Bureau of Land Management
Boise District Office
Four Rivers Field Office
3948 Development Ave
Boise, ID 83705
http://www.id.blm.gov

Determination of Land Use Plan Conformance and NEPA Adequacy (DNA)
U.S. Department of the Interior - Bureau of Land Management

A. BLM Office: Bruneau Field Office

NEPA Log Number: DOI-BLM-ID-B020-2010-3864-DNA

Lease/Serial Case File No.: IDI-36106, 36107, 36108, 36109, 36110, and 36111

Proposed Action Title/Type: Castle Creek Geothermal Lease Nomination

Location/Legal of Proposed Action: Please see attached maps.

IDI-36106:
T. 6 S., R. 1 E., Boise Meridian
Sections 12, 13, 24, 25 - All
T. 6 S., R. 2 E., Boise Meridian
Section 17 - All
Section 7 - E2, E2W2, Lots 1-4
Section 18 - E2, E2W2, Lots 1-4
Add: Section 19 - All
5089.8 Acres
Owyhee County
Bruneau Field Office

IDI-36107:
T. 6 S., R. 2 E., Boise Meridian
Sections 20, 21, 22, 26, 27, 28, 29 - All
Section 30 - E2, E2W2, Lots 1-4
5116.960 Acres
Owyhee County
Bruneau Field Office

IDI-36108:
T. 6 S., R. 2 E., Boise Meridian
Sections 32, 33, 34, 35 - All
Section 3 - S2, S2N2, Lots 1-4

Section 4 - S2, S2N2, Lots 1-4
Section 5 - S2, S2N2, Lots 1-4
4464.850 Acres
Owyhee County
Bruneau Field Office

IDI-36109:
T. 7 S., R. 2 E., Boise Meridian
Sections 8, 9, 10, 15, 17 - All
3200 Acres
Owyhee County
Bruneau Field Office

IDI-36110
T. 5 S., R. 1 E., Boise Meridian
Sec. 13 – N2NE, W2, SWSE;
Sec. 14 – All;
Sec. 15 – E2, NENW, S2NW, SW;
Sec. 20 – NE, W2, W2SE;
Sec. 21 – E2, NWNW;
Sec. 22 – All;
Sec. 23 – All;
Sec. 24 – W2NE, W2, SE.
4,440 acres
Owyhee County, Idaho
Bruneau and Owyhee Field Offices

IDI-36111:
T. 5 S., R. 1 E., Boise Meridian
Sections 26, 27, 32, 33, 34 - All
Section 28 - S2NW, SW, NE, SE, SWNW
3760.0 Acres
Owyhee County
Bruneau Field Office

Section 29 - NWNE, SWNE, NW, SW, NWSE
440.0 Acres
Owyhee County
Owyhee Field Office

Applicant (if any): The names of applicants for geothermal leases are confidential until the lease is sold. Six nominations were received by the Idaho State Office of the Bureau of Land Management to have selected lands made available for lease.

Description of the Proposed Action and any applicable mitigation measures:

The proposed action is to offer for lease at competitive sale, geothermal leases on the above listed legal land descriptions (Map of Nominated Parcels). The lands are in the Castle Creek area, southwest of Grand View, Idaho. The lease sale would be offered in six parcels totaling approximately 26,431.6 acres. Recommend that Section 19, T. 6 S., R. 2 E., be added to IDI-36106. The added parcel was not nominated by the proponent, but would be included in the nomination for lease sale. This is to prevent an isolated tract of non-leased land from being created with the requested nominated lands.

Based on the PEIS and the Idaho Sage-Grouse Management Plan, the following stipulations are recommended in addition to the standard lease terms and conditions:

No Surface Occupancy (NSO) Lease Stipulations

Riparian, Wetland and Floodplain Stipulation:

On water bodies, riparian areas, wetlands, and 100-year floodplains, site specific analysis would be required to determine the 100-year floodplain boundary within this lease.

The 100-year floodplains, wetlands, and riparian areas, and perennial stream courses would be closed to any new permanent facilities.

