APPENDIX B

Referenced Tables

CHAPTER 1. TABLES

Table B-1.1.3-1. Previously Completed NEPA/CEQA and Associated Decisions for the CMM

Short Name	Document Title	Reference
1990 Plan	Record of Decision for the Castle Mountain Mine Project Environmental Impact Statement (EIS No. 890053/State Clearinghouse No. 88062708)	BLM 1990a
1990 EIS/EIR	Environmental Impact Statement/Environmental Impact Report for the Castle Mountain Mine Project (EIS No. 890053/State Clearinghouse No. 88062708)	BLM 1990b
1991 EA	Castle Mountain Mine 69 kV Power Transmission Line Environmental Assessment	BLM 1991
1997 EIS/EIR	Final Environmental Impact Statement/Environmental Impact Report for the Castle Mountain Mine Expansion Project (EIS No. DES 97-10/State Clearinghouse No. 95081031)	BLM 1997
1998 Plan	Record of Decision for the Castle Mountain Mine Expansion Project (EIS No. DES 97-10/State Clearinghouse No. 95081031)	BLM 1998a
2020 EA	Environmental Assessment, Castle Mountain Mine, Modification of Castle Mountain Mine Plan of Operations (DOI-BLM-CA-D090-2020-002-EA)	BLM 2020a
2020 Plan Update	Decision Record, Modification of Castle Mountain Mine Plan of Operations (DOI-BLM-CA-D090-2020-002-EA)	BLM 2020b

Table B-1.1.3-2. Technical Survey Reports

Technical Report Title	Author	Date
Bats		
Bat Habitat Assessment for the Castle Mountain Mine Project	BioResource Consultants, Inc. (BRC)	2018
Mine Surveys for Bats and Other Wildlife at Castle Mountain Mine Project, San Bernardino County, California	Brown-Berry Biological Consulting (Brown-Berry)	2018
Winter Mine Surveys for Bats and Other Wildlife at Castle Mountain Mine Project, San Bernardino County, California	Brown-Berry	2019
Bighorn Sheep		
Bighorn Sheep Use of Mine Sites	WestLand Engineering & Environmental Services (WestLand)	2022
October 2019 Desert Bighorn Sheep Helicopter Surveys	California Department of Fish and Wildlife	2019
Focused Fall Rare Plant and Desert Bighorn Sheep Survey and Habitat Assessment Report, Castle Mountain Mine Expansion Project	ECORP Consulting, Inc.	2021a
Cultural Resources		
Class III Cultural Resources Inventory of 1,091 Acres for the Castle Mountain Venture Project	ASM Affiliates	2018
Class III Cultural Resources Inventory of Approximately 1,550 Acres, Castle Mountain Mine	SWCA	2021
Class III Results for the Nevada Portion of the Castle Mountain Mine Phase II Expansion Project	SWCA	2025b
Results of Testing Plan for Cultural Resource Sites P-36-005872/CA-SBR-5872 and P-36-032492/CA-SBR-32492/H (Prehistoric Component)	SWCA	2024
Desert Tortoise		
Castle Mountain Mine Presence/Absence Survey and Density Estimate	Bio Logical, LLC	2020

Technical Report Title	Author	Date
Flora and Fauna		
Castle Mountain Mine Biology Compilation Report	WestLand	2022
Golden Eagle and Raptors		
Recommended Buffer Zones for Ground-based Human Activities around Nesting Sites of Golden Eagles in California and Nevada	U.S. Fish and Wildlife Service California	2021b
Proposal-2026 GOEA Aerial Surveys – CMM Phase 2 Project	BRC	2025
Castle Mountain Mine Golden Eagle Trapping Report Status Update #1	BRC	2021
Update #2 on Golden Eagle Movements and Trapping in 2022	BRC	2022
Castle Mountain Mine Golden Eagle Progress Report #3	BRC	2023
ROWs		
Report of Biological Surveys for the Ivanpah Underground Waterline and 69kV Overhead Powerline Rights-of-Way Project Located in Unincorporated San Bernardino County, California and Unincorporated Clark County, Nevada	Glenn Lukos Associates, Inc. (Lukos)	2024
General Vegetation		
Report of Biological Surveys for the Ivanpah Underground Waterline and 69kV Overhead Powerline Rights-of-Way Project Located in Unincorporated San Bernardino County, California and Unincorporated Clark County, Nevada	Lukos	2024
Castle Mountain Mine Biology Compilation Report	WestLand	2022
Castle Mountain Mine Vegetation Analysis	California Department of Conservation Office of Mine Reclamation	2000
Results of a Creosote Bush Ring Survey for the Castle Mountain Mine Expansion Project, San Bernardino County, California	ECORP Consulting, Inc. (ECORP)	2021c
Noxious Weeds and Invasive Species		
Results of the 2018 Spring and Fall Blooming Seasons Special-status Plant Surveys for the Castle Mountain Mine South Water Exploration Project Located	ELMT Consulting (ELMT)	2019
Addendum Report for Focused Rare Plant Survey	ECORP	2021b
BLM Special-Status Plant Surveys for the Castle Mountain Mine Project	SWCA Environmental Consultants (SWCA)	2023
Bureau of Land Management Special-Status Plant Surveys for the Castle Mountain Mine Project	SWCA	2025a
Special-Status Species – Plants		
Castle Mountain Mine Biology Compilation Report	WestLand	2022
Focused Fall Rare Plant and Desert Bighorn Sheep Survey and Habitat Assessment Report, Castle Mountain Mine Expansion Project	ECORP	2021a
Addendum Report for Focused Rare Plant Survey (Spring 2021) for the Castle Mountain Mine Expansion Project	ECORP	2021b
BLM Special-Status Plant Surveys for the Castle Mountain Mine Project	SWCA	2023
Bureau of Land Management Special-Status Plant Surveys for the Castle Mountain Mine Project	SWCA	2025a
Cactus and Yucca Species		
Results of the Inventory/Assessment of Joshua Trees (*Yucca brevifolia* var. *jaegeriana*) within the South Over Burden Target Area at the Castle Mountain Mining Site	ELMT	2021
Focused Fall Rare Plant and Desert Bighorn Sheep Survey and Habitat Assessment Report, Castle Mountain Mine Expansion Project	ECORP	2021a

Technical Report Title	Author	Date
Addendum Report for Focused Rare Plant Survey (Spring 2021) for the Castle Mountain Mine Expansion Project	ECORP	2021b
BLM Special-Status Plant Surveys for the Castle Mountain Mine Project	SWCA	2023
Report of Biological Surveys for the Ivanpah Underground Waterline and 69kV Overhead Powerline Rights-of-way Project	Lukos	2024
Bureau of Land Management Special-Status Plant Surveys for the Castle Mountain Mine Project	SWCA	2025a
Transportation		
Castle Mountain Mine Trip Assessment	Urban Crossroads	2025
Visual Resources		
Visual Resources Technical Report for the Castle Mountain Mine Phase II Expansion Project	SWCA	2026b
Water Resources and Geochemistry		
Jurisdictional Delineation of the Castle Mountain Mine Phase II Expansion Project Site, Located at the Castle Mountain Mine, San Bernardino County, California	Lukos	2022
Jurisdiction Delineation Report for Ivanpah Underground Waterline and 69kv Overhead Power Line Rights-of-Way Project Associated with Castle Mountain Mine Located in San Bernardino County, California and Clark County, Nevada (	Lukos	2025
Approved Jurisdictional Determination for the Castle Mountain Mine Phase II Expansion Project (File No. SPL-2019-00042-BLR)	U.S. Army Corps of Engineers	2025
Updated Water Supply Assessment	Geo-Logic Associates (GLA)	2023
Lanfair Valley Groundwater Model Report	GLA	2024a
Castle Mountain Mine Geochemical Characterization Report	GLA	2022a
Evaluation of Planned Pumping in Ivanpah Basin	GLA	2022b
Results of Testing Plan for Cultural Resource Sites P-36-005872/CA-SBR-5872 and P-36-032492/CA-SBR-32492/H (Prehistoric Component), Castle Mountain Mine, San Bernardino County, California	Winslow	2024
Paleontology		
Paleontological Assessment Report for the Castle Mountain Mine Phase II Expansion Project (Nevada Segment), Clark County, Nevada	SWCA	2025c
Paleontological Assessment Report for the Castle Mountain Mine Phase II Expansion Project, San Bernardino County, California	SWCA	2025d
Paleontological Survey Report for the Castle Mountain Mine Phase II Expansion Project (Nevada Segment), Clark County, Nevada	SWCA	2026c
Paleontological Survey Report for the Castle Mountain Mine Phase II Expansion Project (California Segment), San Bernardino County	SWCA	2026d

CHAPTER 2. TABLES

Table B-1.2.3-1. Alternatives Considered but Eliminated from Detailed Analysis

Category	Alternative Considered but Eliminated	Rationale for Elimination
Power Generation Alternative	100% diesel generator power	Not economically feasible with technical constraints
	Diesel for supplemental power generation	Not economically feasible with technical constraints
	100% solar power	Not under BLM authority, and not economically feasible
	Solar for intermittent power generation	Not economically feasible, limited availability of developable land within MPO boundary
	100% LNG micro-turbines	Not technically feasible
	Nuclear micro-reactor	Not technically feasible
Mining Activities Alternative	Reduce mining throughput rates by 5–10%	Not economically feasible
	Reduce mining throughput rates enough to avoid new off-site utilities	Not economically feasible
	Change order in which the pits are mined	Not under BLM authority
	Underground Mining	Not economically feasible
ROW Alternative	Joint trench to contain both underground water pipeline and power line	Not economically feasible
	Burying the Electric Line or the Pipeline within the Existing CMM Access Road/Walking Box Ranch Footprint	Not economically or technically feasible, Public Safey Risk
	Buried 69kV Electrical Transmission Powerline	Not economically or technically feasible
	Bury power line underground through Walking Box Ranch	Not economically or technically feasible
	Co-location of overhead electric line located south of Walking Box Ranch from substation	Not technically feasible, Public Safety Risk

