DRAFT SUPPLEMENTAL INITIAL STUDY AND MITIGATED NEGATIVE DECLARATION

FOR THE

DEEP ROSE GEOTHERMAL EXPLORATION PROJECT INYO COUNTY, CALIFORNIA

July 2025

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Deep Rose Geothermal Exploration Project
Draft Initial Study/Mitigated Negative Declaration Supplement

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Acronyms and Abbreviations

AAQS	Ambient Air Quality Standards
APN	Assessor Parcel Number
ATC	Authority to Construct
BACT	Best Available Control Technology
BLM	Bureau of Land Management
BMP	Best Management Practice
CalGEM	California Geologic Energy Management Division
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CMA	Conservation Management Action
CNDDB	California Natural Diversity Database
CNPS	California Native Plants Society
CRMTP	Cultural Resources Management and Treatment Plan
CSLC	California State Land Commission
CUP	Conditional Use Permit
DOGGR	Division of Oil, Gas, and Geothermal Resources
DRECP	Desert Renewable Energy Conservation Plan
EA	Environmental Assessment
EPA	Environmental Protection Agency
FONSI	Finding of No Significant Impact
ft	Foot/Feet
GBUAPCD	Great Basin Unified Air Pollution Control District
H_2S	Hydrogen Sulfide
HGLA	Haiwee Geothermal Leasing Area
ICLTC	Inyo County Local Transportation Commission
IS	Initial Study
ITP	Incidental Take Permit
KGRA	Known Geothermal Resource Area
km	Kilometer
LRWQCB	Lahontan Regional Water Quality Control Board
LUPA	Land Use Plan Amendment
m	Meter
MND	Mitigated Negative Declaration
MGS	Mohave ground squirrel

Acronyms and Abbreviations continued

NOD	Notice of Determination
NO_x	Oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
OSHA	Occupational Safety and Health Administration
ppm	Parts Per Million
ROW	Right-of-Way
RTP	Regional Transportation Plan
SB	Senate Bill
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SPCC	Spill Prevention Control and Countermeasures
USFWS	United States Fish and Wildlife Service
VMT	Vehicle Miles Traveled
WJT	Western Joshua Tree

CHAPTER 1 - INTRODUCTION

An Initial Study/ Mitigated Negative Declaration (IS/MND) was prepared for the Deep Rose Geothermal Exploration Project in 2006 (the 2006 Project). The 2006 Project environmental evaluation was prepared by Epsilon Systems Solutions, Inc. for the California Department of Conservation Division of Oil, Gas, and Geothermal Resources ([DOGGR], now known as the California Geologic Energy Management Division or (CalGEM). The IS/MND was developed in compliance with the California Environmental Quality Act (CEQA) in parallel with a National Environmental Policy Act (NEPA) compliant Environmental Assessment (EA) conducted by the U.S. Department of Interior Bureau of Land Management (BLM). The joint CEQA/NEPA document is titled, *Final Environmental Assessment/Initial Study/Mitigated Negative Declaration – Deep Rose Geothermal Exploration Project, Inyo County, California* (DOGGR 2006, 2006 EA/IS/MND) (2006 EA/MND) attached as Appendix A to this 2025 Supplemental IS/MND for the Deep Rose Geothermal Project, Inyo County (Supplemental IS/MND). The 2006 EA/MND was approved by DOGGR in June 2006, and one permit for the 2006 Project was subsequently issued but has since expired.

1.1 NEED FOR SUPPLEMENTAL ANALYSIS

The DOGGR Notice of Determination (NOD), State Clearinghouse (SCH) Number 2005121125, was signed on March 28, 2006, with the finding that a Mitigated Negative Declaration (MND) was appropriate for the proposed 2006 Project.

A further CEQA review was prompted per California Public Resources Code (PRC) Section 21166 and CEQA Guidelines (California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000–15387), when Deep Rose Geothermal, LLC (Deep Rose) filed a Notice of Intention to Drill a Geothermal Resources Well with CalGEM on September 27, 2021, for one of the four proposed exploratory wells. Review of the 2006 Project revealed that further evaluation would be needed for the reasons specified below:

- The 2006 Project has been subject to minor changes in scope, such as burial of a waterline instead of laying on the ground surface;
- Comments received from the California State Lands Commission (CSLC), Center for Biological Diversity, Defenders of Wildlife, and Friends of the Inyo expressed concern regarding current water availability in the Rose Valley aquifer and the decline of the state-listed Mohave ground squirrel (*Xerospermophilus mohavensis*, [MGS]);
- The Western Joshua tree (*Yucca brevifolia,* [WJT]) was proposed as a candidate species for listing as threatened under the California Endangered Species Act (CESA) on October 9, 2020. Impacts to this species were not evaluated in the 2006 EA/MND; and,
- Deep Rose has not submitted to the California Department of Fish and Wildlife (CDFW) an application for an Incidental Take Permit for incidental take of the

MGS in compliance with the California Fish and Game Code Section 2081, subdivision (b), and as specified in the 2006 EA/MND, but has begun coordination with CDFW.

In addition, in 2019, the lease between Deep Rose and CSLC, required for the 2006 Project, expired. While there is currently no active lease in place, CSLC has agreed to grant a two-year extension on the lease upon the issuance of the 2025 Supplemental IS/MND. Modifications to the 2006 Project, or the proposed Project, are herein referred to as the "current Project" or "2025 Project". This Supplement to the 2006 Project has been prepared to address potential impacts from minor project changes and potential biological impacts.

This document does not require a federal agency review under NEPA as the proposed changes to the current Project are not taking place on federal land. See section 1.3 National Environmental Policy Act below.

1.2 California Environmental Quality Act

CalGEM is the lead agency for CEQA compliance. CalGEM was the lead agency responsible for preparing the initial CEQA document in 2006. Therefore, CalGEM is the appropriate lead agency to evaluate the potential environmental effects of the current 2025 Project that is the subject of the Supplemental IS/MND. Based on the information contained herein, CalGEM has determined that a Supplemental IS/MND is the appropriate document for the current Project.

In 2006, CalGEM circulated the draft EA/IS/MND for the 2006 Project as a joint agency document for public review. The draft document was posted on the California Department of Conservation website, on December 21, 2005, for a 30-day comment period. Public comments were due by the close of the 30-day comment period on January 23, 2006. A public meeting addressing the EA/IS/MND was held at Boulder Creek RV/Conference Center on February 21, 2006, in Inyo County between Olancha and Lone Pine on February 21, 2006. The meeting was attended by six members of the public as well as representatives from DOGGR, BLM, and Deep Rose, the project proponent. A total of nine questions were asked, mainly about potential impacts to unpaved roads and recreational land use. Meeting minutes are provided as an appendix to the 2006 EA/IS/MND.

In accordance with CEQA, when a lead agency considers further discretionary approval on a previously approved project, the lead agency is required to consider if the previously certified CEQA document provides an adequate basis for rendering a decision on the proposed discretionary action. In summary, when making such a decision, the lead agency must consider any changes to the project or its circumstances that have occurred and any new information that has become available since the project's CEQA document was certified.

In accordance with CEQA Guidelines Sections 15162–15164, prior to approving further discretionary action, and depending on the situation, the lead agency must either: (1) prepare a Subsequent Environmental Impact Report (EIR); (2) prepare a Supplemental EIR; (3) prepare a Subsequent Negative Declaration; (4) prepare an Addendum to the EIR or Negative Declaration; or (5) prepare no further documentation.

More specifically, CEQA Guidelines Section 15162, subdivision (a), states: When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1) Substantial changes are proposed in the project which will require major revision of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of significant new environmental effects or a substantial increase in the severity of previously identified significant effects; or
3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
    A. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    B. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    C. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    D. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As discussed in this section, none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent EIR have occurred. This 2025 Supplemental IS/MND supports the conclusion that the proposed Project modifications are minor and do not result in any new significant environmental effects or a substantial increase in the severity of previously identified significant effects. In addition, as discussed below, the

proposed Project modifications would not result in any new or substantially increased significant environmental impacts, and there is no new information of substantial importance, new mitigation measures, or new alternatives that would substantially reduce significant impacts. As a result, a Supplemental IS/MND is an appropriate CEQA document for analysis and consideration of the proposed modifications for the current Project.

To complete CEQA review of the current Project, this document examines:

- Potential impacts on MGS, as a State of California listed threatened species under CESA;
- Potential impacts on WJT populations, as the State of California designated the species a candidate species for listing as threatened under CESA on October 9, 2020;
- Potential impacts on local groundwater resources; and
- Changes in project scope since approval of the 2006 EA/MND.

This supplemental CEQA document was prepared pursuant to section 21166 and CEQA Guidelines sections 15162 and 15163. The 2006 EA/MND is provided in Appendix A of this Supplemental IS/MND.

1.3 National Environmental Policy Act

BLM drafted an EA for the 2006 Project in compliance with NEPA. The draft EA/MND was posted on the BLM NEPA tracking page on December 20, 2005. Public open house meetings were held at the Friends of Jawbone on January 18, 2006; at the BLM Ridgecrest Steering Committee Meeting on January 26, 2006; and at the Boulder Creek Campground on February 21, 2006. A public comment period was open for 30 days. A Finding of No Significant Impact (FONSI) was issued by BLM on June 30, 2006.

BLM Ridgecrest Field Office determined in March 2022 that no further NEPA analysis was required because the Project details on Federal lands have not been significantly modified.

CHAPTER 2 PROJECT DESCRIPTION

2.1 Project Location

The 2025 Project area is within Inyo County Assessor Parcel Number (APN) 037-500-03, Lone Pine, California 93549 and is located in the northwest region of the Coso KGRA (now designated by BLM as "the Haiwee Geothermal Leasing Area" (HGLA)) in the vicinity of Southern McCloud Flat in Inyo County. The well pad would be located within the Project boundaries (Figure 2). Area receptors are shown in Figure 3.

The 2025 Project area is located in the vicinity of Southern McCloud Flat in Inyo County. Figure 1 provides an overview of the project area, which is located within Sections 2, 3,

4, 9, 10, 11, and 16 of Township 21 South, Range 28 East Mount Diablo Meridian, and includes the locations of existing roads to be expanded, new roads, water line, water booster stations, water storage sites, well pad, and up to four exploratory geothermal wells. The well location associated with the Project NOI is 36.095218 latitude and -117.94503 longitude. The Section 16 land is owned by the State of California and administered by CSLC and is subject to CEQA review. Deep Rose has applied for conditional use permits (CUPs) from the Inyo County Planning Department granting permission to drill up to four (4) geothermal exploration wells within Section 16 and for transferring water from the Rose Valley Groundwater Basin, for use in dust abatement and drilling of the exploratory wells, from a nearby parcel privately owned. All other lands within Sections 2, 3, 4, 9, 10, and 11 are administered by the BLM and subject to NEPA review. Deep Rose also has a right-of-way over these adjacent BLM lands to construct an access road to the State parcel.

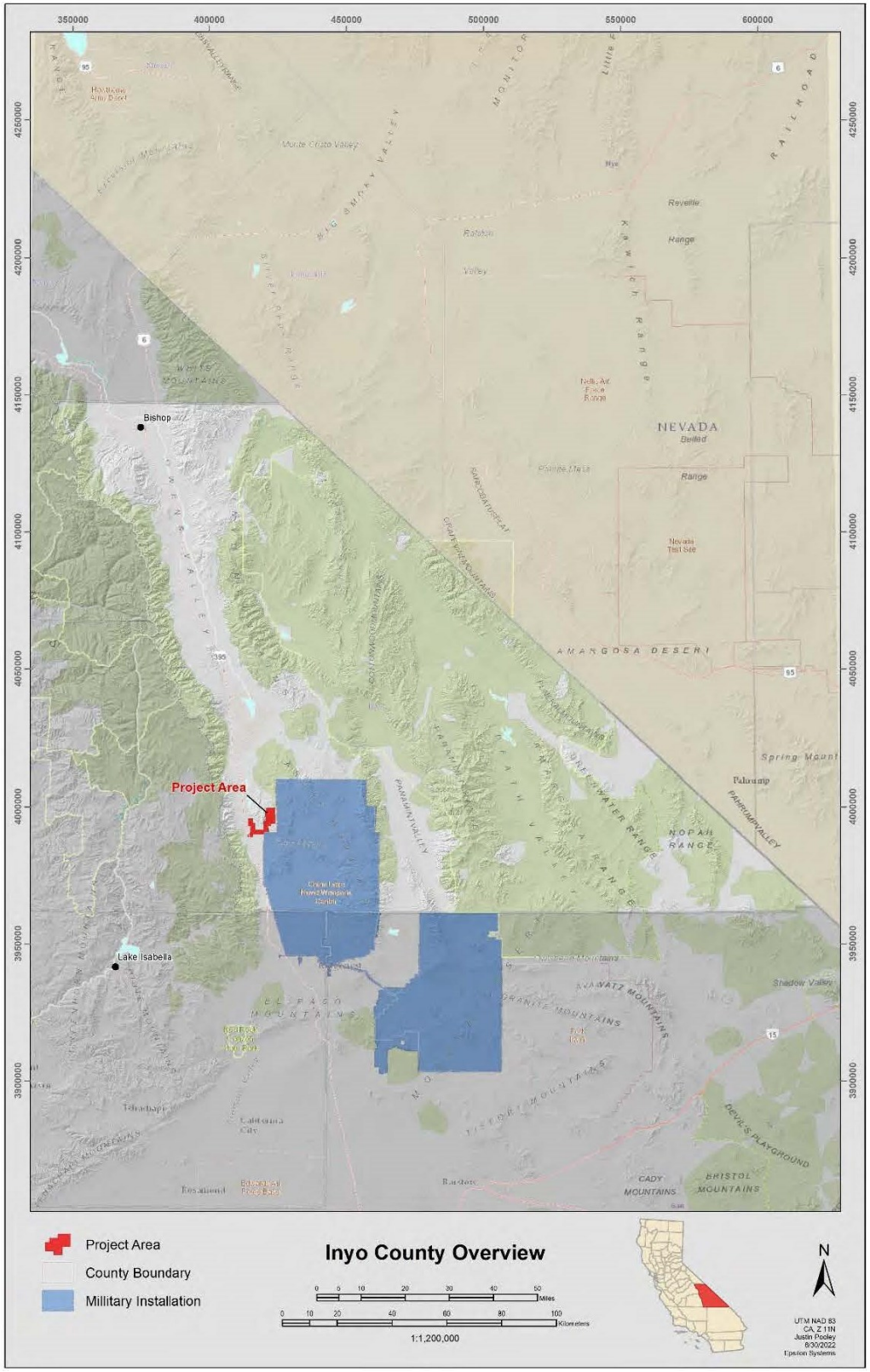

Figure 1. Project Location

The 2006 EA/ MND considered the proposed drilling, testing, and monitoring of up to four (4) exploratory geothermal wells, with the goal of exploring, locating, and verifying the existence of a commercially viable geothermal resource in the Coso Known Geothermal Resource Area (KGRA). Table 2.1 summarizes the changes between the 2006 Project and the current Project.

Table 2.1 – Project Comparison Summary

Components	2006 Project	Current 2025 Project	Increase or Decrease in Potential Impact?
Well pad	450 x 650 feet to accommodate equipment, reserve pit, and up to four wells, approximately 6.7 acres of disturbance	Construct one well pad 200 x 300 feet to accommodate equipment, reserve pit, and up to four wells, approximately 1.38 acres of disturbance	Decrease
Well drilling	Drilling and casing four exploratory geothermal wells up to 18,000 feet	Drilling and casing four exploratory geothermal wells up to 18,000 feet	Same
Existing roads	Upgrade 3.0 miles of existing roads to a width of 16 feet, approximately 2.90 acres of disturbance	Upgrade 0.56 miles of existing roads totaling approximately 0.54 acres of disturbance	Decrease
New roads	Construct 1.7 miles of new road, approximately 3.3 acres of disturbance	Construct 0.95 miles of new road, approximately 1.8 acres of disturbance	Decrease
Traffic turnouts	Construct four traffic turnouts, approximately 0.08 acres of disturbance	Construct up to four turnouts for vehicle safety, approximately 0.08 or less disturbance.	Same
Water storage areas	Construct two water storage areas, approximately 0.30 acres of disturbance; additional water storage tank located on well pad	Construct one water storage area near Pumice Road, approximately 40 ft x 100 ft of disturbance; additional water storage tank located on well pad	Decrease
Booster Pump Sites	Ten sites for booster pumps, approximately 0.02 acres of disturbance	One booster pump station, approximately 8 ft x 10 ft of disturbance	Decrease

Components	2006 Project	Current 2025 Project	Increase or Decrease in Potential Impact?
Water supply	Trucking or piping water from private water source 5.5 miles west of well pad site; piping (3'' or 6'' aluminum or plastic) laid aboveground except at road crossings and sufficient length to transport water horizontally approximately 13 miles and vertically 1,900 feet	Trucking water from private water source 5.5 miles west of well pad site to water storage tanks near Pumice Road; installation of 10,090 ft of four-inch plastic pipeline, buried two to three feet within road right of ways (ROWs), from water tanks to well pad site	Decrease

2.2 Modified Construction Activities

In order to adequately access a 200 foot (ft) by 300 ft well pad with the large trucks required, existing roads need to be upgraded, and new roads constructed to a maximum width of 16 ft, with up to four turnouts created for vehicle safety. Approximately 1 mile of new road will need to be installed (Figure 4) and just over ½ mile of existing roads upgraded.

Following vegetation and topsoil removal, the 200-foot by 300-foot well pad would be constructed using cut-and-fill to create a level pad for the drill rig and graded surface for the support equipment. The list of heavy equipment to be used includes a grader, bulldozer, water truck, backhoe, and front-end loader. Fill slopes, where necessary, would be compacted and maintained to maximize slope stability and minimize erosion. Where cut and fill slopes are required, they would be constructed at no steeper than a 3:1 horizontal to vertical ratio. There will be no stockpiles or overburden reserves, as the proposed action is a cut-and-fill operation using all soils excavated.

