



United States Department of the Interior



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BLM FINDING OF NO SIGNIFICANT IMPACT for the NEWBERRY GEOTHERMAL LEASING PROJECT

Introduction

The Bureau of Land Management (BLM) has adopted the U.S. Forest Service's (USFS) October 2014 Final Environmental Assessment (the EA) for the Newberry Geothermal Consent to Lease Project and has redesignated it as DOI-BLM-OR-P060-2015-0019-EA. The EA analyzes the effects of offering 6,174 acres of National Forest System (NFS) lands for competitive geothermal leasing pursuant to regulations at Part 43 Code of Federal Regulations (CFR) Group 3200 – *Geothermal Resources Leasing*. This Finding of No Significant Impact (FONSI) incorporates the EA by reference. The BLM conducted an independent evaluation of the information contained in the EA, and takes full responsibility for its scope and content. The information contained in the EA adequately addresses environmental impacts of the BLM's proposed action and the EA satisfies the BLM's own NEPA procedures. The adopted EA and supporting documentation is available for public review at:

http://data.ecosystem-management.org/nepaweb/nepa_project_exp.php?project=30232

The project area is in Deschutes County, Oregon, within the US Forest Service's (USFS) Bend-Fort Rock Ranger District, situated 15 miles nearly due east of the community of La Pine. The parcels are located outside the boundary of the 50,000 acre Newberry National Volcanic Monument (NNVM or the Monument), with seven parcels situated immediately adjacent to the Monument.

Significance Determination

Regulations of the Council on Environmental Quality (CEQ) state that the significance of impacts must be determined in terms of both context and intensity (40 CFR 1508.27). If the proposed action is found to have significant effects as defined by CEQ regulations (40 CFR 1508.27) the BLM would need to create an Environmental Impact Statement before signing a decision.

Context

I have considered the potential context and scale of the impacts to lease the subject lands and potential geothermal resources, and have found that the effects of the actions discussed in the EA are limited in context because:

- A decision to offer the specified NFS lands for competitive geothermal leasing would convey no authorization to conduct on-the-ground activities other than casual use¹ that ordinarily leads to no significant disturbance of federal lands, resources, or improvements;

¹ Casual uses are defined as activities that ordinarily lead to no significant disturbance of Federal lands, resources, or improvements. Source: 43 CFR § 3200.1 – Definitions

- Any post-lease activities associated with exploration for geothermal resources would only take place if the BLM, in consultation with the USFS, were to approve a Notice of Intent (NOI) consistent with requirements at 43 CFR 3251 – *Exploration Operations: Getting BLM Approval*. Similarly, development of any geothermal resources for energy production would require approval of Sundry Notices in order to construct drill sites and conduct drilling operations as stipulated at 43 CFR 3260 – *Geothermal Drilling Operations: General*.
- BLM approval of either a NOI or Sundry Notices would require appropriate NEPA analysis.

Intensity

I have considered the potential intensity and severity of the impacts anticipated from implementation of a decision to offer the subject lands for leasing of potential geothermal resources based on the EA relative to each of the ten areas suggested for consideration by the CEQ.

1. Would any of the alternatives have significant beneficial or adverse impacts (40 CFR 1508.27(b)(1))?

- No.
- Rationale:
 - Leasing in and of itself would result in no tangible effects on the biological, cultural, or physical resources within the offered lands because this action conveys no authorization of surface-disturbing activities. Reasonably foreseeable development (RFD), such as geophysical exploration and development of geothermal resources as logically described and tiered from the *Final Programmatic Environmental Impact Statement for Geothermal Leasing (PEIS) in the Western United States of 2008*², are not covered under this EA and would not be part of the decision. Those potential future actions would affect the local employment, energy production, and the related use and need for improvements to public services and infrastructure.
 - Possible impacts from exploration and development would be described and considered during NEPA analysis of any NOIs and Sundry Notices and mitigated by application of appropriate best management practices (BMP) and other site-specific stipulations in order to comport with applicable regulations and the Forest and BLM resource management plans.