CHAPTER 3. TABLES

Table B-1.3.1-1. Issues Dismissed from Detailed Analysis

Resource Topic	Rationale for Dismissal from Detailed Analysis
Aquatic Resources and Fisheries	Issue eliminated because there are no aquatic resources/fisheries within the Project Area.
Fuels and Fire Management	Construction activities, vehicle traffic, and LNG-related operations would be conducted in compliance with applicable BLM California Desert District Fire Prevention Orders issued pursuant to 43 CFR 9212, which regulate ignition sources and establish enforceable requirements for equipment use, spark arrestors, hot work, and other activities during periods of elevated fire danger. Since the Project Area is largely disturbed with limited fuel continuity, and enforceable fire prevention measures would apply, the Proposed Action would not result in a substantial change in wildfire risk or fire management needs.
Geology and Minerals	Geological and mineral resources are dismissed from detailed analysis because previous NEPA documents adequately evaluated general impacts to these resources, and the Proposed Action would not introduce new mining activities, alter mineral development potential, or affect mineral ownership. There are over 600 patented mining claims within the Mine Plan boundary, all held by Castle Mountain Venture or Viceroy Gold Corp., which convey exclusive title to the locatable minerals; the Proposed Action would not alter the validity or use of these claims. Two active lode claims (NV101826548 and NV101826549) intersect or occur near the Utility ROW, but the action would not preclude mineral development, and land tenure considerations are addressed in the Lands and Access section. Existing mineral material site ROW records identified in MLRS are also addressed in the Lands and Access section. Accordingly, no new or significant impacts to geological or mineral resources are anticipated, and detailed analysis is not warranted.
Greenhouse Gases	Issue eliminated because neither the National Environmental Policy Act nor its implementing regulations require agencies to quantify or exhaustively evaluate emissions where such analysis would be speculative or would not meaningfully inform decision-making. However, the Castle Mountain Mine 2022 Plan Amendment Technical Support Document for Air Quality, Climate, and Energy Analyses (AQTSD) (prepared by Ramboll Americas Engineering Solutions, Inc. [Ramboll] 2025a) provides a focused and proportional assessment of greenhouse gas (GHG) emissions, emphasizing the potential change in emissions attributable to implementation of the proposed Project. Consistent with NEPA's rule of reason, the analysis evaluates those emissions that can be reasonably estimated and that are relevant to informed decision-making. GHG emissions would be generated during both Project construction and ongoing operations, including fuel combustion from heavy equipment, on-site activities, and associated energy use. These emissions and their potential effects are analyzed in detail in Chapter 6 of the AQTSD, with quantitative estimates summarized in Table 6.5.
Lands with Wilderness Characteristics	Issue eliminated because there are no Lands with Wilderness Characteristics within the Project Area.
Livestock and Grazing	Issue eliminated because there are no grazing allotments within the Project Area.
Tribal Treaty Rights	Issue eliminated because there were no issues regarding Tribal Treaty rights within the Project Area.
Wild and Scenic Rivers	Issue eliminated because there are no Wild and Scenic Rivers within the Project Area.
Wild Horse and Burro Herd Management Areas	Issue eliminated because there are No Wild Horse and Burro Herd Management Areas within the Project Area.
Wilderness Study Areas	Issue eliminated because there are no WSAs or WLDs are within the mine plan of operations boundary or the right-of-way.

Table B-1.3.3-1. Reasonably Foreseeable Environmental Trends and Planned Actions Identified for the Project

Project	Size and Location	Current Status and Length of Operation	Project Summary
American Adventure Off-Highway Vehicle (OHV) Tours (DOI-BLM-NV-S010-2018-0109-DNA)	445 miles (Clark County)	National Environmental Policy Act (NEPA) completed	This is a 5-year SRP for non-speed commercial OHV tours in the Jean/Roach Dry Lakes Special Recreation Management Area. Tours use all-terrain vehicles, utility-terrain vehicles, and motorcycles. All touring activities occur on existing roads and trails.
Brightline West – Las Vegas to Victor Valley High-Speed Rail Project	218 miles (Nevada and California)	NEPA completed. Design and construction 2024–2028.	In December 2023, the Nevada Department of Transportation (NDOT), in partnership with Brightline West, an intercity passenger high-speed rail service company, was awarded $3 billion from the U.S. Department of Transportation toward the Las Vegas-to-Los Angeles high-speed rail system. The 218-mile, all -electric high-speed rail service would include a flagship station in Las Vegas, Nevada, with additional stations in Apple Valley, Hesperia, and Rancho Cucamonga, California. At 186+ miles per hour, trains would take passengers from Las Vegas to Southern California in 2 hours and 10 minutes, twice as fast as the average drive time. The Federal Railroad Administration (FRA) is the lead federal agency for the environmental review process for the project. FRA, in cooperation with the Bureau of Land Management (BLM), Surface Transportation Board (STB), Federal Highway Administration (FHWA), and the National Park Service (NPS), completed the Final EIS and Record of Decision in 2011. Reevaluations of the Final EIS and ROD were completed by the FRA in 2020 and 2023. Utility and other preliminary construction began in early 2024. Once major construction begins, it is expected to take approximately 4 years to build.
Desert Antimony Drill Project (DOI-BLM-CA-D090-2025-0021-CX and DOI-BLM-CA-D090-2025-0013-CX)	<5 acres (San Bernardino County [SBC])	NEPA completed. Exploration authorized for 2025–2026.	Locksley Resources Limited, dba Enigma Strategic Minerals (ESM), submitted a proposal to conduct reverse circulation drilling exploration activities at the Desert Antimony Mine near Mountain Pass, California. The exploration activities would determine the presence of antimony, a critical mineral as defined at 30 United States Code (USC) 1606(a)(3) and 2022-04027 (87 *Federal Register* (FR) 10381), or a "critical military metal" used in military-grade ammunition, flame-retardant aircraft, semiconductors for targeting systems and communications equipment. This project would contribute to the overall goal of securing the domestic supply of critical minerals for U.S. economic security and national defense. ESM's mine plan of operations (MPO) proposes to drill 16 total core holes from 11 drill pads with a maximum depth of 100 meters. The proposed total acreage disturbance is estimated at 0.96 acres on lands managed by the Bureau of Land Management (BLM).
Desert Star Critical Minerals Drill Project (DOI-BLM-CA-D090-2025-0029-CX)	<5 acres (SBC)	NEPA completed. Exploration authorized for 2025–2026.	BMM Nevada LLC submitted a proposal to conduct reverse circulation drilling exploration activities near Mountain Pass, California. The exploration activities would determine the presence of Sb, a critical mineral as defined at 30 USC 1606(a)(3) and 2022-04027 (87 FR 10381), or "critical military metal" used in military-grade ammunition, flame-retardant aircraft, semiconductors for targeting systems and communications equipment, and other rare earth elements if present. This project would contribute to the overall goal of securing the domestic supply of critical minerals for U.S. economic security and national defense.

Project	Size and Location	Current Status and Length of Operation	Project Summary
Eldorado Pisgah Lugo TLRR Project (DOI-BLM-CA-D010-2023-0005-EA)	175 miles (Clark County and SBC)	NEPA in progress	The Eldorado Pisgah Lugo 220-kV Project is in San Bernardino County, California, and Clark County, Nevada, crossing federal lands managed by the BLM and National Park Service (NPS); state lands managed by the California Department of Fish and Wildlife (CDFW), and roads managed by California Department of Transportation; railroad crossings managed by BNSF Railway and UPRR; municipal lands managed by SBC, Clark County, and City of Boulder City, Nevada; private lands; and lands owned and managed by SCE. The BLM California Desert District (CDD) Office, BLM Las Vegas Field Office (LVFO), and Mojave National Preserve – NPS unit have received applications to amend the existing authorizations to address SCE's subtransmission line reliability issues.
GridLiance West Core Upgrades (DOI-BLM-NV-S030-2023-0008-RMP-EIS)	155 miles (Clark and Nye Counties)	NEPA in progress.	GridLiance West LLC has applied for four ROWs to build 61 miles of transmission line, as well as substations, switchyards, and ancillary facilities in Clark County, Nevada. The Applicant has requested a 30-year 275-foot-wide ROW for the 230-kV transmission line.
Interstate 15 (I-15) Wildlife Crossings	<5 acres (SBC)	Construction 2025–2027	Caltrans, CDFW, and Brightline West have entered into an agreement to design and construct three dedicated wildlife overcrossings across I-15 and the future Brightline West high-speed rail system, which would connect Las Vegas, Nevada, and Southern California. These overcrossings would provide safe and sustainable passage for wildlife—particularly bighorn sheep—across both the existing highway lanes and the planned high-speed rail within the I-15 median.
Ivanpah Substation Right-of-Way (ROW) (DOI-BLM-CA-D090-2022-0007-EA)	575 acres (SBC)	NEPA completed. Long-term ROW authorized.	SCE and DesertXpress received ROWs to construct substations and transmission lines to support the Brightline West rail project.
Jean-Apex Dry Lakebed Events Special Recreation Permits (SRPs) (DOI-BLM-NV-S010-2025-0063-CX)	<5 acres (Clark County)	NEPA completed. Multiple races per year authorized for 5 years.	The BLM LVFO has received multiple SRP applications to conduct Commercial/Organized Events on Apex and Jean Dry Lakebed. The first two proposed events would include a Las Vegas Drum Circle event and a Desert Biennial Project event. In addition, other Organized/Commercial Events on either Jean or Apex Dry Lakebed, not to exceed a total of 15 similar events per year, are being proposed. Each event would be similar as far as setup, length of time, and area of use. All applicants would be required to submit an operations plan 30 days before the proposed event for BLM approval.
Jeep Jamboree SRP (DOI-BLM-CA-D090-2025-0006-DNA)	450 miles (SBC)	NEPA completed. SRP authorized 2025–2035.	Shawn Gulling submitted an application to the BLM Needles Field Office for an event to occur twice in between the months of April and October, that would consist of a commercial, motorized, guided jeep tour on public lands between the Needles, Barstow, and Palm Springs South Coast Field Offices, California. Upon authorization, the SRP would be issued for up to 10 years (through October 30, 2035), as long as the same routes and staging area are used and all stipulations of the permit are adhered to for the event each year.