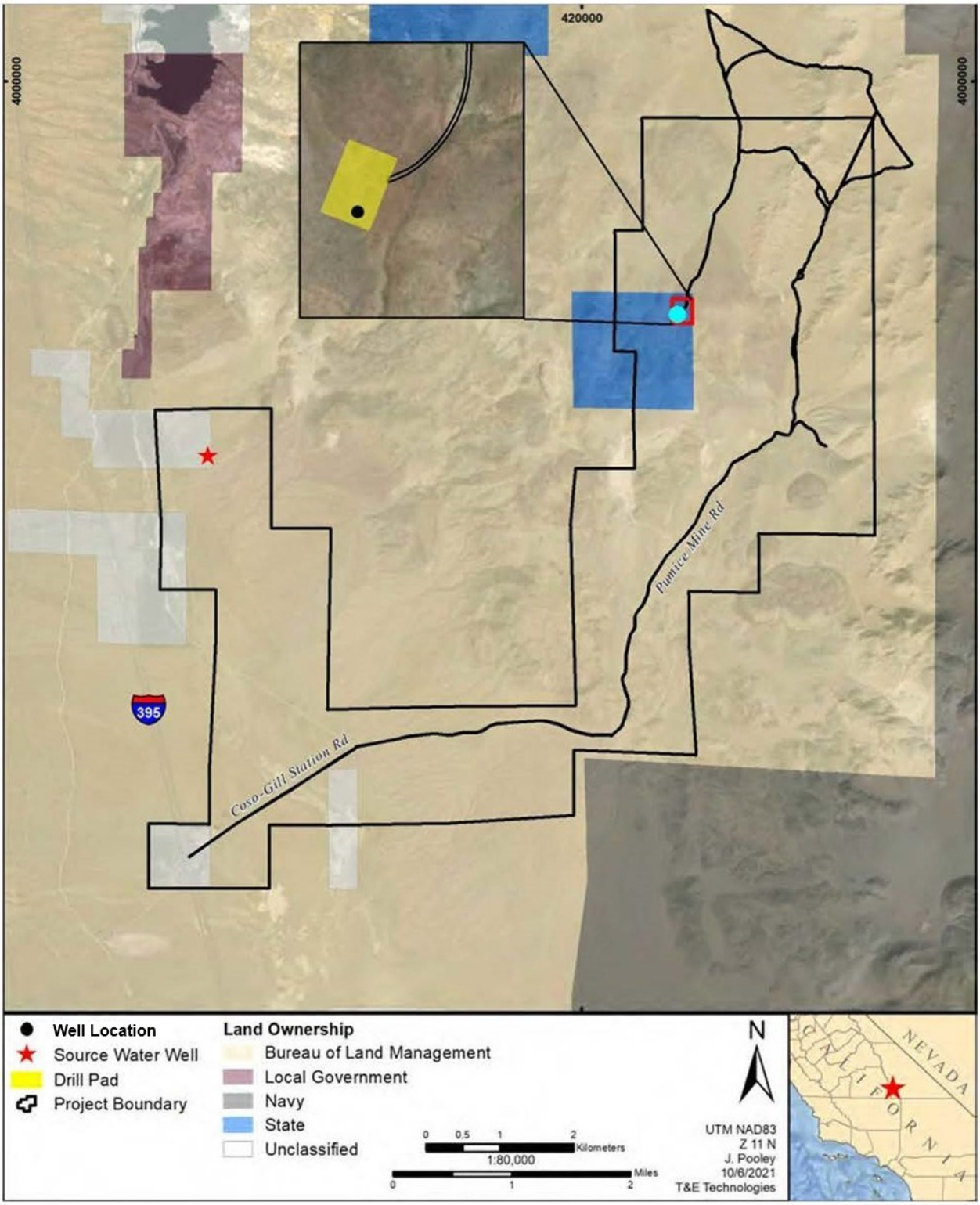

Figure 2. Area Land Ownership

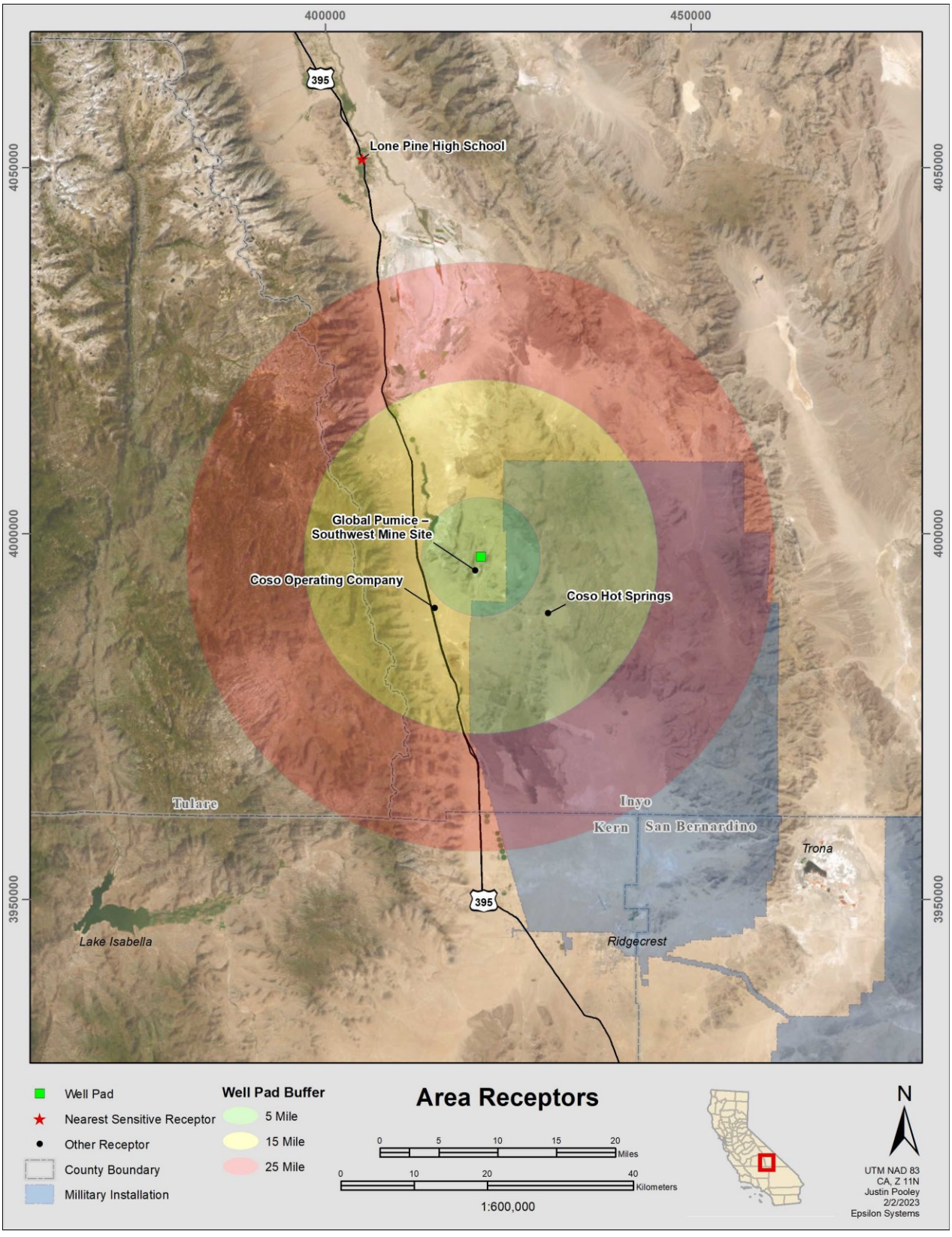

Figure 3. Receptors within the Vicinity of the Deep Rose Project Area

On part of the well pad, a reserve pit would be excavated and fenced to keep wildlife out. This pit would be constructed for the containment and storage of drill cuttings and waste drilling mud. Stormwater would be managed according to a Stormwater Pollution Prevention Plan (SWPPP) to be developed by the construction contractor. Runoff from undisturbed areas around the well pad will be directed into ditches and energy dissipaters (if needed) around the well pad site and then into the existing drainage, consistent with Lahontan Regional Water Quality Control Board (LRWQCB) best management practices (BMPs) for storm water (Programs-Projects | Lahontan Regional Water Quality Control Board).

A water booster pump station and two sites each with three 10,000-gallon water storage tanks,142-inch diameter and 367-inch height, will be required. The booster pumping station will require a footprint of approximately 8 ft x 10 ft. Two water storage sites will be required: one on BLM land near Pumice Mine Road, and a second on the well pad. Each water storage site will be built within areas measuring 40 ft x 100 ft.

Water will be trucked from a private well located approximately 5.5 miles west of the well pad to water storage tanks on a pad near Pumice Mine Road. Approximately 10,090 ft of four-inch plastic pipe would be buried 2 to 3 ft in depth, from the storage tanks east of Center Pass to the well pad site. Piping will be buried on the southern or eastern edge of the road ROW. Peak water requirements for well drilling and dust control will be approximately 30,000 gallons per day.

Prior to commencing drilling operations, the following modified construction activities are proposed:

1. Grading of approximately 0.95 miles (5,015 ft) of new unpaved road totaling approximately 1.8 acres of new ground disturbance;
2. Widening and other improvements of 0.56 miles (2,950 ft) of existing roads totaling approximately 0.54 acres of new ground disturbance;
3. Construction of a 200 ft by 300 ft well pad, including a 50 ft by 300 ft reserve pit, totaling 1.38 acres of new ground disturbance;
4. Construction of booster pumping station and water storage sites; and
5. Installation of 10,090 ft of four-inch plastic pipeline, buried two to three feet within road ROWs.

Access to the well pad site would be through Gill Station Road (a paved road used to access the existing Coso Geothermal Generating Site) to Pumice Road (a wide, graded dirt road used to access an existing pumice mine) to a two-track dirt road that crosses lands managed by BLM (Figure 2).

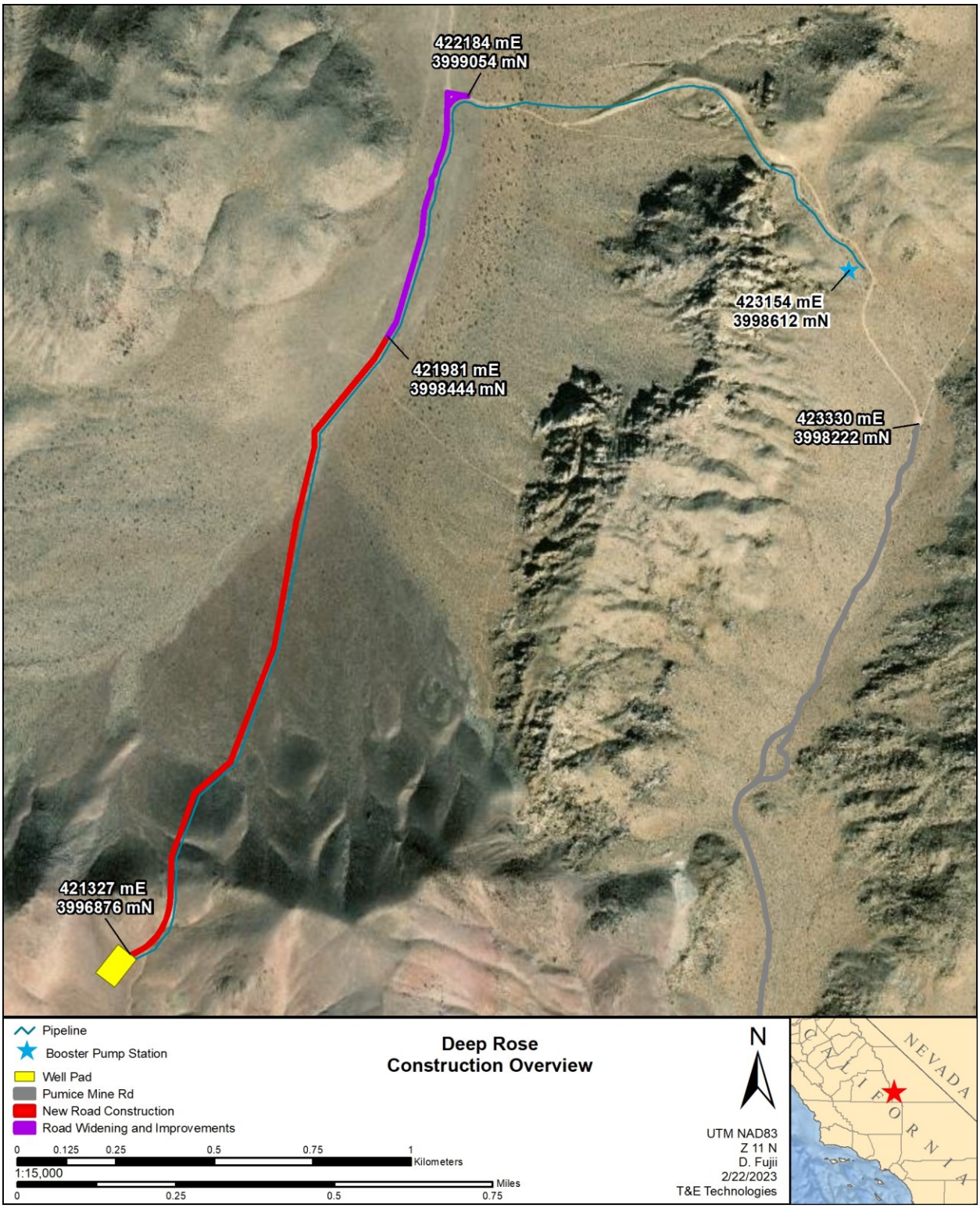

Figure 4. Construction Overview

Road construction would be conducted to clear vegetation and topsoil materials from the road surface. Both materials would be windrowed (i.e., formed into a row along the road shoulder using a grader) for future redistribution during reclamation. Where appropriate, and in accordance with approved reclamation procedures as defined in Appendix B of the 2006 EA/MND, *Deep Rose Geothermal Exploration Project Reclamation Plan*, topsoil may be used for reclamation of the existing roadbeds in areas to be abandoned through construction of bypass routes. All roads would be constructed with appropriate, adequate drainage and erosion control features (e.g., cut and fill slope and drainage ditch stabilization, relief and drainage culverts, wing ditches, and rip-rap). Where needed, up to four inches of sand and gravel from existing roadsides would be placed on upgraded and newly constructed roads to provide a stable surface.

Water requirements for the road and well pad construction phases (i.e., site and road grading, earth moving, and dust control) will average much less than the drilling operations discussed below. Water for these activities will be trucked from a private water source located in Rose Valley, approximately 5.5 miles west, to the storage tanks located east of Center Pass. From the storage tanks water will be pumped to the well pad via four-inch plastic pipe. During construction and drilling activities, the contractor teams would provide the required safety equipment and personal protective equipment.

2.3 DRILLING OPERATIONS

Figure 4 provides a topographic view of proposed activities on and near the well pad. Up to four wells will be drilled on the well pad. As shown on Figure 5 (below), the boreholes will be drilled in a line approximately 20 ft apart. As one hole is complete, the drilling platform would be shifted to the southwest. The wells will be drilled with an industry standard geothermal rotary drill rig. During drilling, the top of the drill rig mast will be as much as 170 ft above the ground surface, and the rig floor will be approximately 30 ft above ground level. Additional equipment and supplies will be brought to the site during drilling and testing operations. Equipment may include a crane, forklift, generators, front end loader, compactor, and various personal vehicles. It is anticipated that on average of about two to three large tractor-trailer trucks (delivering drilling supplies and equipment such as casing pipe and water) and about 15 to 20 small trucks, service vehicles, or worker vehicles will be driven to the site each day throughout the typical drilling process. Vehicles will park on the well pad. No parking within the road ROW or off the well pad will be allowed. See Figure 6 for an overview of how equipment would be staged on the well pad.

As many as ten or more tractor-trailer type truck round trips will be generated on the busiest day, while equipment and supplies are initially mobilized to the well pad site. Drilling will be conducted 24 hours per day, seven days per week by a crew of approximately 10 workers and will require a maximum of 200 days to complete drilling one well. Up to four wells will be drilled, within about two years of initiating the current

Project. Each well will require the operator to submit additional NOIs to CalGEM. Deep Rose currently has a single NOI filed for drilling of the initial well.

Light sources during drilling operations would be primarily confined to the rig area on the well pad. Lighting used during nighttime drilling would be shielded and focused downwards and would generally not be directly visible at substantial distances; however, faint views of distant glare from nighttime lighting sources during drilling operations may possibly be seen by passing motorists from U.S. Highway 395 for brief periods.

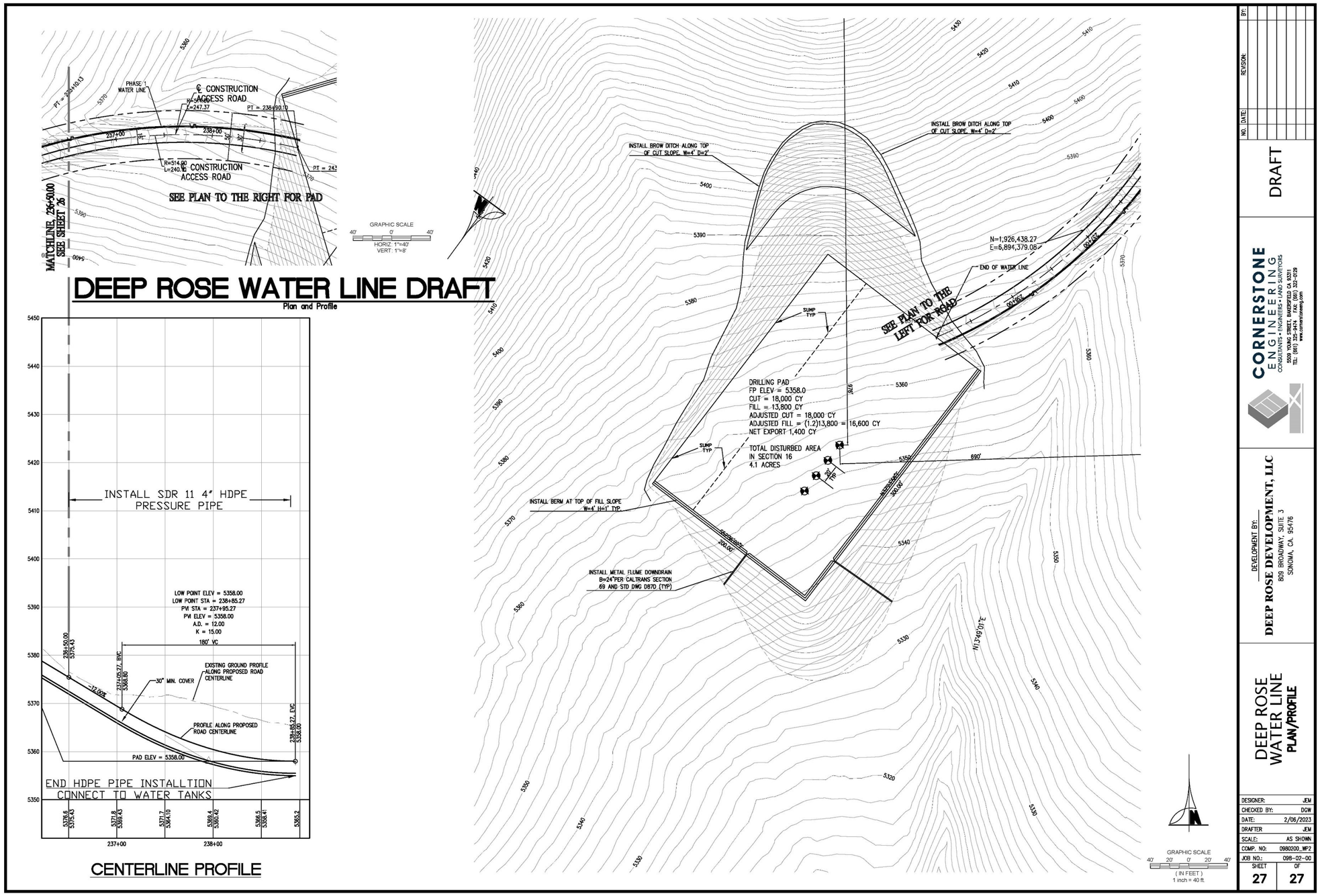

Figure 5. Site Plan for Deep Rose Geothermal Exploration Well Pad

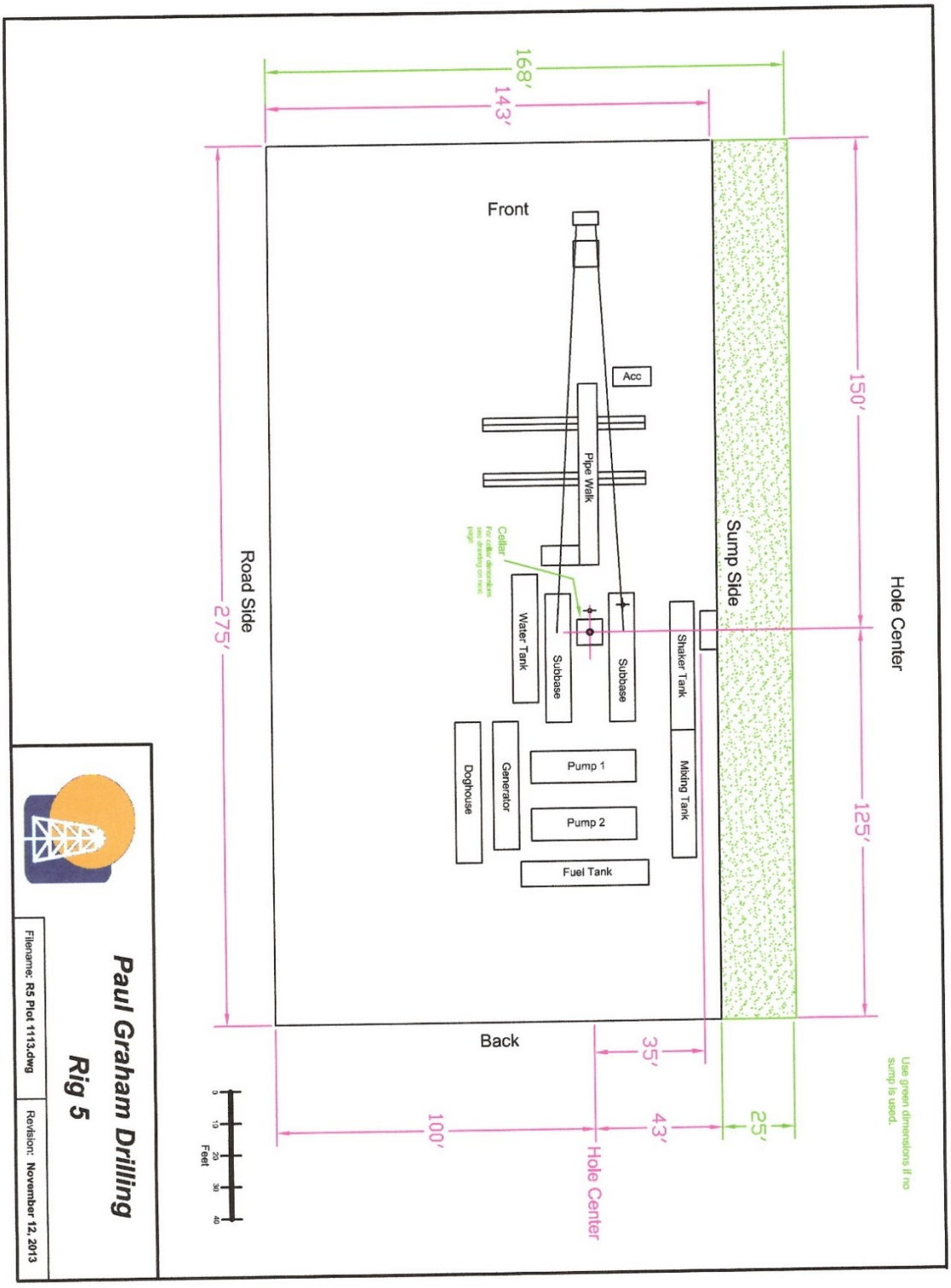

Figure 6. Well Pad Layout

2.4 Other Public Agency Permits or Approvals

The current 2025 Project is pursuing an Incidental Take Permit (ITP) with CDFW for MGS and WJT, under Section 2081 of CESA. An application for a geothermal prospecting permit from the CLSC was submitted on February 22, 2021. Deep Rose will file a Notice of Intent with the LRWQCB to comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) General Permit. As the current Project would result in disturbance of over one acre, a SWPPP will be developed by the construction contractor prior to commencing work. A CUP for the exploration activities and export of water will need to be acquired from Inyo County. The CUP cannot be approved until CEQA review is complete.

