

**Determination and Decision for the
Newberry Geothermal Lease Sale
DOI-BLM-ORWA-P000-2015-0019-EA**

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Introduction

What is in this document

This document records:

1. The Prineville BLM District Manager's **Determination** that 6,174 acres of nominated parcels east of La Pine, Oregon are suitable for geothermal leasing, with stipulations, and
2. The Oregon/Washington BLM Minerals and Energy Section Chief's **Decision** to adopt the Deschutes National Forest (DNF) environmental assessment (EA) and to lease the geothermal resources on these parcels, with stipulations.

Background

In March 2008 the OR/WA BLM Minerals Section Chief wrote the Deschutes National Forest (DNF) and asked it to consider making 29 parcels (20,156 acres) of land within the Deschutes National Forest's Bend-Fort Rock Ranger District available for a BLM competitive geothermal lease sale (see Attachment A, Figure 1). The parcels are on DNF managed National Forest System (NFS) lands in Deschutes County about 15 miles nearly due east of the community of La Pine and about 25 air miles southeast of Bend, Oregon. The parcels are outside but in some cases adjacent to the boundary of the 50,000 acre Newberry National Volcanic Monument (NNVM or the Monument).

The proposed project was listed in the fall 2009 issue of the Schedule of Projects for the Deschutes and Ochoco National Forests and Prineville District BLM, and in June 2010 the DNF initiated public scoping by mailing letters to interested parties.

The DNF also sent letters to the Confederated Tribes of the Warm Springs Reservation, the Burns Paiute Tribe, and the Klamath Tribes seeking their input. The DNF met with the Klamath Tribes on September 4, 2013. The Klamath Tribes identified a potential Traditional Cultural Property in the vicinity of the proposed project area, and have also identified other resources within the project vicinity that it feels are significant. While some traditional cultural resources are known, some locations or resources may be privileged information that is restricted to specific practitioners or clans. For Tribes, maintaining confidentiality and customs regarding traditional knowledge may take precedence over identifying and evaluating these resources, unless they are in imminent danger of damage or destruction.

Ten comments were received during the scoping period. Using the comments from the public, other agencies, and tribes, the USFS interdisciplinary team derived a list of issues to be addressed in detail in an EA. No issues were identified that would provide a clear reason to develop action alternatives other than to either lease with stipulations (Proposed Action), or

not to lease the nominated parcels (No Action). The issues raised are presented in the EA Appendix B. The rationale for not analyzing some issues in detail is summarized as follows:

- The use of groundwater for the geothermal project and the effect to aquifers. No ground disturbing or resource impacting activities are being considered. Site-specific analysis would occur with proposed geothermal activities.
- Elimination of leases because they do not follow management direction. All geothermal mineral leasing must conform to all public laws, executive orders, and the Forest's management direction for General Forest, Scenic Views, Old Growth Management Areas, and Wild and Scenic Rivers.
- Protection of cave resources. Although there are no known caves in the parcels to be offered, any such resources hereafter identified would be protected by the Federal Cave Resource Protection Act of 1988. The *Deschutes National Forest Land Resource Management Plan (LRMP, 1990)* addresses the importance of public access to and management of caves for Townsend's Big-eared Bat (EA pp. 61 and 62, WL-64 – WL-71).
- Concern for future action on the leases. Chapter 2 of the EA, Typical Phases in Geothermal Development, provides a description of potential geothermal development (reasonably foreseeable development or (RFD)). The decisions, however, within the scope of the EA are only whether or not the USFS should consent to the leasing of the subject 11 parcels (the USFS already issued a decision to consent to the lease sale) and whether the BLM should offer them for competitive lease sale. Leasing stipulations specified by the USFS and adopted by the BLM would avoid, minimize, or negate the potential impacts of post-leasing actions.

The DNF evaluated the parcels for suitability for leasing with consideration of the potential for future geothermal exploration and development, and presented that analysis in an EA for public review in February 2014. The DNF published a legal notice for the opportunity to comment on the EA in The Bulletin (newspaper of record, Bend, Oregon) in February 2014, beginning a 30-day comment period that ended March 26, 2014. The news media source KTVZ provided an article regarding this project on its website on February 28, 2014. The DNF's EA and supporting documentation can be found at:

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

The DNF received seven comment letters on the EA, and in October 2014 the DNF published a response to public comments, a slightly revised EA, and a Decision Notice consenting to the BLM proposal to offer 11 parcels (6,174 acres) (see Attachment E) for competitive geothermal leasing through a competitive bid process. The acreage reduction was in part due to the BLM's original nomination including parcels that were already leased, but were due to expire by the end of 2012 (subsequently extended by the BLM at the request of the lessees).

The DNF consented only to leasing; it did not authorize any exploration or development activities. For the lands selected for leasing, the DNF has identified stipulations and other resource protection measures that will be incorporated into any BLM lease, guiding subsequent surface and subsurface activities.

In July 2015 the BLM Prineville District re-published the DNF's EA and made it available to BLM interested publics for a 30 day comment period, and received eleven comment letters. The comments received were similar to those the DNF received on the EA in 2014; the BLM Prineville District did not duplicate the responses already provided in the DNF Decision Notice (see Attachment C). The EA is posted on the BLM's ePlanning website (address below) and can be found by searching on the title **Newberry Geothermal Lease Sale** or number **DOI-BLM-ORWA-P000-2015-0019-EA**. Note that searches are case sensitive. The ePlanning website:

https://eplanning.blm.gov/epl-front-office/eplanning/nepa/nepa_register.do

No formal consultation with the National Marine Fisheries Service or with the U.S. Fish and Wildlife Service is required because the Proposed Action would not:

- Adversely affect any habitat for threatened or endangered wildlife or fish species;
- Authorize any ground-disturbing activities without subsequent submission and specific approval of either Notices of Intent (NOI) or Sundry Notices which would require further analysis under the National Environmental Policy Act (NEPA);
- Affect federally listed species and designated critical habitats; nor
- Impact essential fish habitats.

The decision to offer land for leasing also assumes that all future activities would occur outside areas that are encompassed by the no surface occupancy (NSO) stipulation. Elsewhere, actions would be subject to lease terms, including controlled surface use stipulations and timing restrictions, as well as application of BMPs and other mitigations for any subsequent exploration for geothermal resources and their development even if they would limit placement and operation of related facilities. At that time, additional stipulations may be implemented regarding Endangered Species Act (ESA) compliance as the result of consultation with the U.S. Fish and Wildlife Service if any listed species would be affected by the nature of proposed ground disturbing activities.

Project location and setting

The physical location, geographic extent, and class of stipulations for each parcel of land to be offered are illustrated in the EA Figures 5 through 15 (Decision Attachment A, Figures 3 – 13), and associated EA Tables 2 and 3. The project area topography, hydrography, and access are also shown in the EA Figure 32 (Attachment A, Figure 14). The relationship of the subject lands

to areas already leased in the vicinity of Newberry Volcano is illustrated in the EA Figure 33 – Authorized and Proposed Geothermal Lease Parcels in the Area in Relation to the Newberry National Volcanic Monument and Motorized Transportation System (Attachment A, Figure 15).

The parcels to be offered are located on the flanks of the massive shield-shaped Newberry Volcano in central Oregon about 40 miles east of the crest of the Cascade Range. The project area ranges in elevation from approximately 5,100 to 6,800 feet above sea level and is largely covered by forest in various stages of regrowth from past timber harvest. The most abundant vegetation type is Lodgepole Pine Dry (3,635 acres = 59 percent of the collective parcel area). Mixed Conifer Dry is also abundant (2,428 acres or 39 percent of the total project area). Other vegetation types in order of abundance, but representing less than one percent of the parcel areas, include Lodgepole Pine Wet, Ponderosa Pine Dry, Mixed Conifer Wet, Ponderosa Pine Wet, and Mountain Hemlock Dry. Non-forested pumice covered areas accounts for less than one percent of groundcover.

