



DECISION RECORD FINDINGS OF NO SIGNIFICANT IMPACT – FONSI (40 CFR 1508.13)

Finding of No Significant Impact

Coso Geothermal Project

Hay Ranch Water Extraction & Delivery System, Right-of-Way Application CACA-046298

NEPA Compliance Document Number CA-650-2005-100

INTRODUCTION:

The Bureau of Land Management (BLM) prepared a revised environmental assessment (Revised EA), in accordance with the National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4347 (NEPA), the regulations of the Council on Environmental Quality, 40 C.F.R. Part 1500, and the BLM NEPA Handbook (H-1790-1), to analyze the environmental impacts of a granting an application for a right-of-way across public land for the purposes of the Hay Ranch Water Extraction & Delivery System (Proposed Action). The Proposed Action and considered alternatives would take place within the California Desert Conservation Area (CDCA). The CDCA Plan, originally approved in 1980 and last amended in 2006 by the West Mojave Plan, is the land use plan that governs public land management in the California Desert.

BACKGROUND AND PROPOSED ACTION:

The BLM has prepared the attached Revised EA (CA-650-2005-100) addressing the application by Coso Operating Company LLC (Coso) for a right-of-way across Public Land (Application Case File No. CACA-046298) to develop the Hay Ranch Water Extraction & Delivery System (Hay Ranch Project). The Revised EA analyzed the impacts of the Proposed Action and alternatives to supply supplemental injection waters from the Hay Ranch water well to the Coso geothermal reservoir. This project would entail construction of a groundwater extraction and pipeline delivery system from the Hay Ranch to the water distribution station and an existing injection system located at the Coso Geothermal Field on withdrawn land managed by the Navy as part of the China Lake Naval Air Weapons Station (CLNAWS).

The project site affects private land, Navy withdrawn land and Public Land managed by the BLM within Inyo County, California. The proposed pipeline and tanks includes an approximately 9 miles long by a 50 feet wide right-of-way encompassing a total area of approximately 55 acres. The pipeline primarily follows an existing roadway. Most of the pipeline will be buried except where geologic features force the pipeline above ground.

PRIVATE LAND: 5.63 acres of the Proposed Action will affect Coso's private land (Hay Ranch) located within Sections 25 & 26, T. 21 S., R. 37 E., MDBM. The Hay Ranch has two existing water wells (North and South wells), which will be the source of water for the project. A 12-inch pipeline will be installed at the North well and will transport water to the South well area to a 250,000-gallon collection tank. The collection tank will provide the suction supply to a new booster pump station consisting of two vertical turbine pumps. These pumps will discharge through a surge tank, and connect to the main pipeline. The South well will be tied into the 20-inch pipeline that will cross BLM-managed public land and terminate on Navy-managed withdrawn public land.

PUBLIC LAND: The 20-inch water pipeline crossing the BLM-managed public land will encompass 32.24 acres located within Sections 35 and 36, T. 21 S., R. 37 E., and Sections 31 through 34, T. 21 S., R. 38 E., MDBM.

WITHDRAWN LANDS: The pipeline continues onto Navy withdrawn public land where a 1.5 million gallon holding tank (100 ft diameter by 28 ft high) identified as the High Point Tank will be constructed to hold the water. The pipeline will continue from the tank to the existing 88-1 injection well. Together the pipeline and tank encompass 16.88 acres (16.18 acres for the pipeline and 0.7 acres for the High Point Tank) located within Sections 1 through 3, T. 22 S., R. 38 E., MDBM.

The BLM is the lead agency under NEPA with respect to the Proposed Action. The Navy is a cooperating agency under NEPA, and is acting on Coso's request to confirm land use authorization for the portion of the pipeline and the High Point Tank to be located within the CLNAWS.

Coso applied to Inyo County for a conditional use permit to authorize the development of the ground water supply and the construction and operation of the Hay Ranch Project components proposed to be located on private land. Inyo County was the lead agency reviewing the Hay Ranch Project under the California Environmental Quality Act (CEQA). On May 7, 2009, the County filed with the State Clearinghouse its Notice of Determination (NOD) approving the Final Environmental Impact Report (Final EIR) addressing the Hay Ranch Project and issuance of Conditional Use Permit # 2007-03/Coso. The County made the following determinations:

1. The Project will not have a significant effect on the environment with mitigation.
2. An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.
3. Findings were made pursuant to the provisions of CEQA.
4. Mitigation measures were made a condition of the approval of the project.
5. A Mitigation Monitoring and Reporting Program was adopted.
6. A statement of overriding considerations was not adopted for the Project.