Table 2.2 summarizes permits and approvals that the current Project will pursue, following the NOD regarding this CEQA review.

Table 2.2 Required Permits and Approvals

Permit or Approval	Responsible Agency	Status
Incidental Take Permit (Western Joshua Tree Conservation Act)	CDFW	Coordination with CDFW is ongoing.
Land lease	CSLC	Forthcoming update to existing lease.
Notice of Intent to comply with the provisions of the NPDES General Permit	LRWQCB	Deep Rose will file after NOD is received. A SWPPP and detailed monitoring plan will be developed in support of this Notice of Intent.
CUP for the exploration activities	Inyo County	Deep Rose will file prior to commencing drilling or water export activities.
CUP for export of water	Inyo County	Deep Rose will file prior to commencing drilling or water export activities.
Authority to Construct (ATC) permit	Great Basin Unified Air Pollution Control District (GBUAPCD)	Permits have been filed for four separate wells, with the permits issued on September 20, 2021.

2.5 Project Design Features

Table 2.3 presents the Project description design features and/or applicable regulatory requirements that contribute to minimizing the potential environmental impacts of the 2025 Project. Note that two of these project description design features were identified as mitigation measures in the 2006 EA/MND as noted in the table.

Table 2.3 Project Design Features

#	Design Feature or Regulatory Reference	Potential Impact Category	2006 Mitigation Measure Reference
1	Registration of drill rig engine(s) with the California Air Resources Board (CARB) Portable Engine Registration Program (PERP)	Air quality	n/a 2025 Design Feature
2	California Construction Stormwater Program Project specific Storm Water Pollution Prevention Plan (SWPPP)	Geology Hydrology	GEO-1 HYD-2
3	40 CFR Part 112, Oil Pollution Prevention SPCC Plan in accordance with 40 CFR Part 112, Oil	Hazardous Waste Hydrology	HAZ-2 HYD-3

CHAPTER 3 SUMMARY OF FINDINGS

This supplement document provides specific page references to the June 2006 EA/MND when the evaluation relies on the previous analysis for assessment of significance, including establishing criteria for significance, and evaluation methodology and citations. Mitigation measures applicable to the project area evaluated in this supplement and all mandatory findings of significance from the previous analysis are included in each CEQA Appendix G issue area evaluation. Note that this document utilizes the current CEQA Appendix G language and the updated table below.

3.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

This Project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Potentially Significant Unless Mitigation Incorporated" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forest 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	☒ Mandatory Findings of Significance

Table 3.1. Environmental Issues and Potentially Significant Impacts

Note the operator agreed to the mitigation measures discussed in Section 4.0 and identified further in the Mitigation Monitoring and Reporting Program in an email dated July 24, 2025.

3.2 ENVIRONMENTAL DETERMINATION

☐ On the basis of this initial evaluation: I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the Project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required. I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT

REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

_____ _____

Signature *Date*

_____ _____

Printed Name *Agency*

CHAPTER 4 - ENVIRONMENTAL ANALYSIS AND INITIAL STUDY CHECKLIST

The evaluation of environmental impacts provided in this Initial Study is based in part on the impact questions contained in Appendix G of the State CEQA Guidelines; these questions, which are included in an impact assessment matrix for each environmental category (Aesthetics, Agriculture/Forest Resources, Air Quality, Biological Resources, etc.), are "intended to encourage thoughtful assessment of impacts." Each question is followed by a check-marked box with column headings that are defined below.

Potentially Significant Impact. This column is checked if there is substantial evidence that a Project-related environmental effect may be significant. If there are one or more "Potentially Significant Impacts," a Project Environmental Impact Report (EIR) would be prepared.

Less than Significant with Mitigation. This column is checked when the Project may result in a significant environmental impact, but the incorporation of identified Project revisions or mitigation measures would reduce the identified effect(s) to a less than significant level.

Less than Significant Impact. This column is checked when the Project would not result in any significant effects. The Project's impact is less than significant even without the incorporation of Project-specific mitigation measures.

No Impact. This column is checked when the category does not apply.

Detailed descriptions and analyses of impacts from Project activities and the basis for significance determinations are provided for each environmental factor on the following pages.

4.1 AESTHETICS

AESTHETICS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐

Impact Analysis:

a), b), and c): The 2006 EA/MND (pp. 86–87) details how impacts to scenic vistas and other sensitive areas would be temporary in nature and would be less than significant. The updated scope for the current Project would not change these temporary impacts; therefore, no additional impacts on aesthetics are expected.

d) The 2006 EA/MND Aesthetics nor the Mitigation Monitoring and Reporting Program (MMRP) did not include a mitigation measure for potential lighting impacts from nighttime drilling, however, the analysis notes that lighting will be focused downward and confined to the well pad area and added as a mitigation measure here.

Mitigation Measures:

AES-1: Construction Lighting Requirements. Nighttime lighting installed for construction activities or drilling activities shall only be used as required for safety or security. During construction when the lighting is in use, lighting for safety and security shall be shielded and oriented downward, bare bulbs shall be fully screened from view

from sensitive viewing receptors such as residences, and on-demand lighting and/or timers shall be used to minimize visual impacts of lighting.

With the implementation of MM AES-1, potential impacts from nighttime lighting would be **less than significant with mitigation**.

4.2 AGRICULTURE AND FORESTRY RESOURCES

AGRICULTURE AND FORESTRY RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Project of the California Natural Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Pub. Resources Code, § 12220, subd. (g), timberland (as defined by Pub. Resources Code, § 4526), or timberland zoned Timberland Production (as defined by Gov. Code, § 51104, subd. (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Impact Analysis:

a), b), c), d), and e): The 2006 EA/MND (pp. 8-88) notes that the entirety of the project area is either State- or Federally owned land comprised of terrain and soils that are not conducive to agricultural use. The current Project would not result in the conversion of prime farmland to non-agricultural use, thus **no impacts** to agricultural and forestry resources would occur as a result of project implementation.

4.3 AIR QUALITY

AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

The 2006 EA/MND provides a General Conformity analysis to determine compliance with State and Federal Ambient Air Quality Standards (AAQS) (2006 EA/MND, pp. 68–71, and Appendix B of the EA/MND). Air pollutant emission estimates were generated to determine potential air quality impacts associated with the road and well pad construction, drilling activities, and demobilization. It was determined that the 2006 Project would not generate significant amounts of other criteria air pollutants and would not be expected to result in the exceedance of any State or Federal AAQS for these other pollutants. Table 4.1 provides a summary of the emission calculations performed for the proposed Project.

Changes since 2006 EA/MND: Through enforcement of GBUAPCD emission reduction measures, particulate matter less than 10 microns in size (PM_{10}) emission levels have significantly dropped. In 2010, the Coso Junction PM_{10} Planning Area was redesignated by the U.S. Environmental Protection Agency (EPA) as in attainment for the PM_{10} National AAQS. In the 2021 State Implementation Plan for the Coso Junction PM_{10} Planning Area, GBUAPCD determined that it will continue to retain the 100 ton per year de minimis emissions threshold for the 10-year Coso Junction PM_{10} Planning Area. Maintenance Plan (GBUAPCD 2021[3]). The new threshold is over twice the limit in the Coso Junction PM_{10} Planning Area SIP that was applied to the 2006 EA/MND analysis (increased from 45.9 tons

to 100 tons). The updated/current Project scope introduces burial of the pipeline within the access road ROW. This will result in minimal increases in air pollutants in the form of exhaust fumes and dust generated from trenching activities. Using emission factors identified in Appendix D of the 2006 EA/MND (CARB's on-road vehicle emission factor model (EMFAC2017) and CARB's 2017 Off-Road Equipment Inventory Model (OFFROAD2017), it can be assumed that using a diesel backhoe would generate 0.6 pounds fugitive dust (PM_{10}) per 10-hour workday. Assuming 20 days to complete the trenching, this Project change would add 12 pounds of fugitive dust to the total 5.4 tons generated during construction, or roughly an addition of 0.11 percent (total current Project emissions would be approximately 20 tons). Discussion on questions a) through e) is provided below.

Table 4.1. Estimated Emissions for the Proposed Project (tons)

Emission Source	ROG	NO_X	CO	SO_X	PM_{10}	CO_2	CH_4
Road Construction	0.0643	0.343	0.477	0.0009	5.45	970	11.6
Drilling	2.86	31.8	17.3	0.0689	14.1	6,696	0.258
Total Emissions	2.92	32.1	17.8	0.0698	19.6	7,666	
de minimis threshold	**100**	**100**	**100**	**100**	**100**	**NA**	**NA**
Exceeds threshold?	**No**	**No**	**No**	**No**	**No**	**NA**	**NA**

Impact Analysis:

a) ***Would the Project conflict with or obstruct implementation of the applicable air quality plan?***

The current Project is located in the Coso Junction area of the Great Basin Valleys Air Basin, which is in nonattainment for PM_{10}. With the amended scope, the current Project would release approximately 19.6 tons PM_{10} during its duration. This is well below the *de minimis* threshold of 100 tons per year used by GBUAPCD in determining consistency with the Coso Junction PM_{10} Planning Area State Implementation Plan. Emission estimates indicate that emissions of all other National AAQS would be below *de minimis* values as well. As such, the current Project would be in compliance with the National AAQS or any applicable California Air Resources Board (CARB) or GBUAPCD air quality plans and the potential impact would be **less than significant.**

b) ***Would the Project Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?***

Construction and drilling activities for the current Project would increase particulate concentrations in and around the Project area. Particulate matter emissions can be expected to occur during the construction and widening of the access roads, well pad construction phase, the setup of the drill rig, drilling operations, and daily ingress and egress of vehicles on the unpaved access road. Construction and drilling will also

produce exhaust emissions with transport of workers and machinery to and from the project area as well as operation of equipment on site.

Related fugitive dust emissions for the 2006 Project are provided in the 2006 EA/MND. Fugitive dust from road construction related activities for the 2006 Project were estimated at 5.4 tons (4,899 kilogram [kg]) per year. Emissions for PM_{10} during the rig setup, drilling, testing, and monitoring phase were estimated to be approximately 14.1 tons (12,791 kg) per year if water were piped to the well pad site. If the option of trucking water to the well pad site were implemented, PM_{10} emissions would have only increased the total by 0.7 tons (635 kg) per year. Total emissions for all project-related activities for the 2006 Project were estimated to be between 19.4 and 20.1 tons (17,599 and 18,234 kg) per year.

For November 2004, the SIP for the Coso Junction PM_{10} Planning Area indicates PM_{10} emission inventory was 458.9 tons (416,307 kg) per year (GBUAPCD, 2004). The corresponding 10 percent threshold value was 45.9 tons (44,905 kg) per year in 2006. The applicable *de minimis* threshold is now 100 tons per year. Since the total project-related emissions of PM_{10} for the current Project is estimated to be 19.6 tons (17,780 kg) per year, which is less than the *de minimis* threshold of 100 tons per year value, PM_{10} emissions from the proposed Project would not require a General Conformity analysis. Calculations for the air pollutant emissions are provided in Appendix D of the 2006 EA/MND, and calculations for the project modification of burying the water line in the access road ROW is provided in Appendix B of this Supplemental IS/MND. The project modifications would add approximately 12 pounds of fugitive dust, compared to roughly 5.4 tons for the remainder of the current Project. No other changes would occur.

Deep Rose has committed to minimizing the amount of project-related fugitive dust by watering all unpaved roadway surfaces consistent with GBUAPCD Rule 401 and limiting vehicle speeds on unpaved roads to 25 miles per hour (mph) to further reduce dust emissions.

Air quality is not expected to significantly degrade during the proposed drilling and well testing operations, as the drilling and testing emissions would be limited and short-term (about two years) in nature. The current Project will comply with any requirements prescribed by the GBUAPCD concerning emissions from stationary "point" sources applicable to the drilling rig diesel engine. In addition, as required by existing regulation drill rig engines would be registered under CARB's PERP program (Design Feature #1). The PERP program reduces emissions by enabling portable engines and equipment to operate throughout the state without needing individual permits from each local air district and by ensuring consistent application of emission standards and promoting the use of cleaner technologies.

Calculated emissions for oxides of nitrogen (NO_X) for the drill rig would be approximately 31.8 tons (28,848 kg) per year, as provided in Appendix B of this Supplemental IS/MND. Therefore, the proposed Project would not be expected to generate significant amounts of NO_X, or less than the *de minimis* level of 100 tons per year, as defined by the EPA. With implementation of the mitigations (AIR-1 through AIR-4) provided and with the use of PERP drill rig engines, the current Project would have **less than significant impact with mitigation**.

Since the total emissions of PM_{10} from the proposed Project is estimated to be 19.6 tons (17,780 kg) per year, which is considerably less than the *de minimus* level of 100 tons per year for PM_{10}, overall PM_{10} emissions from the proposed Project would not be cumulatively significant.

Although the exact H_2S concentration of each well is not known in advance of drilling, H_2S is expected to be present in the resource, and the current Project has been granted ATC permits by the GBUAPCD for each well, as of September 21, 2021. These permits regulate H_2S well emissions that are expected to occur during flow testing operations. In accordance with stipulations of the ATC permits, discharge of H_2S into the atmosphere from the operation of any geothermal well, including well drilling, well reworking, and well testing, will not exceed more than 5.5 pounds (2.5 kg) per hour per well. To this end, on-line continuous H_2S monitors will be installed on the rig floor, the rig cellar, shakers, and the rig muffler (if utilized).

Audible sirens and strobe lights will be installed on the rig floor, cellar, shakers, and muffler (if used). If H_2S levels exceed the OSHA-defined time weighted average for safe working conditions (i.e., 8 hours at 10 parts per million [ppm] of H_2S gas), a strobe light associated with the source location (i.e., rig floor, cellar, shakers) will activate, alerting workers.

At the short-term exposure limit of 15 ppm H_2S, the audible siren alarms will activate indicating potentially hazardous conditions are present. If the H_2S sirens are triggered, all personnel are to immediately cease performing their current operations and must evacuate away from the rig and head toward one of the two preestablished safety muster locations. If necessary, personnel must utilize the 5-minute escape packs located on the rig floor to evacuate out of the danger area.

Personnel should choose the muster point that is upwind and uphill of the source of the H_2S gas. The mud logger onsite (or person directed to be in charge of gas monitoring) must evacuate with the handheld gas sniffer. A copy of the H_2S safety procedures is provided in Appendix C of this Supplemental IS/MND. **Less than significant impact with mitigation.**

c) ***Would the Project expose sensitive receptors to substantial pollutant concentrations?***
The nearest sensitive receptor is Lone Pine High School, approximately 35 miles (56 km) north of the proposed Project. Emissions from the current Project would be relatively small and limited to areas east of the project area due to the prevailing winds from the west. Given the vast distance and prevailing winds, any exposure to project air pollutants by sensitive receptors is considered to be below the level of significance. Therefore, the current Project would have **less than significant impact** on sensitive receptors.

d) ***Would the Project create objectionable odors affecting a substantial number of people?***
Emissions of H_2S during well drilling and testing could result in objectionable odors in the immediate vicinity of the wells. However, H_2S abatement equipment would be used by the current Project if H_2S emissions exceed the GBUAPCD limit of 5.5 pounds (2.5 kg) per hour. Additionally, as described in d) above, the nearest receptor is approximately 35 miles away and is upwind from prevailing winds. These factors coupled with the fact that the general area is sparsely populated, it can be concluded that the current Project would not subject any population centers or residential communities to objectionable odors, therefore, the potential for odors affecting a substantial number of people would be a **less than significant impact**.

The following mitigation measures (with some updated language to reflect modifications proposed by current Project), save one, were identified as necessary in the 2006 EA/MND and continue to be necessary to reduce potentially significant impacts to less than significant levels for the project modifications evaluated in this supplement. AIR-5 has been added to this Supplemental IS/MND and was not part of the 2006 environmental review of the 2006 Project, as the Statewide Portable Equipment Registration Program was established in November 2018.

Mitigation Measures:

AIR-1: The amount of project-related fugitive dust would be minimized by watering all unpaved roadway surfaces consistent with GBUAPCD Rule 401, a rule that details reasonable precautions that should be implemented to prevent visible particulate matter from becoming airborne, under normal wind conditions, beyond the property from which the emissions originate. The amount of project-related fugitive dust would be minimized by watering all unpaved roadway surfaces and limiting vehicle speeds on unpaved roads to 25 mph (Authority based on GBUAPCD Rule 401 – Fugitive Dust).

AIR-2: Well pad and reserve pit construction would be accomplished in as short a time as possible in order to reduce fugitive dust created by construction. It is estimated

that the well pad construction would take approximately six weeks to complete, inclusive of the geotextile-lined reserve pit. On average, road watering would be applied twice daily to suppress fugitive dust generation. In high wind situations (e.g., sustained winds over 20 mph), road watering would be increased and/or workers would be required to further coordinate trips and carpools (Authority based on GBUAPCD Rule 401 – Fugitive Dust).

AIR-3: If exhaust emissions of oxides of nitrogen from the drilling rig exceeds 250 lbs/day, as detected by continuous air monitors installed on the drilling rig (GBUAPCD Rule 209A), the drilling contractor would be required to use (BACT) control measures, which may include one or more of the following options:

- Retard timing by 4 degrees of standard;
- Meet applicable EPA/CARB Off Road Compression Ignition Engine Air Pollutant Emission Standards;
- BACT selective catalytic reduction devices; or
- Other BACT control measures as proposed by the drilling contractor and acceptable to GBUAPCD.

Authority for this mitigation is based on GBUAPCD Rule 209 A – Standards for Authorities to Construct.

AIR-4: The contractor will be allowed to discharge into the atmosphere from any geothermal well, including well drilling, well reworking, and well testing, no more than 2.5 kg/hr of H_2S per GBUAPCD Rule 424.D. If the continuous monitors register emissions of H_2S over 2.5 kg/hr , or if the State's H_2S AAQS for one hour is exceeded at a monitoring station located at a GBUAPCD-approved site, further venting of the well(s) containing H_2S will be curtailed until an H_2S abatement plan, approved by the GBUAPCD, is implemented to reduce H_2S well emissions below 2.5 kg/hr and ambient concentrations below the State standard of 0.03 ppm (Authority based on Clear Air Act, Section 169 – Prevention of Significant Deterioration [PSD]).

4.4 BIOLOGICAL RESOURCES

BIOLOGICAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?	☐	☒	☐	☐

Analysis of the 2006 Project's potential impacts to biological resources is provided on pages 62 through 65 of the 2006 EA/MND. For the 2006 EA/MND, project-related impacts to the MGS were to be mitigated by on-site avoidance measures and off-site compensation of lands. Impacts to the WJT were not evaluated for in the 2006 EA/MND.