Paulina Creek, which crosses Parcel 3 (Attachment A, Figure 14), is considered eligible to be a Wild and Scenic River from its source on the southwest shore of Paulina Lake to where it leaves the Project Area at the DNF boundary (approximately eight river miles), because it is free-flowing and possesses two outstandingly-remarkable values (hydrological/geological and scenic). Special/critical habitats within the parcels are principally associated with Paulina Creek and mapped intermittent drainages in Parcels 9-11. Seven of the parcels are directly adjacent to the North and South Paulina Peak Inventoried Roadless Areas (IRA) located within and on the flanks of the Newberry Caldera (Attachment A, Figure 16). Although the South Paulina Peak IRA encompasses 9,082 acres and the North Paulina Peak IRA 19,677 acres, only 93 acres of IRA are within the parcels identified for leasing.

Currently there are no known economic deposits of gold or other precious or strategic or base metals. Likewise, there are no oil and gas resources or existing leases other than the 60 for geothermal totaling some 52,981 acres on the flanks of the Newberry Volcano. The NNVM is withdrawn from all forms of location, entry, and disposition under all geothermal leasing laws. Existing leases within the Special Management Area of NNVM Act are held subject to the No Surface Occupancy (NSO) stipulation. One inactive saleable mineral rock pit site was identified in the proposed lease area (Fishhook Cinder Pit, T. 21 S., R. 12 E., Section 9).

In 1976, the US Geological Survey (USGS) designated the area around the Newberry Caldera as a Known Geothermal Resource Area which was determined to be one of the best geothermal energy prospects in the Pacific Northwest. During the last three decades, over two dozen exploratory wells have been drilled on the flanks of the caldera reaching depths from approximately 1,300 feet to 11,600 feet. In 1994, the Newberry Geothermal Pilot Project FEIS

was signed which proposed a 33-megawatt power plant, access roads, exploration and production wells, a power transmission line, and a switchyard.

The federal geothermal leasing process

The BLM is the agency responsible for managing the federal mineral estate for geothermal energy. Interested entities nominate lands by submitting to BLM descriptions of lands they seek to be included in a lease sale; BLM may include land in a competitive lease sale on its own initiative.

Administrative procedures for leasing are outlined in the Memorandum of Understanding (MOU) between the United States Department of the Interior and United States Department of Agriculture for Implementation of Section 225 of The Energy Policy Act of 2005 regarding geothermal leasing and permitting¹ (National-Level MOU). Under terms of this MOU, the USFS and the BLM are committed to jointly preparing NEPA documents that would meet the requirements of both agencies in reaching their independent consent/leasing decisions. The Energy Policy Act of 2005 further requires federal agencies to respond in a timely fashion to applications for energy resources.

With respect to geothermal leasing, when the BLM receives a nomination involving NFS lands, it is forwarded to the USFS. The USFS is responsible for the NEPA analysis necessary to support its decision for concurring to the leasing of NFS lands, for developing appropriate terms and conditions under which the lease(s) may be offered and developed, and for ensuring that doing so is consistent with the applicable Land and Resource Management Plans developed under the National Forest Management Act.

The BLM can add additional terms, conditions or stipulations that it deems necessary and appropriate, and must make an independent decision whether to offer the lease for sale after review of the decision and documentation presented by the Forest Service, and other relevant factors. If the BLM finds the parcels suitable for leasing, the BLM Field Office makes a recommendation to the BLM State Office which then conducts the sale and issues leases under an appealable decision. The issuance of a geothermal lease does not authorize any ground-disturbing activities to explore for or develop geothermal resources without further application, environmental review, and approval by the BLM.

Subsequent to leasing, lessees can propose exploration by submitting a permit application to the BLM. The BLM would coordinate the NEPA review with the Forest Service, which would propose permit conditions of approval involving surface issues. The BLM would determine if the permit application should be approved and, if approved, what conditions of approval should be

¹ BLM MOU WO300-2006-08 and USFS Agreement No. 06-SU-11132428-051, signed April 14, 2006.

attached to the permit. Following exploration, if an operator proposes to drill wells intended for production or injection or to utilize the geothermal resource (which are lease exclusive operations), the BLM is responsible for review and final approval of these types of operational permit applications, after consultation with the Forest Service. Again, the only Decision covered in this current document is the one to issue leases; the BLM will consider applications for permits for exploration or development at a later date, when and if they are submitted.

The regulation governing geothermal leasing is the Title 43 Code of Federal Regulations (CFR) Part 3200 – Geothermal Resources Leasing.

Determination

I have determined that 6,174 of the nominated acres, which are open to geothermal leasing as described in DOI-BLM-ORWA-P000-2015-0019-EA, are suitable for leasing with certain stipulations, including the following stipulation that is applied to all 6,174 acres:

Any proposal to explore, develop, or in any other manner use the lands or resources described herein, is subject to BLM's approval following environmental review, analysis, and public disclosure required by the National Environmental Policy Act, or any other review, analysis, or consultation undertaken by the Department of the Interior or the Department of Agriculture under applicable law and regulations. The BLM has absolute discretion to condition or deny, as appropriate, any proposed exploration or development operations beyond casual use. No ground-disturbing activity may commence until BLM approves and issues a specific permit.

See Attachments to this Determination/Decision for a complete description of the parcels suitable for leasing, and for the remaining stipulations to be attached to any geothermal lease and the criteria for exceptions, modifications, or waivers to each stipulation. The BLM may modify proposed surface operations for any subsequent, post-lease applications by adding additional site-specific mitigation measures supported by site-specific NEPA analysis.

The determination that the parcels are suitable for geothermal leasing is based on the findings and analysis in the EA, including supporting documentation and reports, and participation and involvement in the project from cooperating agencies and the public. The proposed geothermal lease stipulations to be applied to the nominated parcels would best meet the purpose and need for the proposed action. That is, the stipulations would allow the BLM to make the nominated public lands geothermal resources available for lease in a manner that protects public land resources and resource values and mitigates impacts on other land uses while helping to meet the increasing interest in geothermal energy development.

Lease issuance alone does not authorize any ground-disturbing activities to explore for or develop geothermal resources without site-specific approval for the intended operation. The only monitoring that would be required upon issuance of a geothermal lease would be to ensure that no unauthorized ground-disturbing activities related to the lease are occurring.

Recommending official:

Carol Benkosky
Carol Benkosky, District Manager, Prineville District BLM

Date: 8/4/16

Decision

Signatures

As the responsible BLM official, it is my decision to offer 6,174 acres of NFS lands (see Attachment A, Figures 1 and 2) for competitive geothermal leasing and issue leases on these parcels pursuant to regulations at Title 43 CFR Part 3200 and subject to the Administrative Remedies stated below.

It is also my decision to accept and adopt the USFS prepared October 2014 Final EA for the Newberry Geothermal Leasing Project consistent with Alternative 2 – the *Proposed Action* inclusive of all supporting documentation included in the *Newberry Geothermal Consent to Lease Project Record* (see link on page 3). This adoption is in accordance with BLM’s NEPA Handbook (H-1790-1-2008) Section 5.4 – Adopting Another Agency’s NEPA Analysis. These documents were independently reviewed by the BLM and used as the basis for this administrative decision to offer the specified 6,174 acres of NFS land for competitive geothermal lease sale. The offered lands would be subject to certain leasing stipulations and restrictions for the protection of surface, hydrologic, biotic, and geophysical resources as specified in the USFS consent of October 20, 2014 (see illustrations in Attachment A, Figures 5 – 15). Leasing stipulations are generally discussed in Attachment E which displays detailed maps of each parcel and the areas affected by each stipulation (both map and legal descriptions). In reaching this decision, I determined that the EA (DOI-BLM-ORWA-P000-2015-0019-EA) adequately describes the environmental setting of the proposed leasing project, including the related and projected environmental effects, possible reasonably foreseeable development (RFD), and mitigation.

