<i>Crepis runcinata</i> fiddleleaf hawksbeard	--/--/2B.2	A perennial herb found in mesic, alkaline microsites in Mojavean desert scrub and pinyon-juniper woodland from 1,250 – 2,195 meters elevation. Blooms May – August (CNPS 2021).	Will Not Occur	There is no suitable mesic alkaline habitat on the Bishop parcels.	Bishop
<i>Dedeckera eurekaensis</i> July gold	--/--/1B.3	A perennial deciduous shrub found on carbonate soils in Mojavean desert scrub from 1,215 – 2,200 meters elevation. Blooms May – August (CNPS 2021).	Will Not Occur	There is no suitable scrub habitat on the Bishop parcels.	Bishop
<i>Diplacus parryi</i> Parry's monkeyflower	--/--/2B.3	An annual herb found in Great Basin scrub from 1200 - 2600 meters elevation. Blooms May – July (CNPS 2021).	Will Not Occur	There is no Great Basin scrub habitat on the Independence parcel and the only reported occurrence of this species in the CNDDDB is from the Inyo Mountains where this species was documented in 1932	Independence

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
				(CNDDDB 2021).	
<i>Draba sharsmithii</i> Mt. Whitney draba	--/--/1B.3	A perennial herb found in alpine boulder and rock fields, and subalpine coniferous forests from 3,300 – 3,960 meters elevation. Blooms July – August (CNPS 2021)	Will Not Occur	There is no suitable alpine or subalpine habitat on the Lone Pine parcels.	Lone Pine
<i>Elymus salina</i> Salina Pass wild-rye	--/--/2B.3	A perennial rhizomatous herb found on rocky soils in pinyon-juniper woodland from 1,350 – 2,135 meters elevation. Blooms May – June (CNPS 2021).	Will Not Occur	There is no suitable woodland habitat on the Bishop parcels.	Bishop
<i>Elymus scribneri</i> Scribner's wheat grass	--/--/2B.3	A perennial herb found in alpine boulder and rock fields from 2,900 – 4,200 meters elevation. Blooms July – August (CNPS 2021).	Will Not Occur	There is no suitable alpine habitat on the Bishop parcels.	Bishop
<i>Eremothera boothii</i> ssp. <i>boothii</i> Booth's evening-primrose	--/--/2B.3	An annual herb found in Joshua tree "woodland" and pinyon and juniper woodland from 815 - 2400 meters elevation. Blooms from April – September (CNPS 2021).	Will not occur	There is no suitable woodland habitat on the Independence or Lone Pine project parcels.	Independence, Lone Pine
<i>Eremothera boothii</i> ssp. <i>intermedia</i> Booth's hairy evening-primrose	--/--/2B.3	An annual herb found in sandy soils in Great Basin scrub and pinyon and juniper woodland from 1500 - 2150 meters elevation. Blooms (May) June (CNPS 2021).	May Occur	The Independence parcel contains scrub habitat and sandy soils and provides potentially suitable habitat for this species. The closest reported occurrence of this species to the Independence parcel is approximately 5 miles north of the parcel in sagebrush and shadscale habitat (CDFW 2021). There is no suitable habitat for this species on the Bishop project parcels.	Bishop, Independence
<i>Erythranthe calicicola</i>	--/--/1B.3	An annual herb found usually on carbonate talus	Will Not Occur	There is no suitable scrub	Bishop

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
limestone monkeyflower		slopes in Mojavean desert scrub, pinyon-juniper woodland, and Joshua tree woodland from 915 – 2,165 meters elevation. Blooms April – June (CNPS 2021).		or woodland habitat with carbonate talus slopes on the Bishop parcels.	
<i>Fimbristylis thermalis</i> hot springs fimbristylis	--/--/2B.2	A perennial rhizomatous herb found in alkaline microsites near hot springs from 110 – 1,340 meters elevation. Blooms July – September (CNPS 2021).	Will Not Occur	There is no suitable hot spring habitat on the Bishop parcels.	Bishop
<i>Greeneocharis circumscissa</i> var. <i>rosulata</i> rosette cushion cryptantha	--/--/1B.2	An annual herb found on coarse gravelly, granitic soils in alpine boulder and rock fields and subalpine coniferous forest from 2,950 – 3,660 meters elevation. Blooms July – August (CNPS 2021).	Will Not Occur	There is no suitable alpine or subalpine habitat on the Lone Pine parcels.	Lone Pine
<i>Grusonia pulchella</i> beautiful cholla	--/--/2B.2	A perennial succulent found on sandy soils in Great Basin scrub and Mojavean desert scrub, and on desert dunes, from 1,500 – 1,980 meters elevation. Blooms in May (June) (CNPS 2021).	Will Not Occur	There is no suitable scrub habitat on the Bishop project parcels.	Bishop
<i>Hackelia sharsmithii</i> Sharsmith's stickseed	--/--/2B.3	A perennial herb found on granitic, rocky soils in alpine boulder and rock fields, and subalpine coniferous forests from 3,000 – 3,700 meters elevation. Blooms July – September (CNPS 2021).	Will Not Occur	There is no suitable alpine or subalpine habitat on the Lone Pine project parcels.	Lone Pine
<i>Ivesia campestris</i> field ivesia	--/--/1B.2	A perennial herb found on the edges of meadows and seeps, subalpine coniferous forests, and upper montane coniferous forests from 1,975 – 3,395 meters elevation. Blooms May – August (CNPS 2021).	Will Not Occur	There is no suitable aquatic or forest habitat on the Lone Pine project parcels.	Lone Pine
<i>Ivesia kingii</i> var. <i>kingii</i> alkali ivesia	--/--/2B.2	A perennial herb found on mesic, alkaline, clay soils in Great Basin scrub, meadows, seeps, and playas from 1,200 – 2,130 meters elevation. Known from the Chalfant, Long, and northern Owens valleys. Blooms May – August (CNPS 2021).	Will Not Occur	There is no suitable mesic meadow or scrub habitat on the Bishop project parcels with clay soils.	Bishop
<i>Lupinus magnificus</i> var. <i>hesperius</i>	--/--/1B.3	A perennial herb found in sandy soils in Great Basin scrub and upper montane coniferous	Will Not Occur	There is no suitable scrub habitat on the Bishop	Bishop

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
Mcgee Meadows lupine		forest from 1260 - 1830 meters elevation. Blooms April - June (CNPS 2021).		project parcels.	
<i>Mentzelia inyoensis</i> Inyo blazing star	--/--/1B.1	A perennial herb found in rocky sites within Great Basin scrub and pinyon and juniper woodland from 1158 - 1980 meters elevation. Blooms April - October (CNPS 2021).	Will Not Occur	There is no suitable woodland or Great Basin scrub habitat on the Bishop or Independence project parcels. Although the Independence parcel contains desert scrub habitat it is not suitable for this species and the nearest reported occurrences of this species in the CNDDDB to the Independence parcel are 41 miles north in the White Mountains (CNDDDB 2021).	Bishop, Independence
<i>Mentzelia torreyi</i> Torrey's blazing star	--/--/2B.2	A perennial herb found on alkaline sandy or rocky, usually volcanic, soils in Great Basin scrub, Mojavean desert scrub, and pinyon-juniper woodland from 1,170 – 2,835 meters elevation. Blooms June – August (CNPS 2021).	Will Not Occur	There is no woodland or scrub habitat with suitable soils on the Bishop or Independence project parcels.	Bishop, Independence
<i>Orobanche ludoviciana</i> var. <i>arenosa</i> Suksdorf's broom-rape	--/--/2B.3	A perennial parasitic herb found on <i>Ericameria</i> and <i>Iva</i> species in Great Basin scrub. No elevation range specified. Blooms June – September (October) (CNPS 2021).	Will Not Occur	There is no suitable host species present on the Independence project parcel.	Independence
<i>Oryctes nevadensis</i> Nevada oryctes	--/--/2B.1	An annual herb found on sandy soils in chenopod scrub and Mojavean desert scrub from 1,100 – 2,535 meters elevation. Widely distributed in the Owens Valley. Blooms April – June (CNPS 2021).	May Occur	The alkali desert scrub on the Independence parcel may provide suitable habitat for this species. The nearest report occurrence for this species is approximately 4.25 miles east of the	Bishop, Independence, Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
				project parcel along Mazourka Canyon Road (CDFW 2021). There is no suitable habitat on the Bishop or Lone Pine project parcels.	
<i>Phacelia inyoensis</i> Inyo phacelia	--/--/1B.2	An annual herb found in alkaline meadows and seeps from 915 – 3,200 meters elevation. Widely distributed throughout the Owens, Chalfant, and Long valleys. Blooms April – August (CNPS 2021).	May Occur	The western Bishop parcels contains alkali meadow habitat and provides suitable habitat for Inyo phacelia. The nearest CNDDDB occurrence is located 5.5 miles north of the western Bishop parcels along Fish Slough Road in gravely loam soils (CDFW 2021).	Bishop, Lone Pine
<i>Plagiobothrys parishii</i> Parish's popcornflower	--/--/1B.1	An annual herb found in mesic alkaline microsites in Great Basin scrub and Joshua tree woodland from 750 – 1,400 meters elevation. Widely distributed in the Owens Valley. Blooms March – June (November) (CNPS 2021).	Will Not Occur	There is no mesic Joshua tree woodland or scrub habitat on any of the project parcels.	Bishop, Independence, Lone Pine
<i>Ranunculus hydrocharoides</i> frog's-bit buttercup	--/--/2B.1	A perennial aquatic herb found in freshwater marshes and swamps from 1,100 – 2,700 meters elevation. Blooms (May) June – September (CNPS 2021).	Will Not Occur	There is no suitable aquatic habitat on the Bishop project parcels.	Bishop
<i>Sabulina stricta</i> bog sandwort	--/--/2B.3	A perennial herb found in alpine boulder and rock fields, alpine dwarf scrub, and meadows, and seeps from 2,440 – 3,960 meters elevation. Blooms July – September (CNPS 2021).	Will Not Occur	There is no suitable alpine habitat on the Lone Pine project parcels.	Lone Pine