(NOD, page 2. Emphasis in original.) The BLM considered the County's Draft EIR in connection with its review of the Proposed Action under NEPA, and incorporated by reference elements of the Draft EIR into the Revised EA. To minimize potential significant impacts the BLM is including as conditions of its approval of the Proposed Action certain mitigation requirements approved by the County in the Final EIR.

Revised EA-EIR/ Hydrologic Mitigation Monitoring Program (HMMP): A key action that minimizes impacts to ground water to acceptable levels is the HMMP. The HMMP is designed to monitor changes in groundwater level, predict changes, adjust model predictions, collect groundwater and surface water data, develop time-trend water level data, recalibrate the model, and facilitate the implementation of the mitigation measures as defined in the Revised EA-EIR (appendix H).

DISCUSSION

The Revised EA evaluates the potential environmental effects of the Proposed Action and alternatives, focusing on the following issue areas: geology; air quality; soils; vegetation; hydrology; wildlife habitat; cultural resources; visual resources; outdoor recreation and open space; and social and economic values. BLM's evaluation of impacts and mitigation measures has been guided by the public comments on BLM's previous environmental assessment of the Proposed Action (issued for public comment on May 30, 2006), as well as the analysis set forth in the subsequent Draft EIR. BLM's evaluation is summarized below.

Air Quality

The project area is located in Inyo County within the Great Basin Valleys Air Basin and is under the regulatory jurisdiction of the Great Basin Unified Air Pollution Control District (GBUAPCD).

Emissions from the Proposed Action will come from both direct and indirect sources. Direct emissions in the form of Particulate Matter 10 (PM₁₀) will come from vehicle use on the access roads, heavy equipment operation, and material handling and drilling. Portable generators may power the pumps for up to a year after approval of the Proposed Action. Modeling of these impacts indicates that emissions will be less than significant.

Mitigation measures shall be implemented during construction of the project to reduce impacts associated with fugitive dust (including visibility impacts) to less than significant levels.

Soils

Implementation of the Proposed Action has the potential to create soil erosion due to removal of vegetation and disruption or compaction of the desert surface. With mitigation, impacts will be reduced to less than significant levels.

Vegetation

Implementation of the Proposed Action will result in the loss of desert vegetation, including Creosote White Bursage Scrub and Allscale Scrub habitat, through removal of vegetation during pipeline construction. The construction of the pipeline adjacent to the existing roadways and trails will substantially reduce this loss. Disruption of the soil and the use of equipment from other locations create the potential to further introduce invasive and noxious weeds into the area. With mitigation, this impact will be less than significant.

Hydrology

The HMMP through monitoring the wells will identify potential impacts to the hydrology as early as possible by establishing early-warning trigger points, based on observed drawdowns in selected monitoring points and other hydrologic parameters. Early-warning trigger points would indicate potential impacts to wetlands and surface waters, well in advance of actual significant impacts. During the first year of project operation, if drawdown triggers are predicted for any point-in-time are exceeded in any of the selected monitoring wells, Coso shall promptly report the exceedence to the Inyo County Water Department. The County will evaluate the report and data and make a determination as to whether continued operation is appropriate.

Impact to Rose Valley Water Users

Operation of the Proposed Action would result in drawdown of the water table in Rose Valley. Based on hydrologic modeling, the groundwater level is predicted to decline from 25 to 55 feet for the wells at Dunmovin, approximately 1.5 miles north of Hay Ranch, from 20 to 50 feet at Coso Junction, from 7 to 20 feet at Cinder Road/Red Hill West, and from 4 to 11 feet at the Little Lake Ranch North Well. These declines have been modeled to occur in a 30-year timeframe with the decline increasing over time to the projected levels. This predicted lowering of the groundwater table in the vicinity of groundwater users, which would potentially inhibit access to groundwater, is considered significant. Due to the predicted minor level of drawdown in the southern portion of the valley, water supply wells in this location may not

need any equipment changes. For wells in the Dunmovin area and in Coso Junction, existing wells may be impacted through the decline in water levels, making the current well equipment unable to produce the volumes of water currently produced. This impact will be mitigated to a less than significant level by Coso's monitoring of the wells in accordance with the final HMMP approved by the County, which includes the requirement that Coso modify any affected existing wells and equipment as necessary to allow these wells to function at current levels, at Coso's expense.

