

Prineville District  
**Finding of No Significant Impact**  
Determination

**Introduction:**

The Bureau of Land Management (BLM) has conducted an environmental analysis entitled “Drilling, Testing, and Monitoring of up to 12 Temperature Gradient / Passive Seismic Geothermal Exploratory Wells (EA) No. DOI-BLM-OR-P000.2010-0003-EA”. In this EA, the BLM is analyzing potential impacts of implementing a proposed Plan of Exploration (POE), to explore geothermal resources within the Bend-Fort Rock Ranger District of the Deschutes National Forest, Deschutes County. BLM is the lead agency responsible for management and administration of federal geothermal leases and subsurface activities. The USDA Forest Service is the agency responsible for managing activities that occur on National Forest lands; therefore, the Deschutes National Forest has a role as a cooperating agency in this environmental analysis. In addition the Department of Energy is funding portions of this proposal and is also a cooperating agency. The DOE will be issuing their own Finding of No Significant Impact on this project.

The primary purpose and need of this project is to assess the potential for geothermal energy development on the western flank of Newberry Volcano. Based on the findings, the applicant will decide if the geothermal resource is sufficient or if there are additional exploration needs. Either of these future scenarios is dependent on drilling and data results and cannot be determined at this time.

The Newberry Geothermal Exploration Project area is located on seven federal geothermal leases held by Northwest Geothermal Company (NGC) issued by the BLM in 1982-2003 on the western flank of Newberry Volcano on the Bend Fort Rock Ranger District of the Deschutes National Forest, Deschutes County, Oregon. A no action alternative and one action alternative were analyzed in the EA.

The proposed project consists of drilling up to twelve temperature gradient / passive seismic monitoring wells, each to depths of approximately 2,500 to 3,500 feet. These wells are relatively shallow and will be of small diameter (4.5 inches or less). They are not intended to reach the geothermal resource and will not be deep enough to do so. Drilling will be done with small, truck-mounted equipment, similar to that used to drill domestic water wells. Individual drilling sites would be less than 100 feet x 100 feet in size (less than 0.23 acres for each site), and located on or along existing spur roads. No new road construction will be needed.

Chapter 2 of the EA fully describes the alternatives considered, elaborates on issues raised during scoping and identifies potential impacts related to the different alternatives.

### **Plan Conformance:**

The proposed project lying entirely within the boundaries of the Bend-Ft. Rock Ranger District, Deschutes National Forest, has been reviewed and found to be in conformance with the Deschutes National Forest Land and Resource Management Plan (1990 as amended) and associated Record of Decision.

### **Finding of No Significant Impact Determination:**

Based upon a review of the EA and the supporting documents, I have determined that the project is not a major federal action and will not significantly affect the quality of the human environment, individually or cumulatively with other actions in the general area. No environmental effects meet the definition of significance in context or intensity as defined in 40 CFR 1508.27 and do not exceed those effects described in the Deschutes National Forest LRMP as amended. Therefore, an environmental impact statement is not needed. This finding is based on the context and intensity of the project as described:

**Context:** The project is a site-specific action directly involving approximately 2.5 acres of Deschutes National Forest administered land at by itself does not have international, national, regional, or state-wide importance.

**Intensity:** The following discussion is organized around the Ten Significance Criteria described in 40 CFR 1508.27 and the additional criteria as required by the following Instruction Memorandum, Acts and Executive Orders: Instruction Memorandum No. 99-178, the Lacey Act, as amended; the Federal Noxious Weed Act of 1974; the Endangered Species Act of 1973, as amended; Executive Order 13112 on Invasive Species; Executive Order 12898 on Environmental Justice; Clean Water Act of 1987; Safe Drinking Water Act Amendments to the Clean Water Act of 1996; Executive Order 12088 on federal compliance with pollution control standards, as amended; Executive Order 12589 on Superfund compliance; and Executive Order dated July 14, 1982 on intergovernmental review of federal programs.