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
<p><i>Sidalcea covillei</i> Owens Valley checkerbloom</p>	<p>--/CE/1B.1</p>	<p>A perennial herb found in mesic alkaline microsites in chenopod scrub, meadows, and seeps from 1,095 – 1,415 meters elevation. Widely distributed throughout the Owens Valley. Blooms April – June (CNPS 2021).</p>	<p>May Occur</p>	<p>The western Bishop parcels contains alkali meadow habitat with fine, sandy, loamy soils and provides marginal habitat for Owens Valley checkerbloom. There are two CNDDDB occurrences within 1.5-miles of the western Bishop parcels. One occurrence is 0.7 miles northwest of the western Bishop parcels in an alkali meadow on the Pauite-Shoshone Indian Reservation. The other occurrence is 1.1 miles northeast of the western Bishop parcels in an alkali meadow on the north side of Yaney Street (CDFW 2021).</p>	<p>Bishop, Independence, Lone Pine</p>
<p><i>Sphenopholis obtusata</i> prairie wedge grass</p>	<p>--/--/2B.2</p>	<p>A perennial herb found in mesic microsites in cismontane woodlands, meadows, and seeps from 300 – 2,000 meters elevation. Blooms April – July (CNPS 2021).</p>	<p>May Occur</p>	<p>The western Bishop parcels contains alkali meadow habitat and provides marginal habitat for prairie wedge grass. The nearest CNDDDB occurrence is located 5.3 miles east of the western Bishop parcels in a desert alkaline wetland fed by a spring near the mouth of Silver Canyon. Other species observed at this</p>	<p>Bishop</p>

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
				occurrence include Fremont's cottonwood and willow (CDFW 2021).	
<i>Thelypodium integrifolium</i> ssp. <i>complanatum</i> foxtail thelypodium	--/--/2B.2	An annual or perennial herb found in alkaline or subalkaline mesic microsites in seeps and Great Basin scrub from 1,100 – 2,500 meters elevation. Widely distributed in the northern Owens Valley and Long Valley. Blooms June – October (CNPS 2021).	Will Not Occur	There is no suitable seep or scrub habitat with mesic microsites on the Bishop project parcels.	Bishop
<i>Triglochin palustris</i> marsh arrow-grass	--/--/2B.3	A perennial rhizomatous herb found in mesic microsites in meadows, seeps, marshes, and subalpine coniferous forests, and freshwater marshes and swamps from 2,285 – 3,700 meters elevation. Blooms July – August (CNPS 2021).	Will Not Occur	There is no suitable aquatic habitat on the Lone Pine project parcels.	Lone Pine
Sensitive Natural Communities					
Alkali Meadow	--/--/--	Alkali meadows occur in areas with a shallow water table (1 – 3 meters deep) and alkaline soils (Sawyer and Keeler 1995). Alkali meadows in Owens Valley occur in a broad zone at the toe slopes of the giant alluvial fans coming down the west side of Owens Valley from the Sierra. Commonly present species include sacaton, saltgrass, beardless wild rye, Baltic rush, American licorice, and rabbitbrush.	Present	Alkali meadow habitat dominated by saltgrass and Baltic rush is present on the western Bishop parcels. The nearest CNDDDB occurrence is located 0.9 miles northwest of the western Bishop parcels on the Paiute-Shoshone Indian Reservation. Species observed at this occurrence include saltgrass and Baltic rush (CDFW 2021).	Bishop
Transmontane Alkali Marsh	--/--/--	The Transmontane Alkali Marsh plant community is dominated primarily by <i>Carex</i> sp. and <i>Juncus</i> sp. although other wetland obligates are also occasionally present. These areas are	Will Not Occur	No <i>Carex</i> sp. and <i>Juncus</i> sp. dominated marshes occur on the Bishop parcels.	Bishop

Appendix E (cont.)
Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

Scientific Name/Common Name	FESA/CESA/CRPR or Other State Status*	General Habitat Description	Potential to Occur	Rationale	Location of Reported Occurrence**
		inundated or saturated with water throughout the winter and spring. This plant community frequently occurs around natural drainage channels, levees, and irrigation ditches (The Nature Conservancy 1994).			
Water Birch Riparian Scrub	--/--/--	Water birch riparian scrub communities occur along intermittently saturated stream banks, alluvial terraces, and seeps. Soils are generally alluvial and range from fairly shallow, finely textured to gravelly and bouldery sands and loams. Water birch (<i>Betula occidentalis</i>) is dominant or co-dominant in the tall shrub or low tree canopy with other riparian species present in the understory (CNPS 2021c).	Will Not Occur	No water birch were present on either the Lone Pine parcels or the Independence parcel.	Independence, Lone Pine

Note: Shading indicates a species with the potential to occur in the Study Area; these species are evaluated in detail in the body of the report.

*FESA=Federal Endangered Species Act; CESA=California Endangered Species Act; FE – FESA endangered; FT – FESA threatened; FC – FESA candidate; FD – FESA delisted; SE – CESA endangered; ST – CESA threatened; FP – Fully Protected; SSC – state species of special concern; CRPR – California Rare Plant Rank (see definitions of CRPR rankings below)
CNPS ratings:

- 1A = Presumed extirpated in California and rare elsewhere
- 1B = Rare, threatened, or endangered in California and elsewhere
 - 1B.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
 - 1B.2 = Fairly endangered in California (20-80% occurrences threatened)
 - 1B.3 = Not very endangered in California (fewer than 20% of occurrences threatened)
- 2B = Rare, threatened, or endangered in California but more common elsewhere.
 - 2B.1 = Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
 - 2B.2 = Fairly endangered in California (20-80% occurrences threatened)
 - 2B.3 = Not very endangered in California (fewer than 20% of occurrences threatened)

Global and State rankings in descending order of sensitivity (1=critically imperiled; 5=demonstrably secure).

** Denotes which set of parcels (Independence, Bishop, Lone Pine) the species was identified as having the potential to in occur based on the USFWS, CNPS, and CNDDDB searches for each set of parcels.

Status in the Study Area is assessed as follows. **Will Not Occur:** Species is either sessile (i.e., plants) or so limited to a particular habitat that it cannot disperse on its own and/or habitat suitable for its establishment and survival does not occur in the Study Area; **Not Expected:** Species moves freely and might disperse through or across the Study Area, but suitable habitat for residence or breeding does not occur in the Study Area, potential for an individual of the species to disperse through or forage in the site cannot be excluded

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

with 100% certainty; **Presumed Absent:** Habitat suitable for residence and breeding occurs in the Study Area; however, focused surveys conducted for the current project were negative; **May Occur:** Species was not observed on the site and breeding habitat is not present but the species has the potential to utilize the site for dispersal; **High:** Habitat suitable for residence and breeding occurs in the Study Area and the species has been recorded recently in or near the Study Area, but was not observed during surveys for the current project; **Present:** The species was observed during biological surveys for the current project and is assumed to occupy the Study Area or utilize the Study Area during some portion of its life cycle.

Appendix E (cont.)

Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

3.1.1 References

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Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

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Potential for Special-Status Species and Sensitive Natural Communities to Occur on the Study Area

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Table E-1. Plant Species Observed on the Property

Family	Species Name	Common Name	Status ¹	Site Observed ²
Native				
Amaranthaceae	<i>Atriplex canescens</i>	fourwing saltbush	--	IN
	<i>Atriplex confertifolia</i>	shadescale	--	IN
	<i>Atriplex polycarpa</i>	allscale saltbrush	--	LP, IN
Araceae	<i>Lemna minor</i>	common duckweed		BW
Asteraceae	<i>Ambrosia psilostachya</i>	western ragweed	--	BE
	<i>Artemisia arbuscula</i>	little sagebrush	--	IN
	<i>Artemisia cana</i>	silver sagebrush	--	IN
	<i>Artemisia tridentata</i>	big sagebrush	--	IN, BE
	<i>Chrysothamnus nauseosus</i>	rabbitbrush	--	LP
	<i>Erigeron canadensis</i>	horseweed	--	BW
Oleaceae	<i>Fraxinus latifolia</i>	Oregon ash	--	BE
Poaceae	<i>Distichlis spicata</i>	saltgrass	--	LP, BW, BE
Rosaceae	<i>Potentilla gracilis</i>	slender cinquefoil	--	BW
	<i>Rosa woodsii</i>	Woods' rose	--	BW, BE
Salicaceae	<i>Populus fremontii</i>	Fremont's cottonwood	--	BW, BE
	<i>Salix laevigata</i>	red willow	--	BE
	<i>Salix lasiolepis</i>	arroyo willow	--	BW
Typhaceae	<i>Typha latifolia</i>	common bulrush	--	BW, BE
Non-native				
Asteraceae	<i>Picnomon acarna</i>	soldier thistle	--	BW
	<i>Sonchus asper</i>	prickly sow-thistle	--	BW
	<i>Taraxacum officinale</i>	common dandelion	--	BW
Brassicaceae	<i>Lepidium latifolium</i>	perennial pepperweed	High	BE
Chenopodiaceae	<i>Salsola tragus</i>	Russian thistle	Limited	LP, IN, BE
Elaeagnaceae	<i>Elaeagnus angustifolia</i>	Russian olive	Moderate	BW
Fabaceae	<i>Glycyrrhiza lepidota</i>	American licorice	--	BE
	<i>Lotus corniculatus</i>	bird's-foot trefoil	--	BW
	<i>Melilotus albus</i>	sweet clover	--	LP
	<i>Trifolium pratense</i>	red clover	--	BW
Geraniaceae	<i>Erodium cicutarium</i>	red stemmed filaree	Limited	LP,
Juncaceae	<i>Juncus balticus</i>	baltic rush	--	BW, BE
Moraceae	<i>Morus alba</i>	white mulberry	--	BW
Plantaginaceae	<i>Plantago lanceolata</i>	English plantain	Limited	BW
Poaceae	<i>Anthoxanthum odoratum</i>	sweet vernal grass	Limited	BE
	<i>Hordeum murinum</i>	wall barley	Moderate	LP, BW, BE

	<i>Lolium perenne</i>	perennial ryegrass	--	BE
Ulmaceae	<i>Ulmus americana</i>	American elm	--	LP, BW, BE

¹Status of native species is federal listing/state listing/California Rare Plant Rank; Status for non-native species is California Invasive Species Council invasiveness rating.