This stipulation may be waived, excepted, or modified by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Slopes

No new permanent facilities would be allowed on slopes in excess of 40 percent and/or on soils with high erosion potential. This stipulation would be applied to minimize the potential for adverse impacts to erosive soils defined as severe or very severe erosion classes based on Natural Resources Conservation Service (NRCS) mapping.

Bighorn Sheep Habitat

No surface occupancy would occur in yearlong California bighorn sheep habitat as defined by the Idaho Department of Fish and Game, and shown on the attached big game map. This area may be used by bighorn sheep for lambing, breeding, and winter activities so disturbance associated with surface activities could adversely affect the species. Waivers, exceptions or modifications to this limitation may be specifically approved in writing by the authorized officer

of the BLM if either the resource value changes or the lessee/operator demonstrates that adverse impacts can be mitigated.

Back Country Byway Designation

This stipulation is to protect scenic values within one half mile either side of the Mud Flat Road, also known as the Owyhee Back Country Byway where it passes through Section 15, T. 7 S., R. 2 E..

Timing Limitations (TL) and Controlled Surface Use (CSU) Lease Stipulations

Water Resources

No surface disturbing activity would be allowed within 500 feet of water bodies, riparian areas, wetlands, and 100-year floodplains, or perennial streams, and within 100 feet of inner gorge of intermittent/ ephemeral streams unless site-specific analysis determines that no adverse impacts would occur.

Riparian and wetland habitat includes the presence of riparian vegetation even without surface water being present. Additionally, this includes all springs, even when seasonally non-flowing.

Protection of erosive soils and soils on slopes greater than 30 percent

Best management practices would be required on site by site basis to protect erosive soils defined as severe or very severe erosion classes based on Natural Resources Conservation Service (NRCS) mapping or slopes greater than 30 percent. The best management practices would include, but not be limited to, stockpiling, mulching, and seeding with BLM approved seed and monitoring the seeding for successful germination and establishment.

Sage-grouse

Prior to authorization of surface disturbing activities, the area would be surveyed for the presence of active sage grouse leks within key sage grouse habitat as shown in the attached map of Key Sage-grouse Habitat. Lekking activity starts in mid March, depending on seasonal weather. If active leks are present, defined as being used at least once in a five-year period, the following stipulations would be recommended:

1) Sage-grouse Leks Timing Limitation (TL): No exploration or drilling activities would be allowed from March 15 to May 1 from 1800-0900 hrs within 2 miles (3.2 km) of active sage-grouse leks (Conservation Plan for the Greater Sage-grouse in Idaho, 2006). Additionally, during the exploration and development phases, lek surveys would be conducted each year from March 15 to May 1 prior to any ground disturbing activity to determine if new lek sites have been established. These surveys would be conducted in key sagebrush habitat within the lease parcels, and extend two miles from the lease parcels. This stipulation would not apply to operation and maintenance phase of production facilities.

2) Sage-grouse Nesting Controlled Surface Use (CSU): No wells, geothermal plants, power lines, pipelines, or other such permanent structures that would fragment or degrade nesting habitat would be permitted within 2 miles of an active sage grouse lek within key sagebrush habitat identified on the Idaho Greater Sage-grouse Habitat Planning map. An active lek is defined as one that is used in at least one of the past five years. If an active sage-grouse lek is identified after the beginning of geothermal activities, there would be no increase in ground-disturbing activities or constructed features beyond what existed when the lek was first identified. This portion of the stipulation (active lek found after onset of activities) does not apply to operation and maintenance of production facilities. This stipulation may be waived or modified by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Big Game

Crucial Winter Habitat for Antelope and Mule Deer TL: No surface use other than casual use would be allowed during November 1 through March 31 on antelope and deer winter range shown on Big Game map. This stipulation does not apply to operation and maintenance of production facilities. This stipulation may be waived or modified by the authorized officer if either the resource values change or the lessee/operator demonstrates that adverse impacts can be mitigated.