1. **Impacts may be both beneficial and adverse.** The proposed action would impact resources as described in Chapter 2, and 4 of the EA. Mitigations to reduce impacts to these resources were incorporated in the design of the action alternative. None of the environmental effects discussed in detail in the EA and associated appendices are considered significant, nor do the effects exceed those described in the Deschutes National Forest LRMP as amended.
2. **The degree to which the selected alternative will affect public health or safety.** The proposed action is designed to assess the geothermal resource potential on the western flank of Newberry Volcano for electrical power generation. There are no known or anticipated threats to public health or safety as a result of implementing the proposed action.
3. **Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farm lands, wetlands, wild and scenic**

- rivers, or ecologically critical areas.** The historic and cultural resources of the area have been inventoried and potential impacts mitigated in the design of the proposed action. There are no effects on park lands, prime farm lands, wetlands, wild and scenic rivers, or ecologically critical areas as a result of implementing the proposed action.
4. **The degree to which the effects on the quality of the human environment are likely to be highly controversial.** This action is not scientifically controversial. The proposed actions are similar, the same or consistent with numerous other permitted geothermal exploration activities throughout the western United States.
  5. **The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.** The project is not unique or unusual. The BLM has experience implementing similar actions in similar areas. The environmental effects to the human environment are fully analyzed in the EA. There are no predicted effects on the human environment that are considered to be highly uncertain or involve unique or unknown risks.
  6. **The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The actions considered in the preferred alternative were considered by the interdisciplinary team within the context of past, present, and reasonably foreseeable future actions. Significant cumulative effects are not predicted. A complete analysis of the effects of the preferred alternative and all other alternatives is described in Chapter 4 of the EA.
  7. **Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The interdisciplinary team evaluated the possible actions in context of past, present and reasonably foreseeable actions. Significant cumulative effects are not predicted. A complete disclosure of the effects of the project is contained in Chapter 4 of the EA.
  8. **The degree to which the action may adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The project will not adversely affect districts, sites, highways, structures, or other objects listed in or eligible for listing in the National Register of Historic Places, nor will it cause loss or destruction of significant scientific, cultural, or historical resources.
  9. **The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.** Mitigations to reduce impacts to wildlife and fisheries have been incorporated into the design of the action alternatives. No listed fish species occupy habitat within the project boundary or habitat adjacent and immediately downstream within watersheds of the project boundary. No other threatened or endangered plants or animals were observed in the area.

- 10. Whether the action threatens a violation of a Federal, State, Local, or Tribal law, regulation or policy imposed for the protection of the environment, where non-Federal requirements are consistent with Federal requirements.** The project does not violate any known Federal, State, Local or Tribal law or requirement imposed for the protection of the environment. State, local, and tribal interests were given the opportunity to participate in the environmental analysis process. Furthermore, the project is consistent with applicable land management plans, policies, and programs.
- 11. Comply with Executive Order 11988 (Floodplain Management), Executive Order 11990 (Protection of Wetlands), or the Fish and Wildlife Coordination Act (water resource development projects only).** There are no floodplains, wetlands or water resource projects involved in this project.
- 12. Involve unresolved conflicts concerning alternative uses of available resources (NEPA section 102(2)(E)) not already decided in an approved land use plan.** There are no unresolved conflicts not already approved in land use plans.
- 13. Have a disproportionate significant adverse impacts on low income or minority populations; Executive Order 12898 (Environmental Justice).** This project does not have a disproportionate significant adverse impacts on low income or minority populations; Executive Order 12898 (Environmental Justice).
- 14. Restrict access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites; Executive Order 13007 (Indian Sacred Sites). Have significant adverse effect on Indian Trust Resources.** This project does not restrict access to, and ceremonial use of, Indian sacred sites by Indian religious practitioners or adversely affect the physical integrity of such sacred sites; Executive Order 13007 (Indian Sacred Sites). This project does not have significant adverse effects on Indian Trust Resources.
- 15. Contribute to the introduction, existence, or spread of: Federally listed noxious weeds (Federal Noxious Weed Control Act); or invasive non-native species; Executive Order 13112 (Invasive Species).** This project does not contribute to the introduction, existence, or spread of: Federally listed noxious weeds or invasive non-native species.
- 16. Have a direct or indirect adverse impact on energy development, production, supply, and/or distribution; Executive Order 13212 (Actions to Expedite Energy-Related Projects).** This project does not have a direct or indirect adverse impact on energy development, production, supply, and/or distribution.

Approved By: \_\_\_\_\_ Date \_\_\_\_\_  
 District Manager