Project	Size and Location	Current Status and Length of Operation	Project Summary
LA-Barstow to Vegas Dual Sport Event (LAB2V) (DOI-BLM-CA-D080-2024-0001-CX)	200 miles (SBC)	NEPA completed. SRP authorized 2023–2028.	The LAB2V event consists entirely of street legal, licensed motorcycles in a 2-day, non-speed, non-timed, touring event through the desert between Palmdale, California, and Las Vegas, Nevada. The yearly event occurs on designated open OHV routes (routes approved by the various plan amendments that address OHV use on BLM-managed public land). The event would occur across the BLM Barstow, Ridgecrest, and Needles Field Offices within the CDD.
McCullough Springs Southern Nevada Public Land Management Act (SNPLMA) Acquisition (DOI-BLM-NV-S010-2024-0096-EA)	40 acres (Clark County)	NEPA completed.	The McCullough Springs Land Acquisition was nominated and approved for Environmentally Sensitive Land Acquisition through the Round 18 application process for the SNPLMA. The purpose for the nomination was federal protection of the property's cultural, vegetative, wildlife, and scenic resources and consolidation of public land in the South McCullough Mountain Range. As part of the Round 18 review process, there was a 45-day public comment period from March 1 to April 14, 2021. After successful completion of the screening and evaluation process involving the U.S. Departments of the Interior and Agriculture, the nomination was approved for acquisition funding by the Secretary of the Interior on October 7, 2021 (BL66, Priority 18-1). The subsequent EA was completed in 2024.
McCullough-Victorville (MCCVIC) Transmission Lines 1 and 2	160+ miles (California and Nevada)	California Environmental Quality Act completed. Construction 2026–2028. Long-term ROW.	MCC-VIC Transmission Lines 1 and 2 are existing 500-kV power lines supported by approximately 1,740 single-circuit towers, spanning over 160 miles from Nevada's McCullough Switching Station through mountain ranges and the Mojave Desert to the Victorville Switching Station in California. Originally placed in service by the City of Los Angeles Department of Water and Power (LADWP) in 1936 and 1939 at 287.5 kV, both lines were upgraded to 500 kV by 1980. These lines are part of 14 high-voltage transmission lines on the West of River Path 46, which facilitates energy movement from southeastern California and Nevada to the Colorado River. Recent and ongoing improvements to the MCC-VIC lines aim to increase LADWP's transmission capacity on Path 46, supporting the transition to renewable energy in alignment with Los Angeles's 2021 commitment to 100% carbon-free energy. Upgrades would allow for the delivery of additional renewable energy from the East territory region and increase transmission capacity by 475 megawatts—enough to power 300,000 homes for 1 year.
Middle Mile Broadband 155, 154, 153 (DOI-BLM-CA-D090-2025-0014-CX)	100+ miles (SBC)	NEPA in progress.	The California Middle Mile Broadband Initiative proposes to install broadband fiber optic infrastructure along portions of Interstate 15, Interstate 40, and U.S. Route 95 within the BLM Needles Field Office jurisdiction. This initiative is part of a statewide effort led by the California Department of Technology to expand high-capacity, open-access middle-mile broadband networks, improving connectivity for underserved and rural communities and supporting future last-mile service providers. The project is currently under BLM review and was initiated in coordination with multiple state, local, and federal agencies to address critical gaps in digital infrastructure across California's desert region. The proposed action involves installing fiber optic cable primarily within existing transportation and utility line to minimize new ground disturbance and environmental impacts. The goal is to enhance broadband resiliency, promote economic development, and ensure equitable access to high-speed internet for residents, businesses, and public services.

Project	Size and Location	Current Status and Length of Operation	Project Summary
Nevada Department of Conservation and Natural Resources Communication (NDCNR) Site ROW (DOI-BLM-NV-S010-2025-0044-CX)	<5 acres (Clark County)	NEPA in progress.	The BLM received an application from NDCNR to renew their ROW, serialized as NVNV 105962798, for the operations and maintenance (O&M) of an existing communication facility. The facility provides private mobile radio services to emergency responders in the area. The existing facility includes an 8 × 10–foot equipment shelter on a concrete pad on New York Mountain, approximately 5 miles west of Walking Box Ranch. No new construction or disturbance is proposed with the ROW renewal application. The total acres of existing disturbance for the facility are 0.01 acres, and the total acres of existing disturbance for the existing access road is 1.81 acres.
Nevada Multi-District OHV SRP Programmatic Environmental Assessment (EA) (DOI-BLM-NV-0000-2023-0004-EA)	28,712,700 acres (Nevada)	NEPA completed. SRP authorized for 5–10 years.	The BLM Nevada State Office developed a programmatic EA that covers a range of SRPs for OHV events in Nevada. The development of this EA aids BLM staff in responding to private party applications for events on BLM-administered land throughout Nevada. The BLM has engaged the Ely, Southern Nevada, Battle Mountain, and Carson City District Offices. The planning area for the program is 28,712,700 acres. The programmatic EA streamlines the current SRP process for OHV events and lower the cost burden for applicants who bring valuable economic income to the region, in addition to alleviating processing time for BLM staff. Analysis in the programmatic EA would be limited to existing routes currently or previously used for OHV events in the region.
Rebelle Rally (DOI-BLM-CA-D070-2025-0011-CX)	1,500 miles (California and Nevada)	NEPA completed. SRP authorized for 5–10 years.	Rebelle Rally Enterprises is proposing a multiday women's driving and navigation event across portions of Nevada and California on designated, open routes to be held in October 2025. The event focus would be learning and using maps and compass navigation skills, with an expected field of up to 65 two-person teams (130 total competitors). Teams would use maps, compasses, and road books to navigate from Nevada to Southern California over 8 days of driving. The course would cover approximately 1,500 miles (2,500 kilometers). Teams would work to reach approximately 15–25 checkpoints per day and return to the appropriate base camp location each evening. There would be approximately 70–85 staff using approximately 15 vehicles and up to eight designated media vehicles.
Rigo Favela Access Road ROW (DOI-BLM-CA-D090-2024-0003-CX)	<5 acres (SBC)	NEPA completed. Long-term ROW.	A ROW has been authorized to provide a private landowner access to an inholding west of Nipton, California. The route is designed to minimize ground disturbance and avoid areas with major vegetation.
Searchlight Abandoned Mine Lands (AML) Closures (DOI-BLM-NV-S010-2024-0042-CX)	31 AML sites (Clark County)	NEPA completed.	The BLM AML program enhances public safety by reducing or eliminating the effects of past hard-rock mining in Southern Nevada District. The project is a joint effort between the BLM, U.S. Army Corps of Engineers, Nevada Division of Minerals, and Bureau of Reclamation. The Proposed Action would be performed shortly after receiving approval by BLM due to the increased public recreation activities in the area. The Proposed Action is to close 31 AML features in southern Nevada. These 31 AML hazards are associated with the historic mining activities surrounding Searchlight, Nevada.

Project	Size and Location	Current Status and Length of Operation	Project Summary
Searchlight U.S. Route (U.S.) 95 Roadway Rehabilitation	21 miles (Clark County)	Construction currently underway.	NDOT is undertaking a roadway rehabilitation project on U.S. 95 in Clark County, improving approximately 20.41 miles from Milepost 17.442 to Milepost 37.849 near Searchlight. Work is expected to enhance roadway conditions and safety while extending the lifespan of this key transportation corridor. The project scope includes milling and paving, new signage and striping, hydraulic and drainage enhancements, fence repair, and tortoise fencing to protect local wildlife. These enhancements would contribute to safer and more efficient travel for motorists along this arterial route, which serves both commuter and freight traffic.
Shadow Valley Well System (SVWS) Modification (DOI-BLM-CA-D090-2025-0028-CX)	5 acres (Clark County)	NEPA completed. Construction through 2025.	MP Materials has proposed an amendment to its existing MPO (CACA-056118) to install approximately 1,750 feet of underground pipeline to connect the well to its existing SVWS. The pipeline would cross BLM-managed land, resulting in approximately 2.24 acres of temporary surface disturbance, and would be installed using horizontal directional drilling to minimize impacts.
Southern Nevada Off Road Enthusiasts (SNORE) 250-Night Race (DOI-BLM-NV-S010-2019-0017-DNA)	85 miles (Clark County)	NEPA completed.	SNORE is proposing to organize an off-highway vehicle race event in the Jean, Nevada area. The race would consist of approximately 70 off-road truck and buggies competing for time and/or points on an 85-mile-long course. All activities would be on existing roads, trails, and other disturbed areas.
Southern California Edison (SCE) Boulder-Chino Transmission Line (NVNV106086177)	51 miles (California and Nevada)	Existing transmission line. Long-term ROW.	Regular O&M activities would include access road grading/repair, tensioning/pulling sites or amp-jack to lift towers and reduce wire sag, and removing or mowing vegetation to comply with fire and fuels stipulations.
SCE Cima-Eldorado-Pisgah 223-kilovolt (kV) Transmission Line (NVNV105968604)	30 miles (California and Nevada)	Existing transmission line. Long-term ROW.	Regular O&M activities would include access road grading/repair, tensioning/pulling sites or amp-jack to lift towers and reduce wire sag, and removing or mowing vegetation to comply with fire and fuels stipulations.
SCE Eldorado-Lugo-Mohave 500-kV Transmission Line (NVNV105847280)	26 miles (California and Nevada)	Existing transmission line. Long-term ROW.	Regular O&M activities would include access road grading/repair, tensioning/pulling sites or amp-jack to lift towers and reduce wire sag, and removing or mowing vegetation to comply with fire and fuels stipulations.
Southern Nevada Supplemental Airport (DOI-BLM-NV-S010-2025-0035-RMP-EIS)	6,000 acres (Clark County)	NEPA in progress.	The Clark County Department of Aviation—owner of Harry Reid International Airport (LAS)—is proposing the development and operation of the Southern Nevada Supplemental Airport (SNSA) in Clark County, Nevada. The Federal Aviation Administration and BLM are joint lead agencies for the preparation of an environmental impact statement (EIS) in compliance with the NEPA of 1969, as amended (42 USC 4321 et seq.). BLM has determined the project may require a Resource Management Plan Amendment (RMPA), and as a result, the document would be a combined EIS/RMPA. The proposed RMPA would consider modifying the Visual Resource Management class to evaluate the established Ivanpah Transportation and Utilities Corridor, which would require amending the existing 1998 Las Vegas Resource Management Plan (BLM 1998b).

Project	Size and Location	Current Status and Length of Operation	Project Summary
Union Pacific Railroad (UPRR) Communication Use Lease Amendment (DOI-BLM-CA-D090-2024-0004-CX)	<5 acres (SBC)	NEPA completed. Long-term ROW authorized.	The BLM has approved an application from UPRR to amend their existing communication-use lease site, BLM serial number CACA053713. This amendment would include replacing their existing 60-foot-tall guyed tower with an 80-foot-tall self-supporting tower to comply with current Telecommunications Industry Association standards.
West-Wide Energy Corridor 224-225	86 miles and 36,236 acres (Clark County)	Proposed and dependent on land use planning decisions.	Corridor 224-225 extends northwest to southeast along the southwestern Nevada border with California. Federally designated portions of this corridor are entirely on BLM-administered lands, with a width of 3,500 foot width. Corridor 224-225 is designated as multimodal and can therefore accommodate both electrical transmission and pipeline projects. It was not established as a corridor prior to its designation as a Section 368 energy corridor. The corridor is under the jurisdiction of the BLM Southern Nevada District and Pahrump Field Office and LVFO in Nevada

Table B-1.3.4-1. Federal and State Ambient Air Quality Standards

Pollutant	NAAQS Primary Standards		NAAQS Secondary Standards		CAAQS Level (Averaging Time)
	Level	Averaging Time	Level	Averaging Time	
CO	9 ppm (10 mg/m^3)	8-hour*	None	N/A	9 ppm (10 mg/m^3)
	35 ppm (40 mg/m^3)	1-hour*	None	N/A	20 ppm (23 mg/m^3)
Pb	0.15 $\mu g/m^3$	Rolling 3-month average†	0.15 $\mu g/m^3$	Rolling 3-month average†	None (N/A)
NO_2 (or NO_x)	53 ppb (100 $\mu g/m^3$)	Annual (arithmetic average)	53 ppb (100 $\mu g/m^3$)	Annual (arithmetic average)	30 ppb (57 $\mu g/m^3$)
	100 ppb (188 $\mu g/m^3$)	1-hour‡	None	N/A	180 ppb (339 $\mu g/m^3$)
PM_{10}	150 $\mu g/m^3$	24-hour§	150 $\mu g/m^3$	24-hour§	50 $\mu g/m^3$ (1-hour) 20 $\mu g/m^3$ (annual)
$PM_{2.5}$	9.0 $\mu g/m^3$	Annual¶ (arithmetic average)	15.0 $\mu g/m^3$	Annual¶ (arithmetic average)	12.0 $\mu g/m^3$
	35 $\mu g/m^3$	24-hour#	35 $\mu g/m^3$	24-hour#	N/A
O_3	0.070 ppm (137 $\mu g/m^3$)	8-hour**	0.070 ppm (137 $\mu g/m^3$)	8-hour**	0.070 ppm (8-hour) 0.09 ppm (1-hour)
SO_2 (or SO_x)	75 ppb (196 $\mu g/m^3$)	1-hour††	10 ppb‡‡	Annual	0.25 ppm (1-hour) 0.04 ppm (24-hour)

Source: U.S. Environmental Protection Agency (2025d); California Air Resources Board ([CARB] 2024).