I also relied on evidence presented in the EA to conclude that the decision to offer the specified parcels for competitive geothermal leasing is consistent with the goals, objectives, and standards and guidelines of the DNF LRMP² and the NNVM Comprehensive Management Plan (1994).³ Specifics of the DNF LRMP by Management Areas that are applicable to the Newberry Geothermal Consent to Lease Project are detailed in the EA Chapter 1 section on the *Deschutes National Forest Land Resource Management Plan (LRMP, 1990)*, and associated Table 1 and Figure 2. Applicable aspects of the NNVM Act and Management Plan are also described in the EA Chapter 1 sections on the *Newberry National Volcanic Monument Act (Public Law 101-522), November 1990*, and the *Newberry National Volcanic Monument Comprehensive Management Plan, August 1994*, and associated Table 11 and Figure 2. See Attachment D for a Summary of Affected Environment, Consequences, and Reasonably Foreseeable Development from the EA.

² See <http://www.fs.usda.gov/main/deschutes/landmanagement/planning> .

³ See <http://www.fs.usda.gov/recarea/deschutes/recarea/?recid=66159> .

I find that the EA was appropriately tiered to the Programmatic Environmental Impact Statement (PEIS)⁴ regarding the authorization of geothermal leasing, which was completed by the BLM and the USFS in October 2008. The Record of Decision for that EIS was signed in December 2008, amending 114 BLM resource management plans (including the BLM's 2005 Upper Deschutes Resource Management Plan and the Deschutes National Forest 1990 Land and Resource Management Plan). The ROD allocated about 111 million acres of BLM-managed public lands as open for leasing, and an additional 79 million acres of Forest Service lands were also made available for leasing including those that would be offered by the Newberry Geothermal Leasing Project.

The EA incorporated by reference the Project Record which contains Specialist Reports and other technical documentation used to support the analysis and conclusions in the EA. These Specialist Reports addressed fish, forest vegetation, plants, watershed resources, wildlife, heritage and treaty resources, lands and minerals, and recreation. The reports also documented the detailed analytical framework, methods, and conclusions employed to assess impacts on these resources. They also described the affected environment, or baseline conditions, which provide a background for the discussion of environmental consequences.

In addition to the leasing stipulations (Attachment E), the BLM and USFS would require project specific mitigation measures, including utilization of Best Management Practices (BMP) during consideration of any subsequent application for exploration, drilling, development, utilization, or reclamation and abandonment of leased geothermal resources. The BMPs are state-of-the-art mitigation measures incorporated into a site-specific permit application by the lessee/operator or included in the authorization of NOIs or Sundry Notices by the BLM as conditions of approval. Furthermore, project related operations must not unreasonably interfere with or endanger those of other existing operations or authorized uses, or cause unnecessary or undue degradation of the lands (43 CFR § 3250.11 – May I Conduct Exploration Operations on My Lease, Someone else's Lease, or Unreleased Lands?).

Operations that could affect a listed species or critical habitat at a particular location would be subject to a full policy and legal review, including review and coordination under the Endangered Species Act, as amended (7 U.S.C. § 136, 16 U.S.C. § 1531 *et seq.*), and the USFS Sensitive Species and Management Indicator Species (i.e., any species of plant or animal that has been identified as a representative for a group of species with special habitat requirements), as well as taking into consideration effects on Essential Fish Habitat (i.e., “those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity” pursuant to the Magnuson-Stevens Act).

⁴ On December 17, 2008, the BLM and the USFS issued a joint PEIS that analyzed and expedited the leasing of BLM- and FS-administered lands with high potential for renewable geothermal resources in 11 western states and Alaska.

The following items represent some of the considerations regarding any post-lease exploration or development that the BLM anticipates would also be taken into account consistent with the Record of Decision for the PEIS (which amended the BLM Upper Deschutes RMP):

- Geotechnical investigations,
- Stormwater management and groundwater discharge and recharge,
- Additional plant and animal surveys such as raptors, sensitive plants, etc., with subsequent avoidance,
- Air quality monitoring plan and emissions control,
- Noise limitations, traffic plans, and road design,
- Visual resource mitigation or design (colors, lighting, siting features, etc.),
- Vegetation removal or incidental timber harvest,
- Construction techniques for roads, pads, pipelines, utility lines,
- Noxious weed inventory, prevention, control, and management plans,
- Hazardous materials and waste management,
- Protection of workers and the public,
- Interim and final reclamation techniques including recontouring, vegetation management, topsoil management, seeding, erosion control, and mulching, and
- Proposed ground disturbing activities within ¼ mile of a National Forest property boundary, including Wilderness boundaries, shall be surveyed, marked, and posted to ensure Wilderness is not occupied or intruded upon.

The Council on Environmental Quality (CEQ) regulations for implementing NEPA (40 CFR 508.20 – Mitigation) further define mitigation to include:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Based on my review of the EA and associated USFS DN/FONSI, I have determined that: 1) the EA satisfies the BLM's NEPA process, and 2) the information and analysis contained in the EA adequately:

- Addresses and evaluates the environmental impacts that would arise from implementation of the USFS concurrence for the BLM to offer the subject lands for geothermal leasing, as well as those that might stem from RFD.
- Indicates that all potentially significant effects have been analyzed and that these effects do not reach significance.
- Ensures that actions taken comply with the terms, conditions, and mitigation measures identified in this decision.
- Shows that programmatic and project-specific documents included in the Project Record provide an adequate basis for the conclusion that the selected Alternative 2 (Proposed Action) would have no significant effect.
- Supports the determination that the Proposed Action (offering specified lands for geothermal leasing and including the stipulations described herein), would not have a significant effect on the human environment (as documented in the FONSI). It is an administrative action that may result in issuance of leases exclusively entitling the lessees to seek further authorization to conduct exploration for geothermal resources and/or development thereof for energy production. Thus, there are no environmental effects arising from implementation of the Proposed Action that meet the definition of significance in context or intensity, as defined at 40 CFR 1508.27, and do not exceed those effects as described in the DNF Forest Plans, as amended. Therefore, an environmental impact statement (EIS) specific to this decision would not be prepared.

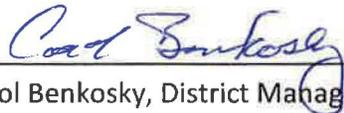
Other documents that support my decision include the: USFS Specialist Reports, applicable direction in the DNF LRMP, the 2008 Programmatic Environmental Impact Statement (PEIS) for Geothermal Leasing in the Western United States, along with information available in the Project Record (see e-link in following Section). Also included are the results of Tribal Government-to-Government consultation and the public comments received during the EA scoping and development described in the EA Chapter 1 section on *Scoping and Public Involvement* and Appendix B – *30-Day Public Comments*. All are incorporated herein by reference and considered as part of my decision.

This Decision will implement the BLM's independent action on whether to lease. The decision will be implemented through issuance of this Decision, conducting a lease sale, and issuing a lease should it be sold. The lessee would then be responsible to secure any local, state or federal permits and approvals as applicable and required by law for future operations or development on the lease. This Decision authorizes leasing only, not any on-the-ground actions to explore for or develop geothermal resources without further application, environmental review, and approval by the BLM. Activities associated with exploration for geothermal

resources can only take place (other than casual use⁵, which is already permitted) if the BLM, in consultation with the USFS, were to approve a Notice of Intent (NOI) to conduct geothermal resource exploration operations consistent with requirements at 43 CFR 3251 – *Exploration Operations: Getting BLM Approval*. Similarly, development of the 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 further NEPA analysis. This process is further described in the section on Administrative Review and Analysis.

Leasing will only vest with the lessee a non-exclusive right to future exploration and an exclusive right to develop, produce, and use the geothermal resources within the leased area subject to existing laws, regulations, and formal orders as well as the terms, conditions, and stipulations in or attached to the lease form. Lease issuance in itself, however, does not authorize any specific ground-disturbing activities associated with exploration or for development of geothermal resources without further site-specific approval for the intended operations.