Changes since 2006 EA/MND: In 2012, a large portion of the road work needed for the current Project was completed. The work was conducted with the support of a biological monitor that was tasked to observe construction activities, provide guidance on avoidance measures, and ensure environmental compliance during the 2006 Project construction. One prairie falcon (*Falco mexicanus*) nest was located approximately 200 meters (m) from Center Pass. Three nestlings were in the nest when first found. All activity west of the pass was halted until July 2, 2012, when the young had fledged, all were flying well, and spending much time away from the nest. Although the construction schedule for the pass was postponed for two weeks, Deep Rose did not apply pressure to begin construction before the young were flying well and not dependent on the nest. The monitor also oversaw the movement and transplantation of WJT within the Project footprint, which is further discussed below. Habitat compensation for the proposed work was negotiated with CDFW but was never completed. Deep Rose is working with CDFW to address this through the ITP process.

An inventory survey for MGS was conducted in March 2021(Mohave Ground Squirrel Strategy Avoidance, Minimization and Mitigation Measures Report, August 2021). No MGS or evidence of MGS were observed during this survey. Detailed information about this survey and its findings can be found in Appendix D – Deep Rose Geothermal Mohave Ground Squirrel Strategy – of this Supplemental IS/MND. A protocol survey with trapping was conducted in Spring 2023 to determine the presence or absence of MGS within the project area.

In October 2020, the state listed the WJT as a candidate species for the CESA. Deep Rose is in the process of applying for a joint MGS/WJT ITP. In July 2012, WJT were removed from the 2006 Project footprint and transplanted outside the project area. A total of 93 WJT were transplanted. A July and August 2021 survey found that 56 trees, just over 60 percent, were alive. Findings of this survey can be found (page 6) in Appendix E – Biological Assessment, August 2021– of this Supplemental IS/MND.

Burying the pipeline in the road corridor is the only project modification added since the 2006 EA/MND. This would lead to temporary impacts along an existing disturbed area.

Current Analysis of Existing Conditions:

Biological resources for this analysis were gathered from many sources, including:

- Survey and monitoring reports completed through the 2012 initial project activities, including the Environmental Assessment for a Proposed Geothermal Test Drilling

Project in the Known Geothermal Resource Area, near Coso Junction, Inyo County, California (Kiva Biological Consulting, March 29, 2021[4]);
- The 2006 EA/MND;
- Updated database searches in the California Natural Diversity database (CNDDB; CDFW 2023[5]) and California Native Plant Society's (CNPS) Electronic Inventory (CNPS 2023[6]);
- Desert Renewable Energy Conservation Plan – Proposed Land Use Plan Amendment and Final Environmental Impact Statement (BLM 2015[2];
- The Mojave Ground Squirrel Conservation Strategy (CDFW 2019[7]); and
- Mohave Ground Squirrel Strategy, Avoidance, Minimization and Mitigation Measures (Sunrise 2021[8]).

Biological Study Area. The Study Area for Biological Resources (hereafter Study Area) includes all project features post-2012, and a buffer of approximately 100 feet from those features to encompass resources that may be affected directly and/or indirectly by the proposed current Project. Database searches included a buffer area of 5 miles from post-2012 project features so that all species known from this larger area were considered in this analysis.

The Study Area is found within Township 21S, Range 38E in portions of Sections 2, 3, 9, 4, 10, and 16 and on the USGS Cactus Peak and Haiwee Reservoir.

7.5-minute topographic maps. Elevations at the Study Area vary from 5,080 to 5,460 feet above mean sea level. Disturbances in the Study Area include domestic animal presence (active cattle grazing, feral horses and donkeys), and low-impact human recreation activities such as driving existing roads and hiking.

Vegetation and Wildlife Resources. The Study Area supports mostly Nevada joint fir – boxthorn – spiny hop sage scrub (*Ephedra nevadensis – Lycium* sp. – *Grayia spinosa* Shrubland Alliance) (Sawyer and Keeler-Wolf 2009[9]). This community is typically found on dry, open slopes, ridges, rocky highlands, canyons, sides of arroyos, bajadas, floodplains, valleys, and washes. Soils may be gravelly or rocky and may be alkaline or saline. Within the Study Area, this community also supports a low density of WST (*Yucca brevifolia*).

Wildlife in the Study Area is expected to be typical of high elevation desert valley areas in the region and include species such as desert spiny lizard (*Sceloperus magister*), red-tailed hawk (*Buteo jamaicensis*), prairie falcon (*Falco mexicanus*), common raven (*Corvus corax*), mountain bluebird (*Sialia currucoides*), coyote (*Canis latrans*), and black-tailed jackrabbit (*Lepus californicus*).

Sensitive Plants and Wildlife. Sensitive plants and wildlife are defined here as those listed by federal, state, or local agencies as endangered, threatened, or otherwise sensitive or watch list species. Table 4.2 presents the combined results of database searches for

sensitive species with the potential for each species to occur in the Study Area based on the following criteria:

Present — Detected on or immediately adjacent to the Study Area within the past 5 years

High — Detected on or immediately adjacent to the Study Area between 5-20 years ago and suitable habitat present including elevation parameters.

Moderate — Detected on or immediately adjacent to the Study Area between 5-20 years ago or suitable habitat present including elevation parameters. Annual plant species if annual rainfall was below average at the time of a focused rare plants survey.

Low — Not detected on or immediately adjacent to the Study Area within 20 years; habitat marginal or disturbed.

Absent — Specific habitat requirements are not present on or adjacent to the Study Area or species is an easily identifiable cactus, shrub or tree absent from the Study Area.

Species with moderate or higher potential to occur are shaded in Table 4.2 and discussed individually.

Table 4.2 Potential for Species to Occur in the Study Area

Common Name ***Scientific Name***	**Status***	**Habitat/elevation (ft)/ blooming period**	**Potential for Occurrence**
Plants			
Darwin Mesa milk-vetch *Astragalus atratus* var. *mensanus*	Federal: BLM sensitive State: None CNPS: 1B.1	Great Basin scrub, Joshua tree woodland, Pinyon and juniper woodland/4,395-7,595/Apr-Jun	Low – records over 100 years old and no recent records exist
Kern ceanothus *Ceanothus pinetorum*	Federal: None State: None CNPS: 4.3	Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest/3,410-9,005/May-Jul	Low – records over 40 years old and no recent records exist, no suitable habitat present
Kern Canyon clarkia *Clarkia xantiana ssp. Parviflora*	Federal: None State: None CNPS: 4.2	Chaparral, Cismontane woodland, Great Basin scrub, Valley and foothill	Low – records over 100 years old and no recent records exist, no suitable habitat present

Common Name ***Scientific Name***	**Status***	**Habitat/elevation (ft)/ blooming period**	**Potential for Occurrence**
		grassland/2,295-11,875/May-Jun	
Desert bird's-beak *Cordylanthus eremicus* ssp. *Eremicus*	Federal: None State: None CNPS: 4.3	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland/3280-9845/Jul-Oct	Low – records over 30 years old and no recent records exist, habitat marginal
Gray cryptantha *Cryptantha scoparia*	Federal: None State: None CNPS: 4.3	Chenopod scrub, Great Basin scrub, Pinyon and juniper woodland/6,200-9,005/Jun-Jul	Low – records over 100 years old and no recent records exist, elevation parameters higher than Study Area
Sanicle cymopterus *Cymopterus ripleyi* var. *saniculoides*	Federal: None State: None CNPS: 1B.2	Joshua tree woodland, Mojavean desert scrub/3,280-5,445/Apr-Jun	Low – records over 40 years old and no recent records exist
Booth's evening-primrose *Eremothera boothii* ssp. *Boothii*	Federal: None State: None CNPS: 2B.3	Joshua tree woodland, Pinyon and juniper woodland/2,675-7,875/Apr-Sep	Low – records over 90 years old and no recent records exist, habitat marginal
Pinyon Mesa buckwheat *Eriogonum mensicola*	Federal: BLM sensitive State: None CNPS: 1B.3	Great Basin scrub, Pinyon and juniper woodland, Upper montane coniferous forest/5,905-9205/Jul-Sep	Low – records over 30 years old and no recent records exist, habitat marginal and elevation parameters higher than Study Area
Barstow woolly sunflower *Eriophyllum mohavense*	Federal: BLM sensitive State: None CNPS: 1B.2	Chenopod scrub, Mojavean desert scrub, Playas/1,640-3,150/Mar-May	Low – records over 40 years old and no recent records exist, habitat marginal and elevation parameters lower than Study Area
Winged cryptantha *Johnstonella holoptera*	Federal: None State: None CNPS: 4.3	Mojavean desert scrub, Sonoran desert scrub/330-5,545/Mar-Apr	Low – records over 40 years old and no recent records exist
Coso Mountains lupine *Lupinus magnificus* var. *glarecola*	Federal: None State: None CNPS: 4.3	Great Basin scrub, Joshua tree woodland, Mojavean desert scrub/3,640-8,005/Apr-Jun	Low – records over 40 years old and no recent records exist
Creamy blazing star *Mentzelia tridentata*	Federal: None State: None CNPS: 1B.3	Mojavean desert scrub/2,295-3,855/Mar-May	Low – recorded in 2006 south of Haiwee Reservoir but elevation parameters lower than Study Area

Common Name ***Scientific Name***	**Status***	**Habitat/elevation (ft)/ blooming period**	**Potential for Occurrence**
Amargosa beardtongue *Penstemon fruticiformis* var. *amargosae*	Federal: BLM sensitive State: None CNPS: 1B.3	Mojavean desert scrub /2,790-4,595/Apr-Jun	Low – records over 40 years old and no recent records exist, elevation parameters lower than Study Area
Mojave indigo-bush *Psorothamnus arborescens* var. *arborescens*	Federal: None State: None CNPS: 4.3	Mojavean desert scrub, Riparian scrub/1,310-3,890/Apr-May	Low – records over 40 years old and no recent records exist, elevation parameters lower than Study Area
Mojave fishhook cactus *Sclerocactus polyancistrus*	Federal: None State: None CNPS: 4.2	Great Basin scrub, Joshua tree woodland, Mojavean desert scrub/2,100-7,610/Apr-Jul	High – present in 2004 surveys and likely still located on site
Owens Valley checkerbloom *Sidalcea covillei*	Federal: None State: Endangered CNPS: 1B.1	Chenopod scrub, Meadows and seeps/3,595-4,645/Apr-Jun	Low – last record in 1891 in area now covered by Haiwee reservoir
Western Joshua tree *Yucca brevifolia*	Federal: None State: Candidate CNPS: none	Dry, sandy or rocky washes in Joshua tree woodland and Mojavean desert/1,900-5,500/Feb-May	Present
Wildlife			
Mojave desert tortoise *Gopherus agassizii*	Federal: Threatened State: Threatened	A variety of desert habitats include Mojave and Sonoran Desert scrubs under elevations of approximately 5,500 ft	Moderate – most recent record 2006 south of Haiwee Reservoir (within 20 years), suitable habitat present
Burrowing owl *Athene cunicularia*	Federal: BLM sensitive, U.S. Fish and Wildlife Service (USFWS) Bird of Conservation Concern (BCC) State: Special of Special Concern (SSC)	Open, dry annual or perennial grasslands, deserts & scrublands characterized by low-growing vegetation. Depends on burrowing mammals such as the California ground squirrel for burrows.	Moderate – most recent record 2007 south of Haiwee Reservoir (within 20 years), suitable habitat present

Common Name ***Scientific Name***	**Status***	**Habitat/elevation (ft)/ blooming period**	**Potential for Occurrence**
Golden eagle *Aquila chrysaetos*	Federal: BLM sensitive State: Fully protected	Nesting on cliff faces at high elevations; forages in many habitat types for primary prey of jackrabbits	Moderate – most recent record 2009 south of Haiwee Reservoir (within 20 years), suitable habitat present
Le Conte's thrasher *Toxostoma lecontei*	Federal: None State: SSC	Open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats.	Low – most recent record over 40 years old in 1981
Mohave ground squirrel *Xerospermophilus mohavensis*	Federal: None State: Threatened	sandy and gravelly soils, open desert scrub, alkali scrub & Joshua tree woodland.	High – numerous records in nearby areas of China Lake Naval Weapons Station between 1979 and 2010

Mojave fishhook cactus. One individual of this species of cactus is located within the current project footprint at the well pad location (Kiva Biological Consulting 2021[4]).

Western Joshua Tree. Original surveys for this species were conducted in 2004 and resulted in identifying 196 trees within the Study Area. Prior to 2012, 93 of those trees were transplanted outside of the project impacts area and watered (Kiva Biological Consulting 2021[4]). A survey conducted in July and August 2021 found that 56 of the 93 WJT transplanted were alive.

In August 2023, CDFW released guidance regarding the incidental take permit process for the Western Joshua Tree Conservation Act [Fish and Game Code Section 1927.3, subdivision(a)(1)]. In concurrence with the guidance, Deep Rose will conduct a census of the WJT within 50 ft of any project ground disturbance. Once complete, the census will be submitted to CDFW, who will review the application and prescribe a mitigation compensation fee, based on each tree's height, proximity to the proposed activities, and other factors. This section will be updated upon completion of CDFW consultation.

Mojave Desert Tortoise. No Mojave Desert Tortoises or their sign were found during project surveys conducted in 2004 or in 2021. This species is likely absent from the Study Area and would not be adversely affected by the proposed Project.

Burrowing Owl. No burrowing owls or their sign were found during project surveys conducted in 2004 or in 2021. This species is likely absent from the Study Area and would not be adversely affected by the proposed Project.

Golden Eagle. No golden eagles have been observed during surveys. Golden eagles are not likely to nest within the Study Area. Nesting habitat is present near the Study Area, and the Study Area supports foraging habitat for this species.

Mohave Ground Squirrel. MGS have previously been incidentally observed near the Study Area in 2021 (Kiva Biological Consulting 2021[4]). Protocol live and camera trapping surveys to determine presence or absence of this species were conducted in Spring/Summer 2023. During three separate trapping sessions held between April 1 and June 30, no MGS were observed. Based upon these findings, Deep Rose has decided to forgo any Incidental Take Permit, under Section 2081 of the CESA. Deep Rose understands the risks for take of MGS and is willing to make appropriate mitigation compensation in the event of a take of MGS.

Impact Analysis:

a) ***Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?***
This would apply to Mojave fishhook cactus and WJT. Direct impacts to Mojave fishhook cactus are likely for those individuals on or within the current Project's features that cannot reasonably be avoided by removal or transplantation. All Mojave fishhook cacti shall be avoided, either by constructing around the plant or by transplanting the cactus. Possible indirect impacts (i.e., from dust or the introduction of invasive species) to additional individuals found within the Study Area but not directly affected would be mitigated by mitigation measures **BIO-1, 2, 3, 7**, and **8**.

For individual WJT that cannot be avoided, direct impacts are likely through removal and possible transplantation. possible indirect impacts (i.e., from dust or the introduction of invasive species) to additional individuals found within the Study Area would be mitigated by Deep Rose's avoidance measures and by mitigation measures **BIO-1, 2, 3, 7**, and **9** (WJT specific mitigation). Therefore, potential impacts would be l**ess than significant with mitigation.**

b) ***Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS?***
There are no designated Jurisdictional Waters of the U.S., riparian habitat, or other sensitive natural communities identified in local or regional plans, policies, or regulations within the project area. Therefore, the potential impact would be **less than significant.**

c) ***Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

A query of the USFWS National Wetlands Inventory indicates that there are no wetlands within the vicinity of the current Project. Additionally, there are no marshes, vernal pools, or coastal resources within the vicinity of the current Project. No waters of the state are found within the vicinity of the current Project. As such, a **less than significant** impact to these resources is anticipated.

d) ***Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

No project facilities will be constructed that will interfere substantially with any native wildlife species or associated travel corridors. The small size and temporary nature of project activities would result in a **less than significant impact** to these resources.

e) ***Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

There are no known local policies or ordinances protecting biological resources, such as tree preservation policies or ordinances with which the current Project would conflict. The DRECP and MGS Conservation Strategy are discussed below. Potential impacts would be **less than significant.**

f) ***Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

There are no known adopted Habitat Conservation Plan, Natural Community Conservation Plans, or other approved local, regional, or State Habitat Conservation Plans with which the current Project would conflict. The DRECP is a collaborative planning effort by the BLM, California Energy Commission, USFWS, and CDFW that aims to facilitate renewable energy development (including geothermal) in appropriate places in the desert while conserving these other resources and uses. The current Project is located within the DRECP planning area and is consistent with the DRECP Land Use Plan Amendment (LUPA) released in September 2016 (BLM 2016[2]), as outlined below for MGS Conservation Management Actions (CMAs). The LUPA-wide CMA includes MGS-specific conservation management actions, including conducting protocol surveys are required for activities in MGS CMA. The survey data collected must be provided to BLM and CDFW. Protocol live and camera trapping surveys were completed in Spring/Summer 2023, and no MGS were observed. The proposed Project would comply with DRECP CMAs for MGS to ensure compliance

with this plan and avoid conflicts, thereby having a **less than significant impact with mitigation**. Measures **BIO-1** through **BIO-9** ensure this compliance.

Mitigation Measures:

The following mitigation measures (with some changes to numbering and wording) were identified as necessary in the 2006 EA/MND and continue to be necessary to reduce potentially significant impacts to less than significant levels for the project modifications evaluated in this supplement.

BIO-1: All areas to be disturbed will have boundaries flagged prior to construction and all disturbances will be confined to the flagged areas. All employees will be instructed that their activities must be confined to locations within the flagged areas. Deep Rose will have environmental monitors on-site during construction activities (Authority based on California Fish and Game Code 2800, et. seq. – Natural Community Conservation Planning Act).

BIO-2: All construction equipment will be power washed prior to arrival at the project area to prevent the transportation and establishment of noxious weeds (Authority based on 7 Code of Federal Regulations (CFR) 360 – Noxious Weeds Regulations).

BIO-3: During reclamation, all disturbed areas will be appropriately topsoiled and seeded with a BLM/CalGEM approved seed mix per the specifications outlined in *Reclamation Plan for the Deep Rose Geothermal Exploration Project,* as provided in Appendix B of the 2006 EA/MND (Authority based on 14 California Code of Regulations (CCR Section 3503 – Surface Mining and Reclamation Practice).

BIO-4: To avoid the potential for mortality and harassment of wildlife, all firearms and dogs will be prohibited from the project area and all workers will be required to check under their vehicles prior to departing the project area.

BIO-5: Trash and food items will be disposed of promptly in predator-proof containers with resealable lids. Trash containers will be removed regularly (at least once per week). This effort will reduce the attractiveness of the area to opportunistic predators such as coyotes and common ravens.

BIO-6: A maximum speed limit of 25 mph, unless otherwise posted, will be maintained while traveling on unpaved access roads within the project area. This effort will reduce the potential for vehicle-wildlife related collisions.

BIO-7: A brief Worker Environmental Awareness Program will be implemented for construction and drilling crews prior to the commencement of project activities. Training materials and briefings will include but not be limited to, discussion of the Federal Endangered Species Act and CESA, the consequences of noncompliance with these acts, identification and values of wildlife and natural

plant communities, hazardous substance spill prevention and containment measures, and review of all required and recommended mitigation measures (This mitigation measure would be implemented in support of ITP conditions).

BIO-8: Mojave fishhook cactus individuals will be avoided and will be marked or fenced by Biological Monitors for avoidance. Those individuals of this species that cannot be avoided will be carefully transplanted by the Biological Monitor. Other cactus species may be transplanted as the Biological Monitor deems appropriate.

BIO-9: Mitigation for WJT will be completed using the in-lieu fee strategy provided in the Western Joshua Tree Conservation Act (July 10, 2023). As such, Deep Rose will pay mitigation fees based on individual WJT height, as specified in Section 1927.3 (e) of the Act. All in-lieu fees will be deposited into the Western Joshua Tree Conservation Fund to be used to address threats to the WJT, including through the acquisition, conservation, and management of WJT conservation lands. Deep Rose will apply for an ITP under the Western Joshua Tree Conservation Act. This application will be deferred until CDFW releases guidance on how to assess whether a "take" of WJT will occur, in accordance with 14 CCR Section 15126.4

4.5 CULTURAL RESOURCES

CULTURAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Impact Analysis:

a), b), and c): Cultural resource surveys were conducted in support of the 2006 EA/MND. The surveys identified sensitive resources within the planned road corridor. In response, Deep Rose, in cooperation with the BLM Cultural Resources Manager, designed alternative routes bypassing these known resources. In 2012, Deep Rose completed road work on these bypass routes.