2. Would any of the alternatives have significant adverse impacts on public health and safety (40 CFR 1508.27(b)(2))?

- No.
- Rationale: Leasing in and of itself would result in no tangible effects on public health and safety because this action conveys no authorization for surface-disturbing activities other than casual use³. Post-lease actions are not covered under the EA, and would not be part of the decision. However, they could include geophysical exploration and/or development of geothermal resources that would result in increased use of local roads, need for employee housing, and demand for local goods and services, including health care. Any RFDs would have to conform to local zoning restrictions, sanitation standards, law enforcement, etc.

² See: http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide/Documents/Final_PEIS.html.

³ Casual uses are defined as activities that ordinarily lead to no significant disturbance of Federal lands, resources, or improvements. Source: 43 CFR § 3200.1 – *Definitions*

3. Would any of the alternatives have significant adverse impacts on unique geographic characteristics (cultural or historic resources, park lands, prime and unique farmlands, wetlands, wild and scenic rivers, designated wilderness or wilderness study areas, or ecologically critical areas (ACECs, RNAs, significant caves)) (40 CFR 1508.27(b)(3)?

- No.
- Rationale:
 - Project Location: The setting of the nominated lands is described in Chapter 3 of the EA with salient aspects summarized as follows.
 - Historic and Cultural Resources:
 - Several pre-contact (defined as the time prior to Euro-American contact with Native Peoples) archaeological sites have been recorded dating back several thousands of years and are typical of seasonal habitation and procurement of resources. Historically to present day the Project area was important to the timber industry in Central Oregon.
 - Archaeological surveys were conducted over 2,187 acres within Parcels 1, 2, 3, 4, 7, 8, 9, and 11 in preparation for timber harvest projects, geothermal exploration, or recreation activities. These surveys resulted in the discovery and recordation of nine archeological sites. Eight of the sites are pre-contact in nature and are associated with stone tool manufacture or possible habitation sites. Of these sites, three have been determined eligible for listing on the National Register of Historic Places (NRHP). The other five have not been evaluated and, but are treated as eligible under the NRHP. The ninth site is a historic logging camp eligible to the NRHP.
 - Management direction for cultural resources is provided in the *Deschutes National Forest (DNF) Land and Resource Management Plan* (1990), USFS manual section 2360, regulations at 36 CFR 64 – *Grants and Allocations...*, 36 CFR 800 (as amended) – *Protection of Historic Properties*, and in various federal laws including the *National Historic Preservation Act* (NHPA) of 1966 (as amended), the *National Environmental Policy Act*, and the *National Forest Management Act*. In addition, the 2004 Programmatic Agreement among the USFS Region 6, the Advisory Council on Historic Preservation, and the Oregon State Historical Preservation Officer provides guides for implementation of Section 106 of the NHPA.
 - Section 106 of the *National Historic Preservation Act* of 1966 (NHPA) requires Federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation a reasonable opportunity to comment. Such reviews would occur prior to any ground disturbing activities proposed for leased areas in accordance with 36 CFR 800 and would require consultation with interested parties including Native American Tribes and the Oregon State Historical Preservation Office.
 - The Project area is not within any Reservation or Ceded Indian Lands. Nevertheless, additional studies or ethnographic work of traditional cultural property may be required in order to identify location and extent of affected resources. Concurrence for Section 106 findings and project effects must be provided by the DNF to the BLM and the Oregon State Historical Preservation Office prior to project approval.
 - Project scoping letters were sent to the Confederated Tribes of the Warm Springs, the Burns Paiute Tribe, and the Klamath Tribes seeking their input. Tribal interests include economic rights such as Indian trust assets, and resource uses and access guaranteed by treaty rights. The Klamath Tribes identified a

potential Traditional Cultural Property and other resources of significance in the vicinity of the project area.