²LP = Lone Pine, IN = Independence, BW = Bishop West, BE = Bishop East

Table E-2. Wildlife Species Observed on the Property

Order/Family	Species Name	Common Name	Status ¹	Site Observed
Birds				
Accipitriformes				
Accipitridae	<i>Buteo jamaicensis</i>	red-tailed hawk	--	BW
Cathartiformes				
Cathartidae	<i>Cathartes aura</i>	turkey vulture	--	IN, BW
Columbiformes				
Columbidae	<i>Columba livia</i>	rock dove	--	LP, IN
	<i>Zenaida macroura</i>	mourning dove	--	BE
Passeriformes				
Corvidae	<i>Corvus brachyrhynchos</i>	American crow	--	IN, BW, BE
Fringillidae	<i>Haemorhous mexicanus</i>	house finch	--	LP, BE
Icteridae	<i>Agelaius phoeniceus</i>	red-winged blackbird	--	BW, BE
	<i>Euphagus cyanocephalus</i>	Brewer's blackbird	--	BW
Passerelidae	<i>Melospiza melodia</i>	song sparrow	--	BE
	<i>Passer domesticus</i>	house sparrow	--	LP, BE
Mammals				
Carnivora				
Canidae	<i>Canis latrans</i>	coyote (scat)	--	IN, BE
Lagomorpha				
Leporidae	<i>Lepus californicus</i>	black-tailed jackrabbit (scat)	--	IN, BW, BE

¹Status for animal species is ESA/CESA listing or other sensitivity.



Photo 1: Representative view of gravel parking area, storage sheds and various parked equipment at the Lone Pine parcels (APNs: 005-072-06; 005-072-07; 005-072-24; and, 005-072-30). Date of photo: May 27, 2021.



Photo 2: Representative view of office trailer and parked equipment on the Lone Pine parcels (APNs: 005-072-06; 005-072-07; 005-072-24; and, 005-072-30). Date of photo: May 27, 2021.



Photo 3: Representative view of a dirt road cutting through alkali desert scrub habitat in the Independence parcel (APN: 002-160-08). Date of photo: May 27, 2021.



Photo 4: Representative view of alkali desert scrub habitat in the Independence parcel (APN: 002-160-08). Date of photo: May 27, 2021.



Photo 5: Representative view of annual grassland habitat looking north from the southern boundary of the western Bishop parcels (APNs 008-240-01 and -02). Date of photo: May 27, 2021.



Photo 6: Representative view of active irrigation ditch looking west from the southern boundary of the western Bishop parcels (APNs 008-240-01 and -02). Date of photo: May 27, 2021.



Photo 7: Representative view of Fremont cottonwood woodland habitat looking east from the center of the eastern Bishop parcel (APN 008-190-01). Date of photo: May 27, 2021.

Appendix F

Evaluating Infill Housing
Opportunities to Reduce Inyo
County per Capita VMT

**Evaluating Infill Housing Opportunities to
Reduce Inyo County per Capita VMT**

Prepared for:
Helix Environmental Planning, and
Inyo County, California

Prepared By



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November 22, 2022

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REVISION HISTORY

Description	Date	Notes
Draft Final report.	Nov 22, 2022	

FUNDING AND ACKNOWLEDGEMENTS

Funds for this analysis were provided through the first round of the Regional Early Action Grant Program (REAP 1, or REAP 2019) provided to Inyo County from the California Department of Housing and Community Development. The Author wishes to thank:

- Kathryn Murph and Kalin Pacheco at Caltrans for their support in framing the scope of CSF2TDM model analysis used herein, and for providing access to the model scripts and data;
- Cathreen Richards at Inyo County for her insights on local needs and conditions; and
- Robert Edgerton at Helix Environmental. Helix Environmental was the prime contractor for this analysis.

EXECUTIVE SUMMARY

An Analysis of existing and future VMT per service population (residents plus employment) was performed for Inyo County to support the Counties housing needs. The Analysis is based on the California Statewide Freight Forecasting and Travel Demand Model (CSF2TDM) which is maintained by Caltrans, with post model adjustments to account for density based on the “5-D” methodologies from the literature.

Key findings based on this analysis include:

- County-wide Average VMT per service population is estimated to be 36.4 in 2020 and 39.5 in 2040.
- VMT in the “community regions” along 395 (Lone Pine, Independence, Big Pine, West Bishop, Bishop, and the unincorporated areas next to bishop are anticipated to have VMT per service Population that is about 6.5% below the Inyo County Average. Areas specifically effected by the proposed project of 492 additional housing units are anticipated to see an additional 8% reduction in VMT per service population.
- That 8% additional reduction with the proposed additional housing units translates to an assumed density of about four dwelling units per acre. Development at higher densities than the County’s norm can assume a greater VMT reduction per service population based on the elasticity of travel with respect to density. density is one the “5-D” elasticities (Density diversity Destination, distance, Design) commonly used to adjust travel forecasts. To be conservative, it is assumed here that the increased density assumed in the travel demand model is correlated with the increased densities plotted

in **Figure ES-1.**) Given the potential for overlap between this “5-D” density adjustment and the 8% reduction shown in the CSF2TDM, off-model reductions for increased density should not be taken until densities are at or above four dwelling units per Acre.

- Prior to density adjustments, the proposed VMT per service population for the proposed 492 additional dwelling units is 14.5% below the Inyo County average. A 15% reduction is necessary to make a less-than-significant finding for VMT impacts under CEQA. To achieve that reduction densities greater than 4.5 dwelling units per acre are required.

Therefore, housing projects with a density higher than five dwelling units per acre along 395 are anticipated to have a less than significant impact on VMT under CEQA.

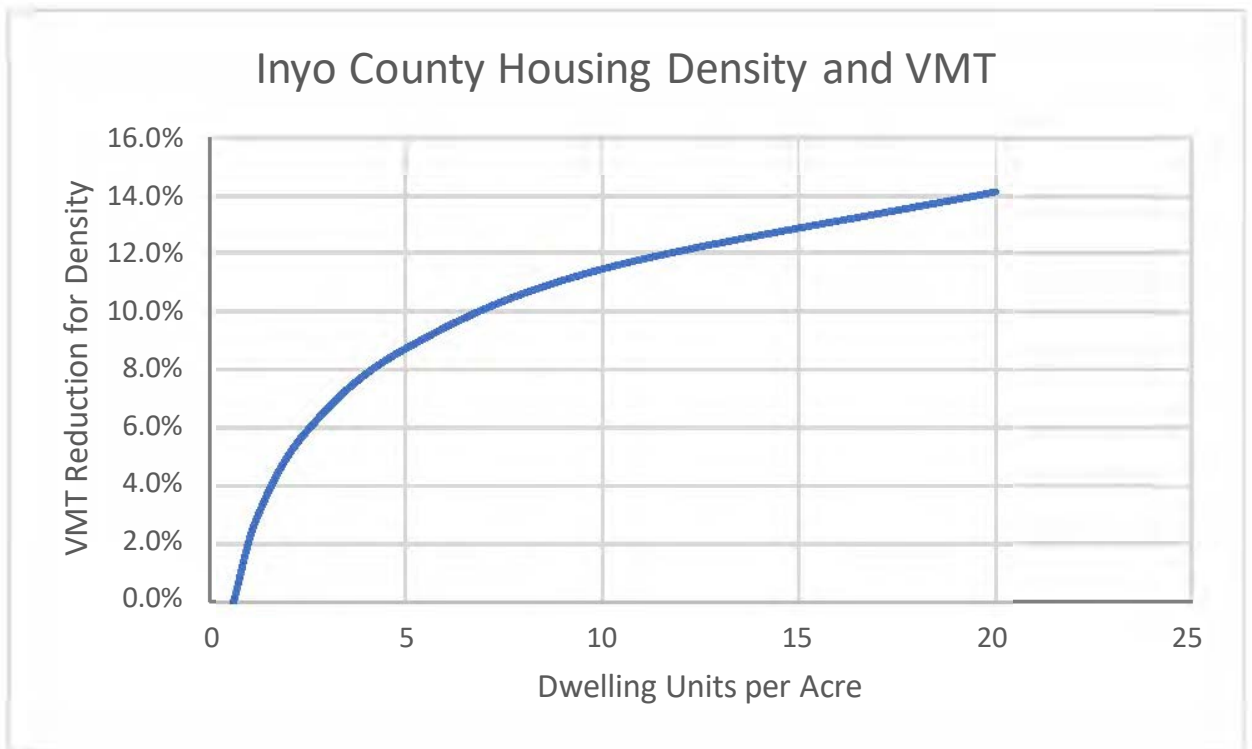


Figure ES-1. Anticipated Inyo County VMT Reductions with Increased Density

Table of Contents

REVISION HISTORY	i
FUNDING AND ACKNOWLEDGEMENTS	i
EXECUTIVE SUMMARY	i
1. INTRODUCTION AND PROJECT DESCRIPTION	1
Inyo County REAP Grant	1
Vacant Lands EIR	1
Study Purpose	2
Report Content and Organization	2
2. OUTREACH	3
3. VMT ESTIMATES	4
Method	4
Base CSF2TDM Inyo County VMT Estimates	6
Effect On Regional VMT From Growth Near Existing Communities	7
5-D Elasticities	9
4 FINDINGS AND RECOMENDATIONS	11

List of Appendices

A. Power Point from Public Outreach Workshops.	12
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List of Tables

Table 1. CSF2TDM model Inyo County TAZs	5
Table 2. Estimated Inyo County, county-wide, VMT statistics from CSF2TDM (Without New Development)	6
Table 3. 2020 CSFTDM Inyo County, Population and Employment by TAZ	7

List of Figures

Figure 1. Inyo County representation in the CSF2TDM	5
Figure 2. Example bandwidth plot of 2020 “community region” trips (only links with higher bandwidth plotted)	8
Figure 3. Anticipated Inyo County VMT Reductions with Increased Density	10

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1. INTRODUCTION AND PROJECT DESCRIPTION

Inyo County REAP Grant

The availability of affordable homes statewide is critical to improving the quality of life of all Californians and working toward reducing homelessness. The California Department of Housing and Community Development provided Inyo County with a Regional Early Action Planning (REAP) grant. That Grant funded several areas of work:

- Planning Coordination with the City of Bishop to augment the City’s planning under SB2 to prepare a Specific Plan and the associated California Environmental Quality Act document. (REAP Grant Eligible Activity 4.)
- Technical Assistance associated with updating local planning and zoning documents. Inyo County was awarded SB2 funding to conduct a thorough vacant lands inventory and zoning and General Plan review of properties located in the County and the associated California Environmental Quality Act document. (REAP Grant Eligible Activity 5.)
- Covering Grant administration costs. (REAP Grant Eligible Activity 6.)