Impact to Water Users in the Indian Wells Valley

Groundwater modeling indicates that impact to the Indian Wells Valley water users would be less than significant with the modeled reduction in flows being less than 3% of total recharge.

Impact to Little Lake

The potential predicted groundwater modeling impacts to Little Lake water levels without mitigation are considered to be significant. The springs that feed the lake may be dependent upon groundwater levels. The County has required monitoring and mitigation measures in the HMPP that are designed to avoid these potential significant impacts. In connection with the County's development, review and ultimate approval of the HMMP, extensive hydrologic tests were performed and a detailed water model was developed to predict the potential impacts of the Hay Ranch Project on the Rose Valley groundwater basin, and particularly the potential impacts on levels of Little Lake. The tests and model were subject to rigorous review by expert hydrologists, hydro-geologists, biologists, and Dr. Bob Harrington of the County's Water Department. Ultimately, the County concluded that the Project would result in no unmitigable significant impacts. Additionally, on final review, the BLM engaged both the United States Geological Survey (USGS) and the BLM's National Operation Center (NOC) to independently review the water model and HMMP. BLM's conclusion, taking these additional reviews into account, remains that the County's implementation of the HMMP will serve to assure that no significant adverse hydrologic impacts will result from BLM's approval of the Proposed Action.

The HMMP includes requirements for recalibration of the hydrologic model on the basis of data to be collected during a baseline monitoring period and the initial pumping. Pending that recalibration, the trigger levels for the reduction or cessation of pumping to protect the groundwater levels and any dependent environmental resources at Little Lake are very conservatively set in the HMPP.

Impact to Coso Hot Springs

No adverse impact to Coso Hot Springs is expected. The extensive monitoring of these springs during the 20+ years of geothermal resource development and utilization in the Coso Known Geothermal Resource Area (KGRA) has not demonstrated a direct connection between the springs and the geothermal reservoir. On July 8, 2008 the BLM has entered into a Programmatic Agreement (Appendix D of the Revised EA) with the California State Historic Preservation Officer and the Advisory Council on Historic Preservation to provide a continuing framework for monitoring and addressing potential impacts to Coso Hot Springs from the Proposed Action.

Groundwater Impacts Associated with Pipeline Construction

Implementation of the Proposed Action will include the construction of down-hole pumps, new well heads, storage tanks and a pipeline. It is estimated that this will require no more than 45,000 gallons of water per day during the construction period. This is expected to result in only a minimal change in groundwater levels and will not result in any significant impact.

Wildlife Habitat

Implementation of the Proposed Action potentially could affect desert tortoise and the Mohave ground squirrel due to construction activities. The proposed construction will also have the potential to impact ground nesting birds, most notably the burrowing owl and horned lark. Other activities and developments in the Coso KGRA that have the potential to compound the impacts of the Proposed Action on wildlife in general, and the Mohave ground squirrel in particular, include the Deep Rose Project and the existing Kimcrete and Makayla pumice mine operations. The potential habitat impacts of the Proposed Action will mostly be limited to the construction period. Potential impacts to species during that period will be reduced to insignificant levels by implementing certain avoidance measures. Once the pipeline is in place and the site is revegetated, the potential operations impacts to wildlife habitat will be minimal. BLM has consulted with the U.S. Fish and Wildlife Service (USFWS) with respect to the potential impacts on the desert tortoise and its habitat, in accordance with Section 7 of the federal Endangered Species Act, 16 U.S.C. § 1536(a)(2). USFWS issued a Biological Opinion, which includes an incidental take statement, in which USFWS concluded that the Proposed Action is not likely to jeopardize the continued existence of the desert tortoise.

Cultural Resources (Native American Values)

Impacts to Native American resources from the Proposed Action are addressed through a Programmatic Agreement (PA) signed July 8, 2008 by the Bureau of Land Management, State Historic Preservation Officer, and Advisory Council on Historic Preservation.

Visual Resources

There will be no significant impacts to visual resources as a result of the Proposed Action. The limited above-ground structures that will be constructed will not be readily visible to the public.

