

**U.S. Department of the Interior  
Bureau of Land Management  
Gunnison Field Office  
DOI-BLM-CO-S060-2010-0030-EA**

**FONSI  
FINDING OF NO SIGNIFICANT IMPACT**

**INTRODUCTION:**

The BLM, Colorado State Office received two block nominations of lands within the Gunnison Field Office for competitive geothermal leasing. One block includes approximately 4,586 acres of public lands and 400 acres of private land with federal minerals estate. The second block includes approximately 3,765 acres of National Forest Service (NFS) lands under which the Gunnison Field Office (GUFO) manages the mineral estate. Leasing of that block has been analyzed by the Forest Service, as the lead agency, in a separate Environmental Assessment.

This EA (DOI-BLM-CO-S060-2010-0030-EA) evaluated the impacts on the natural and human environment that could result from issuing leases for geothermal resources. In addition, the EA was prepared to determine if the previous leasing availability decision was still valid in light of new information regarding resource values in the analysis area.

The nominated land includes approximately 4,586 acres of public lands and 400 acres of private land with federal minerals estate. The analysis area for this EA included the nominated BLM and private lands and additional BLM lands within an area identified as having high potential for geothermal development. There are approximately 5,525 acres in the analysis area.

The Proposed Action is to offer leases for geothermal resources on the nominated federal mineral estate and to attach lease stipulations necessary to protect resource values. 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.

Leasing geothermal resources by the BLM vests with the lessee a non-exclusive right to future exploration and an exclusive right to produce and use the geothermal resources within the lease area, subject to existing laws, regulations, formal orders, and the terms, conditions and stipulations in or attached to the lease form or included as conditions of approval to permits. 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.

There are several stages of decision making necessary to approve geothermal resource development, each with its own site-specific environmental analysis. The four stages of geothermal resource development within a lease are exploration, drilling operations, utilization, and reclamation and abandonment. Each stage requires additional site-specific environmental

analysis prior to issuance of a permit from the BLM. Also at each stage, the BLM can issue site-specific conditions of approval to protect resource values; the BLM would consult with the FS to issue site-specific conditions of approval on NFS lands. Geothermal exploration and production on Federal land conducted through leases is subject to terms and stipulations to comply with all applicable Federal and state laws pertaining to various considerations for tribal interests, sanitation, water quality, wildlife, safety, cultural resources, and reclamation.

### **FINDING OF NO SIGNIFICANT IMPACT DETERMINATION:**

Based on the analysis of potential environmental impacts contained in the referenced environmental assessment (EA), and considering the significance criteria in 40 CFR 1508.27, I have determined that neither the Proposed Action nor Alternative 3 will have a significant effect on the human environment. Therefore, preparation of an environmental impact statement is not necessary. This finding is based on the context and intensity of the proposal outlined below.

#### **Context:**

The Proposed Action, as well as Alternative 3, is to offer a lease for federal mineral estate geothermal resources on nominated federal and private lands in Gunnison County, Colorado. The lease area includes the following lands:

NMPM, T.48N., R.3E., sec. 1, lots 5-10;  
T.49N., R.3E., sec. 25, E $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$   
T.48N., R.4E., sec. 5, lots 5-18,  
sec. 6, lots 8-23,  
sec. 7, N $\frac{1}{2}$ NE $\frac{1}{4}$ , NE $\frac{1}{4}$ NW $\frac{1}{4}$ ,  
sec. 8, NW $\frac{1}{4}$ NE $\frac{1}{4}$ , N $\frac{1}{2}$ NW $\frac{1}{4}$ ,  
T.49N., R.4E., sec. 19, SE $\frac{1}{4}$ ,  
sec. 20, N $\frac{1}{2}$ N $\frac{1}{2}$ , SW $\frac{1}{4}$ NE $\frac{1}{4}$ , S $\frac{1}{2}$ NW $\frac{1}{4}$ , N $\frac{1}{2}$ SW $\frac{1}{4}$ , NW $\frac{1}{4}$ SE $\frac{1}{4}$ ,  
sec. 29, lots 1-4, S $\frac{1}{2}$ N $\frac{1}{2}$ , S $\frac{1}{2}$ ,  
sec. 30, lots 5-11, E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$ ,  
sec. 31, lots 5-11, NE $\frac{1}{4}$ , E $\frac{1}{2}$ NW $\frac{1}{4}$ , NE $\frac{1}{4}$ SW $\frac{1}{4}$ , N $\frac{1}{2}$ SE $\frac{1}{4}$ ,  
sec. 32, lots 1-4, N $\frac{1}{2}$ , N $\frac{1}{2}$ S $\frac{1}{2}$ .

#### **Intensity:**

The Council on Environmental Quality (CEQ) regulations include the following ten considerations for evaluating intensity (40 CFR 1508.27):

#### **Impacts that may be both beneficial and adverse:**

None of the environmental effects discussed in detail in the EA are considered significant, nor do the effects exceed any known threshold of significance, either beneficial or adverse. The Proposed Action, as well as Alternative 3, is to offer a geothermal lease and is not a surface disturbing activity.