Other Lease Stipulations

Surface Thermal Springs or Features

As exploration and development activities commence, the lessee may be required to institute a hydrologic monitoring program commensurate with the level of activity.

Endangered Species Act Stipulation

In accordance with BLM Instruction Memorandum No. 2002-174, the BLM would apply the following stipulation on any leases where threatened, endangered, or other special status species or critical habitat is known or strongly suspected.

The lease area may now or hereafter contain plants, animals, or their habitats determined to be threatened, endangered, or other special status designation. BLM may recommend modifications to exploration and development proposals to further its conservation and management objectives to avoid BLM-approved activities that would contribute to a need to list such a species or their habitat. BLM may require modifications to or disapprove proposed activity that is likely to result in jeopardy to the continued existence of a proposed or listed threatened or endangered species or result in the destruction or adverse modification of a designated or proposed critical habitat. BLM would not approve any ground-disturbing activity that may affect any such species or critical habitat until it completes its obligations under applicable requirements of the

Endangered Species Act as amended, 16 USC 1531 et seq., including completion of any required procedure for conference or consultation.

Cultural Resources Stipulation

In accordance with BLM Instruction Memorandum No. 2005-003, the BLM would apply the following stipulation 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 BLM 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.

Split Estate Stipulation

On split estate lands, lessee is responsible for making a good faith effort to reach access arrangements with the surface owner of such lands prior to entry upon the lands. Lessee must certify to the BLM that a good faith effort was made to reach a surface use agreement with the surface owner. If good faith efforts to obtain a surface use agreement fail, lessee must submit a Damages Bond (minimum $1,000) to the BLM for the benefit of the surface owner to cover loss or damages to crops or tangible improvements.

Recommended Lease Notices

Sensitive species

The proposed parcels occur within the range of the greater sage-grouse, a sensitive species. The United States Fish and Wildlife Service is currently reviewing the status of the sage grouse for listing as threatened or endangered. If sage grouse are later listed as threatened or endangered, consultation with the US Fish and Wildlife Service would be required before any ground disturbing activity could be allowed.

The lease may, in part or in total, contain important greater sage-grouse habitat as identified by the BLM, either currently or potentially. The operator may be required to implement specific measures to reduce impacts of geothermal operations on the greater sage-grouse populations and habitat quality. Such measures would be developed during the Geothermal Drilling Permit (GDP) environmental review process and would be consistent with the lease rights granted.

Sensitive animal species may exist within the proposed lease area. Additional site specific surveys may be required prior to any ground disturbing activity.

Seven sensitive plant species are known to exist in the area. They are Janish's penstemon (*Penstemon janishiae*), Shockey's matted buckwheat (*Eriogonum shockleyi* var.*packardiae*), desert pincushion (*Chaenactis steviodes*), white-margined wax plant (*Glyptopleura marginata*), white eatonella (*Eatonella nivea*), spreading gilia (*Ipomopsis polycladon*), and Snake River milkvetch (*Astragalus purshii* var. o*phiogenes*). Suitable habitat exists or may exist for the seven sensitive plant species; therefore, additional site specific surveys would be required prior to any ground disturbing activity.

Paleontological and Cultural Resources

Before any specific permits are issued under leases, treatment of cultural resources would follow the procedures established by the Advisory Council on Historic Preservation for compliance with Section 106 of the National Historic Preservation Act. A pedestrian inventory would be undertaken of all portions that have not been previously surveyed or are identified by BLM as requiring inventory to identify properties that are eligible for the NRHP. Those sites not already evaluated for NRHP eligibility would be evaluated based on surface remains, subsurface testing, archival, and/or ethnographic sources. Subsurface testing would be kept to a minimum whenever possible if sufficient information is available to evaluate the site or if avoidance is an expected mitigation outcome. Recommendations regarding the eligibility of sites would be submitted to the BLM, and a treatment plan would be prepared to detail methods for avoidance of impacts or mitigation of effects. The BLM would make determinations of eligibility and effect and consult with SHPO as necessary based on each proposed lease application and project plans. The BLM 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. Avoidance of impacts through project design would be given priority over data recovery as the preferred mitigation measure. Avoidance measures include moving project elements away from site locations or to areas of previous impacts, restricting travel to existing roads, and maintaining barriers and signs in areas of cultural sensitivity. Any data recovery would be preceded by approval of a detailed research design, Native American Consultation, and other requirements for BLM issuance of a permit under the Archaeological Resources Protection Act.