Due to the regional proximity of the parcels to Crater Lake National Park, the BLM also completed the Checklist for Analyzing Potential Effects Determination on Significant Thermal Features (Attachment F).

Recommending official:  Date: 8/4/16
Carol Benkosky, District Manager
Prineville District BLM

Authorizing official:  Date: 7/27/2016
Steve Storo, Minerals and Energy Section Chief
Oregon/Washington BLM State Office

⁵ 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*

Administrative remedies

This Decision is authorized under CFR Title 43, Part 3200.

This is a land and resource decision in accordance with BLM regulations at 43 CFR Subpart 3200 – Geothermal Resource Leasing. The BLM decisions under 43 CFR 3203 – Competitive Leasing, typically become effective on the day after the expiration of the appeal period (30 days after the date of service) where no petition for a stay is filed or 45 days after the expiration of the appeal period where a timely petition for a stay is filed, unless the Director of the Office of Hearings and Appeals or an Appeals Board has determined otherwise in accordance with specified standards enumerated in 43 CFR 4.21(b).

This decision may be appealed to the U.S. Department of the Interior, Office of Hearings and Appeals, Interior Board of Land Appeals (Board) in accordance with the procedures outlined in 43 CFR Part 4, Subpart E. If an appeal is taken, a written notice of appeal must be received by the BLM officer who made the decision (not the Board) no later than 30 days after the date of service of the decision. Only signed hard copies of a notice of appeal that are delivered to the following address will be accepted:

Bureau of Land Management
Attn: Newberry geothermal lease sale
3050 NE Third Street
Prineville, OR 97754

Faxed or e-mailed appeals will not be considered. The person signing the notice of appeal has the responsibility of proving eligibility to represent the appellant before the Board under its regulations at 43 CFR § 1.3.

According to 43 CFR Part 4, an appellant may petition the Board to stay the implementation of the decision. If filed, a stay request should accompany the notice of appeal. As required by 43 CFR 4.21(b), a petition for stay of a decision pending appeal shall show sufficient justification based on the following standards:

1. The relative harm to the parties if the stay is granted or denied,
2. The likelihood of the appellant's success on the merits,
3. The likelihood of immediate and irreparable harm if the stay is not granted, and
4. Whether the public interest favors granting the stay.

Relevant regulations

The USFS prepared EA, DN/FONSI, and supporting documents are all part of the Project Record. Development of the EA followed implementing regulations of the 1976 *National Forest Management Act* (NFMA); Title 36, Code of Federal Regulations, Part 219 (36 CFR 219) – *Planning*; 36 CFR 220 – *National Environmental Policy Act Compliance*; Council on Environmental Quality (CEQ) regarding NEPA at 40 CFR 1500-1508; the 1969 *National Environmental Policy Act* (NEPA); and applicable DNF LRMP guidance. The EA was also tiered from the 2008 PEIS, which takes into consideration the:

- National Energy Policy (May 2001) and Executive Order 13212 – Actions to Expedite Energy-Related Projects;
- Energy Policy Act of 2005 (Public Law 109-58);
- Geothermal Steam Act of 1970 (Public Law 91-581);
- The American Antiquities Act of 1906;
- The National Historic Preservation Act of 1966, as amended;
- The Wild and Scenic Rivers Act of 1968;
- Migratory Bird Executive Order 13186;
- Executive Order 13112 (invasive species);
- The Clean Water Act, as amended in 1977 and 1982 and associated Executive Orders 11988, 11990, and 12088;
- The Clean Air Act, as amended in 1990;
- The Endangered Species Act of 1973, as amended; and
- Final Environmental Impact Statement and Record of Decision for the Special Areas and Roadless Area Conservation (2001).

Further guidance in this process was drawn from the *Endangered Species Act* of 1973 (PL 93-205) as amended (Subpart B; 402.12, Section 7, Consultation); the USDA/USFS *Guide to Noxious Weed Prevention Practices* (2001); the DNF LRMP (1990) as amended by the USFS Region 6 *Invasive Plant Species Final Environmental Impact Statement Record of Decision* (2005); the *Deschutes and Ochoco National Forests Invasive Plant Prevention Practices* (2006; direction letter signed 2007); and the *Invasive Plant Treatments Final Supplemental Environmental Impact Statement Vols. 1 and 2*, for the Deschutes and Ochoco National Forests and Crooked River National Grassland (2012).

The BLM has the delegated authority for leasing 245 million acres of public lands, including 104 million acres managed by the USFS, with geothermal potential in the 11 western states and Alaska. The BLM presently manages some 818 geothermal leases, with 59 geothermal leases in producing status at a combined capacity of 1,500 megawatts of geothermal energy.

Geothermal leases annually generate over \$12 million in federal royalties with 50 percent shared with the states and 25 percent shared with local counties.

The BLM derives its authority to competitively offer and issue geothermal leases pursuant to the Geothermal Steam Act of 1970, as amended by the Energy Policy Act of 2005 (30 U.S.C. 1001 et seq.); consistent with regulations at 43 CFR 3200 – Geothermal Resource Leasing, and more specifically at 43 CFR 3201 – Available Lands (Item 2), for lands administered by the Department of Agriculture with its concurrence, and 43 CFR 3203 – *Competitive Leasing*.

Additionally, the Mining and Minerals Policy Act of 1970 (30 U.S.C. § 21 et seq.) encourages the development of mineral resources, including geothermal resources, on federal lands. The act articulates national interest to foster and encourage private enterprise while mitigating adverse environmental impacts. This objective is further supported by the Federal Land Policy and Management Act of 1976 (PL. 94-579). The Act states that the public lands are to be managed in a manner that recognizes the need for domestic sources of minerals, including renewable and non-renewable energy resources. In turn, the Energy Policy Act of 2005 (PL. 109-58) amplifies a comprehensive, long-range domestic energy policy, including development of newer and more energy-efficient technologies, such as geothermal resources.

Conformance with land use plans

In accordance with the Federal Land Policy and Management Act (FLPMA) of 1976, as amended, for leased lands, the BLM regulations require that activity on geothermal and other leases conform to the land use plans of the surface managing agency. The DNF LRMP, as amended, guides all natural resource management activities and provides standards and guidelines for the DNF, including the potential for geothermal exploration and development. The goals of the DNF LRMP provide for the exploration, development, and utilization of energy resources within the Newberry Known Geothermal Resource Area where development of the geothermal resource is compatible with other resource values (LRMP pp. 4-2).

Potential geothermal operations are guided by which USFS management area (MA) they are located in and the by standards and guidelines that apply to that particular MA (see following table). Within the General Forest MA, timber production is to be emphasized while also providing forage production, visual quality, wildlife habitat, and recreational opportunities for public use and enjoyment. The following table summarizes the applicable MA for each parcel to be offered for competitive leasing. A comprehensive summary of other applicable statutes and regulations is provided in the EA Chapter 1 section on *Other Law, Regulation, and Policy*.

Table 1. Parcel specific project management area designations.