The updated scope for the current Project would be performed in areas that have been surveyed and cleared with regards to cultural resources, and no significant historic resources would be directly affected by the proposed action by implementing the road alignment. With the following mitigation measures, developed in consultation with the CSLC, impacts would be **less than significant with mitigation.**

Mitigation Measures:

CUL-1/TCR-1: Cultural and Tribal Cultural Resources Awareness Training. Prior to Project implementation, a construction-worker cultural and tribal cultural resources awareness training program for all personnel involved in Project implementation shall be developed in coordination with CalGEM Tribal Staff and consulting Native American tribes. The training will be conducted by an approved cultural or tribal resource specialist and/or Tribal Representative(s) and must be provided to all Project employees, contractors, subcontractors, and other workers prior to their involvement in any ground disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the Project. Evidence of compliance with this mitigation measure shall be documented prior to

construction activities. Additional guidance is provided in the Cultural and Tribal Cultural Resources Management and Treatment Plan (CRMTP) referenced below.

The purpose of the training will be to educate on-site construction personnel as to the sensitivity of archaeological and tribal cultural resources in the Project area, including understanding the difference between non-Native archaeological resources (cultural resources) and resources that are Native American in nature (tribal cultural resources). The training will also cover the requirements of the plan identified in MM CUL-2/TCR-2, including the possibility of exposing cultural or tribal cultural resources, guidance on recognizing such resources, and direction on procedures if a potential resource is encountered. The Applicant will instruct all Project personnel that touching, collecting, or removing cultural materials from the property is strictly prohibited. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans, consistent with Native American tribal values and customs.

The training shall include, at a minimum:

- A brief overview of the cultural sensitivity of the Project site and surrounding area;
- What resources could potentially be identified during ground disturbance;
- The protocols that apply in the event unanticipated cultural or tribal cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated;
- Consequences in the event of noncompliance; and,
- Safety procedures when working with monitors.

CUL-2/TCR-2: Cultural and Tribal Cultural Resources Management and Treatment Plan (CRMTP). Prior to Project implementation, the operator shall review the Project comprehensive CRMTP. No tribal cultural resources shall be collected, relocated, or otherwise impacted until the approved CRMTP is in place. The purpose of the CRMTP is to describe the procedures and requirements for protection and treatment of both non-Native American archaeological or historic resources and tribal cultural resources that may be discovered during Project implementation. The Applicant shall fully carry out, implement, and comply with the CRMTP throughout all phases of construction.

CUL-3/TCR-3: Cultural and Tribal Cultural Resources Monitoring. In addition to providing the training required by MM CUL-1/TCR-1, the operator shall provide monitoring during implementation of the Project as ~~may be~~ specified in the CRMTP required by MM CUL- 2/TCR-2. Monitors may include cultural or tribal resource specialists and representatives from area Native American tribes. The monitors shall have the authority to temporarily halt or redirect construction in the event that potentially

significant cultural resources or tribal cultural resources are discovered during Project related activities. The work stoppage or redirection shall occur to an extent sufficient to ensure that the resource is protected from further impacts. Detailed monitoring procedures will be outlined in the CRMTP identified in MM CUL-2/TCR-2. The operator shall provide a minimum two week notice to CalGEM and the designated representatives from the consulting tribe(s) prior to all activities requiring monitoring and shall provide safe and reasonable access to the Project site. The monitors shall work in collaboration with the inspectors, Project managers, and other consultants hired/employed by the operator or their contractor.

CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources. If any potential tribal cultural resources, archaeological resources, other cultural resources, or articulated or disarticulated human remains are discovered by the designated on-site monitors, or other Project personnel during construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the Project area and nature of the find. Work stoppage shall remain in place until the monitor, or other designated on-site specialist have jointly determined the nature of the discovery, and the significance of the discovery has been determined by the cultural or tribal resource specialist or Tribal representative, as detailed in the CRMTP identified in MM CUL-2/TCR-2. Tribal cultural resources shall not be photographed nor be subjected to any studies beyond such inspection as may be necessary to determine the nature and significance of the discovery. If the discovery is confirmed as potentially significant or a tribal cultural resource, an Environmentally Sensitive Area (ESA) will be established using fencing or other suitable material to protect the discovery during subsequent investigation. No ground-disturbing activities will be permitted within the ESA until the area has been cleared for construction. The exact location of the resources within the ESA must be kept confidential and measures shall be taken to secure the area from site disturbance and potential vandalism.

Impacts to previously unknown significant cultural and tribal cultural resources shall be avoided through preservation in place, if feasible. If the on-site monitor, or on-site specialist, as appropriate, determines that damaging effects on the cultural or tribal cultural resource can be avoided in place, then work in the area may resume provided the area of the discovery remains clearly marked for no disturbance.

CUL-5/TCR-5: Unanticipated Discovery of Human Remains. If human remains or associated grave goods (e.g., non-human funerary objects, artifacts, animals, ash or other remnants of burning ceremonies) are encountered, all ground disturbing activities shall halt within 100 feet of the discovery or other agreed upon distance based on the project area and nature of the find; the remains will be treated with

respect and dignity and in keeping with all applicable laws including California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. If representatives are not already on site when a discovery is made, the Project monitor or designated on-site specialist, Tribal Representative(s), the Applicant, and CSLC shall be notified immediately. The monitor shall contact the County Coroner within 24 hours. If human remains are determined by the County Coroner to be of Native American origin, the County Coroner shall notify the Native American Heritage Commission within 24 hours of this determination, and the Native American Heritage Commission shall identify a Most Likely Descendent. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented.

Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq. The reburial agreement described in the CRMTP identified in MM CUL2/TCR-2 shall include specific details about temporary custody of remains, reburial location, confidentiality, and recordation in the California Historic Resources Inventory System.

4.6 ENERGY

ENERGY – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Impact Analysis:

a) ***Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

The 2006 EA/MND did not contain a CEQA issue area discussion on Energy. However, the drilling of up to four geothermal exploration wells would not be expected to consume a significant amount of diesel fuel in comparison to total California diesel fuel use. Therefore, the potential impact would be **less than significant**.

b) ***Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

The 2006 EA/MND provides some discussion with regard to energy plans as summarized here. The proposed Project is consistent with the reduction of U.S. dependence on foreign energy sources in accordance with the Warren-Alquist Act of 1974, the New Energy Policy Act of 2005 and the U.S. Geothermal Steam Act of 1974, as amended by the John Riskel, Geothermal Steam Act Amendments of 2005. Geothermal energy is one of the strongest components of California's renewable energy portfolio, as the geothermal industry in California provides over half of the state's non-hydro/ biomass renewable energy. Therefore, the Project would not conflict with and State or local plans on renewable energy or energy efficiency, the potential impact is **less than significant**.

4.7 GEOLOGY AND SOILS

GEOLOGY AND SOILS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Impact Analysis:

a) through f): No project modifications examined in the supplement change the potential for adverse effects due to geologic or seismic conditions or landslides described in the 2006 EA/MND for the proposed Project. The evaluation concluded design features and construction controls reduce the potential for impact to less than significant levels. (2006 EA/MND, pp. 56–59). It should be noted that the construction footprint for the current Project has been reduced due to new bypass road work completed in 2012. Implementation of the mitigation measures provided in the 2006 EA/MND (pp. 58–59) will also minimize potential adverse effects. To address potential surface runoff and erosion issues, vegetation removal would be kept to a minimum and BMPs from a Project specific SWPPP based on the California Construction Stormwater Program would be utilized. BMP's would include adequate drainage control devices such as drainage ditches, cross drains, culverts, out-sloping, and energy dissipaters (Design Feature #2, 2006 EA/MND mitigation measure GEO-1). Fugitive dust from disturbed areas would be controlled with the application of water pursuant to GBUAPCD Rule 401, Fugitive Dust (mitigation measure AIR-1). The following mitigation measures, all proposed in the 2006 EA/MND, would be applied, therefore, potential impacts to geology and soils resources would be less than significant with mitigation.

Note: Mitigation Measures Numbering to match 2006 EA/MND where applicable:

GEO-3: Project vehicles would be restricted to designated roads and well pad area. No off- road travel would be permitted in order to avoid the potential for increased risk of runoff (Authority based on the California Construction Stormwater Program).

GEO-4: Adequate freeboard in the reserve pit will be maintained to avoid the discharge of geothermal brine and/or drilling muds to surrounding soils caused by reserve pit overflows (Authority based on 2 CCR § 2128, – Drilling Regulations; 14 CCR § 1710, et sec., Development, Regulation, and Conservation of Oil and Gas Resources).

GEO-5: To reduce the risk of soil erosion from uncontrolled well flow, routine testing would be conducted by members of the drilling crew on the blowout prevention equipment in accordance with CalGEM testing procedures.

GEO-6: Up to four inches of topsoil would be selectively stripped and salvaged from all newly disturbed areas. Topsoil would be stockpiled in several areas at the Deep Rose project site and retained for replacement and revegetation at the time of final reclamation. To reduce erosion and sedimentation during the life of the current Project, soil stockpiles will be temporarily revegetated with noxious weed-free mixed cover vegetation with an emphasis on native species that possess the ability to root quickly (Authority based on the California Construction Stormwater Program).

GEO-7: If the resource is proved to be unsuccessful, topography will be restored to near pre-existing contours at the well pad and all upgraded access roads will be reclaimed to their original width of approximately six feet. Ground surfaces in these areas would be roughened (i.e., using excavation equipment to roughen the ground surface) to reduce compaction, covered with topsoil, and reseeded with BLM-approved seed mixtures as described in *Reclamation Plan for the Deep Rose Geothermal Exploration Project*. This would be a BLM permit requirement.

4.8 GREENHOUSE GAS EMISSIONS

GREENHOUSE GAS EMISSIONS - Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

The 2006 EA/MND was conducted prior to the passing of Assembly Bill 32, the Global Warming Solutions Act of 2006. Prior to the bill's passing, estimation of greenhouse gas (GHG) emissions as an emissions class was not required for CEQA analysis. Appendix B of this Supplemental IS/MND provides a 2022 estimation of the GHGs likely to be generated by the construction and drilling operations associated with the current Project.

Changes since 2006 EA/MND: Since 2006, California has enacted several pieces of legislation that relate to GHG emissions and climate change, much of which sets aggressive goals for GHG reductions within the state. Pursuant to SB 97, the California Natural Resources Agency adopted amendments to the CEQA Guidelines, which address the specific obligations of public agencies when analyzing GHG emissions under CEQA to determine a project's effects on the environment. However, amendments to the guidelines apply prospectively only. New requirements in amendments will apply to steps in the CEQA process not yet undertaken by the date when agencies must comply with the amendments. (CEQA Guidelines, § 15007, subd. (b)).

The CEQA Guidelines Amendments and GBUAPCD do not provide adopted quantitative thresholds of significance for addressing a project's GHG emissions. Nonetheless, Section 15064.4 of the CEQA Guidelines serves to assist lead agencies in determining the significance of the impacts of GHGs based on the following: (1) an estimate of the amount of GHG emissions resulting from the project; (2) a qualitative analysis or performance-based standards; (3) a quantification of the extent to which the project increases GHG emissions as compared to the existing environmental setting; and (4) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

At this time, GBUAPCD and Inyo County do not have significance thresholds with regards to GHG emissions. However, in March 2012 the neighboring Eastern Kern Air Pollution

Control District adopted an addendum to its CEQA Guidelines for projects under their review. The guidelines provide a list of circumstances in which a project would be considered to have less than significant impact. Among these is that a project with GHG emissions less than 25,000 tons per year would be considered to pose less than significant impact. While this project is outside the purview of Eastern Kern Air Pollution Control District, this threshold value (25,000 tons per year) was used for comparison purposes.

Answers to questions a) and b) are provided below.

Impact Analysis:

a) ***Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***
As provided in Appendix B, the proposed Project would emit an estimated 7,666 tons of carbon dioxide equivalent through the completion of the current Project, well below the assumed threshold of 25,000 tons/year. Operation of the drilling rig would be the largest GHG emitter. If the current Project had completed all phases within a year (i.e., inclusion of 2012 construction), total estimated emissions would be 8,957 tons carbon dioxide equivalent, which is still at least 2.5 times lower than the 25,000 tons per year threshold assumed for comparison purposes. As such, there would be **less than significant impact** due to GHG emissions.

b) ***Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?***
Signed into law in September 2008, the Sustainable Communities and Climate Protection Act of 2008, also known as SB 375, aims to reduce GHG emissions from passenger vehicles. SB 375 instructs CARB to set regional targets, with Metropolitan Planning Organizations from each region developing Sustainability Communities Strategies that integrate transportation, land-use, and housing policies to plan achievement of the regional emissions targets.

The Inyo County Local Transportation Commission (ICLTC) is the Regional Transportation Planning Agency (RTPA) responsible for developing the Regional Transportation Plan (RTP) for the project area. This plan is to be reviewed and adopted every four years and includes recommended measures for regional reduction of GHG emissions. Regional Transportation Planning Agencies that are not located within the boundaries of a metropolitan planning organization (which ICLTC is not) are not subject to the provisions of SB 375 that require addressing regional GHG targets in the RTP and preparation of sustainable community strategies. With the exception of the remaining two-lane section of US 395, the Inyo County region experiences little traffic congestion. As a rural county, Inyo County is not a significant contributor to statewide GHG emissions. Regardless, the ICLTC RTP identifies improvements to bicycle and

pedestrian facilities which will encourage residents and visitors to use alternatives to private vehicles for transportation, thereby helping to reduce GHG emissions. There are no other state, regional, or local GHG emission reduction plans for the project area.

Consumers of electricity and transportation fuels are regulated by requiring providers and importers of electricity and fuel to participate in the GHG Cap-and-Trade Program and other Programs such as the low carbon fuel standard. Each such sector-wide program exists within the framework of AB 32 and its descendant laws, the purpose of which is to achieve GHG emissions reductions consistent with the AB 32 Scoping Plan. In summary, the Project would increase GHGs emissions from operations, electricity use, and combustion of gasoline/diesel fuels, each of which is regulated near the top of the supply-chain. With respect to GHGs from electricity, the AB 32 Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. With respect to GHGs from use and combustion of gasoline/diesel fuels, the Cap-and-Trade Program also covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. Thus, Project GHG emissions will be consistent with the AB 32 Scoping Plan.

Therefore, the current Project would not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. Therefore, a **less than significant impact** is anticipated.

4.9 HAZARDS AND HAZARDOUS MATERIALS

HAZARDS AND HAZARDOUS MATERIALS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a	☐	☐	☒	☐

HAZARDS AND HAZARDOUS MATERIALS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
significant risk of loss, injury or death involving wildland fires?				

Impact Analysis:

a) through g): In the 2006 EA/MND (pp. 75–77) it was determined that through the application of engineered design features (e.g., use of a lined pit, oversizing the pit to allow for unexpected high flows or flooding, and use of berms) and administrative controls (e.g., sampling and analysis of solids prior to disposal or use as backfill, implementation of a Hazard Communication Program) would minimize the chance of an uncontrolled release of hazardous substances into the environment. In addition, Deep Rose will develop and implement a Spill Prevention, Control and Countermeasure Plan (Design Feature #3, 2006 EA/MND mitigation measure HAZ-2), as required by 40 CFR Part 112, Oil Pollution Prevention, to be submitted to the LRWQCB prior to construction activities (Design Feature #3, 2006 EA/MND mitigation measure HAZ-2). A CalGEM spill contingency plan *(HAZ-4) consistent with California Public Resource Code 1722 would also help minimize the potential for a release to the environment. The CaGEM plan includes spill response notification contacts, spill response equipment, hazardous material data information, and spill response information checklists. Therefore, the potential for the Project to result in significant adverse effects from an uncontrolled release of hazardous substances into the environment is considered to be below the level of significance. No increased potential for accidental release of hazardous materials exists and the evaluation presented in the 2006 EA/MND for the approved project remains valid for this Supplemental IS/MND. The following mitigation measures, all proposed in the 2006 EA/MND, would be applied and therefore impacts to hazards and hazardous materials would be **less than significant with mitigation**.

Note: Mitigation Measures (Numbering to match 2006 EA/MND where applicable):

HAZ-1: During road and well pad construction and upon commencement of drilling operations, the contractor will have chemical or hazardous substance inventory for all such items that may be at the site. The contractor will institute a Hazard Communication Program for their employees and will require subcontractor programs in accordance with the Occupational Safety and Health Administration, OSHA 29 CFR 1910.1200. These programs are designed to educate and protect the employees and subcontractors with respect to any chemicals or hazardous substances that may be present in the workplace. It will be required that as every chemical or hazardous material is brought on location, a Safety Data Sheet (SDS) will accompany that material and will become part of the file kept at the field

office as required by 29 C.F.R. § 1910.1200. All employees will receive the proper training in storage, handling, and disposal of hazardous substances.

HAZ-3: Hydrogen sulfide (H_2S) monitors and emergency escape equipment would be available at the drilling rig during drilling and well testing operations. Workers would be instructed in the correct usage of this equipment (Authority based on 8 CCR § 8424, Airborne Contaminants).

HAZ-4: Prepare and submit to CalGEM a Spill Contingency Plan pursuant to California Public Resource Code 1722.

4.10 HYDROLOGY AND WATER QUALITY

HYDROLOGY AND WATER QUALITY – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) Result in a substantial erosion or siltation of on- or off-site;	☐	☒	☐	☐
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	☒	☐
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff; or	☐	☒	☐	☐
iv) Impede or redirect flood flows?	☐	☐	☒	☐

HYDROLOGY AND WATER QUALITY – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Analysis in the 2006 EA/MND (pp. 59–62) concluded that the 2006 Project would not significantly impact groundwater or surface water resources by implementing protective measures during construction and drilling phases. These measures would continue to be implemented as part of this Supplemental IS/MND and impacts to area hydrological resources and water quality would not be significant.

One modification of the current Project introduces trenching to bury the pipeline within the access road ROWs. This ground disturbance would be subject to erosion control measures to be included in the Project specific SWPPP (Design Feature #2, 2006 EA/MND mitigation measure GEO-1). In addition, the Project is required to have a project specific SPCC Plan (Design Feature #3, 2006 EA/MND mitigation measure HAZ-2). As such, the modifications to the 2006 Project do not significantly impact groundwater or surface water resources.

On December 7, 2011, the Inyo County Water Department released its findings of an evaluation of potential impacts associated with the export of 50 acre-feet over the lifetime of the 2006 Project to a location outside the Rose Valley basin. The evaluation was performed in accordance with Inyo County Ordinance 1004 (October 1998), which requires that the Inyo County Water Department and Inyo County Water Commission evaluate hydrological and related environmental impacts of a project, and based on such an evaluation, identify and develop mitigation measures, monitoring, project conditions, groundwater management, and findings. Through the Ordinance 1004 evaluation process, the Inyo County Water Department approved the CUP for the export of 50 acre-feet. The Water Department concluded that the 2006 Project will have no negative or significant hydrological or related environmental effects and that the proposed water transfer will not unreasonably affect the environment of Inyo County. The county did request that Deep Rose monitor and report groundwater extracting (see **HYD-**

4) and required that Deep Rose shall cease groundwater pumping should groundwater level triggers adopted by the Coso/Hay Ranch Project result in the cessation of groundwater pumping by Coso Operating Company (see **HYD-5**) (Inyo County 2011).

Note: The following CEQA Appendix G checklist question analysis references the checklist categories used at the time of the 2006 EA/MND. Current CEQA Appendix G checklist categories where applicable added for reference.

Impact Analysis:

a) ***Would the project violate any water quality standards or waste discharge requirements?*** [Current Appendix G a)]
The current Project proposes to conform to all water quality and/or project-specific requirements of the LRWQCB. Water trucked into the pumping station will be tested to ensure there is no discharge of contaminants during drilling and dust suppression activities. Fluids in the reserve pit will be sampled and analyzed prior to shipment and disposal offsite. Therefore, impacts would be **less than significant.**

b) ***Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*** [Current Appendix G b)]
The current Project would require approximately 16 million gallons (49.1 acre-feet) of water to support construction, drilling, and well testing operations for up to four wells. Water necessary for these activities would be trucked to the water storage tank well pad near Pumice Mine Road from a private water source located within the Rose Valley Groundwater Basin approximately 5.5 miles west of the well pad site. The amount of groundwater used would represent approximately 0.006 percent of the total groundwater storage capacity of the Rose Valley Groundwater Basin in which the water supply well is located (CDWR 2020[11]).

In late May 2021, the Inyo County Water Department accepted and posted a report titled, *Fourth Updated Groundwater Flow Model and Predictive Simulation Results Coso Operating Company – Hay Ranch Water Extraction and Delivery System Conditional Use Permit (CUP) 2007-003* (DBS 2021[12]). The Coso Hay Ranch Project is located in the Rose Valley Groundwater Basin, which is the groundwater basin from which water will be extracted for drilling and dust suppression purposes. Predictive simulations were run for the period of June 2021 through the end of calendar year 2047 using an updated model described in the report. Two predictive scenarios were conducted: Scenario A without any additional pumping from the two Coso Hay

Ranch wells and Scenario B with additional pumping from the southern Hay Ranch well at a rate of 800 acre-feet per year starting in June 2021 for four years.