Notes:

N/A = not applicable.

$\mu g/m^3$ = micrograms per cubic meter.

mg/m^3 = milligrams per cubic meter.

ppb = parts per billion.

ppm = parts per million.

* Not to be exceeded more than once per year.

† Not to be exceeded.

‡ To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 100 ppb (effective January 22, 2010).

§ Not to be exceeded more than once per year on average over 3 years.

¶ To attain this standard, the 3-year average of the weighted annual mean $PM_{2.5}$ concentrations from single or multiple community-oriented monitors must not be exceeded.

To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 $\mu g/m^3$ (effective December 17, 2006).

** To attain this standard, the 3-year average of the fourth highest daily maximum 8-hour average O_3 concentrations measured at each monitor within an area over each year must not exceed 0.070 ppm.

†† To attain this standard, the 3-year average of the 99th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 75 ppb.

‡‡ Annual mean, averaged over 3 years.

Table B-1.3.6-1. Wildlife Species Documented during Surveys within the Disturbance Footprint

Common Name	Scientific Name	Listing Status*
Birds		
American crow	*Corvus brachyrhynchos*	
American kestrel	*Falco sparverius*	
Anna's hummingbird	*Calypte anna*	
Ash-throated flycatcher	*Myiarchus cinerascens*	
Band-tailed pigeon	*Patagioenas fasciata*	
Barn owl	*Tyto alba*	
Bendire's thrasher	*Toxostroma bendirei*	BCC, BLM S
Black phoebe	*Sayornis nigricans*	
Black-tailed gnatcatcher	*Polioptila melanura*	
Black-throated sparrow	*Amphispiza bilineata*	
Cactus wren	*Campylorhynchus brunneicapillus*	
Canyon wren	*Catherpes mexicanus*	
Cassin's kingbird	*Tyrannus vociferans*	
Common nighthawk	*Chordeiles minor*	BLM S
Common poorwill	*Phalaenoptilus nuttallii*	
Common raven	*Corvus corax*	
Costa's hummingbird	*Calypte costae*	BCC
Gambel's quail	*Callipepla gambelii*	
Gilded flicker	*Colaptes chrysoides*	BCC, BLM S
Golden eagle	*Aquila chrysaetos*	BLM S, BGEPA
Great horned owl	*Bubo virginianus*	
Greater roadrunner	*Geococcyx californianus*	
Great-tailed grackle	*Quiscalus mexicanus*	
Horned lark	*Eremophila alpestris*	
House finch	*Carpodacus mexicanus*	
Juniper titmouse	*Baeolophus ridgewayi*	
Killdeer	*Charadrius vociferus*	
Ladder-backed woodpecker	*Picoides scalaris*	
Lesser goldfinch	*Spinus psaltria*	
Lesser nighthawk	*Chordeiles acutipennis*	
Loggerhead shrike (nesting)	*Lanius ludovicianus*	BLM S
Merlin	*Falco columbarius*	
Mourning dove	*Zenaida macroura*	
Northern flicker	*Colaptes auratus*	
Northern mockingbird	*Mimus polyglottos*	
Phainopepla	*Phainopepla nitens*	BLM S
Pinyon jay	*Gymnorhinus cyanocephalus*	BCC, BLM S

Common Name	Scientific Name	Listing Status*
Red-tailed hawk	*Buteo jamaicensis*	
Rock wren	*Salpinctes obsoletus*	
Say's phoebe	*Sayornis saya*	
Scott's oriole	*Icterus parisorum*	BCC
Song sparrow	*Melospiza melodia*	
Swainson's hawk	*Buteo swainsoni*	BLM S
Turkey vulture	*Cathartes aura*	
Verdin	*Auriparus flaviceps*	BLM S
Western kingbird	*Tyrannus verticalis*	
Western meadowlark	*Sturnella neglecta*	
Western tanager	*Piranga ludoviciana*	
White-crowned sparrow	*Zonotrichia leucophrys*	
White-throated swift	*Aeronautes saxatilis*	
Wilson's warbler	*Wilsonia pusilla*	
Yellow-rumped warbler	*Dendroica coronata*	
Mammals		
American badger	*Taxidea taxus*	
Big brown bat	*Eptesicus fuscus*	BLM S
Botta's pocket gopher	*Thomomys bottae*	BLM S
California ground squirrel	*Spermophilus beecheyi*	
California myotis	*Myotis californicus*	BLM S
Canyon bat	*Parastrellus hesperus*	BLM S
Coyote	*Canis latrans*	
Desert bighorn	*Ovis canadensis nelsoni*	BLM S
Desert kangaroo rat	*Dipodomys deserti*	
Desert woodrat	*Neotoma lepida*	
Fringed myotis	*Myotis thysanodes*	BLM S
Kit fox	*Vulpes macrotis*	
Mexican free-tailed bat	*Tadarida brasiliensis*	BLM S
Mountain lion	*Puma concolor*	
Mule deer	*Odocoileus hemionus*	
Pallid bat	*Antrozous pallidus*	BLM S
Small footed myotis	*Myotis ciliolabrum*	BLM S
Townsend's big-eared bat	*Corynorhinus townsendii*	BLM S
White-tailed antelope squirrel	*Ammospermophilus leucurus*	
Yuma bat	*Myotis yumanensis*	BLM S
Reptiles		
Common side-blotched lizard	*Uta stansburiana*	

Common Name	Scientific Name	Listing Status*
Desert horned lizard	*Phrynosoma platyrhinos*	BLM S
Desert iguana	*Dipsosaurus dorsalis*	BLM S
Desert spiny lizard	*Sceloporus magister*	
Desert tortoise	*Gopherus agassizii*	BLM S, FT
Gopher snake	*Pituophis catenifer*	
Great Basin whiptail	*Aspidoscelis tigris tigris*	
Long-nosed leopard lizard	*Gambelia wislizenii*	
Mojave patch-nosed snake	*Salvadora hexalepis mojavensis*	
Zebra-tailed lizard	*Callisaurus draconoides*	

Notes:

*Federal Status Codes:

BCC = Birds of Conservation Concern.
BGEPA = Bald and Golden Eagle Protection Act.
BLM S = Bureau of Land Management: Sensitive.
FT = Federally Listed Threatened.

Table B-1.3.6-2. LANDFIRE Land Cover Types within the Analysis Area

Land Cover	Number of Acres in the Analysis Area
Mojave Mid-Elevation Mixed Desert Scrub	4,009.97
Quarries-Strip Mines-Gravel Pits-Well and Wind Pads	479.71
Developed-Roads	93.38
North American Warm Desert Bedrock Cliff and Outcrop	54.71
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	51.22
North American Warm Desert Pavement	36.30
North American Warm Desert Ruderal & Planted Grassland	11.28
Sonora-Mojave Semi-Desert Chaparral	5.56
Inter-Mountain Basins Semi-Desert Grassland	3.08
Sonora-Mojave Mixed Salt Desert Scrub	2.00
North American Warm Desert Badland	0.44
North American Warm Desert Wash Shrubland	0.44
North American Warm Desert Volcanic Rockland	0.44
North American Warm Desert Ruderal & Planted Scrub	0.22
Developed-Low Intensity	0.22
Western Warm Temperate Urban Shrubland	0.16
Total	**4,749.14**

Source: LANDFIRE (2024).

Table B-1.3.6-3. Special-Status Wildlife Species with the Potential to Occur in the Project Area

Common Name (*Scientific Name*)	**Special Status***	**Range or Habitat Requirements**	**Presence in the Study area**
Invertebrates			
Monarch butterfly	FC	Found in coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include *Antirrhinum*, *Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*.	Unlikely to occur. The study area is outside of the known wintering range for this species; thus, focused surveys were not conducted for this monarch population. However, the presence of Mojave milkweed (*Asclepias nyctaginifolia*) within the Project boundary suggests that suitable summer breeding and foraging habitat may be present.
Reptiles			
Banded gila monster (*Heloderma suspectum cinctum*)	BLM_S	Inhabits the lower slopes of rocky canyons and arroyos, but is also found on desert flats among scrub and succulents. Eggs are laid in soil in excavated nests; thus, soil must be sandy or friable.	Unlikely to occur. Desert scrub may provide some cover/foraging, but habitat features and local suitability appear limited. Was not observed during surveys.
Desert horned lizard (*Phrynosoma platyrhinos*)	BLM_S	Occurs in open, sparsely to moderately vegetated desert flats and valleys with sandy to gravelly soils, including alluvial fans, washes, and dunes; commonly associated with creosote-bursage flats and Mojave Desert scrub where loose soils support burrowing/cover and prey availability.	Present. Suitable habitat is present, and the species was confirmed present during surveys.
Desert iguana (*Dipsosaurus dorsalis*)	BLM_S	Associated with warm desert scrub and wash habitats, with greatest abundance in sandy creosote flats; also uses desert washes, succulent shrub habitats, and alkaline scrub, and may occur in rocky or hilly areas where suitable cover is present. Not available in CNDDB element descriptions.	Present. Suitable habitat is present, and the species was confirmed present during surveys.
Desert tortoise (*Gopherus agassizii*)	FT, SCE, BLM_S	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	Present. Suitable habitat is present, and the species was confirmed present during surveys.