This report provides regional vehicle miles traveled (VMT) per capita estimates under REAP Eligible Activity 5 for County wide planning activities that accelerate infill housing to facilitate housing supply, choice, and affordability while reducing VMT per capita from new development. This goal is met in two parts:

- Anticipated per Capita VMT for suburban development near established Inyo County communities based on an adaptation of California’s statewide travel demand model¹. Specifically, unincorporated lands adjacent to the City of Bishop, and the unincorporated areas of Independence, and Lone Pine².
- Specification of a rubric implementing “5-D elasticities” for the evaluation of specific land development proposals.

Because the underlying modeling tools are not specific to any given development, the approaches laid out herein are qualitative in nature rather than purely quantitative. Where we report numerical results, those results should not be considered quantitative.

Vacant Lands EIR

In 2020 the County initiated a vacant lands inventory and zoning review to identify parcels that may be appropriate for General Plan (GP) land use designation and zoning changes to promote housing opportunities. This analysis will support that EIR. Inyo County proposes to amend General Plan land use designations and zoning for 8 parcels to promote housing opportunities:

- Primarily infill housing opportunities.
- Parcels located in Lone Pine (4), Bishop (3), Independence (1).

¹ Caltrans (2022) California Statewide Freight Forecasting and Travel Demand Modeling (CSF2TDM), available through the Caltrans Statewide Modeling Branch, <https://dot.ca.gov/programs/transportation-planning/division-of-transportation-planning/data-analytics-services/statewide-modeling>.

² The unincorporated area of Big Pine was not isolated in the analysis but is anticipated to have VMT attributes similar to the unincorporated areas near Bishop and the unincorporated areas of Independence and Lone Pine.

Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT

Inyo County

- Could allow for a combined 492 residential dwelling units (344 near Bishop, 128 in Independence, and 20 in Lone Pine).

The County conducted a vacant lands inventory and General Plan/zoning designations review of private properties located throughout the County (largely a GIS exercise). That work has identified land that may be appropriate for zoning changes to promote housing opportunities, primarily by increasing allowable residential density, which may also include increasing the amount of multi-family zoning available in the County and additional zoning for mobile home parks. Areas near public transportation and other services are considered prime (due to the County's rural nature, transit opportunities are limited). The Draft EIR is scheduled to be released for public review in fall 2022, incorporating material from this analysis to support its findings relative to VMT. General Plan Amendment and zoning changes would be presented to the Planning Commission and Board of Supervisors for consideration. Adoption of the updates would result in permitting-by-right for multi-family housing to promote housing opportunities.

Study Purpose

Lowering VMT is a State goal. Affordable housing is an important factor in VMT reduction. The VMT goals/programs addressed herein will help the County better identify areas where affordable housing is most appropriate especially with regard to transportation opportunities and areas that are not as well suited due to VMT constraints.

The purpose of the VMT feasibility study is to qualitatively determine baseline per capita VMT conditions across the County using an evaluation rubric that considers:

- Vacant land availability;
- VMT outputs from state modeling tools; and,
- “5D” VMT elasticities (density, design, destination access, distance to transit, and land use diversity).

The result of the feasibility study includes VMT reduction strategies/goals aimed at promoting:

- The State's mandates on equitable housing solutions and environmental justice;
- Mitigating/reducing greenhouse gas emissions; and,
- Promoting housing opportunities across the socioeconomic spectrum.

This study establishes criteria that the County may use to support exemptions for some residential land development projects from VMT analysis under the California Environmental Quality Act (CEQA).

Report Content and Organization

This analysis includes three sections, each reported on below: Public Outreach; VMT estimates (and the effect of additional housing on VMT); and, findings and recommendations. The findings of this analysis will be presented to the Inyo County Planning Commission and the Board of Supervisors as part of the Vacant Lands EIR project discussed above.

2. OUTREACH

Two community workshops were held to solicit stakeholder feedback in Inyo County:

- Lone Pine – Wednesday July 27, 2022: Stratham Town Hall, 138 North Jackson Street, Lone Pine, CA 93545, 6-7:30 PM; and,
- Bishop – Thursday July 28, 2022: City Hall, 377 West Line Street, Bishop, CA 93514, 6-7:30 PM.

Workshops were announced and advertised by Inyo County. Attendance was light, consisting mainly of existing County staff. The Power Point presentation for the public workshops is provided in appendix A, that presentation includes graphics showing the specific parcels identified through the Vacant Lands EIR study. This analysis is not specific to those parcels. Although the analysis assumed those specific developments, the results are more generalized and can be used to exempt projects with certain characteristics from CEQA VMT analysis.

The three principle take-aways from the community outreach sessions were:

- While transit service along Highway 395 is limited, there is both transit and car pooling along the 395 corridor for commute trips;
- Large shopping areas and supermarkets are limited in Inyo County, with most shopping either occurring in the Bishop area, and in Ridgecrest (Kern County);
- Housing supply limits the choice of communities where people live, creating an observable AM peak and PM peak period commute between communities along Highway 395.

3. VMT ESTIMATES

Method

It is not possible to directly measure VMT, it is typically a derived performance measure, estimated from travel demand models or “big data” approaches such as analysis of cell phone geolocation data. Both of those approaches are exceedingly resource and time intensive for a rural county such as Inyo which do not have their own regional travel demand models or standing contracts for access to cell phone geolocation data.

For this analysis the California Statewide Freight Forecasting and Travel Demand Model (CSF2TDM) was used in a multistep process:

- The model produced estimates of 2020 and 2040 average per capita VMT for all of Inyo County. Those estimates were used as a starting point.
- The relative difference in per capita VMT between the transportation analysis zones (TAZs) where the increased housing density is proposed, and the remainder of Inyo County, was estimated by tracking all VMT to and from each Inyo County TAZ for calendar year 2020.
- The original County level per Capita VMT estimates (2020 and 2040) were then disaggregated using that relative difference so that per capita VMT from TAZs reflecting the community areas likely to see increased density could be compared to per capita VMT for the remainder of Inyo County.
- Relative VMT differences with and without the increased density were also estimated to assess VMT reduction benefits from the proposed densification.
- Estimates were disaggregated into VMT per capita from three new model TAZs added to reflect proposed land use changes and the original five model TAZs representing Inyo County for 2020.

To estimate baseline (2020) and horizon year (2040) VMT per capita, for the County as a whole the CSF2TDM is utilized because rural counties such as Inyo County do not have their own models. CSF2TDM was developed to forecast interregional freight and passenger movements. Its roadway networks and land use detail is relatively coarse³. Rather than amending CSTDM data to reflect the increased housing density in the community regions, existing model results and changes to the land use forecast were used to estimate the plan’s impact on VMT and VMT per service population (residents plus employees). For Inyo County, CSF2TDM includes the main highway network (routes 6, 127, 136, 168, 178, 190, 395), State Line Rd (between Death Valley Junction and the California-Nevada State Line), Scotty’s Castle Rd, and a handful of “centroid connectors” that represent the local road connections between the highway network and the center of each TAZ (where vehicle trips are assumed to start or end). CSF2TDM included five original TAZs for Inyo County (**Table 1, Figure 1**). As part of this exercise three new TAZs were added to the trip origin-destination tables and final assignment to better capture the proposed housing changes (labeled in **Table 1 and Figure 1**).

³ Travel demand models are complex, computationally demanding tools that run on proprietary modeling platforms using scripts. For reference CFS2TDM requires in excess of 500 gigabytes of disk space and takes weeks to run. Most applications require multiple runs. Whenever changes are made to the model, multiple runs are required for quality control to ensure that the results are reasonable.

Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT

Inyo County

Table 1. CSF2TDM Model Inyo County TAZs

TAZ	Description
3013	Inyo County south of Big Pine (including Homewood Canyon, Valley Wells, and Death Valley National Park)
3014	Inyo County, generally south and east of Bishop (Wilkerson, Paleta, etc.)
3015	Inyo County, generally north and west of Bishop (Round Valley, Mesa, etc.)
3016	Big Pine
3017	Bishop and West Bishop
3041 (new TAZ)	Unincorporated Inyo County near Bishop (split from TAZ 3017)
3042 (new TAZ)	Independence (split from TAZ 3013)
3043 (new TAZ)	Lone Pine (split from TAZ 3013)