If cultural resources are present at the site, or if areas with a high potential to contain cultural material have been identified, a cultural resources management plan (CRMP) would be developed. This plan would address mitigation activities to be taken for cultural resources found at the site. Avoidance of the area is always the preferred mitigation option. Other mitigation options include archaeological survey and excavation (as warranted) and monitoring. If an area exhibits a high potential, but no artifacts were observed during an archaeological survey, monitoring by a qualified archaeologist could be required during all excavation and earthmoving in the high potential area. A report would be prepared documenting these activities. The CRMP also would (1) establish a monitoring program, (2) identify measures to prevent potential looting/vandalism or erosion impacts, and (3) address the education of workers and the public to make them aware of the consequences of unauthorized collection of artifacts and destruction of property on public land (BLM 2005).

Operators would determine whether paleontological resources exist in a project area on the basis of the sedimentary context of the area, a records search for past paleontological finds in the area, and/or depending on the extent of existing information, a paleontological survey.

If paleontological resources are present at the site, or if areas with a high potential to contain paleontological material have been identified, a paleontological resources management plan would be developed. This plan would include a mitigation plan for avoidance, removal of fossils, or monitoring. If an area exhibits a high potential but no fossils were observed during survey, monitoring by a qualified paleontologist may be required during excavation and earthmoving in the sensitive area. The operator would submit a report to the agency documenting these activities. The paleontological resources management plan also would (1) establish a monitoring program, (2) identify measures to prevent potential looting/vandalism or erosion impacts, and (3) address the education of workers and the public to make them aware of the consequences of unauthorized collection of fossils on public land.

B. Conformance with the Land Use Plan (LUP) and Consistency with Related Subordinate Implementation Plans

LUP/Document[1]	Sections/Pages	Date Approved
Bruneau Management Framework Plan	Minerals M-1.1	March 22, 1983
Owyhee Resource Management Plan (RMP) Record of Decision (ROD)	Objective FLUM 1, page 33-34	December 30, 1999
Programmatic Environmental Impact Statement (PEIS) for Geothermal Leasing in the Western United States ROD	ROD pg. 1-11	December 17, 2008

[1]List applicable LUPs (e.g., Resource Management Plans, Management Framework Plans, or applicable amendments) and activity, project, management, water quality restoration, or program plans.

The proposed action is in conformance with the applicable LUPs because it is specifically provided for in the following LUP decisions as amended by the Geothermal Leasing in the Western United States PEIS ROD, pg. 1-11.:

In the Bruneau Management Framework Plan (MFP), Minerals 1-1 “Allow oil and gas and geothermal leasing in the unit consistent with regulations, laws and other resource uses, except where specifically withdrawn. Apply the Idaho Standard Stipulations and other reasonable special stipulations to minimize or alleviate conflicts, as outlined in EA ID-01-246, 299 and ID-01-0-40. This will allow any other stipulations to be included to protect other resources or uses as deemed necessary at the time of issuance”

The Owyhee RMP states on page 33 “Provide opportunities for exploration and development of oil and gas and geothermal resources on public lands by imposing the least restrictive leasing categories necessary to protect other resources.”

C. Identify applicable NEPA documents and other related documents that cover the Proposed Action. List by name and date other documentation relevant to the proposed action (e.g., biological assessment, biological opinion, watershed assessment, allotment evaluation, and monitoring report).