Common Name (*Scientific Name*)	**Special Status***	**Range or Habitat Requirements**	**Presence in the Study area**
Birds			
Bendire's thrasher (*Toxostoma bendirei*)	SSC, BLM_S	Migratory; local spring/summer resident in flat areas of desert succulent shrub/Joshua tree habitats in Mojave Desert. Nests in cholla, yucca, palo verde, thorny shrub, or small tree, usually 0.5 to 20 feet above ground.	Present. Desert scrub nesting/foraging species; documented as present.
Black-chinned sparrow (*Spizella atrogularis*)	BLM_S	Arid brushlands on rugged mountain slopes, open chaparral, and sagebrush.	Unlikely to occur. Habitat is typically chaparral/rocky brushy slopes; not anticipated in the desert scrub study area and not expected. Was not observed during surveys.
Burrowing owl (*Athene cunicularia*)	SC, BLM_S	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Likely to occur. Suitable habitat is present; occupancy depends on suitable burrows/colonial ground squirrels and confirmation per CDFW (2012). Suitable burrows were observed during protocol surveys in the utilities ROW.
Common nighthawk (*Chordeiles minor*)	BLM_S	Mountains and plains in open and semi-open areas, consisting of open coniferous forests, savanna, grasslands, fields, and in the vicinity of cities and towns.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Ferruginous hawk (wintering) (*Buteo regalis*)	BLM_S	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Likely to occur (foraging only). Suitable foraging habitat is present during the wintering season; nesting is not expected within the study area. Was not observed during surveys.
Golden eagle (*Aquila chrysaetos*)	FP, BGEPA, BLM_S	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Occurs. Suitable foraging habitat is present, and the species was confirmed present during surveys.
Le Conte's thrasher (*Toxostoma lecontei*)	SSC, BLM_S	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Likely to occur. Suitable desert scrub habitat is present; species may occur at low frequency and detectability may be seasonal. Was not observed during surveys.
Loggerhead shrike (nesting) (*Lanius ludovicianus*)	SSC, BLM_S	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Phainopepla (*Phainopepla nitens*)	BLM_S	Desert scrub, mesquite, juniper and oak woodland, tall brush, riparian woodland and orchards.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.

Common Name (*Scientific Name*)	**Special Status***	**Range or Habitat Requirements**	**Presence in the Study area**
Pinyon jay (*Gymnorhinus cyanocephalus*)	BLM_S	Piñon-juniper woodland, and less frequently pine woodland.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys/observations.
Sagebrush sparrow (*Artemisiospiza nevadensis*)	BLM_S	Breeds in shrubsteppe habitats consisting of big sagebrush, saltbush, rabbitbrush, shadscale, and bitterbrush.	Likely to occur. Suitable habitat may be present depending on local shrub composition; species may occur seasonally or intermittently. Was not observed during surveys.
Swainson's hawk (*Buteo swainsoni*)	ST, BLM_S	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Likely to occur. Suitable habitat is present, and the species has potential to forage on site. Was not observed during surveys.
Mammals			
American badger (*Taxidea taxus*)	SSC, BLM_S	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Desert kit fox (*Vulpes macrotis arsipus*)	CPF	Desert kit fox occurs in a wide range of desert habitats consisting of desert scrub and washes, and may also occur in grasslands or ruderal habitats.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
California myotis (*Myotis californicus*)	BLM_S	Variety of habitats including desert, chaparral, woodland, and forest. The species forages insects in canyon areas, woodlands, forests, and shrublands.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys (Brown-Berry 2018).
Canyon bat (*Parastrellus hesperus*)	BLM_S	Occurs in deserts, grasslands, and woodlands, and is the most abundant bat species in desert habitats. The species forages insects in canyon/cliff areas and over water. Roosting and maternal colonies occur in rock crevices.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys (Brown-Berry 2018).
Hoary bat (*Lasiurus cinereus*)	BLM_S	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Likely to occur. Suitable foraging habitat is present; occurrence may be seasonal/transient (Brown-Berry 2018). Was not observed during surveys.
Pallid bat (*Antrozous pallidus*)	SSC, BLM_S	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys (Brown-Berry 2018).

Common Name (*Scientific Name*)	**Special Status***	**Range or Habitat Requirements**	**Presence in the Study area**
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Not expected to occur. Suitable foraging habitat is present; however, the project is outside of the range for this species. Was not observed during surveys.
Townsend's big-eared bat (*Corynorhinus townsendii*)	SSC, BLM_S	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Western mastiff bat (*Eumops perotis californicus*)	SSC, BLM_S	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Likely to occur. Suitable foraging habitat is present; roosting potential depends on availability of appropriate roost features within the study area. Was not observed during surveys.
Western yellow bat (*Lasiurus xanthinus*)	SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Not expected to occur. Suitable foraging habitat is present; however, the project is outside of the range for this species. Was not observed during surveys.
Mexican free-tailed bat (*Tadarida brasiliensis*)	BLM_S.	Occurs in open habitats in grasslands, shrublands, woodlands, and forests. The species forages insects at higher flying elevations (around 100-feet-high) around waterbodies and other occupied habitats. Roosting and maternal colonies occur in caves, mines, buildings, and crevices.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys. Was not observed during surveys.
Spotted bat (*Euderma maculatum*)	SSC, BLM_S	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	Likely to occur. Suitable foraging habitat is present; roosting potential depends on availability of appropriate roost features within the study area. Was not observed during surveys.
Big brown bat (*Eptesicus fuscus*)	BLM_S	variety of habitats, except for the hottest deserts and highest mountain slopes. The species forages for insects in open habitats. Roosting and material colonies occur primarily in buildings, although some records have indicated that caves, mines, and trees may also be utilized.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
California leaf-nosed bat (*Macrotus californicus*)	SSC, BLM_S	Desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats. Needs rocky, rugged terrain with mines or caves for roosting.	Likely to occur. Suitable foraging habitat is present; roosting potential depends on availability of appropriate roost features within the study area. Was not observed during surveys.

Common Name (*Scientific Name*)	**Special Status***	**Range or Habitat Requirements**	**Presence in the Study area**
Yuma myotis (*Myotis yumanensis*)	BLM_S	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Fringed myotis (*Myotis thysanodes*)	BLM_S	In a wide variety of habitats, optimal habitats are pinyon-juniper, valley foothill hardwood and hardwood-conifer. Uses caves, mines, buildings or crevices for maternity colonies and roosts.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Long-legged myotis (*Myotis volans*)	BLM_S	Most common in woodland and forest habitats above 4000 ft. Trees are important day roosts; caves and mines are night roosts. Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	Likely to occur. Suitable foraging habitat is present; roosting potential depends on availability of appropriate roost features within the study area. Was not observed during surveys.
Small-footed myotis (*Myotis ciliolabrum*)	BLM_S	Wide range of habitats mostly arid wooded and brushy uplands near water. Seeks cover in caves, buildings, mines, and crevices. Prefers open stands in forests and woodlands. Requires drinking water. Feeds on a wide variety of small flying insects.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Big free-tailed bat (*Nyctinomops macrotis*)	SSC, BLM_S	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Likely to occur. Suitable foraging habitat is present; roosting potential depends on availability of appropriate roost features within the study area. Was not observed during surveys.
Desert bighorn sheep (*Ovis canadensis nelsoni*)	FP, BLM_S	Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage.	Occurs. Suitable habitat is present, and the species was confirmed present during surveys.
Mountain lion (*Puma concolor*)	SC	Occupies a broad range of California habitats (including redwood and mixed forests, coastal brushlands, and mountainous terrain), generally using areas that provide cover and an adequate prey base and occurring over large home ranges.	Likely to occur. Suitable habitat is present, the Project is within the mountain lion range, and supports suitable habitat, including vegetation and topography. Two known observations over the past 30 years.

Table B-1.3.6-4. Special-Status and Threatened or Endangered Wildlife Analysis Area and Indicators

Species	Spatial Analysis Area (Where and Why)	Impact Indicators
Desert tortoise (*Gopherus agassizii)*	• Disturbance footprint intersecting suitable and/or critical habitats tortoise habitat plus a 150-meter (500-foot buffer) to account for edge effects (Desert Tortoise Council 2017) • Captures direct mortality risk, habitat loss, and fragmentation	• Change in quality/loss of habitat acreage and critical habitat • Calculated tortoise population
Desert bighorn sheep (*Ovis canadensis nelsoni)*	• Disturbance footprint plus a 500-meter (1,640-foot) buffer encompassing adjacent rugged terrain. This area includes core breeding habitat surveyed by ECORP (2021) and aligns with established extents for helicopter surveys (CDFW 2019). • Encompasses adjacent rugged terrain to account for displacement from high-use areas and sensitive lambing period (February 1–May 31)	• Presence of individuals during surveys • Loss of habitat and movement corridor acreage
Golden eagle (*Aquila chrysaetos*)	• Disturbance footprint plus a 1-mile (nesting) and a 2-mile (near blasting) buffer (USFWS 2021b) and (DRECP 2016; LUP-BIO-IFS-2, Table 22) • Captures potential disturbance to foraging corridors and active/historic nest sites	• Number of eagle foraging observations • Distance to nearest active or historic nest • Determination of an Eagle Take Permit requirement
Monarch butterfly (*Danaus plexippus*)	• Disturbance footprint plus a 200-foot buffer around milkweed patches or flowering foraging habitat (USFWS 2023) • Captures risks to breeding and migratory stopover habitat	• Presence of individuals or milkweed • Loss of habitat acreage
Special-Status Bats	• Disturbance footprint plus a 500-foot buffer to encompass adjacent areas that may contain daytime, nighttime, or maternity roosting habitat (DRECP 2016; LUPA-BIO-BAT-1) • Accounts for sensitivity to light, noise, and vibration near roosting sites	• Acres of foraging habitat disturbed • Number of active roosts detected
Special-Status Avian Species	• Disturbance footprint plus a 500-foot buffer to encompass adjacent nesting habitat (BLM 2016; DFA-BIO-IFS-1 & 2, Table 21 and 22) • Captures noise and visual disturbance and direct habitat removal that could impact nesting activity	• Presence of individuals during surveys • Loss of habitat acreage
Special-Status Mammals	• Disturbance footprint plus a 50-foot buffer (DRECP 2016; LUPA-BIO-IFS-29) • Captures habitat loss and fragmentation	• Presence of individuals during surveys • Loss of habitat acreage
Special-Status Reptiles	• Disturbance footprint plus a 50-foot buffer (DRECP 2016; CONS-BIO-DUNE-1) • Captures habitat loss and fragmentation	• Presence of individuals during surveys • Loss of habitat acreage
Western burrowing owl (*Athene cunicularia hypugaea*)	• Disturbance footprint plus a 150-meter (500-foot) buffer (CDFW 2012) • Protects burrows and individuals from noise and visual disturbance	• Presence of individuals during surveys • Loss of habitat acreage

Table B-1.3.6-5. Landfire Land Cover Data for the Vegetation Analysis Area

Cover Class Name	Acres*	Percent Cover
Mojave Mid-Elevation Mixed Desert Scrub	3602	84%
Quarries-Strip Mines-Gravel Pits-Well and Wind Pads	480	11%
North American Warm Desert Bedrock and Outcrop	55	1%
Sonora-Mojave Creosotebush-White Bursage Desert Scrub	44	1%
Developed Roads	40	1%
North American Warm Desert Pavement	36	1%
North American Warm Desert Ruderal and Planted Grassland	11	<1%
Sonora-Mojave Semi-Desert Chaparral	6	<1%
Inter-Mountain Basins Semi-Desert Grassland	3	<1%
Sonora-Mojave Mixed Salt Desert Scrub	2	<1%
North American Warm Desert Badland	<1	<1%
North American Warm Desert Wash Shrubland	<1	<1%
North American Warm Desert Volcanic Rockland	<1	<1%
North American Warm Desert Ruderal & Planted Scrub	<1	<1%
Developed-Low Intensity	<1	<1%
Western Warm Temerate Urban Shrubland	<1	<1%
Total	**4279**	**100**

Notes:

* Rounded to the nearest whole acre.