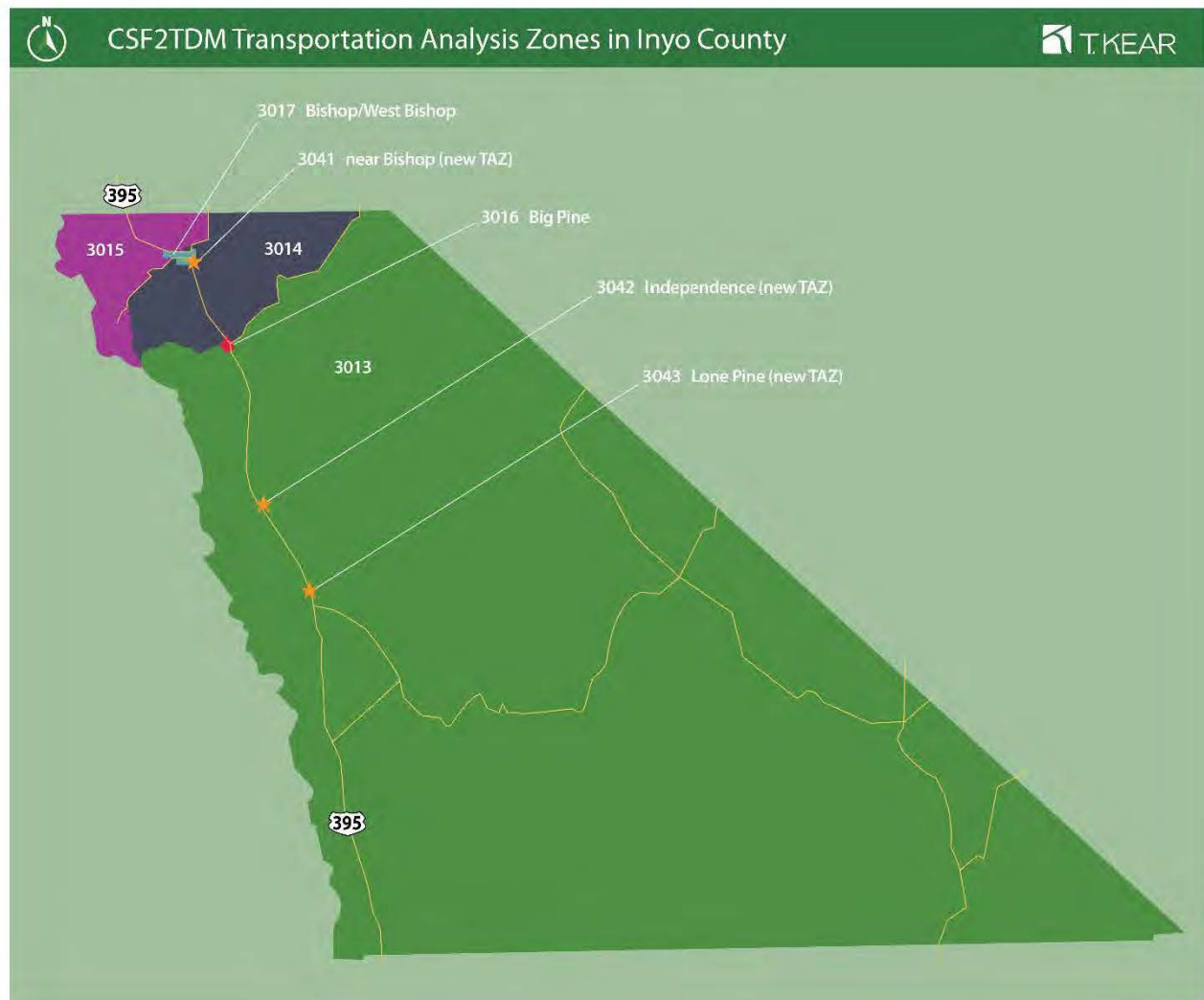


Figure 1. Inyo County representation in the CSF2TDM

Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT

Inyo County

The three new zones were added to the model by splitting the trip tables based on the 2019 population data for Census Designated Places (CDP) in Inyo County⁴. For “with Project” conditions the number of trips to and from these new zones was then increased based on Institute of Transportation Engineers trip generation estimates using a FRATAR process (a matrix adjustment algorithm used to scale origin-destination tables).

- For TAZ 3041 (“near Bishop”) without the project, 10% of TAZ 3017 population (and thus travel) was assumed to be in the new TAZ. Taz 3017 reflects the Bishop CDP and West Bishop CDP. Results are not sensitive to the amount of land use shifted to the new TAZ as they are adjacent to each other, but, having the new TAZ is important for isolating changes in VMT with the 344 additional dwelling units that are anticipated to be added to that zone.
- Similarly, TAZ 3042 (Independence) received 10% of the travel originally assigned to TAZ 3013, and TAZ 3043 (Lone Pine) received 30% of the travel originally assigned to TAZ 3013. 60% of the original TAZ 3013 travel remained in TAZ 3013. This disaggregation was based on the 2019 population estimates for Inyo County CDPs.

As mentioned above. The trip tables were then factored up using FRATAR, assuming 344 additional dwelling units in TAZ 3041 (adding 2,319 daily trips), 128 additional dwelling units in TAZ 3042 (adding 863 trips), and 20 dwelling units in TAZ 3043 (adding 135 daily trips). This zone-split and FRATAR approach forgoes the need to adjust parcel level population and employment data used in the core of the CSF2TDM model and is a widely used technique. (The CSF2TDM is an “activity-based model” utilizing a trip/activity simulation step with parcel level population and employment data inputs to estimate trip-changing for transit ridership and revenue, and toll road revenue estimates. That level of detail is not needed for Inyo County.)

Base CSF2TDM Inyo County VMT Estimates

The CSFTDM estimates that Inyo County as a whole has VMT per service population of a little less than 40 miles traveled per day in 2020 and a little more than 40 miles travel per day in 2040 (**Table 2**). VMT per service population near Bishop, Independence and Lone Pine will be shown to be lower in the next analysis step.

Table 2. Estimated Inyo County, County-wide, VMT Statistics from CSF2TDM (without New Development)

Year	CSF2TDM Total VMT	CSFTEM Population	CFS2TDM Employment	Service Population (Population + Employment)	Resulting VMT per Service Population
2020	1,004,223	18,711	8,860	27,571	36.4
2040	1,120,647	19,274	9,127	28,401	39.5

Notes:

- (1) 2040 employment estimated from 2020 employment and scaled by relative change in population.
- (2) 2040 employment estimated from 2020 employment and scaled by relative change in population from 2020 to 2040.
- (3) Service population is the sum of population and employment.

⁴ Helix (2022) Vacant Lands Inventory EIR, Section 4.

Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT

Inyo County

Effect On Regional VMT From Growth Near Existing Communities

County-wide VMT per service population estimates are disaggregated and scaled using 2020 model results tracking the VMT associated with the “community zones” along highway 395 (TAZ 3016, 3017, 3041, 3042, 3043) and the VMT associated with the “rural regions” (TAZ 3013, 3014 and 3015). Service population for use in these calculations is estimated in **Table 3** below.

Table 3. 2020 CSFTDM Inyo County, Population and Employment by TAZ

Inyo County Area	TAZ	Emp	POP (without Additional housing)	Service POP (without Additional housing)	POP (with Additional housing)	Service POP (with Additional housing)
below Bishop	3014	601	2,717	3,318	2,717	3,318
above Bishop	3015	379	2,587	2,966	2,587	2,966
Big Pine	3016	171	1,692	1,863	1,692	1,863
Bishop & West Bishop	3017	4,803	7,213	12,016	7,213	12,016
"Near Bishop"	3041	534	801	1,335	1,514	2,048
Independence	3042	237	370	607	635	872
Lone Pine	3043	712	1,110	1,822	1,151	1,863
Inyo (Remainder)	3013	1,423	2,220	3,643	2,220	3,643
Total		8,860	18,711	27,571	19,729	28,589
Community Regions (Bishop, W. Bishop, "Near Bishop", Big Pine, Independence, Lone Pine)				17,643	12,205	18,662
Rural Region (below Bishop, above Bishop, Remainder)				9,928	7,524	9,927

For illustrative purposes **Figure 2** is a bandwidth plot showing all vehicle trips to, from (and between) the “Inyo County community regions. The tracked “community region” VMT from each road segment is summed to estimate total daily VMT associated with the community regions. That tracking exercise was done for:

- 2020 community regions, without proposed additional housing
- 2020 community regions, with proposed additional housing
- 2020 all Inyo County TAZs, without proposed additional housing
- 2020 all Inyo County TAZs, with proposed additional housing

The resulting model outputs allow the **Table 2** VMT estimates to be disaggregated to estimate “community region” VMT and VMT per service population.



Figure 2. Example bandwidth plot of 2020 “community region” trips (only links with higher bandwidth plotted).

These ratios and their implied affect on VMT per service population are as follows:

- The ratio of community region to County-wide VMT per service population without additional housing (i.e., current conditions) is **1:1.07**, allowing estimation of community region per service population VMT of **34.0** under existing conditions, which implies VMT per service population of **41.4** in the rural portions of the County.
- For the TAZs effected by the 492 additional dwelling units proposed, per capita VMT is reduced by 8%, implying that the average VMT per service population in Lone Pine, Independence, and “near Bishop) would be **31.2**.

Note that Community Region VMT per service population with the project is estimated to be approximately 85.6% of the county wide VMT per service population. That is just over the 85% of regional average for County wide average VMT per service population that is a commonly used CEQA threshold for VMT impacts⁵. This implies that without additional VMT reductions, the additional housing would have a significant Impact under CEQA. “5-D” elasticities, discussed below account for benefits of VMT efficient planning that can reduce the impact for housing growth in the community zones to a less-than-significant level under CEQA.

5-D Elasticities

Travel Demand Models as applied above provide estimates of travel by leveraging typical behavior across a region. There are location specific interactions with the built environment which travel demand models do not capture well without post processing. These are the “5-D” adjustments, which are elasticities that reduce trip generation to account for:

- Density (Service population/area);
- Diversity of land uses;
- Destination access (distance to employment or central business district);
- Distance to transit; and,
- Design (street network characteristics such as urban grids vs suburban cul-de-sacs).

There is a wealth of peer reviewed literature on this topic (for example: Ewing and Cervero (2010)⁶, and Lee and Lee (2020)⁷). 5-D elasticities are often built into many regional travel demand models such as the SACOG, MTC, SCAG, LA-Metro, and SANDAG models.

This discussion focuses on just one of the 5-Ds, density, which can be easily implemented. The other D’s require specific knowledge about uses on nearby parcels and/or the characteristics of local street networks.

⁵ OPR (2018) Technical Advisory on Evaluating Transportation Impacts Under CEQA, Governor’s Office of Planning and Research, December 2018, Sacramento, CA.

⁶ Ewing, R., Cervero, R. (2010) Travel and the built environment – A meta-analysis, J. of the American Planning Association, 76, 265-294.

⁷ Lee, S., Lee, B., (2020) Comparing the impacts of local land use and urban spatial structure on household VMT and GHG emissions, J. of Transport Geography, <https://doi.org/10.1016/j.jtrangeo.2020.102694>.

Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT

Inyo County

Density

Density (population per square Mile) has an elasticity of -3.1%. On average VMT per service population will drop by about 3.1% with a doubling of population density⁸. Population densities in communities across the United States are typically greater than 2,500 people per square mile. Inyo County has much lower densities:

- Population density for the County as a whole is less three people per square mile (accounting for both residents and employment);
- Population density for TAZ 3015 (Round Valley and Mesa) is approximately 10 people per square mile (accounting for both residents and employment);
- Population density for Big Pine and Bishop range from about 700 to 1,400 people per square mile (accounting for both residents and employment).

The overall population weighted density for Inyo County is approximately 800 people per square mile (reflecting that most residents do not live in the more rural portions of the county). 800 persons per acre equates to about 1.25 persons per acre or an average residential partial size of more than 1.6 (assumes about 2.1 persons per household). Each doubling of density is anticipated to reduce VMT per capita by 3%, which results in the following curve (**Figure 3**).