NEPA/Other Related Documents	Sections/Pages	Date Approved
Programmatic Environmental Impact Statement (PEIS) for Geothermal Leasing in the Western United States Record of Decision	Entire document	December 17, 2008

D. NEPA Adequacy Criteria

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

The proposed action is the same as that analyzed in the PEIS Geothermal Leasing in the Western United States, pages 2-1 through 2-32 of Volume I. The PEIS amended both the Bruneau MFP and Owyhee RMP, and provides a more current analysis than that of either the MFP or RMP EIS.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, resource values, and circumstances?

Yes. The PEIS for Geothermal Leasing in the Western United States analyzed three alternatives (Alternative A - No Action, Alternative B - Proposed Action, and Alternative C - Leasing Near Transmission Lines), of which Alternative B was the preferred alternative that was selected for the PEIS. A description of Alternative B is given starting on page 2-1 of Volume I of the PEIS. Because no ground disturbing activity would be authorized, the range of alternatives analyzed is appropriate. This analysis was erroneously initiated as a Categorical Exclusion, and was subsequently changed to this analysis.

3. Is the existing analysis adequate and are the conclusions adequate in light of any new information or circumstances (e.g., riparian proper functioning condition reports; rangeland health standards assessments; inventory and monitoring data; most recent USFWS lists of threatened, endangered, proposed, and candidate species; most recent BLM lists of sensitive species)? Can you reasonably conclude that all new information and all new circumstances would not substantially change the analysis of the new proposed action?

Yes. There have been no new issues have been identified since the PEIS was signed in December, 2008, for the area identified. Clearance reports submitted by resource staff identified several issues that bear discussion in this document. These issues include key sage-grouse habitat, crucial winter range for deer and antelope, habitat for bighorn sheep, and several sensitive species that are known to inhabit the area. Additionally, correspondence in the form of an e-mail was received from an interested public discussing several of the same issues as those raised by the resource staff. Specific stipulations have been added in Section A above in response to these issues. Additionally, any ground disturbing activity that is proposed subsequent to the lease would be analyzed separately

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Yes. Results of the lease sale would not result in any direct or indirect effects that were not analyzed in the PEIS. While no ground disturbing activity would be authorized by the lease sale, it is anticipated that activities associated with geothermal energy could occur as a result of the lease sale. Any activity associated with the lease would be analyzed separately as the activity is proposed.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current Proposed Action?

Yes. The PEIS was made available for public scoping and comment. The PEIS for Geothermal Leasing was announced in the Federal Register June 13, 2007. Public input was solicited through several avenues, including public meetings in the 11 affected western states and Alaska. These meetings were advertised through newspaper notices, a website devoted to the PEIS, project newsletter with a mailing list of approximately 1,600 recipients, electronic mail as well as newspaper articles and trade publications. There were approximately 175 attendees at the scoping meetings who provided 101 verbal comments at these meetings. Written comments were also received, 79 in various forms were received and cataloged. Table 6-1, which starts on page 6-13, is a consultation invitation list.

E. Persons/Agencies /BLM Staff Consulted

Name	Title	Resource/Agency Represented
Arnold Pike	Field Office Manager	Bruneau Field Office
Tim Carrigan	Assistant Field Office Manager	Bruneau Field Office
Matthew McCoy	NEPA Specialist	Boise District BLM
Karen Porter	Geologist, Leasable Minerals	Idaho State Office BLM
Rebecca Lange	Geologist, Fluid Minerals	Idaho State Office BLM
Lois Palmgren	Archaeologist	Bruneau Field Office
Kavi Koleini	Ecologist	Bruneau Field Office
Dave Draheim	Outdoor Recreation Planner	Bruneau Field Office
Holly Beck	Botanist	Bruneau Field Office
Forrest Griggs	Geologist	Bruneau Field Office

Note: Refer to the EIS for a complete list of the team members participating in the preparation of the original environmental analysis or planning documents.

F. Mitigation Measures: List any applicable mitigation measures that were identified, analyzed, and approved in relevant LUPs and existing NEPA document(s). List the specific mitigation measures or identify an attachment that includes those specific mitigation measures. Document that these applicable mitigation measures have been incorporated and implemented.

No mitigation measures beyond the stipulations and recommended lease notices were identified.