Table B-1.3-7-1. Cultural Resources Documented in the Project Area

Cultural Resource Type	California	Nevada	Total
Listed	0	1	1
Eligible	3	2	5
Unevaluated	8	0	8
Not Eligible*	78	48	126
Isolates†	132	51	183
Total	**221**	**102**	**323**

Notes:

* Archaeological and historic built-environment resources that have been determined or are recommended not eligible for the National Register of Historic Places (NRHP).

† Isolates are generally not considered eligible for listing on the NRHP.

Table B-1.3.9-1. Existing Land Use Authorizations in the Analysis Area

Authorization Type	Metric (count/acres)
Roads	Five authorizations/161 acres
Railroad	Two authorizations/30 acres
Pipeline	Three authorizations/233 acres

Authorization Type	Metric (count/acres)
Power transmission lines	Eight authorizations/66 acres
Mineral material sites	Two authorizations/6 acres
Land Acquisition	One authorization/13 acres
Active mining claims: lode claims	352
Active mining claims: placer claims	38
Active mining claims: milling site	716
Active mining/minerals operations	1

Table B-1.3.11-1. Estimation of Annual Visits in the Recreation Analysis Area

Zone	Description	Annual Visits	Acres	Annual Visits per Acre
1	3-mile circle from center of mine	1,620	18,000	0.09
2	Remainder of Castle Mountain ERMA, ACEC, and NM	1,260	14,000	0.09
3	Remainder of the recreation analysis area	37,800	420,000	0.09
Total		**40,680**	**452,000**	**0.09**

Notes:
ACEC = Area of critical environmental concern.
ERMA = Extensive Recreation Management Area.
NM = National Monument.

Table B-1.3.11-2. Disturbance Breakdown for Special Designations

Special Designation	Total Area (acres)	Acres In Approved 1998 Mine Plan Boundary	Acres In Proposed Mine Boundary Expansion (no proposed disturbance)	Acres of Proposed Short-Term Disturbance*	Acres of Proposed Long-Term Disturbance†
CMNM‡	21,000	N/A	N/A	N/A	N/A
AKANM	506,814	N/A	N/A	190	53
MTNM§	1,600,000	N/A	N/A	N/A	N/A
Castle Mtn. ERMA	7,915	1,474	997	10	1,430
Ivanpah Valley ERMA	25,982	N/A	N/A	33	7
Southern Nevada ERMA	2,500,000	N/A	N/A	175	85.5
National Trails SRMA (and Old Spanish National Historic Trail) §	484,000	N/A	N/A	N/A	N/A
Castle Mountain ACEC	3,270	N/A	N/A	2	1
Piute-Eldorado ACEC	323,690	N/A	N/A	177	51
Ivanpah ACEC	78,190	N/A	N/A	16	7
Piute-Fenner ACEC§	155,710	N/A	N/A	N/A	N/A
MNP§	1,600,000	N/A	N/A	N/A	N/A

Special Designation	Total Area (acres)	Acres In Approved 1998 Mine Plan Boundary	Acres In Proposed Mine Boundary Expansion (no proposed disturbance)	Acres of Proposed Short-Term Disturbance*	Acres of Proposed Long-Term Disturbance†
Wee Thump Joshua Tree Wilderness§	6,050	N/A	N/A	N/A	N/A
Mojave Wilderness§	695,200	N/A	N/A	N/A	N/A

Notes:

N/A indicates that the boundary of the special designation does not overlap with the specified disturbance category.

* Temporary disturbance refers to impacts associated with utility construction.

† Permanent disturbance persists through O&M and reclamation and may result from either Project operation or utilities.

‡ Although the main CMM Access Road (Walking Box Ranch Road) appears to cross CMNM in the figures provided, there is no overlap with the CMNM under the Proposed Action.

§ The Special Designation was present in the 15-mile-buffer included in the visual resources analysis area but does not overlap the Project footprint.

Table B-1.3.11-3. Change in Recreational Visits by Impact Severity

Effects Level	Assigned Percent Reduction in Visits (%)
None or negligible	0.0
Very low	5.0
Low	10.0
Medium-low	17.5
Medium	25.0
Medium-high	32.5
High	40.0
Very high	80.0

Table B-1.3.11-4. Estimated Reductions in Recreational Visits

Project Phase	Zone	Annual Visits	Assigned Effects Level	Percent Reduction in Visits (%)	Annual Reduction in Visits
Construction	1	1,620	High*	40.0	648
	2	1,260	Medium†	25.0	315
	3	37,800	Very low‡	5.0	1,890
	Combined	**40,680**	**N/A**	**7.0**	**2,853**
Operation and Reclamation	1	1,620	Medium-high§	32.5	527
	2	1,260	Medium-low¶	17.5	221
	3	37,800	Negligible#	0.0	0
	Combined	**40,680**	**N/A**	**1.8**	**747**

Notes:

N/A = Not applicable.

* Development of new mine pits and other infrastructure could result in increases in noise, traffic along Walking Box Ranch Road/CMM Access Road, dust, and changes in visual resources. These would be highest in Zone 1, which immediately surrounds the mine, and which is assigned a high effects level on average. Impacts are expected to be highest close to the mine and would decrease with distance across Zone 1.

† Development of new mine pits and other infrastructure could result in increases in noise and changes in visual resources in Zone 2. These would lower in Zone 2 than in Zone 1. Zone 2 is assigned a medium effects level on average. Impacts are expected to be highest closer to the mine and would decrease with distance across Zone 2.

‡ During construction, Zone 3 would primarily be affected by traffic and by construction of the waterline and the power line. These would result in traffic, noise, dust, and changes in visual resources near their routes. The vast majority of Zone 3 would be unaffected. Zone 3 is assigned a very low effects level on average.

§ Operation and reclamation activities would likely have continued noise, dust, and potential changes in visual resources within Zone 1. The assigned effects level of medium-high reflects a slight decrease in activity compared to construction.

¶ Similarly, the effects level is expected to be less in Zone 2 during O&M and reclamation than during construction, resulting in a change from medium to medium-low.

The vast majority of Zone 3 would be unaffected or minimally affected during O&M reclamation activities. Thus, it is assigned an effects level of negligible.

Table B-1.3.12-1. Population Between 2010 and 2023 in the Analysis Area

Population Metric	California	San Bernardino County	Nevada	Clark County
2010 Population	36,637,290	2,005,287	2,633,331	1,895,521
2023 Population	39,242,785	2,187,816	3,141,000	2,293,764
Population Change (2010–2023)	2,605,495	182,529	507,669	398,243
Percentage Change in Population (2010–2023)	7.1%	9.1%	19.3%	21.0%
Median Age, 2010	34.9	31.2	35.9	35.1
Median Age, 2023	37.6	34.4	38.9	38.3

Source: U.S. Department of Commerce (2023a).

Table B-1.3.12-3. Housing in the Analysis Area

Housing Statistic	California	San Bernardino County	Nevada	Clark County
Total Housing Units	14,532,683	738,535	1,307,338	935,960
Occupied	13,434,847	668,004	1,183,393	847,378
Vacant	1,097,836	70,531	123,945	88,582
For rent	256,828	8,535	35,043	27,817
Rented, not occupied	47,842	1,478	5,284	4,018
For sale only	65,471	4,624	8,274	5,827
Sold, not occupied	56,032	2,517	4,686	3,492
Seasonal, recreational, occasional	361,608	38,012	36,351	25,075
For migrant workers	2,659	34	233	62
Other vacant	307,396	15,331	34,074	22,291
Median Rent	$1,956	$1,706	$1,489	$1,518
Median Home Value	$695,400	$475,000	$406,100	$400,800

Source: U.S. Department of Commerce (2023b).

Table B-1.3.12-4. Housing in Towns Near the Project Area

Housing Statistic	Cal-Nev-Ari Nevada (CDP)	Henderson Nevada (City)	Las Vegas, Nevada (City)	Laughlin, Nevada (CDP)	Searchlight, Nevada (CDP)
Total Housing Units	188	136,901	263,958	5,431	421
Occupied	131	127,507	244,429	4,364	232
Vacant	57	9,394	19,529	1,067	189
For rent	0	2,101	5,318	104	0
Rented, not occupied	0	771	812	12	0
For sale only	0	999	1,548	32	0
Sold, not occupied	12	374	881	0	13
Seasonal, recreational, occasional	7	3,608	4,242	794	93
For migrant workers	0	0	28	0	0
Other vacant	38	1,541	6,700	125	83
Median Rent	$835	$1,750	$1,456	$991	$475
Median Home Value	$66,700	$465,000	$395,300	$255,000	$128,200

Source: U.S. Department of Commerce. (2023b)

Table B-1.3.12-5. Hotel Rooms in Locations Near the Project Area

Hotel Statistic	Clark County	Las Vegas	Laughlin
Room Inventory (2024)	164,182	153,719	8,864
Room Inventory (2025)	160,894	150,220	8,864
Percent Room Inventory Change 2024 to 2025	−2.0%	−2.3%	0.0%
Occupancy Levels Over Time			
2023 Third Quarter	N/A	82.7%	55.9%
2023 Fourth Quarter	N/A	83.2%	42.0%
2024 First Quarter	80.8%	82.7%	47.0%
2024 Second Quarter	83.8%	85.6%	53.6%
2024 Third Quarter	N/A	82.9%	54.1%
2024 Fourth Quarter	N/A	83.0%	41.5%
2025 First Quarter	79.8%	81.8%	45.4%
2025 Second Quarter	80.4%	82.1%	52.6%
Net Occupancy Level Change			
Third Quarter 2023 to 2024	N/A	0.2%	−1.8%
Fourth Quarter 2023 to 2024	N/A	−0.1%	−0.5%
First Quarter 2024 to 2025	−0.9%	−0.8%	−1.6%
Second Quarter 2024 to 2025	−3.4%	−3.5%	−1.0%

Source: Travel Nevada (2025).