Scenario A (no future pumping scenario) resulted in a maximum reduction in groundwater inflow to Little Lake (relative to 2009 values) of about 7.7 percent in October 2026. The 7.7 percent reduction is similar to estimate in 2017 under similar scenario of no future pumping at the time (DBS 2017[13]). There is continued decline in groundwater outflow to Little Lake under this scenario due to the residual effects of past Coso pumping. Scenario B, with simulated 800 acre-feet per year for four years, resulted in a maximum reduction of 8.9 percent in July 2030. The simulated reduction of 8.9 percent is less than the 10 percent reduction in groundwater outflow criterion.

The Rose Valley groundwater flow model historical simulation period was extended to include metered Coso pumping through February 2021, recharge estimates through September 2020, and the Los Angeles Department of Water and Power release of 3,862 acre-feet along the axis of the valley from Haiwee Reservoir in March 2017. The updated average recharge decreased slightly from 3,623 acre-feet per year to 3,591 acre-feet per year. Consideration of the updated average groundwater inflow to Little Lake required changes to general head boundary cell conductance (i.e., an assumed fixed point for modeling purposes where the static pressure due to gravity is assumed to remain constant, simulating a lake or other body of water) to maintain an appropriate simulated amount of groundwater inflow to Little Lake.

The current Project would draw 50 acre-feet from a well within the Rose Valley Groundwater Basin over approximately two years. Even if all 50 acre-feet were extracted within one 12-month period, it would still be only one-sixteenth of the 800 acre-feet extracted annually by the Coso Hay Ranch wells over a four-year period (for a total of 3,200 acre-feet over four years). This incremental increase is not expected to significantly affect Little Lake recharge, when considered in concert with the Coso Hay Ranch Project. Considering this, it is anticipated that the proposed one-time water extraction for the Deep Rose Project would not trigger the 10 percent maximum allowable reduction in groundwater outflow to Little Lake, when considered cumulatively with other projects in the basin, including Coso Hay Ranch.

Thus, the amount of groundwater used for the proposed Project will have negligible potential to substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The potential for the current Project's groundwater use to result in a net deficit in groundwater aquifer volume or a lowering of the local groundwater table level is considered to be **less than significant**.

c) ***Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or offsite?*** [Current Appendix G c) and c i)].

No significant changes in absorption rates or drainage patterns are anticipated as a result of the proposed facilities. The proposed Project would only slightly increase the volume and velocity of surface water runoff. The current Project would include minor grading and would slightly increase the impervious surface. The combined area that would be disturbed at the project sites would represent approximately 0.003 percent of the total area of the relatively undeveloped drainage sub-basins (Owens, Upper Cactus, and Indian Wells) in which this portion of the current Project is located (CDWR 2020[11]). The surface treatments proposed for the current Project would not significantly increase the discharge of surface water runoff generated within the drainage basin during the runoff events.

As such, the current Project has negligible potential to substantially alter the existing drainage pattern of the Project sites or Project area. There are no identified streams or rivers within the vicinity of the current Project. Therefore, the current Project would not or alter the course of a stream or river, in a manner which would result in substantial erosion, siltation, or flooding on- or off-site. The potential impact would be **less than significant impact with mitigation.**

d) ***Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*** [Current Appendix G c ii)].

See response to c) above, **less than significant impact with mitigation.**

e) ***Would the project 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?*** [Current Appendix G c iii)].

There are no existing or planned stormwater drainage systems in the project area. As such, the surface alterations proposed by the current Project have no potential to create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. The erosion control and spill containment measures integrated into the current Project will prevent substantial additional sources of polluted runoff and reduce the adverse effects of polluted stormwater runoff from the current Project, the impact would be **less than significant with mitigation.**

f) ***Would the project otherwise substantially degrade water quality?*** (Current Appendix G a)].

All drilling mud and produced fluids would be contained in the reserve pit. Compaction, lining of the pit with a geotextile membrane, and deposition of bentonitic drilling muds during drilling operations, would prevent percolation of drilling muds and produced fluids. All sumps would be constructed and operated in accordance with requirements of the LRWQCB Water Quality Order No. 2003–0003–Statewide General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality and/or project-specific requirements of the LRWQCB. Prudent down hole engineering practices and compliance with CalGEM regulations would protect any potential groundwater from possible inter-zonal migration of fluids should a geothermal zone be encountered.

Once drilling is complete, mud in the reserve pit will be sampled and analyzed for regulated constituents (i.e., chemicals defined by the Resource Conservation and Recovery Act to comprise hazardous wastes). If no hazardous constituents are found, the mud will be allowed to dry out and will be buried and kept in place. Should hazardous constituents be found, the mud will be removed from the reserve pit by track hoe, hauled to a licensed disposal facility, and disposed in accordance with federal, state, and local laws and regulations and the impact would be **less than significant.**

g) ***Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*** (Current Appendix G d)]

The proposed Project is located in a remote area on State and Federal lands and no housing units are within the project area. Impacts would be **less than significant**.

h) ***Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?*** (Current Appendix G d)]

The proposed Project does not involve the construction of facilities within a 100- year flood hazard area. Therefore, no impacts are anticipated as a result of project implementation. Impacts would be **less than significant**.

i) ***Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*** (Current Appendix G d)]

The project area is not located within a dam or levee inundation area. Therefore, no impacts are anticipated. Impacts would be **less than significant**.

j) ***Would the project be inundated by seiche, tsunami, or mudflow?*** (Current Appendix G d)]

The proposed Project is not located near any large lakes or water bodies, so inundation by a seiche would not occur. The nearest large water body is Lower Haiwee Reservoir located approximately 4.3 miles (6.9 km) northwest of the proposed well pad site. Due to the proposed project area's remote inland location, the area would not be exposed to earthquake-induced sea waves called tsunamis, nor would inundation by mudflow be likely. Impacts would be **less than significant**.

Mitigation Measures:

The following mitigation measures, all proposed in the 2006 EA/MND, would be applied:

HYD-1: The reserve pit would be constructed so that a minimum of one-half of the total depth is below the original ground surface on the lowest point within the pit. To prevent seepage of fluids, the reserve pit will be lined with an impermeable polyethylene liner. The liner would be of sufficient strength and thickness to withstand normal installation and use (Authority based on 2 CCR Section 2128 – Drilling Regulations).

HYD-4: Deep Rose shall monitor and report groundwater extraction by installing and monitoring a totalizing meter on the supply well, and the amount of groundwater pumped from the well shall be reported to the Inyo County Planning Department six months following the granting of the permit and at six-month intervals thereafter until groundwater withdrawal under this permit ceases.

HYD-5: In the event that groundwater level triggers adopted for the Coso Hay Ranch Project result in cessation of groundwater pumping by Coso Operating Company, Deep Rose shall also halt its pumping and transfer of groundwater under its CUP for the export of water. Construction and drilling operations associated with the current Project would cease, until further notice from the LRWQCB.

4.11 LAND USE AND PLANNING

LAND USE AND PLANNING – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Impact Analysis:

a) and b): As provided in the 2006 EA/MND (p. 78), "The entire project is located within the northwestern region of the Coso KGRA and is compatible with land use and zoning regulations under the Inyo County General Plan. The Inyo County General Plan identifies the project area as "Resources and Rural Development" use. Land uses in the vicinity of [the 2006 Project] included geothermal plants, mining facilities and other related uses. Therefore, the proposed Project would not conflict with the Inyo County *General Plan* land use designations or BLM Resource Management Plan land use designations."

This remains unchanged with respect to the current Project, with the exception that the current BLM Resource Management Plan would be the Desert Renewable Energy Conservation Plan (DRECP). A review of the *Desert Renewable Energy Conservation Plan – Proposed Land Use Plan Amendment and Final Environmental Impact Statement* (BLM 2015[2], Section IV.11) indicates that the proposed Project would be consistent with the DRECP goals and objectives for the portion on BLM-administered land. The portion of the project area located on state land would be subject to CSLC land management practices and policies. Under this Supplemental IS/MND, no conflict with local or regional land use plans is expected.

4.12 MINERAL RESOURCES

MINERAL RESOURCES – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Impact Analysis:

a) and b): As detailed in the CEQA checklist for the 2006 EA/MND (p. 103), there were no known mineral resources within the project area that would be affected by the 2006 Project. This has remained unchanged in this Supplemental IS/MND.

The current Project would not have the potential to adversely affect a locally important mineral resource recovery site as delineated in the Inyo County *General Plan* or any other specific plan including the BLM DRECP (See DRECP Land Use Planning Amendment [LUPA] Section IV.15).

No effect to usable mineral resources is anticipated.

4.13 NOISE

NOISE – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) 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?	☐	☒	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Impact Analysis:

a) ***Would the project result in the 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?***

The project area is sparsely populated with very few, if any, sensitive receptors. The noise analysis performed in the 2006 EA/MND analyzed for the nearest sensitive noise receptor at the Coso Wilderness Area, approximately 0.75 miles from the project area. The analysis (2006 EA/MND, pp. 72–74) determined that impacts would be less than significant.

Review of current maps and planning documents indicate that no new sensitive noise receptors are present within the vicinity of the project area. Given this and the reduced scope of construction work associated with this Supplemental IS/MND, no significant noise impacts are anticipated, granted that the mitigation measures listed in the 2006 EA/MND (pg. 74) are applied. The following mitigation measures, all proposed in the 2006 EA/MND, would be applied and the impact would be **less than significant with mitigation**.

b) ***Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?***

The drilling of one well at a time in a remote location would not be expected to cause significant vibration or noise, the impact would be **less than significant**.

c) ***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

The Project is not located near an airstrip, **no impact**.

Mitigation Measures:

NOI-1: Well flow testing would be through a well field silencer (Authority based on California Department of Water Resources Bulletin 74 – Well Standards).

NOI-2: All equipment will be equipped with manufacture's standard noise control devices (i.e., mufflers, acoustical lagging, and/or engine enclosures), which will achieve compliance with the recommended noise limits.

NOI-3: If blasting becomes necessary, efforts will be made to restrict the peak overpressures to less than 120 dB at the source to minimize effects to surrounding areas.

4.14 POPULATION AND HOUSING

POPULATION AND HOUSING – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Induce substantial 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)?	☐	☐	☒	☐
b) Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Impact Analysis:

a) and b): As analyzed in the 2006 EA/MND (pp. 78–79), approximately 50 percent of the workforce is expected to come from local communities. The remaining half of the employees will stay in area hotels and eat at local restaurants. Due to the temporary nature of exploratory drilling, no demand for local home sales is expected. Under this Supplemental IS/MND, there would be no change in population or housing demand. No measurable impact on housing is expected. The impact to population and housing would be **less than significant**.

4.15 PUBLIC SERVICES

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

Impact Analysis:

a) Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

An analysis of the 2006 Project's demand on local utilities and public services was conducted in the 2006 EA/MND as part of the Land Use and Socioeconomics analysis (2006 EA/MND, pp. 78–79). In the 2006 EA/MND, it was determined that the 2006 Project would not be expected to substantially affect utilities and public services within the region. The condition and supply of utility and public services has not changed significantly since 2006, and the truncated scope of this Supplemental IS/MND would pose a lower impact on such services as compared to the scope of construction activities within the 2006 EA/MND, therefore, the impact would be **less than significant**.

4.16 RECREATION

RECREATION – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Impact Analysis:

a) and b): The 2006 EA/MND determined that short-term impacts to recreation within the project area would primarily result from all phases of the construction process. Activities associated with the upgrade of existing roads, construction of new roads and well pad site, and setup of the well rig would temporarily alter use of roads in the area for the duration of construction activities. However, due to the temporary nature of construction activities, the relatively small number of people who use the area, and availability of adjacent alternative areas, the effects of the proposed Project on the recreational resource would not be considered significant (2006 EA/MND, p. 74). The updated scope of the 2006 Project would not have any additional effect to recreational resources in the area and the impact would be **less than significant**.

4.17 TRANSPORTATION

TRANSPORTATION – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Conflict with a Project, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒	☐	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Impact Analysis:

a) through d): No project modifications examined in this Supplemental IS/MND affect predicted road use, vehicle miles traveled (VMT), parking, or traffic differently than described in the 2006 EA/MND for the approved project. (2006 EA/MND, pp.77–78).

It should be noted that Senate Bill (SB) 473 was signed into law in 2013, with the goal of better analyzing real estate and transportation project impacts on the environment. One improvement included in the bill is the use of VMT as a metric of analysis for air pollutant emissions due to transportation. The proposed use of the VMT metric became official on July 1, 2020. New projects must now consider VMT instead of level-of-service, as the primary metric.

Not all projects have large transportation components or would occur in rural or remote areas where traffic congestion is not an issue. To address these situations, many agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than significant transportation impact. This Project would have an estimated maximum of 30 trips per day (2006 EA/MND pg. 77), is in a

remote location, and is not subject to any Sustainable Communities Strategy; therefore, transportation analysis using VMT as a metric was not conducted for the 2006 Project.

Conclusions related to the approved project of having a less than significant impact remain valid for project modifications examined in this supplement, assuming mitigations are applied. The following mitigation measures, all proposed in the 2006 EA/MND, would be applied and impact to transportation would be **less than significant with mitigation**.

Mitigation Measures:

TRA-1: Coordinate project construction planning schedules to avoid other possible permitted uses or to reduce the potential for localized traffic slow-downs or congestion.

TRA-2: Proper road signs would be prominently placed near the intersection of U.S. Highway 395 and Coso/Gill Station Road and the intersection of Coso/Gill Station and Pumice Mine roads or other locations to encourage motorists to exercise caution and lower their speed when approaching these areas.

4.18 TRIBAL CULTURAL RESOURCES

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

Background – The 2006 EA/MND did not investigate tribal cultural resources as its own resource area but rather included impacts analysis to such resources within its broader cultural resources section. Tribal consultation was conducted as part of the CEQA/NEPA reviews in 2006 (EA/MND, pp. 66–68). It was determined that no significant impacts to historic or prehistoric resources would occur, given that prescribed mitigation measures are implemented. These measures were written to address avoidance of identified resources, inadvertent discovery response, and employee education.

Surveys Conducted – Archaeological surveys of the project area were conducted by Ancient Enterprises in September 2004 and Spring 2005, in accordance with the requirements of CEQA and the National Historic Preservation Act of 1966, as amended. A total of 52 archaeological resources were identified during the survey of the project area, including 18 archaeological sites and 34 isolates.

None of the resources were initially determined to meet the criteria for significance under either CEQA or federal guidelines. All 18 of the sites, and the 34 isolates, were found to be located on federal lands managed by the BLM. Of the 18 sites found, eight were located on the existing roads. Because required upgrades for the 2006 Project would have directly impacted these eight sites, the proposed access road was rerouted in the vicinity of six of these sites to avoid them.

However, due to limitations posed by the surrounding topography or extent of the project area, realignment of the road in the vicinity of the remaining two sites was not feasible. Therefore, a Phase 2 evaluation program was undertaken to determine their significance. Under an existing agreement with the BLM, this Phase 2 program was limited to only those areas within the Area of Potential Effects of the 2006 Project and consequently would have been directly affected by it. A research design was prepared by Ancient Enterprises and was approved by the BLM resulting in a permit to undertake excavations at these sites in accordance with the Archaeological Resources Protection Act of 1979 and applicable BLM regulations.

Resulting test excavations under the research design for the Phase 2 evaluation program determined that both Phase 2 sites did contain isolated components of significant data. However, it was further determined that the actual locations of these components were all located outside the areas of direct impacts and would not be disturbed during construction activities. For this reason, no data recovery program was recommended for these two sites.

Past Tribal Consultation, 2006 – According to Deep Rose, in April and May 2006, the BLM Ridgecrest Field Office initiated Tribal consultation with the following tribes: Big Pine Paiute Tribe of the Owens Valley, Death Valley Timbi-sha Shoshone Tribe, Bishop Paiute Tribe, Fort Independence Paiute Tribe, and Lone Pine Paiute-Shoshone Tribe. The Big Pine Paiute Tribe of the Owens Valley responded to the invitation to comment on the 2006 Project.

In their reply the Tribe asked whether impacts could occur on the Coso Hot Springs, which is a sacred site within 6 miles of the project area. Specifically, the hot springs are listed both as a Traditional Cultural Property and on the National Register of Historic Places. BLM responded on June 5, 2006, explaining that the project area is not hydrologically tied to the Coso Hot Springs and that other studies indicate that the 2006 Project would not affect the hot springs and that all proposed actions were outside the Traditional Cultural Property or National Register of Historic Places District boundaries.

Members of the Project team met with the Lone Pine Paiute-Shoshone Tribe to discuss the 2006 Project. Members of the Lone Pine Paiute-Shoshone Tribe were employed as archaeological monitors during the 2012 bypass road construction activities and as part of that agreement would be employed for future construction monitoring on the Project.

Tribal Consultation, 2022 – Present (2025) – in response to CalGEM's May 12, 2022, request for assistance with identifying California Native American tribes that are traditionally and culturally affiliated with the project area, the Native American Heritage Commission (NAHC) provided a list of 10 tribes and 19 tribal contacts. On August 4, 2022, CalGEM provided initial consultation notification letters to all provided contacts. The letters provided a brief description of the current Project, a map identifying the location of project area, the lead agency's contact information, and a notification that requests for consultation or written comments would be accepted through September 19, 2022, in accordance with Public Resources Code Section 21080.3.1. The identified Tribes included:

- Big Pine Paiute Tribe of the Owens Valley;
- Bishop Paiute Tribe;
- Death Valley Timbi-sha Shoshone Tribe;
- Fort Independence Indian Community of Paiutes;
- Kern Valley Indian Community;
- Lone Pine Paiute-Shoshone Tribe;
- North Fork Rancheria of Mono Indians;
- Tule River Indian Tribe;
- Twenty-Nine Palms Band of Mission Indians; and,
- Wuksachi Indian Tribe/Eshom Valley Band.

On September 21, 2022, CalGEM received a response from Big Pine Paiute Tribe of the Owens Valley requesting consultation. Although this response was received after the stated request period, CalGEM began the consultation process soon thereafter.

CalGEM consulted with Tribal representatives from Big Pine Paiute Tribe of the Owens Valley on December 5, 2022, via a virtual meeting. Other Tribal representatives for the Bishop Paiute Tribe, Fort Independence Indian Community of Paiutes, and Lone Pine

Paiute Shoshone Tribe were forwarded the meeting invite by Big Pine Paiute Tribe of the Owens Valley and also attended. Although these additional Tribes had not provided a formal written response to the August 4, 2022, consultation notification letters, CalGEM considered their participation in the meeting as showing interest in the proposed project and therefore as requests for consultation.

During the meeting, CalGEM provided an overview of the Project, with documents and maps, and the Tribes provided their knowledge of the surrounding area, including information about the natural environment, general history, and Tribal affiliations with the land. Tribal members requested additional information, including detailed maps, to further their understanding of the Project. CalGEM coordinated with Deep Rose to provide the requested information and maps to the Tribes, as well as a site visit with the Tribes, which was significantly delayed due to road damage caused by severe weather events in 2023 and subsequent scheduling conflicts.

On June 27, 2024, CalGEM, Deep Rose, and Tribal representatives from Big Pine Paiute of the Owens Valley, Death Valley Timbi-sha Shoshone Tribe, Fort Independence Indian Community of Paiutes, Kern Valley Indian Community, and Lone Pine Paiute-Shoshone Tribe, participated in a site visit of the project area. Following this, on July 17 and 18 and August 9, 2024, CalGEM emailed these Tribes, as well as Bishop Paiute Tribe, to provide a draft version of this environmental document as well as to express a desire to share as much information as possible about the proposed project, to support discussions during tribal consultation, and to allow adequate time for Tribal review and input. CalGEM further expressed a goal to better understand the Tribes' perspectives on potential impacts from the proposed project.

In response, on August 14, 2024, the Tribal Historic Preservation Officer with Fort Independence Indian Community of Paiutes requested that a 'Tribal Perspective' letter be attached as an appendix to this 2025 Supplemental IS/MND. This letter is attached as Appendix F.

Between the initial Tribal consultation meeting in December 2022 and the site visit in June 2024, CalGEM was made aware of the existence of additional Tribes affiliated with the project area that were not previously identified by the NAHC. To meet the requirements of Public Resources Code section 21080.3.1, on July 16, 2024, CalGEM again contacted the NAHC to obtain an updated list of Tribes and Tribal contacts.