USFS Parcel Number	Legal Location	LRMP Management Areas (MA) Inventoried Roadless Area (IRA) Potential Wilderness Area (PWA)	Parcel Acres
1	T21S R12E Section 9	MAs: Scenic Views, General Forest; IRA; PWA	561
2	T21S R12E Section 20	MA: General Forest	645
3	T21S R12E Section 31	MAs: Old Growth, Scenic Views, General Forest; Eligible Wild & Scenic River	614
4	T22S R12E Sections 14 and 15	MAs: Old Growth, Scenic Views, General forest; IRA; PWA	1,050
5	T22S R13E Section 2	MA: Scenic Views	351
6	T22S R13E Sections 3, 9, and 10	MAs: Old Growth, Scenic Views NNVM Special Management Area; PWA	997
7	T22S R13E Section 17	MAs: Old Growth, Scenic Views IRA, PWA	176
8	T22S R13E Section 18	MA: Scenic Views; IRA; PWA	16
9	T22S R13E Section 19	MAs: Scenic Views, General Forest; IRA; PWA	492
10	T22S R13E Section 30	MAs: Scenic Views, General Forest	633
11	T22S R13E Section 31	MA: General Forest	639
		Total:	6,174

My Decision is based on an independent review of the USFS prepared EA for the Newberry Geothermal Consent to Lease Project, and the associated DN/FONSI, as well as the supporting documentation. The BLM's review fully sustained the conclusion that offering the subject lands for geothermal lease sale would comport with the applicable land use plans and stipulations specified by both agencies. Specifics of the DNF LRMP by MAs that are applicable to the Newberry Geothermal Consent to Lease Project are detailed in the EA Chapter 1 section on the *Deschutes National Forest Land Resource Management Plan (LRMP, 1990)*, and associated Table 1 and Figure 2. Applicable aspects of the NNVM Act and Management Plan are also described in the EA Chapter 1 sections on the *Newberry National Volcanic Monument Act (Public Law 101-522)*, November 1990, and the *Newberry National Volcanic Monument Comprehensive Management Plan*, August 1994, and associated Table 11 and Figure 2.

Leasing the subject lands, inclusive of stipulations derived from discussion in the EA section on *Stipulation for Lands of the National Forest System*, would be: 1) in the public interest; 2) consistent with both agencies' applicable regulations; 3) responsive to the management direction, goals, objectives, and standards and guidelines provided in the USFS Deschutes National Forest Land and Resource Management Plans (LRMP) of 1990, and in the NNVM Comprehensive Management Plan (1994); 4) appropriate within the general goals and objectives for mineral and energy resource management contained in the BLM Upper

Deschutes Resource Management Plan;⁶ 5) in compliance with the BLM’s regulations at 43 CFR Group 3200 – *Geothermal Resource Leasing* and, more specifically with regulations at 43 CFR 3203 – *Competitive Leasing*; 6) consistent with the Energy Policy Act of 2005, Public Law 109-58; and 7) logically tiered from the Final Programmatic Environmental Impact Statement for Geothermal Leasing (PEIS) in the Western United States of 2008,⁷ which amended the BLM’s Upper Deschutes Resource Management Plan.

Other documents that support my decision include the applicable direction in the DNF LRMP, the USFS Specialist Reports, and other information available in the Project Record.

Parcel regrouping and offering for lease

It is also my decision that the BLM will offer the eleven USFS-designated parcels regrouped into eight tracts as shown below to facilitate leasing and subsequent administration.

Table 2. BLM designation of tracts to be offered for leasing.

Agency	Parcel number							
USFS parcel number (see the EA Figures 3 – 15)	1	2	3	4	5	6	7-10	11
BLM tract number for lease offer	1	2	3	4	5	6	7	8

The subject NFS lands will be offered for lease in tracts of not more than 5,120 acres each (43 CFR 3203.10 – *How are Lands Included in a Competitive Sale*). Pursuant to 43 CFR 3203.5 (b) – *What is the General Process for Obtaining a Geothermal Lease*, the BLM will issue geothermal leases for a primary term of 10 years (43 CFR 3207.10 (a)) to the highest responsible⁸ and qualified bidder (see list below) as part of the competitive leasing process. Lands that do not receive a bid at the competitive lease sale would be available for noncompetitive leasing for a two-year period beginning the first business day following the lease sale.

Leases would only be issued to bidders that:

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

⁷ The PEIS is available at: http://www.blm.gov/wo/st/en/prog/energy/geothermal/geothermal_nationwide/Documents/Final_PEIS.html .

⁸ A responsible party is defined as a contractor, supplier, vendor, or entity qualified on the basis that it: (1) has adequate financial resources to perform a contract, (2) is able to comply with the associated legal or regulatory requirements, (3) is able to deliver according to the contract schedule, (4) has a history of satisfactory performance, (5) has good reputation regarding integrity, (6) has or can obtain necessary data, equipment, and facilities, and (7) is otherwise eligible and qualified to receive award if its bid is chosen. Source: *Business Directory* (Copyright©2014 WebFinance, Inc.)

- Meet qualification requirements (43 CFR 3203.10 – Who May Hold a Geothermal Lease?);
- Make the required payments (43 CFR 3203.17 – How Must I Make Payments...?);
- Agree to comply with lease issuance requirements (43 CFR 3206.10 – What Must I do for BLM to Issue a Lease?);
- Neither directly nor indirectly hold more than 51,200 acres in other federal leases in any one state of the United States (43 CFR 3206.13 – What is the Maximum Acreage I May Hold?);
- Acknowledge their understanding and acceptance of lease terms (43 CFR 3207 – Lease Terms and Extensions);
- Pay the required fee, rents, etc. (43 CFR 3211 – Filing and processing Fees, Rent, Direct Use Fees, and Royalties); and
- Establish the requisite bonds (43 CFR 3214 – Personal and Surety Bonds).

Geothermal leases would be issued using the BLM Standard Form 3200-24 – Offer to Lease and Lease for Geothermal Resources (Attachment B), inclusive of the stipulations generally described in this DR. Issued leases would require full compliance with all applicable laws and regulations and with the leasing stipulations discussed below and fully present in Attachment E.

Leasing stipulations

Geothermal leases issued consistent with this decision would include stipulations that impose moderate to major constraints on the activities that would be allowed on the offered/leased lands. The parcel specific stipulations listed in Attachment E would be included in the notice of lease offer and are enforceable terms that supersede any inconsistent requirements of the standard BLM Lease Form 3200-24. They would provide protection for resource values or land uses by excluding occupancy or by restricting lease operations or by establishing timing limitations within specified areas or by requiring review and/or mitigation to an extent greater than would be the case under standard lease terms or conditions.

The stipulations would also be applied and/or amended through the determination of the USFS and the BLM at the time geothermal exploration and/or development is proposed by the lessee(s) through either a NOI to conduct geothermal exploration operations or a Sundry Notices to construct related on-site infrastructure for roads and drill sites and to conduct drilling operations.

Leasing stipulations generally fall into four categories:

1. Standard leasing (SL): These affect about 39 percent of the lands to be offered. SLs ensure that activities are consistent with the DNF LRMP Standards and Guidelines including design features unless directed otherwise or waived by Forest Service

personnel. These would be applicable to each leased parcel if exploration and development is planned.

2. **Conditional surface use (CSU):** These affect about 19 percent of the lands to be offered. A CSU is appropriate where standard lease terms and permit-level decisions are deemed insufficient to protect sensitive resources, but where an NSO is deemed overly restrictive. CSU areas would be subject to timing limitations within certain habitats and/or to controlled surface use to protect known geothermal features, endangered species and their habitat, and cultural resources. Buffer zones of varying size may also be designated to further mitigate impacts from any human activities.
3. **No surface occupancy (NSO):** Affecting about 42 percent of the lands to be offered. An NSO is appropriate when the standard terms and conditions, other less restrictive lease stipulations, and best management practices for permit approval are determined to be insufficient to achieve the resource protection objectives. These areas consist primarily of steep slopes with high erosion potential, water bodies, Riparian Reserves, wetlands, flood plains, lands with existing recreational use that would be incompatible with geothermal development, river segments that are potentially eligible for Wild and Scenic River (WSR) status, existing geothermal features, and areas of old growth.
4. **Universal:** The following stipulation is applied to 100 percent of the leased acres. “Any proposal to explore, develop, or in any other manner use the lands or resources described herein, is subject to BLM’s approval following environmental review, analysis, and public disclosure required by the National Environmental Policy Act, or any other review, analysis, or consultation undertaken by the Department of the Interior or the Department of Agriculture under applicable law and regulations. The BLM has absolute discretion to condition or deny, as appropriate, any proposed exploration or development operations beyond casual use. No ground-disturbing activity may commence until BLM approves and issues a specific permit.”