Note:

N/A = Not available.

Table B-1.3.12-6. Jobs by Industry in the Analysis Area

Industry	California	San Bernardino County	Nevada	Clark County
Non-Services Related	**3,203,954 (12.7%)**	**126,384 (10.6%)**	**227,268 (11.0%)**	**129,141 (8.5%)**
Farm	228,186 (0.9%)	2,466 (0.2%)	5,208 (0.3%)	437 (0.0%)
Forestry, fishing, and agricultural services	259,767 (1.0%)	1,201 (0.1%)	2,214 (0.1%)	491 (0.0%)
Mining (including fossil fuels)	36,926 (0.1%)	1,603 (0.1%)	19,165 (0.9%)	1,726 (0.1%)
Construction	1,259,662 (5.0%)	61,113 (5.1%)	129,422 (6.3%)	93,558 (6.1%)
Manufacturing	1,419,413 (5.6%)	60,001 (5.0%)	71,259 (3.5%)	32,929 (2.2%)
Services Related	**19,317,589 (76.4%)**	**921,714 (77.2%)**	**1,652,611 (80.2%)**	**1,270,542 (83.4%)**
Utilities	67,516 (0.3%)	4,112 (0.3%)	4,612 (0.2%)	2,899 (0.2%)
Wholesale trade	773,657 (3.1%)	49,500 (4.1%)	48,807 (2.4%)	32,949 (2.2%)
Retail trade	2,090,805 (8.3%)	116,117 (9.7%)	191,956 (9.3%)	141,831 (9.3%)
Transportation and warehousing	1,474,413 (5.8%)	177,757 (14.9%)	153,001 (7.4%)	115,664 (7.6%)
Information	727,797 (2.9%)	8,061 (0.7%)	25,517 (1.2%)	19,593 (1.3%)
Finance and insurance	1,318,004 (5.2%)	43,147 (3.6%)	122,182 (5.9%)	95,406 (6.3%)
Real estate and rental and leasing	1,454,721 (5.7%)	48,684 (4.1%)	130,455 (6.3%)	95,228 (6.3%)
Professional and technical services	2,231,632 (8.8%)	50,533 (4.2%)	121,060 (5.9%)	88,272 (5.8%)
Management of companies	284,267 (1.1%)	5,669 (0.5%)	37,971 (1.8%)	31,130 (2.0%)
Administrative and waste services	1,581,853 (6.3%)	94,572 (7.9%)	146,587 (7.1%)	116,287 (7.6%)
Educational services	554,586 (2.2%)	16,960 (1.4%)	23,945 (1.2%)	18,131 (1.2%)
Health care and social assistance	2,942,827 (11.6%)	140,876 (11.8%)	170,804 (8.3%)	127,645 (8.4%)
Arts, entertainment, and recreation	617,031 (2.4%)	15,433 (1.3%)	61,968 (3.0%)	46,868 (3.1%)
Accommodation and food services	1,775,446 (7.0%)	79,767 (6.7%)	314,012 (15.2%)	263,173 (17.3%)
Other services, except public admin.	1,423,034 (5.6%)	70,526 (5.9%)	99,734 (4.8%)	75,466 (5.0%)
Government	**2,779,431 (11.0%)**	**145,583 (12.2%)**	**181,992 (8.8%)**	**123,514 (8.1%)**
Total Number of Jobs	**25,300,974 (100.0%)**	**1,193,681 (100.0%)**	**2,061,871 (100.0%)**	**1,523,197 (100.0%)**
Residual	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)

Source: U.S. Department of Commerce (2023c).

Table B-1.3.12-7. Employment and Income in the Analysis Area

Economic Indicator	California	San Bernardino County	Nevada	Clark County
Avg. Annual Unemployment Rate, 2024	5.3%	5.1%	5.6%	5.8%
Per Capita Income, 2000 (2024 $s)	$60,445	$41,394	$58,045	$56,495

Economic Indicator	California	San Bernardino County	Nevada	Clark County
Per Capita Income, 2022 (2024 $s)	$82,582	$52,818	$66,555	$63,408
Percent Change in Per Capita Income, 2000 to 2022	36.6%	27.6%	14.7%	12.2%
Median Household Income	$96,334	$82,184	$75,561	$73,845
Personal Income (2024 $s)	$3,223,125,885,232	$115,863,523,440	$211,495,842,656	$147,296,693,504
Percent of People Below Poverty	12.0%	13.6%	12.6%	13.2%

Source: U.S. Department of Commerce (2023a, 2023c); U.S. Department of Labor (2025a).

Table B-1.3.12-8. Average Annual Wages by Industry in the Analysis Area

Industry	California	San Bernardino County	Nevada	Clark County
Private	**$92,160**	**$58,608**	**$65,730**	**$63,292**
Non-Services Related	**$98,692**	**$76,100**	**$80,152**	**$76,110**
Natural Resources and Mining	$48,093	$64,766	$100,649	$52,354
Agriculture, forestry, fishing & hunting	$44,431	$44,180	$50,690	$43,379
Mining (incl. fossil fuels)	$139,209	$110,081	$118,640	$91,161
Construction	$89,521	$79,975	$79,308	$79,508
Manufacturing (Incl. forest products)	$122,737	$73,725	$75,411	$69,297
Services Related	**$90,856**	**$55,913**	**$63,342**	**$61,712**
Trade, Transportation, and Utilities	$70,898	$59,194	$59,227	$57,778
Information	$287,353	$97,804	$126,107	$123,015
Financial Activities	$141,934	$77,787	$91,245	$86,914
Professional and Business Services	$132,172	$58,099	$83,407	$80,253
Education and Health Services	$65,625	$59,427	$65,325	$64,490
Leisure and Hospitality	$41,381	$29,546	$44,410	$46,343
Other Services	$54,664	$48,907	$50,782	$49,200
Unclassified	$87,123	$57,397	$90,731	$82,575
Government	**$92,274**	**$81,657**	**$77,519**	**$78,363**
Federal Government	$105,537	$94,158	$93,965	$92,506
State Government	$107,550	$82,424	$78,724	$78,521
Local Government	$86,138	$79,967	$73,940	$75,757
Overall Average	**$92,177**	**$62,314**	**$67,055**	**$64,854**

Source: U.S. Department of Labor (2025b).

Table B-1.3.13-1 Soil Map Units in the Soils Analysis Area

Map Unit Symbol	Soil Map Unit	Proposed Action (Alternative B) (acres)	Proposed Action (Alternative B) (%)	Alternative C (acres)	Alternative C (%)	Alternative D (acres)	Alternative D (%)
502	Dumps, mine	20.37	1	20.37	1	20.39	1
3420	Hartpeak-Highland association, 15 to 50 percent slopes	346.29	19	346.29	19	346.29	18
414	Helendale-Caruthers-Castaneda complex, 1 to 4 percent slopes	359.92	20	359.92	20	359.92	19
418	Highland-Nipton complex, 15 to 50 percent slopes	184.12	10	184.12	10	184.12	10
4230	Hoppswell-Ustidur association, 4 to 30 percent slopes	90.55	5	90.55	5	90.55	5
680	Lanfair-Hoppswell association	89.88	5	89.88	5	89.88	5
160	Lanip-Kidwell association	19.72	1	19.72	1	19.72	1
404	Lecyr very gravelly sandy loam, 4 to 30 percent slopes	74.61	4	74.61	4	74.61	4
805	Lithic Haplargids–Lithic Torriorthents association, 2 to 15 percent slopes	147.24	8	147.24	8	152.61	8
4220	Minehart gravelly fine sandy loam, 2 to 8 percent slopes	374.50	21	374.50	21	457.86	24
801	Nippeno-Newera association	27.79	2	27.79	2	27.79	1
4180	Peskah-Arizo association	55.15	3	55.15	3	55.15	3
506	Pits-Dumps association	18.33	1	18.33	1	18.33	1
Total		**1,808.48**	**100**	**1,808.48**	**100**	**1897.23**	**100**

Source: Natural Resources Conservation Service and Esri (2024).

Notes:

Sums may not be exact due to rounding.

Shaded rows are dominant soil features with ≥10% coverage and cumulatively cover approximately 70% of the soils analysis area.

Table B-1.3.13-2. Soil Vulnerability Ratings in the Soils Analysis Area

Soil Characteristic (Classification)	Alternative B Footprint (acres)	Alternative C Footprint (acres)	Alternative D Footprint (acres)
Wind Erosion			
Slight (WEGs 5–8)	1,769.78	1,769.78	1,858.51
Moderate (WEGs 3, 4, and 4L)	0	0	0
Severe (WEGs 1 and 2)	0	0	0
Not rated	38.70	38.70	38.72
Water Erosion (K factor)			
Slight (0.05–0.25)	712.49	712.49	795.85
Moderate (0.25–0.40)	379.64	379.64	379.64
Severe (> 0.40)	677.65	677.65	683.02
Not rated	38.70	38.70	38.72
Runoff Potential			
Low (HSG A)	449.80	449.80	449.79
Moderate (HSG B)	55.15	55.15	55.16
Moderately high (HSG C)	559.39	559.39	642.75
High (HSG D)	705.44	705.44	710.81
Not rated	38.70	38.70	38.72
Susceptibility to Compaction			
Low	265.59	265.59	270.96
Medium	1,504.19	1,504.19	1,587.55
High	0	0	0
Not rated	38.70	38.70	38.72
Fragile Soil Index			
Slightly Fragile	0	0	0
Moderately Fragile	0	0	0
Fragile	1,483.93	1,483.93	1,571.98
Highly Fragile	286.53	286.53	286.53
Not rated	38.70	38.70	38.72
Total Disturbance	**1,808.48**	**1,808.48**	**1897.23**

Source: Natural Resources Conservation Service (NRCS) (2025b); NRCS and Esri (2024).

Table B-1.3.14-1. Current and Historical AADT in the Transportation Analysis Area

Road	2015 AADT	2024 AADT	Percent Change (2015–2024)	10-Year Average
I-15 (Nevada)	5,300	3,100	−42%	3,425
SR 164	550	860	56%	782
U.S. Route 95*	8,100	10,400	28%	8,700
Castle Mountain Mine Access Road/Walking Box Ranch Road	–	–	–	–
Hart Mine Road	–	–	–	–

Sources: Caltrans (2025b); Nevada Department of Transportation (2025a).

Notes:

* 2015 data are from 2017 because no data were provided in earlier years.

– = Data are not available because the road is a smaller two-track not maintained by NDOT or Caltrans.