On August 13, 2024, the NAHC provided a list of 12 Tribes and 19 Tribal contacts. The identified Tribes included:

- Big Pine Paiute Tribe of the Owens Valley;
- Big Sandy Rancheria of Western Mono Indians;
- Bishop Paiute Tribe;

- Death Valley Timbi-sha Shoshone Tribe;
- Fort Independence Indian Community of Paiutes;
- Kern Valley Indian Community;
- Lone Pine Paiute-Shoshone Tribe;
- North Fork Rancheria of Mono Indians;
- Tule River Indian Tribe;
- Twenty-Nine Palms Band of Mission Indians;
- Utu Utu Gwaitu Tribe of the Benton Paiute Reservation; and,
- Wuksachi Indian Tribe/Eshom Valley Band.

On September 12, 2024, CalGEM provided additional Tribal consultation notification letters to all provided contacts. Similar to the initial notifications, these letters provided a brief description of the Project as well as previous Tribal consultation efforts, the lead agency's contact information, location of the proposed project, and notification that requests for consultation or written comments not previously received would be accepted within 45 days of the letter.

CalGEM received a response from the Bishop Paiute Tribe on September 17, 2024, via email requesting a meeting to discuss the proposed project. This meeting was held on September 18, 2024, via phone call, with the Tribe mentioning a plan to meet with their Tribal Environmental counsel regarding the proposed project.

Additionally on September 18, 2024, CalGEM provided the Tribes engaged in consultation with a draft copy of this Section 4.18 (Tribal Cultural Resources) via email for their review and comment. On October 24 and November 4, 2024, CalGEM contacted these same Tribes via email to inquire whether they required further information regarding the proposed project and to express a desire to build a meaningful working relationship.

The Bishop Paiute Tribe responded on November 4, 2024, inquiring as to the next step in the process. That same day, CalGEM replied asking whether the Tribe wanted to meet to discuss the proposed project and for CalGEM to answer any questions. This was followed by an additional phone call that day where questions about the Project were asked and answered, and with CalGEM providing a draft version of this ISMND the next day at the Tribe's request.

Subsequently, on December 11, 2024, CalGEM provided an updated version of this draft ISMND as well as a draft of the CRMTP via email to all six Tribes it was in consultation with, for their review and comment; in addition, CalGEM expressed a desire to meet with the Tribes after they had an opportunity to review the documents. These six Tribes included Big Pine Paiute Tribe of Owens Valley, Bishop Paiute Tribe, Death Valley Timbi-sha Shoshone, Fort Independence Community of Paiutes, Kern Valley Indian Community, and Lone Pine Paiute-Shoshone.

On December 11, 2024, CalGEM received an email response from the Bishop Paiute Tribe stating they were scheduled to meet with and present the documents to the Tribe's new Environmental lead on January 14, 2025, and requested that CalGEM provide site records and/or all archaeological surveys done for Deep Rose. On December 11, 2024, CalGEM provided the requested documentation.

On March 3, 2025, CalGEM sent a follow-up email to the six consulting Tribes requesting any Tribal feedback and comments the Tribes may have on the draft environmental documents previously provided on July 17, September 18, and December 11, 2024, prior to public review, by March 17, 2025. The Big Pine Paiute Tribe of Owens Valley, Fort Independence Community of Paiutes and Lone Pine Paiute-Shoshone Tribe, each responded with concern and/or opposition to the proposed project.

On March 4, 2025, the Lone Pine Paiute-Shoshone emailed CalGEM with concerns regarding the source and use of groundwater needed for the proposed project.

On March 7, 2025, the Big Pine Paiute Tribe of Owens Valley emailed CalGEM requesting confirmation that this draft environmental document will be released for at least a 30-day public review period, as well as raising a concern over compensation for Tribal involvement, and highlighting that the Tribe has previously opposed and raised objections regarding geothermal development in the Rose Valley area. On March 10, 2025, CalGEM responded via email confirming the public review process, promising to provide information about compensation following a meeting that week, and expressing appreciation for the Tribe's response and input. On March 18, 2025, CalGEM followed up with the Tribe and explained that compensation will be provided by the project proponent.

On March 20, 2025, Fort Independence Community of Paiutes emailed CalGEM with the Tribe's input on the draft CRMTP and Tribal Cultural Resource section as well as an offer to meet on March 28 between 10:00 a.m. to 4:00 p.m. regarding their proposed changes, if needed. A phone meeting took place on March 28, 2025; updates provided from Fort Independence Community of Paiutes and the additions are provided in Appendix F.

Statements of concern and/or opposition to the proposed project are noted in the Addendum to Section 4.18 Tribal Cultural Resources, included as Appendix G.

In accordance with Public Resources Code section 21080.3.2, on April 25, 2025, CalGEM considered tribal consultation to be concluded, with no further input from the Tribes.

Impact Analysis:

a) ***Would the project cause a substantial adverse change in the significance of a 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)?***
As described above, the project area does not contain any resources that are either listed or eligible for listing in the California Register of Historical Resources (CRHR) or in a local register of historical resources as defined in PRC Section 5020.1(k). It should be noted that resources identified in 2004 and 2005 surveys have been avoided, as road construction conducted in 2012 bypassed the identified sites.

b) ***Would the project cause a substantial adverse change in the significance of 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?***
For the 2006 EA/MND effort, BLM was the environmental lead for the NEPA analysis, and BLM acted as the government point of contact for the Tribal consultation. Through that consultation, no resources listed or eligible for listing in the CRHR, or in a local register of historic resources as defined in PRC Section 5020.1(k), were identified for the Area of Potential Effects currently being considered for the current Project.

The following mitigation measures were identified as necessary to reduce potential impacts to historical and tribal resources. Application of these mitigation measures would also reduce the potential to cause a substantial adverse change to a historical or tribal resource. Therefore, with following mitigation measures, developed with consultation with the CSLC, impacts would be **less than significant with mitigation.**

Mitigation Measures:

CUL-1/TCR-1: Cultural and Tribal Cultural Resources Awareness Training. Prior to Project implementation, all project employees conducting work in the area identified on the Site Plan shall complete a Cultural Sensitivity Training Program, including training dedicated to tribal resources protection. Training shall be developed in coordination with CalGEM Tribal Affairs staff and consulting Native American tribes. The training will be conducted by an approved cultural or tribal resource specialist and/or Tribal representative(s) and must be provided to all Project employees, contractors, subcontractors, and other workers prior to their involvement in any ground disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the Project. Evidence of compliance with this mitigation measure shall be documented prior to construction activities. Additional guidance is provided in the Cultural and Tribal Cultural Resources Management and Treatment Plan (CRMTP) referenced below.

The purpose of the training will be to educate on-site construction personnel as to the sensitivity of archaeological and tribal cultural resources in the Project area, including understanding the difference between non-Native archaeological resources (cultural resources) and resources that are Native American in nature (tribal cultural resources). The training will also cover the requirements of the plan identified in MM CUL-2/TCR-2, including the possibility of exposing cultural or tribal cultural resources, guidance on recognizing such resources, and direction on procedures if a potential resource is encountered. The Applicant will instruct all Project personnel that touching, collecting, or removing cultural materials from the property is strictly prohibited. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any kind of significance to Native Americans, consistent with Native American tribal values and customs.

The training shall include, at a minimum:

- A brief overview of the cultural sensitivity of the Project site and surrounding area;
- What resources could potentially be identified during ground disturbance;
- The protocols that apply in the event unanticipated cultural or tribal cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated;
- Consequences in the event of noncompliance; and,
- Safety procedures when working with monitors.

CUL-2/TCR-2: Cultural and Tribal Cultural Resources Management and Treatment Plan (CRMTP), see Appendix H. Prior to Project implementation, the operator shall review and implement sections of the project comprehensive Cultural Resources Management and Treatment Plan (CRMTP) as appropriate. No tribal cultural resources shall be collected, relocated, or otherwise impacted until the approved CRMTP is in place. The purpose of the CRMTP is to describe the procedures and requirements for protection and treatment of both non-Native American archaeological or historic resources and tribal cultural resources that may be discovered during Project implementation. The operator shall fully carry out, implement, and comply with the CRMTP throughout all phases of construction.

CUL-3/TCR-3: Cultural and Tribal Cultural Resources Monitoring. In addition to providing the training required by MM CUL-1/TCR-1, the operator shall provide monitoring during implementation of the Project as may be specified in the CRMTP required by MM CUL- 2/TCR-2. Monitors may include cultural or tribal resource specialists and representatives from area Native American tribes. The monitors shall have the authority to temporarily halt or redirect construction in the event that potentially

significant cultural resources or tribal cultural resources are discovered during Project related activities. The work stoppage or redirection shall occur to an extent sufficient to ensure that the resource is protected from further impacts. Detailed monitoring procedures will be outlined in the CRMTP identified in MM CUL-2/TCR-2. The operator shall provide a minimum two week notice CalGEM and the designated representatives from the consulting tribe(s) prior to all activities requiring monitoring and shall provide safe and reasonable access to the Project site. The monitors shall work in collaboration with the inspectors, Project managers, and other consultants hired/employed by the operator or their contractor.

CUL-4/TCR-4: Discovery of Previously Unknown Cultural or Tribal Cultural Resources. If any potential tribal cultural resources, archaeological resources, other cultural resources, or articulated or disarticulated human remains are discovered by the designated on-site monitors, or other Project personnel during construction activities, all work shall cease within 100 feet of the find, or an agreed upon distance based on the Project area and nature of the find. Work stoppage shall remain in place until the monitor, or other designated on-site specialist have jointly determined the nature of the discovery, and the significance of the discovery has been determined by the cultural or tribal resource specialist or Tribal representative, as detailed in the CRMTP identified in MM CUL-2/TCR-2. Tribal cultural resources shall not be photographed nor be subjected to any studies beyond such inspection as may be necessary to determine the nature and significance of the discovery. If the discovery is confirmed as potentially significant or a tribal cultural resource, an ESA will be established using fencing or other suitable material to protect the discovery during subsequent investigation. No ground-disturbing activities will be permitted within the ESA until the area has been cleared for construction. The exact location of the resources within the ESA must be kept confidential and measures shall be taken to secure the area from site disturbance and potential vandalism.

Impacts to previously unknown significant cultural and tribal cultural resources shall be avoided through preservation in place, if feasible. If the on-site monitor, or on-site specialist, as appropriate, determines that damaging effects on the cultural or tribal cultural resource can be avoided in place, then work in the area may resume provided the area of the discovery remains clearly marked for no disturbance.

CUL-5/TCR-5: Unanticipated Discovery of Human Remains. If human remains or associated grave goods (e.g., non-human funerary objects, artifacts, animals, ash or other remnants of burning ceremonies) are encountered, all ground disturbing activities shall halt within 100 feet of the discovery or other agreed upon distance based on the Project area and nature of the find; the remains will be treated with

respect and dignity and in keeping with all applicable laws including California Health and Safety Code section 7050.5 and California Public Resources Code Section 5097.98. If representatives are not already on site when a discovery is made, the Project monitor or designated on-site specialist, Tribal Representative(s), the Applicant, and CSLC shall be notified immediately. The monitor shall contact the County Coroner within 24 hours. If human remains are determined by the County Coroner to be of Native American origin, the County Coroner shall notify the Native American Heritage Commission within 24 hours of this determination, and the Native American Heritage Commission shall identify a Most Likely Descendent. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented.

Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act (Cal. Govt. Code, § 6250 et seq.). The reburial agreement described in the CRMTP identified in MM CUL2/TCR-2 shall include specific details about temporary custody of remains, reburial location, confidentiality, and recordation in the California Historic Resources Inventory System.

4.19 UTILITIES AND SERVICE SYSTEMS

UTILITIES AND SERVICE SYSTEMS – Would the Project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐

Impact Analysis:

a) through e): An analysis of the 2006 Project's demand on local utilities and public services was conducted in the 2006 EA/MND as part of the Land Use and Socioeconomics analysis (2006 EA/MND, pp. 78–79). In the 2006 EA/MND, it was determined that the proposed Project would not be expected to substantially affect utilities and public services within the region. The condition and supply of utility and public services has not changed significantly since 2006, and the truncated scope (See Table

2.1) of this Supplemental IS/MND would pose a lower impact on such services as compared to the scope of construction activities within the 2006 EA/MND.

As noted in the 2006 EA/MND and this Supplemental IS/MND, the project area is remote with very few widely dispersed businesses or residential homes. For the purposes of CEQA analysis, "sensitive receptors" are considered to be facilities that house or attract children, the elderly, and people with illnesses or others who are especially sensitive to the effects of air pollutants, foul odors, and noise. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors. Other potential receptors in the vicinity of the project area are considered "worker receptors" in that the individuals would be in the area for a limited time daily on a voluntary basis.

As shown in Figure 3, there are two worker receptors near the well pad. The Global Pumice Southwest Mine is within a mile, and the Coso Operating Company office at Coso Junction is roughly 5.5 miles from the well pad. Coso Hot Springs, a sacred site to numerous tribes, is about 7 miles away on the opposite side of a mountain range. The nearest sensitive receptor to the well pad is Lone Pine High School, approximately 35 miles (56 kilometers [km]) to the north.

Impacts to utilities and service systems would be **less than significant**.

4.20 WILDFIRE

WILDFIRE – If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:	**Potentially Significant Impact**	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Impact Analysis:

a) through d): The 2006 EA/MND did not contain a CEQA Wildfire section as this issue area was not part of CEQA Appendix G at that time. The Land Use section, pages 78-79, notes the following with regard to wildfire; "while accidental fires in the project area are possible, desert scrub vegetation is not normally dense enough to carry a fire for an appreciable distance beyond its origin…." The Hazards and Hazardous Materials section, pages 96-99 provide the following discussion on the potential for fire issues: "Additionally, suitable fire prevention/fighting equipment, including dry chemical fire extinguishers, water, and hand tools would be kept on-site at all times. Spark arrestors would be used on all potential spark-emitting equipment. Therefore, the Project would not be expected to expose people or structures to a significant risk of loss, injury or death involving wildland fires". The Project would not impact an adopted emergency response plan or required the installation of fire breaks or other infrastructure that would exacerbate wildfire risk. Therefore, impacts to wildfire would be **less than significant**.

CHAPTER 5 - MANDATORY FINDINGS OF SIGNIFICANCE

MANDATORY FINDINGS OF SIGNIFICANCE –	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects.)	☐	☐	☒	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

a) ***Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?***

The current Project has the potential to affect WJT populations or habitat. Accordingly, the current Project is in ITP consultation with CDFW for the species protected by specific order, with the goal of offsetting habitat loss by establishing comparable habitat in another location.

Permanent effects associated with the current Project include new segments of unpaved road and the well pad, which are not expected to affect a great number of WJT. Considering this, the current Project would result in less than significant cumulatively considerable impacts.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects.)

The proposed Project would have limited effects on localized air quality and noise. However, these impacts would be temporary and in an area with no nearby sensitive receptors. Impacts to biological resources would be localized to the project area and are not expected to be cumulatively considerable.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

The proposed Project would lead to short-term air pollutant emissions during construction. Air emissions from drilling equipment will be controlled as described in Section 2.1. Modifications of the 2006 Project (i.e., trenching to bury the pipeline) would lead to short-term increase in air pollutant emissions. These emissions would pose less than significant adverse effects on human beings, either directly or indirectly.

CHAPTER 6 - MITIGATION MONITORING AND REPORTING PROGRAM

Table 6.1 Mitigation Monitoring and Reporting

***Mitigation from the 2006 EA/MND noted in the Mitigation #/Mitigation Title column with: (2006 EA/IS)2006 EA/MND Mitigation Measure numbering as numbered in the 2006 document. Mitigation measures classified as 2025 Design Features also noted in the Mitigation #/Mitigation Title column.**

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
MM AES-1: Construction Lighting Requirements.	Nighttime lighting installed for construction activities or drilling activities shall only be used as required for safety or security. During construction when the lighting is in use, lighting for safety and security shall be shielded and oriented downward, bare bulbs shall be fully screened from view from sensitive viewing receptors such as residences, and on-demand lighting and/or timers shall be used to minimize visual impacts of lighting.	Prior to nighttime construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department
AIR-1: Fugitive Dust. **(2006 EA/IS)**	The amount of project-related fugitive dust would be minimized by watering all unpaved roadway surfaces consistent with GBUAPCD Rule 401, a rule that details reasonable precautions that should be implemented to prevent visible particulate matter from becoming airborne, under normal wind conditions, beyond the property from which the emissions originate. The amount of	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department GBUAPCD

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	project-related fugitive dust would be minimized by watering all unpaved roadway surfaces and limiting vehicle speeds on unpaved roads to 25 mph (Authority based on GBUAPCD Rule 401 – Fugitive Dust).			
AIR-2: Well Pad Fugitive Dust **(2006 EA/IS)**	Well pad and reserve pit construction would be accomplished in as short a time as possible in order to reduce fugitive dust created by construction. It is estimated that the well pad construction would take approximately six weeks to complete, inclusive of the geotextile-lined reserve pit. On average, road watering would be applied twice daily to suppress fugitive dust generation. In high wind situations (e.g., sustained winds over 20 mph), road watering would be increased and/or workers would be required to further coordinate trips and carpools (Authority based on GBUAPCD Rule 401 – Fugitive Dust).	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department GBUAPCD
AIR-3: NOx Emissions **(2006 EA/IS)**	If exhaust emissions of oxides of nitrogen from the drilling rig exceeds 250 lbs/day, as detected by continuous air monitors installed on the drilling rig (GBUAPCD Rule 209A), the drilling contractor would be required to use BACT control measures, which may include one or more of the following options: • Retard timing by 4 degrees of standard;	Prior to initiation of drilling activities. Documentation and evidence of drilling rig continuous air monitors.	Submittal of air monitoring results.	Inyo County Planning Department GBUAPCD

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	• Meet applicable EPA/CARB Off Road Compression Ignition Engine Air Pollutant Emission Standards; • BACT selective catalytic reduction devices; • Other BACT control measures as proposed by the drilling contractor and acceptable to GBUAPCD. Authority for this mitigation is based on GBUAPCD Rule 209 A – Standards for Authorities to Construct.			
AIR-4: H_2S Emissions **(2006 EA/IS)**	The contractor will be allowed to discharge into the atmosphere from any geothermal well, including well drilling, well reworking, and well testing, no more than 2.5 kg/hr of H_2S per GBUAPCD Rule 424.D. If the continuous monitors register emissions of H_2S over 2.5 kg/hr , or if the State's H_2S AAQS for one hour is exceeded at a monitoring station located at a GBUAPCD-approved site, further venting of the well(s) containing H_2S will be curtailed until an H_2S abatement plan, approved by the GBUAPCD, is implemented to reduce H_2S well emissions below 2.5 kg/hr and ambient concentrations below the State standard of 0.03 ppm (Authority based on Clear Air Act, Section 169 – Prevention of Significant Deterioration [PSD]).	Prior to initiation of drilling activities. Documentation and evidence of drilling rig continuous air monitors.	Submittal of air monitoring results.	Inyo County Planning Department GBUAPCD