- Park Lands: The project area lies outside of the NNVM. Seven parcels are adjacent to or near the NNVM boundary. Concern regarding the geothermal exploration in the Newberry Volcano area in the 1980s led to the development of the NNVM. The Newberry Caldera and some areas on its flanks were designated as a National Natural Landmark in 1976 and subsequently proposed as a National Park to stop geothermal exploration. A Consensus Committee was formed in 1987 with representatives from conservation groups, geothermal industry, timber industry, recreation interests (such as skiers, snowmobilers, hunters, and fisherman), and various government agencies. The NNVM boundary and management guidelines were agreed to in 1989 by the Consensus Committee and formalized into Public Law 101-522 on November 5, 1990, implemented by the NNVM *Comprehensive Management Plan* (1994). The law withdraws all geothermal mineral rights from within the NNVM boundaries and gives the Secretary of Agriculture special and unusual authority over surface activities on geothermal compensation leases on the flanks outside of NNVM.
- Prime Farm, Range, and Forest Lands: Consistent with the Secretary of Agriculture memorandum 1827, there are no prime farmland and rangeland within any of the proposed lease parcels. Prime forest land, as defined in the memorandum, is not applicable to lands within the National Forest System.
- Wetlands: The no surface occupancy (NSO) stipulation would be applied to all water bodies, riparian areas, wetlands, playas, and 100-year floodplains. Such areas are associated with Paulina Creek in Parcel 3 and are primarily narrow (<10 feet wide), transitioning quickly into upslope vegetation and stands of ponderosa or lodgepole pine and bitterbrush. There are no other wetlands or floodplains within the Project Area. In addition, Executive Order 11988⁴ provides direction to avoid adverse impacts associated with the occupancy and modification of floodplains. Likewise, Executive Order 11990⁵ requires avoidance of adverse impacts associated with the destruction or modification of wetlands.
- Wild and Scenic Rivers: Paulina Creek, which is eligible under the Wild and Scenic River Act, crosses through Parcel 3. It is protected by a NSO corridor from the outlet at Paulina Lake to the forest boundary 8.0 miles downstream designated out to ¼ mile from the river banks. The lands within the corridor would be managed in accordance with Management Area 17, consistent with the Wild and Scenic Rivers Act of 1968, until further study is completed and the Forest Plan is amended.

4. Would any of the alternatives have highly controversial effects (40 CFR 1508.27(b)(4))?

- No.
- Rationale:
 - Leasing in and of itself would result in no tangible effects on the quality of the human environment because this action conveys no authorization for surface-disturbing activities. There are no effects associated with offering parcels for competitive

⁴ Executive Order 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities.

⁵ Executive Order 11990 requires federal agencies to avoid to the extent possible the long and short term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or Indirect support of new construction in wetlands wherever there is a practicable alternative.

geothermal lease sale. Any potential future effects from authorization of geothermal exploration and development would have to undergo additional, site-specific environmental and regulatory analysis. Therefore, even though there may be lingering effects to various resources from past projects and/or effects from existing or RFDs within the vicinity of the nominated lands, the *Proposed Action* would have no direct effect and would not contribute cumulatively to other existing projects that are likely to be highly controversial.

- Future analysis would primarily revolve around cumulative and indirect effects to terrestrial and aquatic habitats from sedimentation, in-water vibrations, changes to quantity or timing of flows, or discharges of water quality contaminants associated with possible geothermal exploration and development.

5. Would any of the alternatives have highly uncertain effects or involve unique or unknown risks (40 CFR 1508.27(b)(5))?

- No.
- Rationale: Leasing in and of itself would have no tangible or highly uncertain or unique or unknown risks affecting the quality of the human environment because this action would convey no authorization for surface-disturbing activities. Leasing would only establish a legal encumbrance on the leased lands. The physical, environmental, and socioeconomic effects of possible, subsequent geothermal exploration and development are described in the EA Chapter 3 – *Affected Environment and Environmental Consequences*, and associated tables.

6. Would any of the alternatives establish a precedent for future actions with significant impacts (40 CFR 1508.27(b)(6))?

- No.
- Rationale: Leasing in and of itself would only establish a legal encumbrance on the subject land and an exclusive entitlement for the lessee(s) to propose and, if authorized, carry out geothermal exploration and possible future energy development pursuant to separate approval of NOIs and Sundry Notices as well as associated operating plans. Any such action(s) would require NEPA analysis and determination of consistency with the DNF Forest Plans subject to appropriate stipulations for protection of other biotic, geophysical, and land use resources that would lead to concurrence from the USFS.