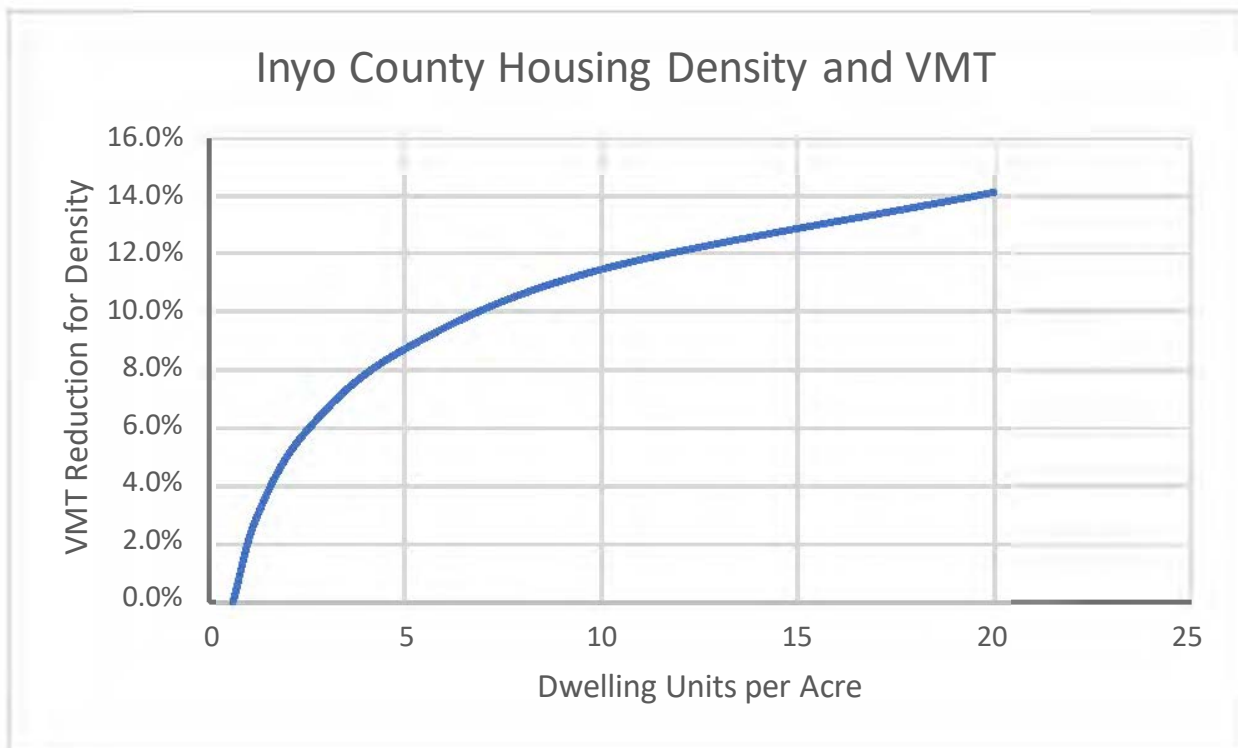


Figure 3. Anticipated Inyo County VMT reductions with increased density

⁸ Lee, S., Lee, B., (2020) Comparing the impacts of local land use and urban spatial structure on household VMT and GHG emissions, *J. of Transport Geography*, <https://doi.org/10.1016/j.jtrangeo.2020.102694>.

4 FINDINGS AND RECOMENDATIONS

Key findings based on this analysis include:

- County-wide average VMT per service population is estimated to be 36.4 in 2020 and 39.5 in 2040.
- VMT in the “community regions” along 395 (Lone Pine, Independence, Big Pine, West Bishop, Bishop, and the unincorporated areas next to bishop are anticipated to have VMT per service population that is about 6.5% below the Inyo county average. Areas specifically effected by the proposed project of 492 additional housing units are anticipated to see an additional 8% reduction in VMT per service population.
- That 8% additional reduction with the proposed additional housing units translates to an assumed density of about four dwelling units per acre. Development at higher densities can assume a greater VMT reduction per service population. (Note: to be conservative, it is assumed here that the increased density assumed in the travel demand model is correlated with the increased densities plotted in **Figure 3.**) Given the potential for overlap between this D and the 8% reduction shown in the CSF2TDM, off-model reductions for this D should not be taken until densities are at or above four dwelling units per Acre.
- Prior to density adjustments, the proposed VMT per service population for the proposed 492 additional dwelling units is 14.5% below the Inyo County average. A 15% reduction is necessary to make a less-than-significant finding for VMT impacts under CEQA. To achieve that reduction densities greater than 4.5 dwelling units per acre are required.

Therefore, housing projects with a density higher than five dwelling units per acre along 395 are anticipated to have a less than significant impact on VMT under CEQA.

APPENDIX A – PRESENTATION FROM JULY PUBLIC WORKSHOPS

Vacant Lands Inventory and Zoning Evaluations for Possible Housing Opportunities Environmental Impact Report (EIR)

Public Outreach for Vehicle Miles Traveled Assessment

Inyo County Planning Department

July 27, 2022



Introductions

Inyo County Planning Department

- Cathreen Richards, Planning Director

HELIX Environmental Planning, Inc.

- Robert Edgerton, Principal Planner

T. Kear Transportation Planning & Management, Inc.

- Tom Kear, PhD, President

Funding Source: Regional Early Action Planning (REAP) Grant from Housing and Community Development Department (State of CA).



Vacant Lands EIR

- In 2020 the County initiated a vacant lands inventory and zoning review to identify parcels that may be appropriate for General Plan (GP) land use designation and zoning changes to promote housing opportunities.
- County proposes to amend GP land use designations and zoning for 8 parcels to promote housing opportunities:
 - Primarily infill housing opportunities
 - Parcels located in Lone Pine (4), Bishop (3), Independence (1).
 - Could allow for a combined 492 residential dwelling units.

Draft EIR to be released for public review in fall 2022.



Proposed Project Summary

- Project proposes to conduct a vacant lands inventory and General Plan/zoning designations review of private properties located throughout the County (GIS exercise).
- Information to be used identify land that may be appropriate for designation changes to promote housing opportunities, primarily by increasing allowable residential density.
- May include increasing the amount of multi-family zoning available in the County and/or additional zoning areas with principal permitting for mobile home parks.
- Review of the County's current zoning would focus on commercial zones for opportunities for infill (residential) development.
- Areas near public transportation and other services would be considered prime, but due to the County's rural nature, other properties located in remote communities without these services might also be identified for potential zone changes.



Proposed Project Summary (cont'd)

- A review of the zoning code language addressing accessory dwelling units also to be conducted for infill opportunities.
- County has undertaken public outreach and communication with potentially affected property owners.
- Proposed project may result in changes from single-family to multi-family, and changes to ministerially allow for mobile home parks, as well as allowing for multi-family residential uses in certain commercial zones without requiring discretionary approval.
- Amendment to General Plan designations may be necessary to allowed density by district and the potential/proposed (or "up-zoning").
- General Plan Amendment and zoning changes would be presented to the Planning Commission and Board of Supervisors for consideration. Adoption of the updates would result in permitting-by-right for multi-family housing to promote housing opportunities.



VMT Assessment

- EIR will include a regional Vehicle Miles Traveled (VMT) assessment and a goals/programs component for lowering VMT.
- Lowering VMT is a State goal; Affordable housing is an important factor in VMT reduction.
- The VMT goals/programs will help the County better identify areas where affordable housing is most appropriate especially with regard to transportation opportunities, and areas that are not as well suited due to VMT constraints.



VMT Assessment

- The purpose of the VMT feasibility study will be to qualitatively determine baseline per capita VMT conditions across the County using an evaluation rubric that may consider, but would not be limited to:
 - vacant land availability;
 - 5D VMT elasticities (density, design, destination access; distance to transit; and land use diversity);
 - active transportation options.
 - VMT outputs from state modeling tools.
- The result of the feasibility study would be VMT reduction strategies/goals aimed at promoting:
 - State’s mandates on equitable housing solutions and environmental justice;
 - Mitigating/reducing greenhouse gas emissions;
 - promoting housing opportunities across the socioeconomic spectrum.



VMT Approach

- Travel demand models are used to estimate regional VMT and anticipate effects from programmatic land use plans.
- Inyo County does not have its own travel demand model, and this study will rely on the California Statewide Travel Demand Model (CSTDm) for VMT estimates.
- Analysis shall include a base-year VMT estimate (either 2017 or 2020) and a horizon-year VMT estimates (2040) with and without the land use changes anticipated by the Inyo County vacant lands inventory, rezoning, and General Plan review.



VMT Approach

- CSTDM was developed to forecast interregional freight and passenger movements. Its roadway networks and land use detail is relatively coarse.
- The County and the City of Bishop each envision adding about 475 dwelling units by 2040, primarily through multifamily housing developments.
- Rather than amending CSTDM data to reflect the Plan, existing model results and changes to the land use forecast will be used to estimate the Plan's impact on VMT and VMT per service population (residents plus employees).
- Either a quantitative "FRATAR" process will be used to post-process CSTDM results, or a more qualitative approach may be taken using VMT elasticities.



VMT Approach

- Exact details of the approach will be coordinated with Caltrans' Statewide Modeling Branch, with consideration to the available budget.
- Land use assumptions embedded into the CSTDM itself will not be updated.
- The resulting post processing procedures will be documented and available for use in future County projects.



Next Steps

- Average Inyo County base year VMT per service population will be estimated based on the California Statewide travel demand model, along with subarea VMT per service population.
 - Question: what subareas do stakeholders anticipate are relevant?
- Off model VMT per service population adjustments will be estimated based on four of the “D’s”:
 - Density (Service population/area).
 - Diversity (measured as “entropy”: $-1 \times \{[\sum(p_i) \ln(p_i)] / \ln(k)\}$).
 - p_i = land use % of total land area; $k = 4$ (land use category: residential, commercial, industrial, and office).
 - Destination access:
 - Distance to employment or central business district.
 - Distance to commercial.
 - Distance to transit.
 - Question: are there other measures that should be considered (distance to recreation? Parallel access that avoids 395? Others?)



Community Input

- Please help identify community priorities when considering land use policies that might reduce the reliance on private vehicles.
- How extensive is the daily commute perceived between Inyo County communities? (i.e., is the only central business district in Bishop, or do Lone Pine and Independence have their own?)
- Are there known commercial land use deserts?
- What is the community impression regarding the viability of transit?
- Specific desires or concerns that the study should attempt to address?



Comments and Questions

Cathreen Richards, Planning Director
Inyo County Planning Department
PO Drawer L
Independence, CA 93526
Email: Crichards@inyocounty.us

Thank you for your time and input!