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
Design Feature #1 PERP Engines	Deep Rose will register the drilling rig engines in the CARB's Portable Engine Registration Program (Authority comes from GBUAPCD Rule 210 – Conditional Approval).	Prior to initiation of drilling activities. PERP registration certificates.	Submittal of PERP certification.	Inyo County Planning Department GBUAPCD
BIO-1: Monitoring **(2006 EA/IS)**	All areas to be disturbed will have boundaries flagged prior to construction and all disturbances will be confined to the flagged areas. All employees will be instructed that their activities must be confined to locations within the flagged areas. Deep Rose will have environmental monitors on-site during construction activities (Authority based on California Fish and Game Code 2800, et. seq. – Natural Community Conservation Planning Act).	Prior to construction. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW
BIO-2: Equipment Cleaning **(2006 EA/IS)**	All construction equipment will be power washed prior to arrival at the project area to prevent the transportation and establishment of noxious weeds (Authority based on 7 CFR 360 – Noxious Weeds Regulations).	Prior to construction equipment delivery to project site. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW
BIO-3: Reclamation Plan **(2006 EA/IS)**	During reclamation, all disturbed areas will be appropriately topsoiled and seeded with a BLM/CalGEM approved seed mix per the specifications outlined in *Reclamation Plan for the Deep Rose Geothermal Exploration Project,* as provided in Appendix B of the 2006	During reclamation. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	EA/MND (Authority based on 14 CCR Section 3503 – Surface Mining and Reclamation Practice).			
BIO-4: Wildlife Harassment **(2006 EA/IS)**	To avoid the potential for mortality and harassment of wildlife, all firearms and dogs will be prohibited from the project area and all workers will be required to check under their vehicles prior to departing the project area.	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW
BIO-5: Housekeeping **(2006 EA/IS)**	Trash and food items will be disposed of promptly in predator-proof containers with resealable lids. Trash containers will be removed regularly (at least once per week). This effort will reduce the attractiveness of the area to opportunistic predators such as coyotes and common ravens.	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW
BIO-6: Vehicle Speed **(2006 EA/IS)**	A maximum speed limit of 25 mph, unless otherwise posted, will be maintained while traveling on unpaved access roads within the project area. This effort will reduce the potential for vehicle-wildlife related collisions.	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW
BIO-7: Worker Environmental Awareness Program (WEAP) **(2006 EA/IS)**	A brief Worker Environmental Awareness Program will be implemented for construction and drilling crews prior to the Commencement of project activities. Training materials and briefings will include but not be limited to, discussion of the Federal Endangered Species Act and CESA, the consequences of noncompliance with these acts,	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	identification and values of wildlife and natural plant communities, hazardous substance spill prevention and containment measures, and review of all required and recommended mitigation measures (This mitigation measure would be implemented in support of ITP conditions).			
BIO-8: Mojave fishhook cactus	Individuals will be avoided to the extent practicable and will be marked or fenced by Biological Monitors for avoidance. Those individuals of this species that cannot be avoided will be carefully transplanted by the Biological Monitor. Other cactus species may be transplanted as the Biological Monitor deems appropriate.	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department CDFW
BIO-9 Mitigation for WJT	Will be completed using the in-lieu fee strategy provided in the Western Joshua Tree Conservation Act (July 10, 2023). As such, Deep Rose will pay mitigation fees based on individual WJT height, as specified in Section 1927.3 (e) of the Act. All in-lieu fees will be deposited into the Western Joshua Tree Conservation Fund to be used to address threats to the WJT, including through the acquisition, conservation, and management of WJT conservation lands. Deep Rose will apply for an ITP under the Western Joshua Tree	Prior to construction. Submittal of fees.	Documentation of fee submittal, CDFW approval.	Inyo County Planning Department CDFW

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	Conservation Act. This application will be deferred until CDFW releases guidance on how to assess whether a "take" of WJT will occur, in accordance with 14 CCR Section 15126.4.			
CUL-1/TCR-1 Awareness Training	Cultural and Tribal Cultural Resources Awareness Training. Prior to Project implementation, a construction-worker cultural and tribal cultural resources awareness training program for all personnel involved in Project implementation shall be developed in coordination with CalGEM Tribal Affairs staff and consulting Native American tribes. The training will be conducted by an approved cultural or tribal resource specialist and/or Tribal Representative(s) and must be provided to all Project employees, contractors, subcontractors, and other workers prior to their involvement in any ground disturbing activities, with subsequent training sessions to accommodate new personnel becoming involved in the Project. Evidence of compliance with this mitigation measure shall be documented prior to construction activities. The purpose of the training will be to educate on-site construction personnel as to the sensitivity of archaeological and tribal cultural resources in the Project area, including understanding the	Prior to construction. Submittal of the training documentation.	On-site monitor reports.	Inyo County Planning Department CalGEM Tribal Staff

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	difference between non-Native archaeological resources (cultural resources) and resources that are Native American in nature (tribal cultural resources). The training will also cover the requirements of the plan identified in MM CUL-2/TCR-2, including the possibility of exposing cultural or tribal cultural resources, guidance on recognizing such resources, and direction on procedures if a potential resource is encountered. The Applicant will instruct all Project personnel that touching, collecting, or removing cultural materials from the property is strictly prohibited. The program will also underscore the requirement for confidentiality and culturally appropriate treatment of any find of significance to Native Americans, consistent with Native American tribal values and customs. The training shall include, at a minimum: • A brief overview of the cultural sensitivity of the Project site and surrounding area; • What resources could potentially be identified during ground disturbance; • The protocols that apply in the event unanticipated cultural or tribal cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated;			

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	•Consequences in the event of noncompliance; and, •Safety procedures when working with monitors.			
CUL-2/TCR-2 CRMTP	Cultural and Tribal Cultural Resources Management and Treatment Plan (CRMTP). Prior to Project implementation, the operator shall review the project comprehensive Cultural Resources Management and Treatment Plan (CRMTP). No tribal cultural resources shall be collected, relocated, or otherwise impacted until the approved CRMTP is in place. The purpose of the CRMTP is to describe the procedures and requirements for protection and treatment of both non-Native American archaeological or historic resources and tribal cultural resources that may be discovered during Project implementation. The Applicant shall fully carry out, implement, and comply with the CRMTP throughout all phases of construction.	Prior to construction. Confirmation of document receipt and review.	On-site monitor reports.	Inyo County Planning Department CalGEM Tribal Staff
CUL-3/TCR-3 Monitoring	Cultural and Tribal Cultural Resources Monitoring. In addition to providing the training required by MM CUL-1/TCR-1, the operator shall provide monitoring during implementation of the Project as may be specified in the CRMTP required by MM CUL- 2/TCR-2. Monitors may include cultural or tribal resource specialists and	Prior and during construction. On-site monitors.	On-site monitor reports.	Inyo County Planning Department CalGEM Tribal Staff

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	representatives from area Native American tribes. The monitors shall have the authority to temporarily halt or redirect construction in the event that potentially significant cultural resources or tribal cultural resources are discovered during Project related activities. The work stoppage or redirection shall occur to an extent sufficient to ensure that the resource is protected from further impacts. Detailed monitoring procedures will be outlined in the CRMTP identified in MM CUL-2/TCR-2. The operator shall provide a minimum two week notice CalGEM and the designated representatives from the consulting tribe(s) prior to all activities requiring monitoring and shall provide safe and reasonable access to the Project site. The monitors shall work in collaboration with the inspectors, Project managers, and other consultants hired/employed by the operator or their contractor.			
CUL-4/TCR-4 Inadvertent Discovery-Resources	Discovery of Previously Unknown Cultural or Tribal Cultural Resources. If any potential tribal cultural resources, archaeological resources, other cultural resources, or articulated or disarticulated human remains are discovered by the designated on-site monitors, or other Project personnel during construction activities, all work shall cease within 100	Prior and during construction. On-site monitors.	On-site monitor reports.	Inyo County Planning Department CalGEM Tribal Staff

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	feet of the find, or an agreed upon distance based on the Project area and nature of the find. Work stoppage shall remain in place until the monitor, or other designated on-site specialist have jointly determined the nature of the discovery, and the significance of the discovery has been determined by the cultural or tribal resource specialist or Tribal representative, as detailed in the CRMTP identified in MM CUL-2/TCR-2. Tribal cultural resources shall not be photographed nor be subjected to any studies beyond such inspection as may be necessary to determine the nature and significance of the discovery. If the discovery is confirmed as potentially significant or a tribal cultural resource, an ESA will be established using fencing or other suitable material to protect the discovery during subsequent investigation. No ground-disturbing activities will be permitted within the ESA until the area has been cleared for construction. The exact location of the resources within the ESA must be kept confidential and measures shall be taken to secure the area from site disturbance and potential vandalism. Impacts to previously unknown significant cultural and tribal cultural resources shall be avoided through preservation in			

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	place, if feasible. If the on-site monitor, or on-site specialist, as appropriate, determines that damaging effects on the cultural or tribal cultural resource can be avoided in place, then work in the area may resume provided the area of the discovery remains clearly marked for no disturbance.			
CUL-5/TCR-5 Inadvertent Discovery-Human Remains	Unanticipated Discovery of Human Remains. If human remains or associated grave goods (e.g., non-human funerary objects, artifacts, animals, ash or other remnants of burning ceremonies) are encountered, all ground disturbing activities shall halt within 100 feet of the discovery or other agreed upon distance based on the project area and nature of the find; the remains will be treated with respect and dignity and in keeping with all applicable laws including California Health and Safety Code section 7050.5 and California Public Resources Code section 5097.98. If representatives are not already on site when a discovery is made, the Project monitor or designated on-site specialist, Tribal Representative(s), the Applicant, and CSLC shall be notified immediately. The monitor shall contact the County Coroner within 24 hours. If human remains are determined by the County Coroner to be of Native American origin, the County Coroner	Prior and during construction. On-site monitors.	On-site monitor reports.	Inyo County Planning Department CalGEM Tribal Staff

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	shall notify the Native American Heritage Commission within 24 hours of this determination, and the Native American Heritage Commission shall identify a Most Likely Descendent. No work is to proceed in the discovery area until consultation is complete and procedures to avoid or recover the remains have been implemented. Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq. The reburial agreement described in the CRMTP identified in MM CUL2/TCR-2 shall include specific details about temporary custody of remains, reburial location, confidentiality, and recordation in the California Historic Resources Inventory System.			
Design Feature #2 **GEO-1: Best Management Practices (BMPs) (2006 EA/IS)**	Consistent with BMPs identified in the forthcoming SWPPP, adequate drainage control devices and measures will be incorporated into the road and well pad design (e.g., drainage ditches, cross drains, culverts, out-sloping, and energy dissipaters) at sufficient intervals and intensities to adequately control and direct surface runoff above, below, and within the road and well pad	Prior to construction. Submittal of the SWPPP.	On-site monitor reports.	Inyo County Planning Department

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	environments to avoid erosive concentrated flows. The amount of vegetation cleared will be kept to a minimum to accommodate all necessary project components (Authority based on the California Construction Stormwater Program, 33 U.S.C. § 1251 et seq.; conservation, control, and utilization of water resources; quality; statewide program; regional administration, Cal. Water Code, § 13000, et seq.).			
GEO-2: Dust **(2006 EA/IS)**	Water will be applied to disturbed areas and windrowed topsoil during construction to reduce the impacts to soil from wind erosion (Authority based on GBUAPCD Rule 401 – Fugitive Dust).	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department GBUAPCD
GEO-3: Vehicles **(2006 EA/IS)**	Project vehicles would be restricted to designated roads and well pad area. No off- road travel would be permitted in order to avoid the potential for increased risk of runoff (Authority based on the California Construction Stormwater Program).	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department GBUAPCD
GEO-4: Drilling Muds **(2006 EA/IS)**	Adequate freeboard in the reserve pit will be maintained to avoid the discharge of geothermal brine and/or drilling muds to surrounding soils caused by reserve pit overflows (Authority based on 2 CCR § 2128, – Drilling Regulations; 14 CCR § 1710, et sec., Development, Regulation,	During construction activities. On-site monitor verification.	On-site monitor reports.	CalGEM

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	and Conservation of Oil and Gas Resources).			
GEO-5: Erosion **(2006 EA/IS)**	To reduce the risk of soil erosion from uncontrolled well flow, routine testing would be conducted by members of the drilling crew on the blowout prevention equipment in accordance with CalGEM testing procedures.	During drilling activities. CalGEM monitor verification.	CalGEM reports.	CalGEM
GEO-6: Topsoil **(2006 EA/IS)**	Up to four inches of topsoil would be selectively stripped and salvaged from all newly disturbed areas. Topsoil would be stockpiled in several areas at the Deep Rose project site and retained for replacement and revegetation at the time of final reclamation. To reduce erosion and sedimentation during the life of the current Project, soil stockpiles will be temporarily revegetated with noxious weed-free mixed cover vegetation with an emphasis on native species that possess the ability to root quickly (Authority based on the California Construction Stormwater Program).	During construction activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department
GEO-7: Restoration **(2006 EA/IS)**	If the resource is proved to be unsuccessful, topography will be restored to near pre-existing contours at the well pad and all upgraded access roads will be reclaimed to their original width of approximately six feet. Ground surfaces in these areas would be roughened (i.e., using excavation equipment to roughen the ground surface) to reduce	During reclamation activities. On-site monitor verification.	On-site monitor reports.	Inyo County Planning Department

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
	compaction, covered with topsoil, and reseeded with seed mixtures as described in *Reclamation Plan for the Deep Rose Geothermal Exploration Project*.			
HAZ-1: Hazardous Materials	During road and well pad construction and upon commencement of drilling operations, the contractor will have chemical or hazardous substance inventory for all such items that may be at the site. The contractor will institute a Hazard Communication Program for their employees and will require subcontractor programs in accordance with the Occupational Safety and Health Administration, OSHA 29 CFR 1910.1200. These programs are designed to educate and protect the employees and subcontractors with respect to any chemicals or hazardous substances that may be present in the workplace. It will be required that as every chemical or hazardous material is brought on location, a Safety Data Sheet (SDS) will accompany that material and will become part of the file kept at the field office as required by 29 C.F.R. § 1910.1200. All employees will receive the proper training in storage, handling, and disposal of hazardous substances.	During construction. Operator verification.	Operator reports.	Inyo County Planning Department

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
Design Feature #3 **HAZ-2: SPCC Plan** **(2006 EA/IS)**	Deep Rose will develop and implement a Spill Prevention Control and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112, Oil Pollution Prevention, and will submit the plan to the LRWQCB prior to the commencement of construction.	Prior to construction activities. Submittal of SPCC plan.	SPCC Plan	Inyo County Planning Department LRWQCB
HAZ-3: H_2S Monitoring **(2006 EA/IS)**	Hydrogen sulfide (H_2S) monitors and emergency escape equipment would be available at the drilling rig during drilling and well testing operations. Workers would be instructed in the correct usage of this equipment (Authority based on 8 CCR § 8424, Airborne Contaminants).	During construction. Operator verification.	Operator reports.	CalGEM
HAZ-4 CalGEM Spill Contingency Plan	Prepare and submit to CalGEM a Spill Contingency Plan pursuant to California Public Resource Code 1722.	Prior to drilling activities.	Submittal of plan.	CalGEM
HYD-1: Lined Reserve Pit **(2006 EA/IS)**	The reserve pit would be constructed so that a minimum of one-half of the total depth is below the original ground surface on the lowest point within the pit. To prevent seepage of fluids, the reserve pit will be lined with an impermeable polyethylene liner. The liner would be of sufficient strength and thickness to withstand normal installation and use (Authority based on 2 CCR § 2128 – Drilling Regulations).	Prior to drilling activities. On-site monitor verification.	On-site monitor reports.	CalGEM
Design Feature #2 HYD-2: SWPPP	Deep Rose will develop and implement a SWPPP for project-related storm water runoff as required by the LRWQCB storm	Prior to construction activities.	SWPPP Plan	Inyo County Planning Department

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
(2006 EA/IS)	water NPDES permit requirements for "Discharges to Land with a Low Threat to Water Quality" and State Water Resources Control Board Order No. 99-08 DWQ for storm water runoff associated with construction activity. All conditions and stipulations of the permits issued by LRWQCB will be incorporated as standard operating procedures for the proposed Project. (Authority based on NPDES permit requirements).	Submittal of SWPPP plan.		LRWQCB
Design Feature #3 HYD-3: SPCC Plan **(2006 EA/IS)**	Deep Rose will implement a SPCC Plan in accordance with 40 CFR Part 112, dated December 1973 with respect to petroleum hydrocarbon handling and spill prevention and will submit the plan to the LRWQCB prior to the commencement of construction. (Authority based upon U.S. Environmental Protection Agency's Oil Pollution Prevention Program).	Prior to construction activities. Submittal of SPCC plan.	SPCC Plan	Inyo County Planning Department LRWQCB
HYD-4: Monitoring	Deep Rose shall monitor and report groundwater extraction by installing and monitoring a totalizing meter on the supply well, and the amount of groundwater pumped from the well shall be reported to the Inyo County Planning Department six months following the granting of the permit and at six-month intervals thereafter until groundwater withdrawal under this permit ceases.	Prior to and during groundwater extraction activities. Operator verification documentation.	Operator reports.	Inyo County Planning Department

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
HYD-5: Coso Groundwater	In the event that groundwater level triggers adopted for the Coso Hay Ranch Project result in cessation of groundwater pumping by Coso Operating Company, Deep Rose shall also halt its pumping and transfer of groundwater under its CUP for the export of water. Construction and drilling operations associated with the current Project would cease, until further notice from the LRWQCB.	Prior to and during groundwater extraction activities. Operator verification documentation.	Operator reports.	Inyo County Planning Department LRWQCB
NOI-1: Well Silencer **(2006 EA/IS)**	Well flow testing would be through a well field silencer (Authority based on California Department of Water Resources Bulletin 74 – Well Standards).	Prior to and during groundwater extraction activities. Operator verification documentation.	Operator reports.	Inyo County Planning Department LRWQCB
NOI-2: Equipment Noise Control **(2006 EA/IS)**	All equipment will be equipped with manufacture's standard noise control devices (i.e., mufflers, acoustical lagging, and/or engine enclosures), which will achieve compliance with the recommended noise limits.	During construction and operation. Onsite monitor verification.	Onsite monitor reports.	Inyo County Planning Department
NOI-3: Blasting **(2006 EA/IS)**	If blasting becomes necessary, efforts will be made to restrict the peak overpressures to less than 120 dB at the source to minimize effects to surrounding areas.	During construction blasting activities. Onsite monitor verification.	Onsite monitor reports.	Inyo County Planning Department

Mitigation # Mitigation Title	Mitigation Description	Timing & Method of Verification	Reporting	Responsible Agency
TRA-1: Scheduling **(2006 EA/IS)**	Coordinate project construction planning schedules to avoid other possible permitted uses or to reduce the potential for localized traffic slow-downs or congestion.	During construction activities. Onsite monitor verification.	Onsite monitor reports.	Inyo County Planning Department
TRA-2: Signage **(2006 EA/IS)**	Proper road signs would be prominently placed near the intersection of U.S. Highway 395 and Coso/Gill Station Road and the intersection of Coso/Gill Station and Pumice Mine roads or other locations to encourage motorists to exercise caution and lower their speed when approaching these areas.	During construction activities. Onsite monitor verification.	Onsite monitor reports.	Inyo County Planning Department
Tribal	The Tribal/Cultural resource mitigation measures are listed above.	See Above	See Above	See Above

MITIGATION AGREEMENT

ACTING AS AN AUTHORIZED REPRESENTATIVE OF DEEP ROSE, I, CHARLES HARRIS, ACKNOWLEDGE THAT I REVIEWED THE MMRP APPROVED AS PART OF THE SUPPLEMENTAL ISMND FOR THE DEEP ROSE GEOTHERMAL EXPLORATION PROJECT. I ACCEPT ALL THE MITIGATION MEASURES IN THE MMRP AND HEREBY, ON BEHALF OF DEEP ROSE, AGREE THAT DEEP ROSE WILL IMPLEMENT THE MMRP AS CEQA AND THE PROJECT APPROVAL(S) REQUIRE.

DocuSigned by:
Charles E. Harris
542CD3D0B5074A9...

Charles Harris
Project Manager
Deep Rose Geothermal, LLC

CHAPTER 7 SUPPLEMENT CITATIONS

[1] California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR). 2006. Final Environmental Assessment/Initial Study/Mitigated Negative Declaration – Deep Rose Geothermal Exploration Project, Inyo County, California.

[2] U.S. Department of the Interior Bureau of Land Management (BLM). 2015. Desert Renewable Energy Conservation Plan – Proposed Land Use Plan Amendment and Final Environmental Impact Statement.

[3] Great Basin Unified Air Pollution Control District (GBUAPCD). 2021. Coso Junction PM_{10} Planning Area Second 10-Year Maintenance Plan.

[4] Environmental Assessment for a Proposed Geothermal Testing Drilling Project in the Known Geothermal Resource Area, near Coso Junction, Inyo County, California. April 2021.

[5] Biogeographic Data Branch. California Natural Diversity Database (CNDDB) Rarefine 5. http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp.

[6] A Manual of California Vegetation Online. California Native Plant Society (CNPS). http://www.rareplants.cnps.org/.

[7] Mohave Ground Squirrel Conservation Strategy. California Department of Fish and Wildlife. July 2019.

[8] Mohave Ground Squirrel Report Deep Rose Geothermal Coso Project. Sunrise Consulting, LLC. July 2023.

[9] Sawyer, J.O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, CA. 1300 pp.

[10] County of Inyo Water Department – Report to the Inyo Water Commission. December 7, 2011.

[11] California's Groundwater (Bulletin 118) – California's Groundwater Update 2020. California Department of Water Resources. November 2020.

[12] Fourth Updated Groundwater Flow Model and Predictive Simulation Results Coso Operating Company – Hay Ranch Water Extraction and Delivery System Conditional Use Permit (CUP) 2007-003. Daniel B. Stephens & Associates, Inc. May 27, 2021.

[13] Third Updated Groundwater Flow Model and Predictive Simulation Results Coso Operating Company – Hay Ranch Water Extraction and Delivery System Conditional Use

Permit (CUP) 2007-003. Prepared for the County of Inyo, Independence, California. August 24, 2017.