Outdoor Recreation and Open Space

The Proposed Action will not adversely impact any National Scenic Trails or National Historic Trails. After construction of the Proposed Action, it is expected that the area will appear much as it does presently. The water pipeline is proposed to be installed underground for all but a small portion. The water pipeline will predominantly be located adjacent to an existing road. The Proposed Action will have no impact on outdoor recreation and open space, and therefore no mitigation measures will be required.

Social and Economic Values

There will be no impact on the two major economic sectors (Tourism and Resource Extraction) of the regional economy due to the Proposed Action. No significant impacts regarding social and economic values would result from implementation of the Project.

ALTERNATIVES CONSIDERED

Alternatives to accomplish the purpose of the Proposed Action for this Project were identified and considered by the BLM. In accordance with Title 40 CFR 1502.14 (a), the identification of reasonable alternatives is limited by physical and land use/environmental factors. Physical factors include the geothermal well sites, the water pipeline and tanks, and access roads to the well field. Land use/environmental factors are those that limit such activities in undisturbed areas because of either

specific land use designations and restrictions (e.g., multiple-use class designation, critical habitat/wilderness), or additional new negative significant environmental impacts that could occur when compared to using existing disturbed corridors/routes. Also considered was whether the alternative meets the purpose, need, and objectives of the Proposed Action; whether the alternative conflicts with a specific provision of the applicable land use plan (CDCA Plan, as amended); whether the alternative directly conflicts with federal, state, and local laws and regulations; and whether the alternative is technically and economically feasible.

The Draft EIR identifies and analyzes a reasonable range of alternatives:

- Increasing power generation output through power plant enhancements;
- Alternative sources of injection waters, including groundwater wells on CLNAWS, groundwater wells in the Coso Basin, and marginal geothermal wells in the Coso Range;
- Reducing the duration of the proposed pumping;
- Pumping Hay Ranch wells at maximum rate sustainable for the 30-year project life without reaching trigger levels; and
- Pumping Hay Ranch wells at lower rates.

The BLM independently considered the analysis of these alternatives presented in the Draft EIR and incorporated that analysis by reference into the Revised EA. Ultimately, the BLM has concluded that none of these alternatives is preferable to the proposed Project, considering the purpose and objectives of the Project and the comparative potential environmental effects of the Project and the alternatives.

RATIONALE

The Proposed Action, with implementation of the identified mitigation measures, will not result in significant adverse impacts on geology, soils, hydrology, water quality, air quality, biological resources, land use, recreation, or any other critical elements of the human environment. Approval of the Proposed Action will provide a public benefit by allowing the Hay Ranch Project to increase its electrical generation capacity derived from clean and renewable energy sources.

BLM, in its capacity as NEPA lead agency responsible for management of public lands, has determined that the Proposed Action can be approved in accordance with relevant federal laws, regulations, and policies. Specific to geothermal power, the Proposed Action implements an important strategy in the President's National Energy Policy; that is, to encourage the development of renewable energy resources. Accordingly, BLM's Interim Geothermal Energy Development Policy (IM2003-020) stipulates that rights-of-way should be managed to encourage the development of geothermal energy in acceptable areas while minimizing impacts to natural, cultural, and visual resources on the public lands.

PUBLIC INVOLVEMENT

The proposal was first listed on the Ridgecrest Field Office's NEPA/Project Tracking Page FY-2005 and Number Assignment on August 2, 2005. As part of the public involvement process, the Proposed Action

was discussed with the BLM's Steering Committee and the BLM held an open house discussion on May 30, 2006 to solicit public comment on the Proposed Action.

The Hay Ranch Water Extraction and Delivery System Environmental Assessment (Original EA) was published for a 30-day public comment period on May 30, 2006 ending on June 15, 2006, with an extension to July 28, 2006. The Original EA was revised to reflect the public comments received.

FINDING OF NO SIGNIFICANT IMPACT

The BLM's interdisciplinary review and analysis has determined that the Proposed Action will not result in any significant impacts to the environment based on criteria established by regulations, policy and analysis.

I have reviewed the above-mentioned revised NEPA compliance document, CA-650-2005-100, and have determined that the Proposed Action is in conformance with the CDCA Plan.