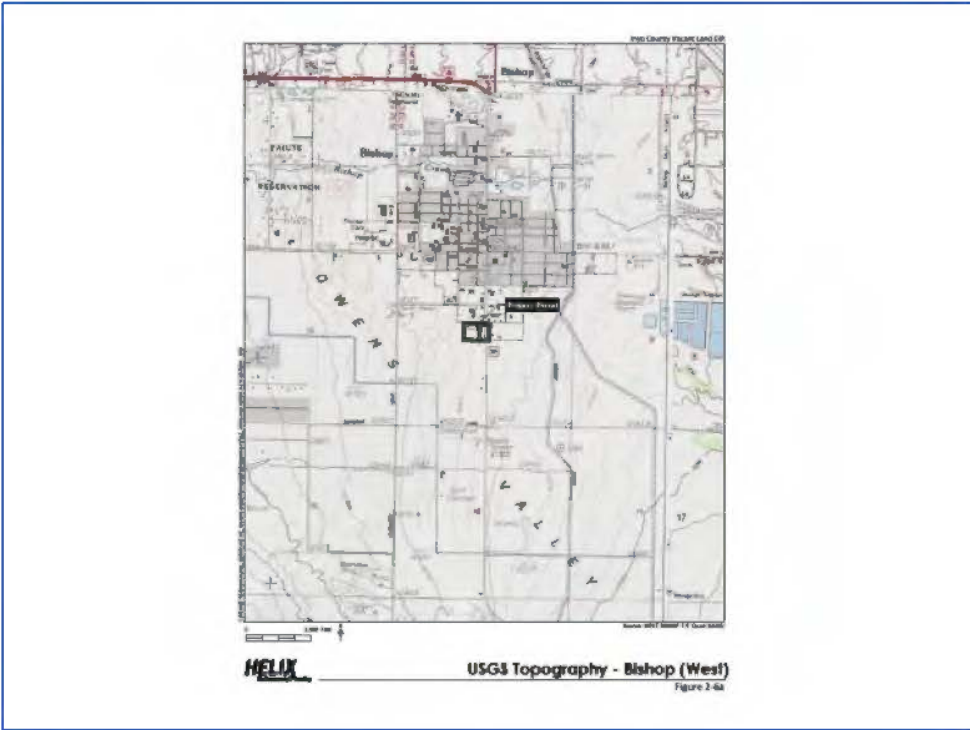


USGS Topography - Independence

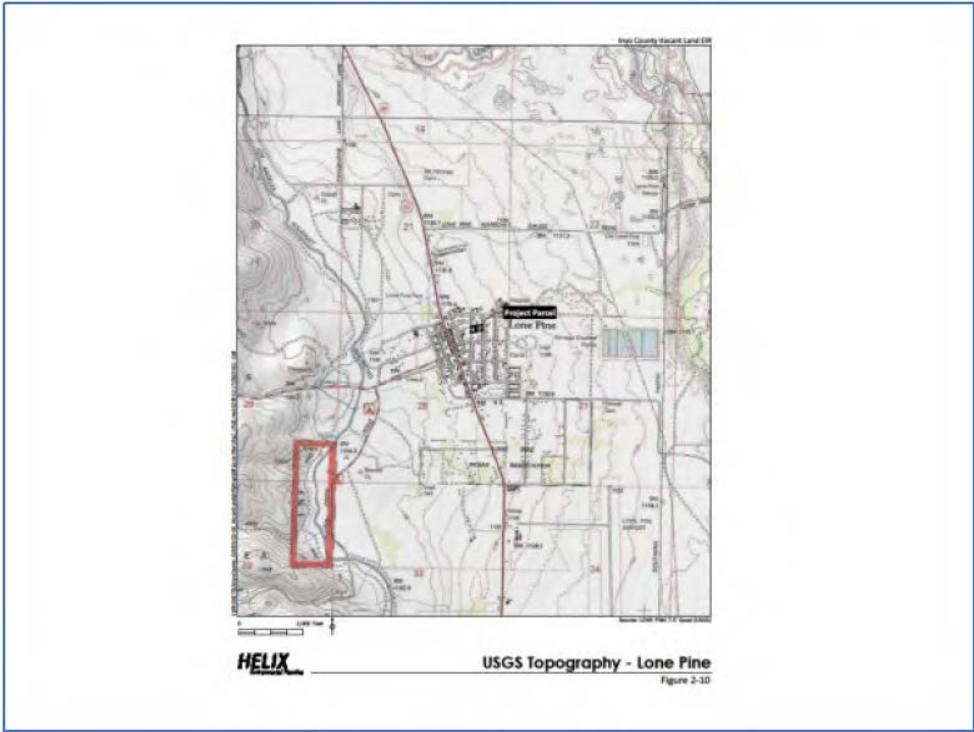
Figure 2-2

Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT

Inyo County



Evaluating Infill Housing Opportunities to Reduce Inyo County per Capita VMT
Inyo County



Appendix G

Native American
Consultation and
Outreach

NATIVE AMERICAN HERITAGE COMMISSION

September 20, 2021

Clarus Backes
HELIX Environmental Planning, Inc.

Via Email to: clarusb@helixepi.com

Re: Inyo County Vacant Lands (COI-01) Project, Inyo County

Dear Mr. Backes:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

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

Sincerely,



Andrew Green
Cultural Resources Analyst

Attachment



CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain
Apache

COMMISSIONER
Julie Tumamait-
Stenslie
Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

**Native American Heritage Commission
Native American Contact List
Inyo County
9/20/2021**

Big Pine Paiute Tribe of the Owens Valley

James Rambeau, Chairperson
P. O. Box 700
Big Pine, CA, 93513
Phone: (760) 938 - 2003
Fax: (760) 938-2942
j.rambeau@bigpinepaiute.org

Paiute-Shoshone

Death Valley Timbi-sha Shoshone Tribe

George Gholson, Chairperson
P. O. Box 1779 / 1349 Rocking W Drive
Bishop, CA, 93515/ 935
Phone: (760) 872 - 3614
Fax: (760) 873-9004
george@timbisha.com

Western Shoshone

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
Fax: (760) 938-2942
d.gutierrez@bigpinepaiute.org

Paiute-Shoshone

Fort Independence Indian Community of Paiutes

Carl Dahlberg, Chairman
P.O. Box 67
Independence, CA, 93526
Phone: (760) 878 - 5160
Fax: (760) 878-2311
businesscommittee@fortindependence.com

Paiute

Big Pine Paiute Tribe of Owens Valley

Sally Manning, Environmental Director
P. O. Box 700
Big Pine, CA, 93513
Phone: (760) 938 - 2003
s.manning@bigpinepaiute.org

Paiute-Shoshone

Kern Valley Indian Community

Robert Robinson, Chairperson
P.O. Box 1010
Lake Isabella, CA, 93283
Phone: (760) 378 - 2915
bbutterbredt@gmail.com

Kawaiisu
Tubatulabal
Koso

Kern Valley Indian Community

Brandy Kendricks,
30741 Foxridge Court
Tehachapi, CA, 93561
Phone: (661) 821 - 1733
krazykendricks@hotmail.com

Kawaiisu
Tubatulabal
Koso

Kern Valley Indian Community

Julie Turner, Secretary
P.O. Box 1010
Lake Isabella, CA, 93240
Phone: (661) 340 - 0032

Kawaiisu
Tubatulabal
Koso

Bishop Paiute Tribe

Monty Bengochia, Tribal Historic Preservation Officer
50 Tu Su Lane
Bishop, CA, 93514
Phone: (760) 873 - 8435
Fax: (760) 873-4143

Paiute-Shoshone

Bishop Paiute Tribe

Allen Summers, Chairperson
50 Tu Su Lane
Bishop, CA, 93514
Phone: (760) 873 - 3584
Fax: (760) 873-4143

Paiute-Shoshone

Lone Pine Paiute-Shoshone Tribe

Kathy Bancroft, Cultural Resources Officer
P.O. Box 747
Lone Pine, CA, 93545
Phone: (760) 570 - 5289
Fax: (760) 876-8302
kathybncrft@yahoo.com

Paiute-Shoshone

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 Inyo County Vacant Lands (COI-01) Project, Inyo County.

Appendix F

Assembly Bill 52
Consultation



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Darrell Mike, Chairperson
Twenty-Nine Palms Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote
Housing Opportunities**

Chairperson Mike:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Anthony Madrigal, Jr., Tribal Grants Administrator
Twenty-Nine Palms Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Mr. Madrigal:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

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Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Jill Paydon, Tribal Administrator
PO Box 700
Big Pine, CA 93513

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Ms. Paydon:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

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PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

James Rambeau, Chairperson
Big Pine Paiute Tribe of the Owens Valley
PO Box 700
Big Pine, CA 93513

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Chairperson Rambeau:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
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email: dellis@inyocounty.us



November 4, 2020

Danelle Guterrez, THPO
Big Pine Paiute Tribe of the Owens Valley
PO Box 700
Big Pine, CA 93513

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Ms. Guterrez:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

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Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
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crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

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email: dellis@inyocounty.us



November 4, 2020

Gloriana Bailey, Tribal Administrator
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, Ca 93514

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Ms. Bailey:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Tilford P. Denver, Chairperson
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote
Housing Opportunities**

Chairperson Denver:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Monty Bengochia, THPO
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, Ca 93514

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Mr. Bengochia:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Doug Todd Welmas, Chairperson
Cabazon Band of the Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Chairperson Welmas:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

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PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Jacquelyn Barnum, Environmental Director
Cabazon Band of the Mission Indians
84-245 Indio Springs Parkway
Indio, CA 92203

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Ms. Barnum:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

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Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



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email: dellis@inyocounty.us



November 4, 2020

Carl Dahlburg, Chairperson
Fort Independence Indian Community of Paiutes
PO Box 67
Independence, CA 93526

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Chairperson Dahlburg:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Richard Button, Chairperson
Lone Pine Paiute-Shoshone Tribe
PO Box 747
Lone Pine, CA 93545

Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1) Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing Opportunities

Chairperson Button:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

White Dove Kennedy, Chairperson
Timbisha Shoshone Tribe
621 W. Line Street
Bishop, CA 93514

Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1) Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing Opportunities

Chairperson Kennedy:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526
TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 4, 2020

Michael Mirelez, Cultural Resource Coordinator
Torres Martinez Desert Cahuilla Indians
P.O. Box 1160
Thermal, CA 92274

**RE: Assembly Bill 52 Consultation (Per Public Resources Code Section 21080.3.1)
Vacant Lands Inventory and Zoning Evaluation for Possible Rezone to Promote Housing
Opportunities**

Mr. Mirelez:

The Inyo County Planning Department (County) is beginning a process to conduct an inventory of vacant lands and a zoning evaluation to determine the possibility to rezone certain portions of the County to promote housing opportunities. This work may include proposing an amendment to the County's General Plan.