The following table summarizes the acreage within each of the 11 specified USFS parcels subject to each of the SL, CSU, or NSO categories of stipulations. The aerial extent to which leasing stipulations apply is graphically illustrated in the EA Figures 5 – 15 (Attachment A Figures 5 – 15). The Universal Stipulation noted above is applied to all parcel acres; this is not displayed in the table below. As previously noted, USFS parcels 7 – 10 would be offered for lease by the BLM as one administrative tract.

Table 3. Acreage within each parcel subject to leasing stipulations.

USFS Parcel No.	Standard Lease (SL)	Conditional Surface Use (CSU)	No Surface Occupancy (NSO)	Parcel Acres
1	205	210	146	561
2	640	3	2	645

3	0	0	614	614
4	301	269	580	1,050
5	0	247	104	351
6	0	0	997	997
7	0	123	53	176
8	0	6	10	16
9	78	384	30	491
10	622	11	0	633
11	592	0	47	639
Total Acres	2,438	1,153	2,583	6,174
Percent of Total	39%	19%	42%	100%

Standard leasing

For all NFS lands under the jurisdiction of the Department of Agriculture, the following stipulation would apply:

- The licensee/permittee/lessee must comply with all the rules and regulations of the Secretary of Agriculture set forth at Title 36, Chapter II, of the Code of Federal Regulations governing the use and management of NFS when not inconsistent with the rights granted by the Secretary of the Interior in the license/prospecting permit/lease. The Secretary of Agriculture's rules and regulations must be complied with for (1) all use and occupancy of the NFS prior to approval of a permit/operation plan by the Secretary of the Interior, (2) uses of all existing improvements, such as Forest development roads, within and outside the area licensed, permitted or leased by the Secretary of the Interior, and (3) use and occupancy of the NFS not authorized by a permit/operating plan approved by the Secretary of the Interior.

Additional management restrictions would be applied to:

Protection of geothermal features such as natural springs and geysers by either declining to issue a lease that would result in a significant adverse effect to such a feature; or requiring monitoring of the thermal features during any exploration, development, and production of the lease to ensure that there are no impacts to water quality or quantity; or including stipulations to protect any significant thermal features of a National Park System unit that could be adversely affected by geothermal development.

Protection of endangered species in a manner similar to that described in BLM Instruction Memorandum No. 2002-174 regarding oil and gas leasing where threatened, endangered, or other special status species or critical habitat is known or strongly suspected to exist, the BLM, in consultation with the USFS, would provide a separate notification identifying the particular

special status species that are known to be present on the offered lease parcel. The notice would stipulate:

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 adverse impacts 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.

Protection of sensitive species for those portions of high value/key/crucial species habitat where other existing measures are inadequate to meet management objectives.

Protection of cultural resources in accordance with BLM Instruction Memorandum No. 2005-003, the following stipulation would apply to protect cultural resources:

This lease may be found to contain historic properties and/or resources protected under the National Historic Preservation Act (NHPA), American Indian Religious Freedom Act, Native American Graves Protection and Repatriation Act, E.O. 13007, or other statutes and executive orders. The BLM would not approve any ground disturbing activities that may affect any such properties or resources until it completes its obligations under applicable requirements of the NHPA and other authorities. The Agencies may require modification to exploration or development proposals to protect such properties, or disapprove any activity that is likely to result in adverse effects that cannot be successfully avoided, minimized or mitigated.

Protection of roadless areas which encompass approximately 93 acres within the project area subject to a non-discretionary restriction that applies to designated inventoried roadless areas that states:

No new road construction or reconstruction would be allowed in inventoried roadless areas without the approval of the Secretary of Agriculture. If future legislation or regulations change the roadless area designation, the restriction would be revised along with any appropriate environmental review.

For all of the leased parcels:

Botany: Do not conduct project-related ground or habitat disturbing activities within the perimeter of whitebark pine subpopulations if documented within this parcel.

Old Growth Management Area (M-15): In order to protect old growth management area, the lessee shall not occupy or use the surface of those parts shown as NSO unless this stipulation is modified or eliminated. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Areas Meeting the Inventory Criteria for Potential Wilderness (PWA): In order to protect areas meeting the inventory criteria for potential wilderness, the lessee shall not occupy or use the surface of those parts shown as NSO unless this stipulation is modified or eliminated. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Recreation - National Forest System Trails: In order to protect snowmobile winter trails, the lessee shall not occupy or use the surface of those parts adjacent to segments of winter trails, including a corridor of 300 feet on either side of the trail shown as CSU for activities such as power plants, transmission lines, pipe lines, etc. unless the lessee can demonstrate by appropriate plan of operation to the satisfaction of the authorized representative of the Forest Service that this area would not be adversely affected by the proposed activities. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Recreation – National Recreation Trail - Peter Skene Ogden Trail: In order to protect the National Recreation Trail, the lessee shall not occupy or use the surface of those parts adjacent to segments of trail, including a corridor of ¼-mile on either side of the trail shown as CSU for activities such as power plants, transmission lines, pipe lines, etc. unless the lessee can demonstrate by appropriate plan of operation to the satisfaction of the authorized representative of the Forest Service that this area would not be adversely affected by the proposed activities. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Recreation – Snowmobile Winter Trails: In order to protect snowmobile winter trails, the lessee shall not snow-plow roads on designated snowmobile trails and shall not use wheeled vehicles on designated snowmobile trails from December 1 to March 31 unless this stipulation is modified or eliminated. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Recreation – Wild and Scenic River (Eligible) - Paulina Creek: In order to protect areas eligible for Wild and Scenic River designation, the lessee shall not occupy or use the surface of those parts of a corridor of 0.25 miles from the high water mark on either side of the bank shown as

NSO unless this stipulation is modified or eliminated. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Scenic Views: In order to protect areas with high visual sensitivities, the lessee shall not occupy or use the surface of those parts shown as controlled surface use (CSU) for activities such as power plants, transmission lines, pipe lines, etc. unless the lessee can demonstrate by appropriate plan of operation to the satisfaction of the authorized representative of the Forest Service that this area would not be adversely affected by the proposed activities. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Soils on Slopes of Greater than 40 Percent: In order to protect slopes in excess of 40 percent, the lessee shall not occupy or use the surface of those parts shown as NSO unless this stipulation is modified or eliminated. Waivers, exceptions, or modifications of this stipulation would require additional evaluation through the NEPA process.

Soils on Slopes of 30-40 Percent: In order to protect slopes in excess of 30 percent, the lessee shall not occupy or use the surface of those parts shown as CSU for activities such as power plants, transmission lines, pipe lines, etc. unless the lessee can demonstrate by appropriate plan of operation to the satisfaction of the authorized representative of the Forest Service that this area would not be adversely affected by the proposed activities.

Wildlife Timing Limits (Great Blue Heron): In order to protect [Great Blue Heron] nesting trees and rookeries, the lessee shall not occupy or use the surface from March 1 to August 31 using a ¼-mile radius buffer around designated trees (WL-35) identified from surveys conducted by qualified individuals. This stipulation does not apply to operation and maintenance of production facilities. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Wildlife Timing Limits (Osprey): In order to protect documented Osprey nesting trees in the NE ¼ of the SW ¼ in Section 15, the lessee shall not occupy or use the surface from April 1 - August 31 using a ¼-mile (1-mile for the use of explosives) radius buffer around designated trees (WL-35) identified from surveys conducted by qualified individuals. This stipulation does not apply to operation and maintenance of production facilities. Waivers, exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Wildlife Timing Limits (Red-Tailed Hawk): In order to protect documented Red-tailed Hawk nesting trees in the SW ¼ of the NE ¼ in Section 15, the lessee shall not occupy or use the surface from March 1 - August 31 using a ¼-mile (1-mile for the use of explosives) radius buffer around designated trees (WL-35) identified from surveys conducted by qualified individuals. This stipulation does not apply to operation and maintenance of production facilities. Waivers,

exceptions, or modifications of this stipulation would require evaluation through the NEPA process.