**Public health and safety:**

The Proposed Action, as well as Alternative 3, is to offer a geothermal lease which is not a surface disturbing activity. However, it is reasonable to expect resource exploration and development, which could affect public health or safety, may occur after a lease is issued. There are several stages of decision making necessary to approve geothermal resource development, each with its own site-specific environmental analysis. At each stage, the BLM can issue site-specific conditions of approval to protect resource values and health and safety. Geothermal exploration and production on Federal land conducted through leases is subject to terms and stipulations to comply with all applicable Federal and state laws pertaining to various considerations for tribal interests, sanitation, water quality, wildlife, safety, cultural resources, and reclamation.

**Unique characteristics of the geographic area:**

There are no prime or unique farmlands, wild or scenic rivers, designated wilderness or wilderness study areas, or areas of critical environmental concern in the analysis area. The area does include known cultural resources. Cultural resources would be protected by a No Surface Occupancy (NSO) lease stipulation, as well as by site-specific conditions of approval applied to any subsequent permitted surface-disturbing activities. Wetlands in the area would be similarly protected by NSO and Controlled Surface Use (CSU) lease stipulations and site-specific conditions of approval.

**Degree to which effects are likely to be highly controversial:**

There are essentially no direct effects of the Proposed Action or Alternative 3 on the human or natural environment. The lack of effects due to leasing is not likely to be controversial. Any subsequent proposals for surface-disturbing activities would be subject to site-specific environmental analysis. BLM conducted public involvement in a manner that allows us to adequately gauge public sentiment and concerns.

**Degree to which effects are highly uncertain or involve unique or unknown risks:**

The lack of effects due to leasing geothermal resources under the Proposed Action or Alternative 3 is relatively certain. Generally, the effects of geothermal development are not highly uncertain, nor are they characterized by unique or unknown risks. Geothermal development has been occurring in other areas of the western United States for decades. Similarly, oil and gas development has been occurring in other areas of Colorado. The potential effects of any subsequent proposals for surface-disturbing activities would be subject to site-specific environmental analysis, and based on such information and the BLM's knowledge of the local resource, would be reasonably predictable.

**Consideration of whether the action may establish a precedent for future actions with significant impacts:**

The issuance of a geothermal lease will not create a precedent for future actions with significant effects nor does it represent a decision in principle about a future consideration. The Gunnison Resource Area Resource Management Plan (as amended by the Record of Decision for Geothermal Leasing in the Western United States, December 2008) allocated much of the Gunnison Field Office as open for geothermal leasing, subject to existing laws, regulations, formal orders, stipulations attached to the lease form, and the terms and conditions of the

standard lease form. 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.

**Consideration of whether the action is related to other actions with cumulatively significant impacts:**

There are essentially no cumulative effects of issuing a geothermal lease. The potential cumulative effects of developing a geothermal lease are expected to be minimal, given the application of protective lease stipulations and conditions of approval for any subsequent ground-disturbing exploration and/or development permits. Each stage of development requires additional site-specific environmental analysis prior to issuance of a permit from the BLM.

**Scientific, cultural, or historical resources, including those listed in or eligible for listing in the National Register of Historic Places:**

As described in section 3.7.2 of the EA, the proposed action 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. Per existing stipulations, all eligible and listed cultural resources would be avoided within the proposed lease area.

**Threatened or endangered species and their critical habitat:**

Leasing of geothermal resources does not directly affect threatened or endangered species or habitat. These resources would be affected only by development of specific geothermal projects. Threatened or endangered species and habitat would be evaluated on a project-specific basis, as environmental analyses would be conducted for each of the potential phases of geothermal development activity.

As described in the EA, the only threatened or endangered species or habitat that could potentially be impacted in the analysis area is Canada lynx. There is no lynx habitat on BLM lands; there are approximately 72 acres mapped as 'other' lynx habitat and 92 acres mapped as "winter/denning" lynx habitat on the private land.

The Proposed Action, as well as Alternative 3, includes a lease stipulation in accordance with the Endangered Species Act, Section 7 consultation. In addition, they include a Lease Notice specific to Canada lynx informing a potential lessee of the presence of Canada lynx habitat on the private surface portion of the analysis area. BMP's would be applied as Conditions of Approval to any exploration and/or development permits to avoid, minimize, or mitigate impacts to lynx habitat. It is expected that these measures would effectively minimize impacts on lynx by maintaining habitats and minimizing human caused habitat destruction, degradation, and fragmentation.

The Proposed Action, as well as Alternative 3, includes lease stipulations and a lease notice for the protection of Gunnison sage-grouse (currently a candidate species) and habitat. The lease stipulations and lease notice, in addition to best management practices applied as Conditions of Approval to any subsequent permitting would help to avoid, minimize, or mitigate impacts to Gunnison sage-grouse.

**Any effects that threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment:**

As described in the EA, neither the Proposed Action nor Alternative 3, violate any known Federal, State, or local law or requirement imposed for protection of the environment. Specialists from BLM Gunnison Field Office, as well as representatives from various cooperating federal, state, and local agencies/governments, were involved in preparation of the EA. Officials from Gunnison County, the Northern Ute Tribe, Ute Mountain Ute Tribe, and Southern Ute Tribe were notified of the proposal.

SIGNATURE OF AUTHORIZED OFFICIAL:

  
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Brian St. George  
Field Manager  
BLM Gunnison Field Office

3/24/11  
\_\_\_\_\_  
Date