Table B-1.3.14-2. Existing Transportation Network in the Immediate Vicinity of the Project Site

Route Identification	Route Description
Interstate 15 (I-15)	I-15 is a major north-south four-lane freeway with two lanes in each direction that runs in a southwest-northeast alignment for approximately 287 miles from the Mexican border to the Nevada state line. I-15 serves as a crucial transportation route for both commercial and passenger traffic, connecting cities and communities throughout San Bernardino County, Los Angeles County, and points farther southwest, as well as cities and communities in Nevada and to points farther northeast, e.g., San Diego, Riverside, Barstow, and Las Vegas .
State Route 164 (SR 164)	Commonly referred to as Nipton Road or the Joshua Tree Highway, this state highway is in southern Clark County, Nevada. Together with the unnumbered Nipton Road in California (San Bernardino County Road Number 594650020), it links U.S. 95 in Nevada to I-15 in California, just south of Primm, passing through the small town of Nipton, California. Most of the highway runs through the Avi Kwa Ame National Monument.
U.S. Route 95 (U.S. 95)	U.S. 95 is a primary north-south highway through the state of Nevada, passing directly through Las Vegas and offering connections to Carson City and Reno. For 95 miles, U.S. 95 shares its route with Interstate 80 between Winnemucca and a junction 32 miles north of Fallon, before continuing northward into Oregon at McDermitt.
Castle Mountain Mine Access Road/Walking Box Ranch Road	Primary access road to the mine north-south from SR 164
Hart Mine Road	Primary access road at the entrance of the mine running west-east from Castle Mountain Mine road

Sources: California Department of Transportation (2025a); Nevada Department of Transportation (2025a).

Table B-1.3.14.3. Speed Limits in the Analysis Area

Category	Type of Road	Speed Limit (mph)	Ownership
Interstate 15 (I-15)	Interstate	65–75	Caltrans
State Route 164 (SR 164)/Nipton Road/ San Bernardino County Road 594650020	State Highway	25-55	NDOT
U.S. Route 95 (U.S. 95)	U.S. Highway	65	NDOT (on Nevada side)
Castle Mountain Mine Access Road/Walking Box Ranch Road	2-lane road	35	BLM

Category	Type of Road	Speed Limit (mph)	Ownership
Hart Mine Road	2-lane road	35	BLM

Sources: California Department of Transportation (2025a); Nevada Department of Transportation (2025a).

Table B-1.3.14-4. Crash Rates

Category	Annual Average Daily Traffic (2022–2024)	Total Crashes (2022–2024)	Total Crash Rate (%) (3-year average)
Interstate 15 (I-15)	13,550	82	27.3
State Route 164 (SR 164)	2,030	4	1.3
U.S. Route 95 (U.S. 95)	17,750	17	5.7
Castle Mountain Mine Access Road/Walking Box Ranch Road	–	–	–
Hart Mine Road	–	–	–

Source: California Department of Transportation (Caltrans) (2025b); Nevada Department of Transportation (NDOT) (2025b).
– = Data are not available because the road is a smaller two-track not maintained by NDOT or Caltrans.

Table B-1.3.15-1. Bureau of Land Management Visual Resource Management Classes

VRM Class	DRECP Objectives	1998 Las Vegas RMP Objectives
Class I	Preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.	–
Class II	Retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.	Designate 968,890 acres of public lands as VRM Class II and manage to retain the landscape's existing character. In these areas, authorized actions may not modify existing landscapes or attract the attention of casual viewers.
Class III	Partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.	Designate 1,727,870 acres of public lands as VRM Class III for partial retention of the existing character of the landscape. In these areas, authorized actions may alter the existing landscape, but not to the extent that they attract or focus attention of the casual viewer.
Class IV	Provide for management activities that require major modifications of the existing character of the landscape. The level of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention; however, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance, and repeating the basic elements.	Designate 635,135 acres of public lands as VRM Class IV, which allows activities involving major modification of the landscape's existing character. Authorized actions may create significant landscape alterations and would be obvious to casual viewers.

Source: BLM (1986a, 1998b).

Table B-1.3.17-1. Surface Water Feature Impact Summary

Jurisdiction	Component	Impact Type	Resource	Acres
ROW				
CDFW	Electric and waterline TCEs, staging areas	Temporary	Ephemeral channel	1.50
			Riparian	0.27
	Long-term ROW for underground water pipeline maintenance activities	Permanent	Ephemeral channel	0.43
			Riparian	0.09
RWQCB	Electric and waterline TCEs, staging areas	Temporary	Ephemeral channel	1.18
	Long-term ROW for underground water pipeline maintenance activities	Permanent		0.33
NDEP	Electric and waterline TCEs, staging areas	Temporary	Ephemeral channel	1.18
	Long-term ROW for underground water pipeline maintenance activities	Permanent		0.33
CMM				
CDFW	Mine expansion	Temporary	Stream	0.18
			Riparian	0.003
		Permanent	Stream	9.32
			Riparian	2.46
RWQCB		Temporary	Stream	0.13
		Permanent	Stream	9.00

Table B-1.3.17-2. Proposed Monitoring Well Network and Nipton Water Supply Well (IV-1TW)

Basin	Well ID	Coordinates		Status	Year Installed	Construction Details			Depth To Water		Water Level Elevation (feet amsl)
		Latitude	Longitude			Casing Diameter (inches)	Total Depth (feet)	Screened Interval (feet bgs)	Date*	Depth to Water (feet)	
Ivanpah	Benson DW	35.4672249	−115.273884	Existing	ND	ND	ND	ND	ND	ND	ND
	Benson OW	35.4673335	−115.274874	Existing	2020	4.5	600	550–600	9/29/2021	467.37	2,549.63
	IV-1TW	35.467704	−115.275244	Existing	2021	14	1,485	500–1,465	9/29/2021	461.45	2,545.55
Lanfair	2017-2RMW	35.2596667	−115.1156	Existing	2020	4	640	580–640	6/1/2022	537.88	3,673.64
	2017-3MW	35.2781667	−115.123308	Existing	2017	4	690	630–690	6/1/2022	161.83	4,154.65
	2019-3MW	35.2425556	−115.126314	Existing	2020	4	650	500–650	4/7/2023	451.18	3,711.14
	2019-5MW	35.2589611	−115.096689	Existing	2020	4	581	430–581	4/7/2023	439.18	3,696.90
	PS-2	35.1169731	−115.013828	Virtual	ND	ND	ND	ND	ND	ND	ND
	W-19P	35.2903618	−115.144234	Proposed	ND	ND	ND	ND	ND	ND	ND
	W-25P	35.2732167	−115.087858	Existing	1988	8	960	350–940	2/24/1988	275.6	3,924.20
	W-37	35.2477	−115.165372	Virtual	1990	8	1,000	640–1,000	1/28/1997	858.65	3,691.35
	W-38	35.203925	−115.104206	Virtual	1990	8	1,100	800–1,100	1/28/1997	758.02	3,193.98
	W-3P	35.203925	−115.104206	Proposed	ND	ND	ND	ND	ND	ND	ND
	W-45P	35.307875	−115.1458	Existing	1997	8	800	530–630	12/31/2003	458.9	4,100.50

Note:

*Date of measurement.

Table B-1.3.17-3. Changes to Piute Spring Flow and Mitigation Actions

Proposed Action	Modeled Piute Spring Flow Reduction 50 Years after Mine Closure (gpm)	Percent Change (%)
Action A: No further action.	0–8	<7
Action B: Adjust mine pumping and remodel impacts; if Piute Spring flow reduction is <10%, re-distribute the pattern of pumping at mine. If flow reduction remains ≥10%, proceed to Action C.	9–12	7–10
Action C1: Construct Contingency Well #1 as a new monitoring well south of the south extension pit and begin monthly monitoring.	13–15	10–12
Action C2: Construct Contingency Well #2 as a new monitoring well between the Project Area and Piute Springs and begin monthly monitoring.	16–17	12–14
Action D: Adjust and rerun the model to ensure Piute Spring flow reduction is ≤10%, then reduce pumping in Lanfair Valley and increase water use from Ivanpah Valley wells, as needed.	18–22	14–18

Source: GLA (2026a).

Table B-1.3.18-1. Acreage of Geologic Units and PFYCs within the Analysis Area and Project Area

Geologic Units	Map Symbol	PFYC	Analysis Area (acres)	Analysis Area (%)
Abundant hillslope deposits/Felsic plutonic rocks	Qha/fp	1	20.19	4.49
Abundant hillslope deposit/Felsic plutonic bedrock that weather to grus	Qha/fpg	1	7.73	1.72
Abundant hillslope deposit/Felsic plutonic bedrock that weather to grus + Mafic plutonic bedrock	Qha/fpg+mp	1	2.79	0.62
Abundant hillslope deposit/Felsic plutonic bedrock that weather to grus + Metamorphic bedrock	Qha/fpg+mr	1	0.52	0.12
Abundant hillslope deposits/Felsic volcanic rocks	Qha/fv	1	0	0
Abundant hillslope deposit/Mafic plutonic bedrock	Qha/mp	1	8.58	1.91
Abundant hillslope deposits/Mafic volcanic rocks	Qha/mv	1	8.01	1.78
Abundant hillslope deposits/Partly consolidated materials	Qha/pc	U	11.62	2.58
Intermediate alluvial fan deposit	Qia	2	94.38	20.98
Intermediate alluvial fan deposit/Old alluvial fan deposit	Qia/Qoa	U	2.62	0.58
Intermediate alluvial fan deposit + Old alluvial fan deposit	Qia+Qoa	2	2.86	0.64
Intermediate alluvial fan deposit + Young alluvial fan deposit	Qia+Qya	2	43.01	9.56
Intermediate alluvial fan deposit + Young alluvial fan deposit	Qia+Qya	U	10.01	2.23
Intermediate alluvial fan deposit + Young alluvial fan deposit composed of grus	Qia+Qyag	U	6.59	1.47
Old alluvial fan deposit	Qoa	2	37.15	8.26
Extremely old alluvial fan deposit	QToa	2	10.13	2.25

Geologic Units	Map Symbol	PFYC	Analysis Area (acres)	Analysis Area (%)
Young alluvial fan deposit	Qya	2	86.71	19.28
Young alluvial fan deposit + Active alluvial fan deposit	Qya+Qaa	2	16.08	3.58
Young alluvial fan deposit + Intermediate alluvial fan deposit	Qya+Qia	2	65.38	14.54
Young alluvial fan deposit composed of grus/Felsic plutonic bedrock	Qyag/fp	U	0.41	0.09
Young alluvial fan deposit composed of grus + Active wash deposit	Qyag+Qaw	U	1.58	0.35
Young alluvial fan deposit composed of grus + Older alluvial fan composed of debris flows and grus	Qyag+Qyaog	U	13.44	2.99

Table B-1.3.18-2. Acres of PFYC Units for Alternatives C and D

Alternative	PFYC 1 (acres)	PFYC 2 (acres)	PFYC U (acres)
C	43.82	2.87	N/A
D	N/A	89.35	0.29

Note:
N/A = Not applicable.