Visual Impact Assessments need to be conducted within Scenic Views Management Areas within any parcel that has roads, trails, buttes, or viewpoints that may have views to or from these recreation access points or facilities. The District Landscape Architect would work with the visual consultant in order to establish viewpoints for the assessment. If any access roads, trailheads, trails, or viewpoints through immediate foreground areas are planned for development, then Scenic Views Management Area standards and guidelines must be met.

Wildlife – Raptors: Surveys or field checks should be completed as applicable by a qualified wildlife personnel; it may include the following species: peregrine falcon, golden eagle, bald eagle, osprey, northern goshawk, red-tailed hawk, Cooper’s hawk, and sharp-shinned hawk. Consistent with the DNF LRMP, active raptor nest sites should be protected from disturbing activities within ¼ mile (1 mile for the use of explosives) of the nest by restricting site disturbing operations using the following:

- Red-tailed Hawk March 1 to August 31 (WL-3)
- Northern Goshawk: March 1 to August 31 (WL-11)
- Osprey: April 1 to August 31 (WL-3)
- Cooper’s Hawk: April 15 to August 31 (WL-19)
- Sharp-shinned Hawks: April 15 to August 31 (WL-28)
- Bald Eagle: January 1 – August 31
- Golden Eagle: February 1 to July 31
- Great gray owl: March 1st – June 30th
- Great blue heron: March 1st – August 31st

Disturbing activities can include, but are not limited to heavy equipment use, tree removal, drilling, site clearing, construction, or frequent vehicle traffic. Locating new roads within raptor nest site stands would be avoided (WL-10). Active raptor nest sites would be protected by maintaining the forested character within a 300 feet radius around the nest tree (WL-2).

Wildlife – Caves surveys for the presence of caves and if discovered coordination with the Bend/Ft. Rock Supervisory Wildlife Biologist would be necessary to determine appropriate buffers (M-39).

Wildlife – TES surveys to determine the presence of a federally listed Endangered, Threatened or Proposed wildlife species is documented coordination with the Bend/Ft. Rock Supervisory Wildlife Biologist would be necessary to determine appropriate action.

Wildlife – Trash surveys to ensure that on-site rubbish would be stored in a manner to reduce potential conflicts with black bears (M-40).

Cultural: Ensure that National Historic Preservation Act Section 106 review would occur prior to any ground disturbing activities proposed for the leased areas. The Section 106 review would be carried out in accordance with 36 CFR 800 and would require consultation with interested parties, to include Native American Tribes and the Oregon State Historic Preservation Office. All Section 106 documentation would be reviewed by the USFS, Deschutes National Forest. Concurrence for Section 106 findings and project effects must be provided to the Lead Agency and the Oregon State Historic Preservation Office, by the Deschutes National Forest prior to project approval.

Cultural: If future geothermal exploration, development, or other activities are proposed within the leased parcels that have the potential to affect Tribal Interests and Traditional Cultural Resources they would be subject to the National Historic Preservation Act Section 106 review. Consultation with the Forest Service, the Oregon State Historical Preservation Officer, Native American Tribes, and other interested parties would occur according to 36 CFR 800 and other applicable laws and regulations. In addition, additional Traditional Cultural Property studies, or ethnographic work may be required in order to identify affected resources.

Botany:

- Assure that project-related vehicles, heavy equipment and other materials are weed-free before accessing the new lease sites along USFS roads in the Newberry geothermal development area. This would entail assurance, by whatever cleaning methods are necessary, that all incoming vehicles and heavy equipment are free of soil, seed, vegetative matter or other debris that could bear seeds.
- Include Bend/Ft. Rock Ranger District botanist in discussion of desirability and specific nature of revegetation efforts at sites disturbed by development activities.
- Using the current USFS R6 Regional Forester’s TES plant list, conducts sensitive plant surveys within lease sites before conducting ground or habitat disturbing, project-related activities. Notify Bend/Ft. Rock Ranger District botanist of detection of any new sensitive species sites. Three USFS R6 sensitive plant species – Crater Lake grapefern (*Botrychium pumicola*), green-tinged paintbrush (*Castilleja chlorotica*) and whitebark pine (*Pinus albicaulis*) – are known or may occur either within or closely adjacent to the collective perimeter of the proposed lease sites.

Recreation – Dispersed recreation use: Take necessary actions to maintain public safety. This may include, but isn’t limited to: signing and area closures.

Transportation: Road use permits authorize use of NFS roads, NFS road segments, and associated transportation facilities for purposes of commercial hauling or as an exception to traffic rules and use restrictions. Road use permits may authorize use of a road that is otherwise closed to access non-federal property; road use that is otherwise restricted by a road use order or a regulation; or motor vehicle use on NFS roads that are not designated for that use on a motor vehicle use map

Transportation: Maintenance costs should be shared with non-federal commercial haulers or users when the estimated amount to be borne by the user would be at least \$100 for the users' anticipated use.

Transportation: Cost would be recovered for road reconstruction and maintenance from commercial user commensurate with their use.

- **Reconstruction Required to Accommodate Use:** The standard road use permit requires the holder to perform any road reconstruction necessary to accommodate the holder's use under the permit or to deposit funds sufficient to cover the cost of the reconstruction before the holder's use commences.
- **Commensurate Share:** Requires the holder to perform maintenance or deposit funds sufficient to cover the cost of maintenance made necessary by the holder's use under the permit.

Transportation:

- Use otherwise prohibited by traffic rules issue a road use permit to authorize an act or omission that would otherwise be in violation of a traffic rule in effect on a road. To protect the safety of road users and the public investment in roads and bridges, issue a road use permit to authorize the use of oversized vehicles and off-highway haul when they are not authorized by an agreement or easement.
- In compliance with environmental laws, propose road use permits to authorize use of a road when public use is normally restricted by regulation; a designation for motor vehicle use; a gate, barrier, or road use order; or seasonal snow accumulation are subject to environmental analysis and disclosure of effects as required by NEPA, in accordance with and subject to compliance with the ESA in addition to other applicable environmental law and policy.
- Designation of NFS roads for motor vehicle use does not preclude or obviate the need for issuance of road use permits to manage certain types of uses to protect public safety and the public investment in roads. Examples include:
 - Road use permits issued to authorize use of motor vehicles exceeding size and weight restrictions imposed under State traffic law; and

- Road use permits issued to require cost recovery from commercial haulers. Road use permits issued for use of NFS roads designated for motor vehicle use (other than when public use is restricted by a designation for motor vehicle use by time of year) are not subject to NEPA or ESA analysis because these roads are available for public use.

Road use permits include conditions on road use, terms requiring compliance with road operation and maintenance criteria, and provisions addressing protection and management of NFS lands.

Transportation: Revocation and Suspension.

- Grounds: A road use permit may be revoked or suspended for:
 - Noncompliance with federal, State, or local law;
 - Noncompliance with the terms of the permit; or
 - Abandonment or other failure of the holder to exercise the privileges granted.
- Notice and Opportunity to Comply: Except for immediate suspension pursuant to paragraph 5c, the responsible official must give the permit holder written notice of the grounds for suspension or revocation and a reasonable opportunity to correct any noncompliance prior to revocation or suspension.
- Immediate Suspension: The responsible official may immediately suspend a road use permit in whole or in part when the responsible official deems it necessary to protect public health, safety, or the environment.
- Lack of Administrative Appeal: Revocation or suspension of a road use permit is not subject to administrative appeal.

Transportation: A road use permit terminates when by its terms a fixed or agreed upon condition, event, or time occurs without any action by the responsible official, such as expiration of the permit by its terms on a specified date or with the consent of the holder. Termination of a road use permit is not subject to administrative appeal.