Since this project will be subject to a CEQA review, and because we are in receipt of a letter from the Tribe requesting information and notification about projects that are within the geographic area that is traditionally and culturally associated with the Tribe for the purpose of exercising rights to consultation, the County, as Lead Agency under CEQA, as specified by Assembly Bill 52 (AB52) and per Public Resource Code Section 21080.3.1(b), is hereby providing the Tribe the opportunity to request consultation on this project. Tribes must request AB52 consultation (relating to CEQA review) within 30-days of the receipt of the correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors

Appendix F

Senate Bill 18
Consultation



BOARD OF SUPERVISORS COUNTY OF INYO

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email: dellis@inyocounty.us



November 5, 2020

Darrell Mike, Chairperson
Twenty-Nine Palms Band of Mission Indians
46-200 Harrison Place
Coachella, CA 92236

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Mike:

Inyo County is in the process of evaluating its vacant lands along with current General Plan and zoning designations for possible changes in residential designations that can help promote more housing opportunities. It is anticipated that this work will cause the need for a General Plan Amendment.

As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

James Rambeau, Chairperson
Big Pine Paiute Tribe of the Owens Valley
PO Box 700
Big Pine, CA 93513

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Rambeau:

Inyo County is in the process of evaluating its vacant lands along with current General Plan and zoning designations for possible changes in residential designations that can help promote more housing opportunities. It is anticipated that this work will cause the need for a General Plan Amendment.

As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Kingsley".

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

Sally Manning, Environmental Director
Big Pine Paiute Tribe of the Owens Valley
PO Box 700
Big Pine, CA 93513

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Ms. Manning:

Inyo County is in the process of evaluating its vacant lands along with current General Plan and zoning designations for possible changes in residential designations that can help promote more housing opportunities. It is anticipated that this work will cause the need for a General Plan Amendment.

As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

Danelle Guterrez, THPO
Big Pine Paiute Tribe of the Owens Valley
PO Box 700
Big Pine, CA 93513

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Ms. Guterrez:

Inyo County is in the process of evaluating its vacant lands along with current General Plan and zoning designations for possible changes in residential designations that can help promote more housing opportunities. It is anticipated that this work will cause the need for a General Plan Amendment.

As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526

TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

Tilford P. Denver, Chairperson
Bishop Paiute Tribe
50 Tu Su Lane
Bishop, CA 93514

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Denver:

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As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Kingsley".

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526

TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

Carl Dahlberg, Chairperson
Fort Independence Indian Community of Paiutes
PO Box 67
Independence, CA 93526

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Dahlberg:

Inyo County is in the process of evaluating its vacant lands along with current General Plan and zoning designations for possible changes in residential designations that can help promote more housing opportunities. It is anticipated that this work will cause the need for a General Plan Amendment.

As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

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Cathreen Richards, Planning Director
PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

A handwritten signature in blue ink, appearing to read "Matt Kingsley".

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

P. O. DRAWER N • INDEPENDENCE, CALIFORNIA 93526

TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

Robert Robinson, Chairperson
Kern Valley Indian Community
PO Box 1010
Lake Isabella, CA 93283

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Robinson:

Inyo County is in the process of evaluating its vacant lands along with current General Plan and zoning designations for possible changes in residential designations that can help promote more housing opportunities. It is anticipated that this work will cause the need for a General Plan Amendment.

As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

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PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



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email: dellis@inyocounty.us



November 5, 2020

Mary Wuester, Chairperson
Lone Pine Paiute Shoshone Tribe
PO Box 747
Lone Pine, CA 93545

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Wuester:

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As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

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PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

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Matt Kingsley, Chairperson
Inyo County Board of Supervisors



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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

George Gholson, Chairperson
Timbisha Shoshone Tribe
621 W. Line Street
Bishop, CA 93514

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson Gholson:

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PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



BOARD OF SUPERVISORS COUNTY OF INYO

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TELEPHONE (760) 878-0373
email: dellis@inyocounty.us



November 5, 2020

Melanie McFalls, Chairperson
Walker River Reservation
PO Box 220
Schurz, NV 89427

**RE: Senate Bill 18 Consultation (Per Government Code Section 65352.3)
Inyo County General Plan – Vacant Lands Inventory and Zoning/General
Plan Evaluation for Possible Changes to General Plan and Zoning
Designations to Promote Housing Opportunities**

Chairperson McFalls:

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As specified by Senate Bill 18 and per Government Code Section 65352.3, the County is hereby inviting local tribes to consultation. If you wish to initiate the consultation process, please contact me within 90 days of receipt of this correspondence.

If you wish to initiate the consultation process or have any questions, please contact:

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PO Drawer L,
Independence, CA 93526
760-878-0263
crichards@inyocounty.us

Sincerely,

Matt Kingsley, Chairperson
Inyo County Board of Supervisors



JAMES RAMBEAU
TRIBAL COUNCIL CHAIR

BIG PINE PAIUTE TRIBE OF THE OWENS VALLEY

Big Pine Paiute Indian Reservation

P.O. Box 700 · 825 SOUTH MAIN STREET · BIG PINE, CA 93513
(760) 938-2003 · FAX (760) 938-2942

www.bigpinepaiute.org

November 19, 2020

Matt Kingsley, Chairperson
Inyo County Board of Supervisors
P. O. Drawer N
224 N. Edwards Street
Independence, CA 93526

Dear Chairperson Kingsley:

Subject: AB 52 and SB 18 Consultation: Inyo County Vacant Lands Inventory and Zoning Evaluation for possible Rezoning to Promote Housing

The Big Pine Paiute Tribe of the Owens Valley ("Tribe") appreciates receiving mailed notices of this Inyo County undertaking which is subject to the California Environmental Quality Act and may entail changes to the county General Plan. The Tribe would like to consult with Inyo County on this project as is its right according to California Assembly Bill 52 and Senate Bill 18.

Please contact Tribal Administrator Cheryl Levine at c.levine@bigpinepaiute.org or (760) 938-2003 to coordinate scheduling a Tribal consultation meeting.

Sincerely,

James E. Rambeau, Sr.
Tribal Chairman

C: Cathreen Richards, Inyo County Planning Director
Danelle Gutierrez, Tribal Historic Preservation Officer
Sally Manning, Tribal Environmental Director

From: [Cathreen Richards](#)
To: [Robert Edgerton](#)
Subject: FW: Schedule a consultation per November 19th request
Date: Tuesday, October 12, 2021 1:26:27 PM
Attachments: [BPPT to Inyo AB 52 SB 18 Vacant Lands Inventory Rezone 20201119.pdf](#)
[BP Tribe Consultation Response 12.1.20.pdf](#)

From: Cathreen Richards
Sent: Wednesday, January 6, 2021 4:03 PM
To: c.levine@bigpinepaiute.org
Cc: Dan Tothoroh; Jennifer Roeser
Subject: FW: Schedule a consultation per November 19th request

Good afternoon, Ms. Levine

I am resending an email regarding scheduling consultations with the Tribe.

I hope your holidays were safe and healthy, I look forward to hearing from you.

Cathreen Richards, Planning Director
Inyo County Planning Department
PO Drawer L, Independence, CA 93526
Phone: 760-878-0447
Email: crichards@inyocounty.us

From: Cathreen Richards
Sent: Tuesday, December 8, 2020 11:19 AM
To: 'c.levine@bigpinepaiute.org'
Cc: Dan Tothoroh; Mark Tillemans
Subject: Schedule a consultation per November 19th request

Good morning Ms. Levine,

We are in receipt of 2 requests for consultation on the County's Vacant Lands Inventory and Zoning Evaluation for possible Rezoning to Promote Housing projects. I would first like to ask if one of the requests was meant for the Housing Element update. We sent an invitation for both (they are attached for your review). Second, can you please send me some dates that work for the Tribe to schedule the consultation(s). We are happy to set the consultations up as Zoom meetings if your Council is more comfortable with a virtual setting instead of face to face.

I look forward to working with you on scheduling consultations and hearing the Tribe's ideas on the project,

Cathreen

Cathreen Richards, Planning Director
Inyo County Planning Department
PO Drawer L, Independence, CA 93526
Phone: 760-878-0447
Email: crichards@inyocounty.us

From: [Cathreen Richards](#)
To: [Robert Edgerton](#)
Subject: FW: NOP on county vacant lands
Date: Tuesday, October 12, 2021 1:07:42 PM

From: Sally Manning [<mailto:s.manning@bigpinepaiute.org>]
Sent: Monday, November 9, 2020 4:58 PM
To: Cathreen Richards
Subject: RE: NOP on county vacant lands

CAUTION: This email originated from outside of the Inyo County Network. DO NOT click links or open attachments unless you recognize and trust the sender. Contact Information Services with questions or concerns.

Hi Cathreen,

Thanks. Just between me writing the earlier email and you responding, the mail came! Yes, there are certified letters from the county on this and the housing element update. Thanks. I expect there will be interest in hearing more specifically how the county intends to identify these lands, so I'll be in touch.

Sally

From: Cathreen Richards [<mailto:crichards@inyocounty.us>]
Sent: Monday, November 9, 2020 4:30 PM
To: Sally Manning <s.manning@bigpinepaiute.org>
Subject: RE: NOP on county vacant lands

Hi Sally,

Yes, it should be a very interesting project. We have sent both AB 52 and SB 18 consultation invitations. They went out at the end of last week. You were mailed the one for SB 18, I have attached here as well.

We would be happy to set up meetings with the Tribe and look forward to responses to the consultation invitations.

Thank you very much for your interest in the project.

Cathreen

From: Sally Manning [<mailto:s.manning@bigpinepaiute.org>]
Sent: Monday, November 9, 2020 3:36 PM
To: Cathreen Richards
Subject: NOP on county vacant lands

CAUTION: This email originated from outside of the Inyo County Network. DO NOT click links or open attachments unless you recognize and trust the sender. Contact Information Services with questions or concerns.

Hi Cathreen,

The Inyo Register had a notice saying Inyo County is going to prepare an EIR on vacant lands. This sounds like an interesting project, and this is the first I heard of it. I'm wondering, was a letter sent to the Big Pine Paiute Tribe? If so, could you please email a copy to me?

I'd like to suggest the county formally introduce this project to the Tribe. Maybe we could work to set up some meeting between the two Supervisors assigned to the Tribe and our Tribal leaders plus the staff who should be present.

Please let me know your thoughts.

Thanks, Sally

Sally Manning, Environmental Director
Big Pine Paiute Tribe of the Owens Valley
P. O. Box 700
825 S. Main St.
Big Pine, CA 93513
(760) 938-2003 ext. 233
s.manning@bigpinepaiute.org