7. Are any of the alternatives related to other actions with potentially significant cumulative impacts (40 CFR 1508.27(b)(7))?

- No.
- Rationale: Leasing in and of itself would not contribute to cumulatively significant impacts because no on-the-ground actions are authorized. Leasing would only establish a legal encumbrance on the land and an exclusive entitlement to propose and carryout geothermal exploration and possible energy development pursuant to NOIs and Sundry Notices as well as associated operating plans if approved (see the EA Chapter 2 and associated tables).

8. Would any of the alternatives have significant adverse impacts on scientific, cultural, or historic resources, including those listed or eligible for listing on the National Register of Historic Resources (40 CFR 1508.27(b)(8))?

- No.

- Rationale: Leasing in and of itself would not adversely affect districts, sites, highways, structures, or objects listed on the National Register of Historic Places or cause the loss or destruction of significant scientific, cultural, or historical resources because no on-the-ground actions are authorized. The RFD scenario in Chapter 2 of the EA, as derived from the PEIS, provides the best professional approximation of possible environmental impacts resulting from post-leasing exploration and possible development of geothermal resources on the offered Federal lands. Leasing stipulations, as illustrated in the EA Figures 5 through 15 and associated tables 2 and 3, would assure that possible impacts on scientific, cultural, or historic resources from leasing or post-lease exploration and/or development of any geothermal resources are fully considered, mitigated, or precluded as part of the NOI/Sundry Notice review process.

9. Would any of the alternatives have significant adverse impacts on threatened or endangered species or their critical habitat (40 CFR 1508.27(b)(9))?

- No.
- Rationale: Leasing would not adversely affect endangered or threatened species or their critical habitat because no on-the-ground actions are authorized. The EA extensively addresses the important and critical habitats within the lands to be offered for geothermal leasing and establishes administrative stipulations to control effects on biological, geophysical, and land use resources.
 - The NSO stipulation would be applied to any designated or proposed critical habitat for listed species under the Endangered Species Act of 1973 (as amended) if the habitat would be adversely modified. Wildlife species or their designated critical habitat listed as endangered, threatened or proposed by the USFWS under the Act with potential to occur on the DNF are listed in the EA Table 16 and describe at length throughout Chapter 3.
 - In accordance with BLM Instruction Memorandum No. 2002-174, the following stipulation would be applied to any leases where threatened, endangered, or other special status species or critical habitat is known or strongly suspected.
 - “The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status species. BLM may recommend modifications to exploration and development proposals to further its conservation and management objective to avoid BLM-approved activity that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM would not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the Endangered Species Act as amended, 16 USC 1531 et seq., including completion of any required procedure for conference or consultation.”

10. Would any of the alternatives have effects that threaten to violate federal, state, or local law or requirements imposed for the protection of the environment (40 CFR 1508.27(b)(10))?

- No.
- Rationale: Leasing in itself would not violate federal, state, or local environmental protection laws because no on-the-ground actions are authorized. Subsequent exploration and development

would be subject to the identified lease stipulations and BMPs designed to ensure protection of environmental resources and compliance with Federal, state and local environmental protection laws, as well as applicable regulations and DNF Forest Plans.

Finding

On the basis of the information contained in the EA, the consideration of intensity factors described above, and all other information available to me, it is my determination that the alternatives are: 1) in conformance with the DNF Forest Management Plan; 2) consistent with the general goals and objectives for mineral and energy resource management contained in the BLM Upper Deschutes Resource Management Plan,⁶ and 3) do not would constitute a major federal action having a significant effect on the human environment. Therefore, an EIS is not necessary and will not be prepared.

Carol A. Benkosky
District Manager
Prineville District

Date

⁶ The general goals, visions, and management practices applicable to geothermal resources south central Oregon can be found in Appendix B and F of the BLM Upper Deschutes Resource Management Plan that can be viewed at: <http://www.blm.gov/or/districts/prineville/plans/deschutesrmp/>.