Best Management Practices (BMPs) during any subsequent exploration, drilling, utilization, or reclamation and abandonment of geothermal resources, project-specific permit mitigation measures would be required to control impacts on-site. When the agency determines that impacts cannot be mitigated to an acceptable level onsite, it may be necessary to deny the permit, ask the applicant to modify the proposal, or mitigate remaining impacts off-site. Best Management Practices are state-of-the-art mitigation measures and may be incorporated into the permit application by the lessee or may be included in the approved use authorization by the BLM as conditions of approval, with cooperation of the USFS. Conditions of approval are not lease stipulations, but they are site-specific and enforceable requirements to minimize,

mitigate, or prevent impacts to resource values from an intended operation. Conditions of approval can limit or amend the specific actions proposed by the operator.

Monitoring: of mitigation measures, including lease stipulations and conditions of approval as well as the general operation of geothermal developments, would be required for the lessee or the appropriate federal agency to ensure continued effectiveness through all phases of development. Using adaptive management strategies, where mitigation measures are determined to be ineffective at meeting the desired resource conditions, the FS would take steps to determine the cause and require the operator to take corrective action. This information would also be used to inform future geothermal leasing and development.

Controlled surface use

Controlled surface use stipulations would require that future activity or development be modified or relocated from the proposed location, if necessary, to achieve resource protection. The lessee(s) would be required to submit plans to meet the resource management objectives through design, construction, operation, mitigation, or reclamation measures and/or relocation. Unless the plans are approved, no surface occupancy would be allowed. Consideration of the following CSUs would be applied to this leasing action:

- Protection of riparian and wetland habitat within 500 feet of riparian or wetland vegetation to protect the values and functions of these areas. Measures required would be based on the nature, extent, and value of the area potentially affected.
- Late Successional Reserves: Because there is no specific habitat-disturbing proposal associated with this the proposed leasing, there are no specific LSR stipulations or restrictions. In the event of geothermal exploration and development, “the guiding principle would be to design mitigation measures that minimize detrimental effects to late-successional habitat” (Northwest Forest Plan, Record of Decision, p. C-17). The lessee(s) would be required to submit a plan to meet the resource management objectives of the LSR for late successional habitats and to ensure that any subsequent geothermal exploration and/or development would be conducted in a manner that is either neutral or beneficial to the creation and maintenance of late successional habitat.
- Protection of visual resources on lands with a Scenery Management System integrity level of High; and other sensitive viewsheds, such as within the visual setting of National Scenic and Historic Trails or near residential areas.
- Protection of recreational areas to minimize the potential for adverse impacts to recreational values, both motorized and non-motorized, and the natural settings associated with the recreational activity.
- Compatibility with urban interface to minimize the potential for adverse impacts to residential areas, schools, or other adjacent urban land uses.

- Protection of erodible soils on slopes greater than 30 percent to minimize the potential for adverse impacts to erodible soils as defined as severe or very severe erosion classes based on Natural Resources Conservation Service (NRCS) mapping.
- Protection of important habitat and migration corridors to protect the continuity of migration corridors and important wildlife habitat.

No surface occupancy

Exclusion of surface development would be applied to:

- Areas identified as Inventoried Roadless Area (IRA) or areas meeting the inventory criteria for potential wilderness.
- Designated or proposed critical habitat for listed species under the Endangered Species Act of 1973 (as amended) if it would adversely modify the habitat. For listed or proposed species without designated habitat, NSO would be implemented to the extent necessary to avoid jeopardy.
- Properties designated or eligible for the National Register of Historic Places, including National Landmark and National Register Districts and Sites; and additional lands outside the designated boundaries to the extent necessary to protect current and subsequently identified values where the setting and integrity is critical to their designation or eligibility.
- Areas with important cultural and archaeological resources, such as traditional cultural properties and Native American sacred sites, as identified through consultation.
- Water bodies, riparian areas, wetlands, playas, and 100-year floodplains.
- Segments of rivers determined to be potentially eligible for Wild and Scenic Rivers (WSR) status by virtue of a WSR inventory, including a corridor of 0.25 miles from the high water mark on either side of the bank.
- Designated important viewsheds, including public lands designated as VRM Class I and NFS lands with a Scenery Management System integrity level of Very High.
- Slopes in excess of 40 percent and/or soils with high erosion potential.
- Within the Newberry Special Management Area – Public Law 101-522 Sec 4 (a)(5).
- Old Growth Management Areas specified in the Deschutes National Forest LRMP (MA-15).
- Area precluded or highly restricted in order to comply with Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands, in order to preserve and restore or enhance the natural and beneficial values served by floodplains and wetlands.

Universal stipulation

This stipulation is applied to all leased parcels:

- Any proposal to explore, develop, or in any other manner use the lands or resources described herein, is subject to BLM's approval following environmental review, analysis, and public disclosure required by the National Environmental Policy Act, or any other review, analysis, or consultation undertaken by the Department of the Interior or the Department of Agriculture under applicable law and regulations. The BLM has absolute discretion to condition or deny, as appropriate, any proposed exploration or development operations beyond casual use. No ground-disturbing activity may commence until BLM approves and issues a specific permit.

Other factors in the decision

Leasing in and of itself would have no direct impact on any tangible resources aside from establishing a legal encumbrance on the lands that are leased and the exclusive right of the lessee to apply for authorization in order to conduct further exploration and development of geothermal resources on the leased parcels. Nevertheless, possible environmental impacts of any post-leasing exploration and development were analyzed in the EA (Chapter 2 – Alternatives: Reasonably Foreseeable Development Activities) based on a logical RFD scenarios derived from the PEIS. Use of these scenarios was appropriate because they are the best professional estimate of possible environmental impacts resulting from exploration for and/or development of federal geothermal resources that may be accessible from or within the offered lands.

In addition to the leasing stipulations discussed in the EA section on Stipulation for Lands of the NFS and listed in Attachment E, authorization of any subsequent exploration, drilling, utilization, abandonment, and reclamation of geothermal activities would include action-specific mitigation measures and BMPs. The BMPs are state-of-the-art mitigation measures that would be incorporated into any site-specific application by the lessee/operator in their NOI or Sundry Notices, and/or included by the Agencies in their approved use authorizations. Because there are no surface-disturbing activities involved or authorized at the leasing stage, site-specific BMPs to further protect surface resources are not included in this decision. They would be added if and when surface disturbing activities are proposed, including those required by the CEQ regulations.

In consideration of anthropogenic climate change, it is important to note that in addition to the factors analyzed in the EA, BLM has also determined that offering the subject parcels for competitive geothermal leasing would in and of itself result in no causal factors affecting

climatic conditions because no ground disturbing activities are authorized. Any subsequent exploration or resource development by the lessee would require the submission of a Notice of Intent and Sundry Notices that would be subject to NEPA analysis and mitigated by application of appropriate BMPs and other site-specific stipulations in order to comport with applicable regulations and the MBS Forest Plans.

The demographics of the nominated lands were examined to determine the presence of minority, low-income, or Tribal populations in the area of potential affect. Neither of the EA alternatives would have disproportionately high or adverse effect on low-income women or minority populations because no on-the-ground actions are authorized. Should, however, the lessee subsequently request authorization to conduct geothermal exploration and to construct associated facilities, effects on environmental justice would be reexamined as part of the NEPA process.

Consideration of intensity of impacts is organized around the environmental protection criteria described at 40 CFR 1508.27 – Significantly. Each consideration relies, without restatement, on the description and analysis of environmental effects contained in the EA regarding the intensity and severity of the impacts anticipated from implementation of the BLM decision to offer the specified parcels for competitive geothermal leasing as relates to each of the ten areas suggested for deliberation by the CEQ. Each of the ten considerations is addressed in the associated “Finding of No Significant Impact for the Newberry Geothermal Leasing Project.”

Attachments A-F: See separate file