I have further determined, based on the analysis in CA-650-2005-100, that this is not an action that will significantly affect the quality of the human environment; therefore, an Environmental Impact Statement is not required. My determination is based on the rationale that significance criteria, as defined by the Council on Environmental Quality (Title 40 CFR 1508.27) are not being met, or if met will be mitigated to a level that will not be significant. Title 40 CFR 1500.5 (l) Using a finding of no significant impact when an action not otherwise excluded will not have a significant effect on the human environment (Title 40 CFR 1508.13) and is therefore exempt from requirements to prepare an Environmental Impact Statement.

The following rationale was used to determine that significant impacts were not present for each criteria mentioned in Title 40 CFR 1508.27:

Rationale for Less than Significant Impact Determination

1. Beneficial and adverse impacts.

Beneficial and adverse impacts associated with the Proposed Action are clearly disclosed in the Revised EA.

2. The degree to which the Proposed Action and alternatives affect public health or safety.

No significant effects to public health and safety are anticipated to result from implementation of the Proposed Action.

3. Unique characteristics of the geographic area.

While the Proposed Action is in close proximity to resources considered to be unique (i.e., cultural/heritage resources), this in and of itself does not require the preparation of an Environmental Impact Statement. The critical factor here is whether the Proposed Action would have a significant adverse impact on these unique resources. Based on the analysis present in the Revised EA, I do not believe that the Proposed Action will significantly affect the characteristics of the identified unique

resources; in addition, the impacts from implementation of the Proposed Action are local rather than national or regional in nature.

4. The degree to which the effects on the human environment are likely to be highly controversial.

The nature of the potential effects on the human environment from the Proposed Action is well established. In the area of potential impact area of greatest controversy – hydrologic resources – the identified monitoring and mitigation requirements can reasonably be relied upon to facilitate objective determinations of actual effects and to avoid significant effects.

5. The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

The effects on the human environment from the Proposed Action that are uncertain (to the extent of ground water drawdown) have been fully addressed through monitoring and mitigation measures as per the HMMP and do not involve unique or unknown risks.

The effects on the human environment from the Proposed Action that are uncertain (to the extent of the Cosco Hot Springs) have been fully addressed through the Programmatic Agreement entered with the State Historical Preservation Office and the Advisory Council.

6. The degree to which the action or alternatives may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action is consistent with adjacent uses for the project area and will not establish a precedent for the future nor does it represent a decision in principle about a future consideration.

7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

The Proposed Action is not related to other past, present or reasonably foreseeable actions likely to result in any significant impacts. Cumulative impacts relative to the issues are discussed in Section 4 of the EA.

8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historical resources.

The ground disturbing activities associated with the Proposed Action will not directly adversely affect any sites eligible for the National Register of Historic Places. Potential indirect effects to sites listed in or eligible for listing in the National Register are fully addressed in the Revised EA.

9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.

The biological evaluation prepared for this EA determined that the project will not adversely affect any sensitive, threatened, endangered or proposed for listing species. The U.S. Fish and Wildlife Service issued a Biological Opinion on December 17, 2008 addressing the potential effects of the Proposed Action “is not likely to jeopardize the continued existence of the desert tortoise” explaining that “the

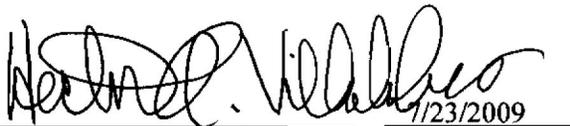
[P]roposed [A]ction would likely kill or injure few desert tortoises; consequently, it would not appreciably reduce the ability of the species to survive and recover in the wild by affecting its numbers, distribution, or reproduction.”

10. Whether the action threatens a violation of Federal, State, or local law or other requirements imposed for the protection of the environment.

The action will not violate Federal, State, and local laws or requirements for the protection of the environment. Applicable laws, regulations and policies are considered in the Revised EA. The Proposed Action does not set a precedent for other projects that may be implemented to meet the goals and objectives of the CDCA Plan, as amended.

Based on these factors, the BLM does not believe significant impacts will occur and therefore, an EIS is not required.

The Proposed Action if implemented with the environmental protection measures identified in CACA-046289, and EA CA-650-2005-100 will not result in a significant impact to the environment.



Hector A. Villalobos 1/23/2009

Hector A. Villalobos
Field Manager

Date