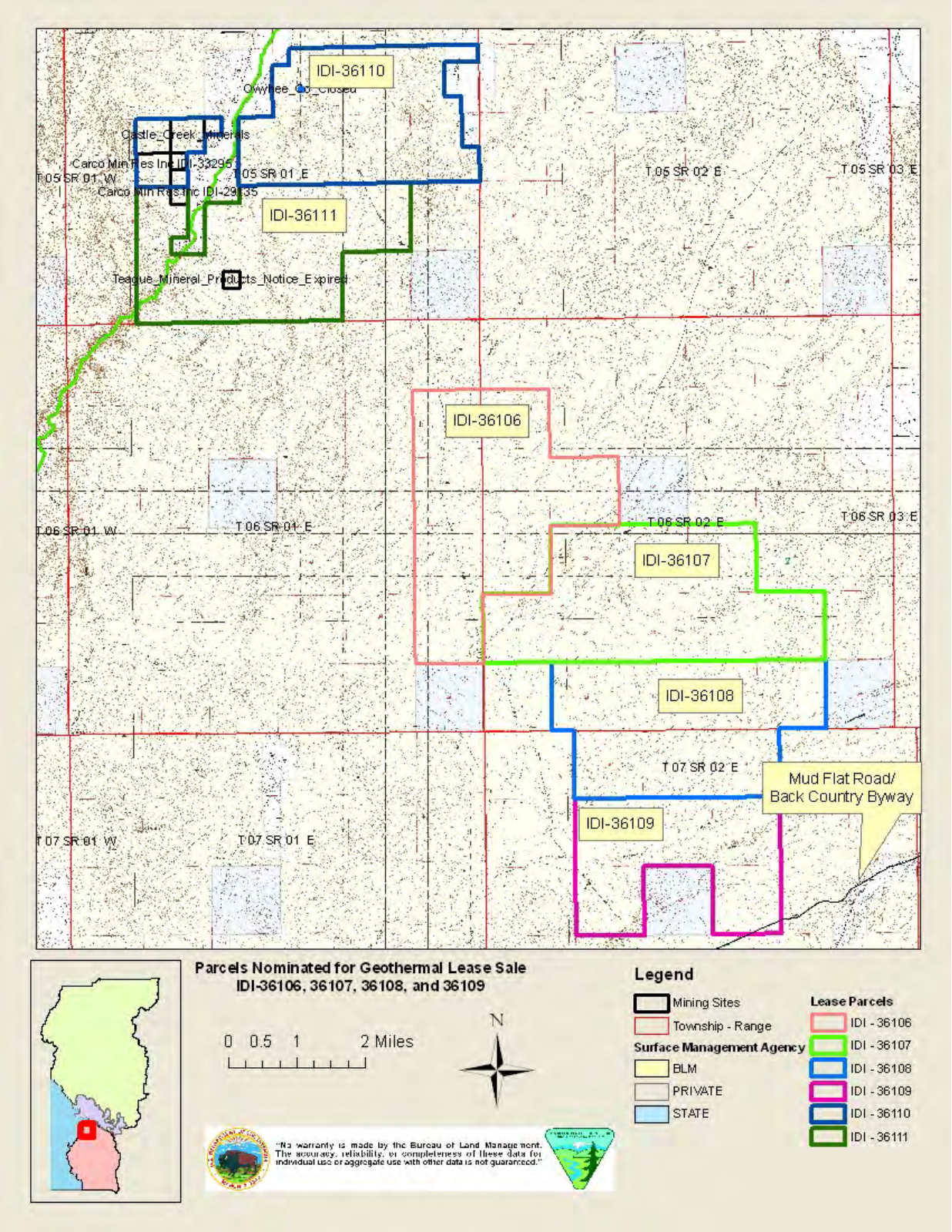
G. Conclusion (*If you found that one or more of these criteria is not met, you will not be able to check this box.*)

X	Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the NEPA documentation fully covers the proposed action and constitutes BLM's compliance with the requirements of NEPA.

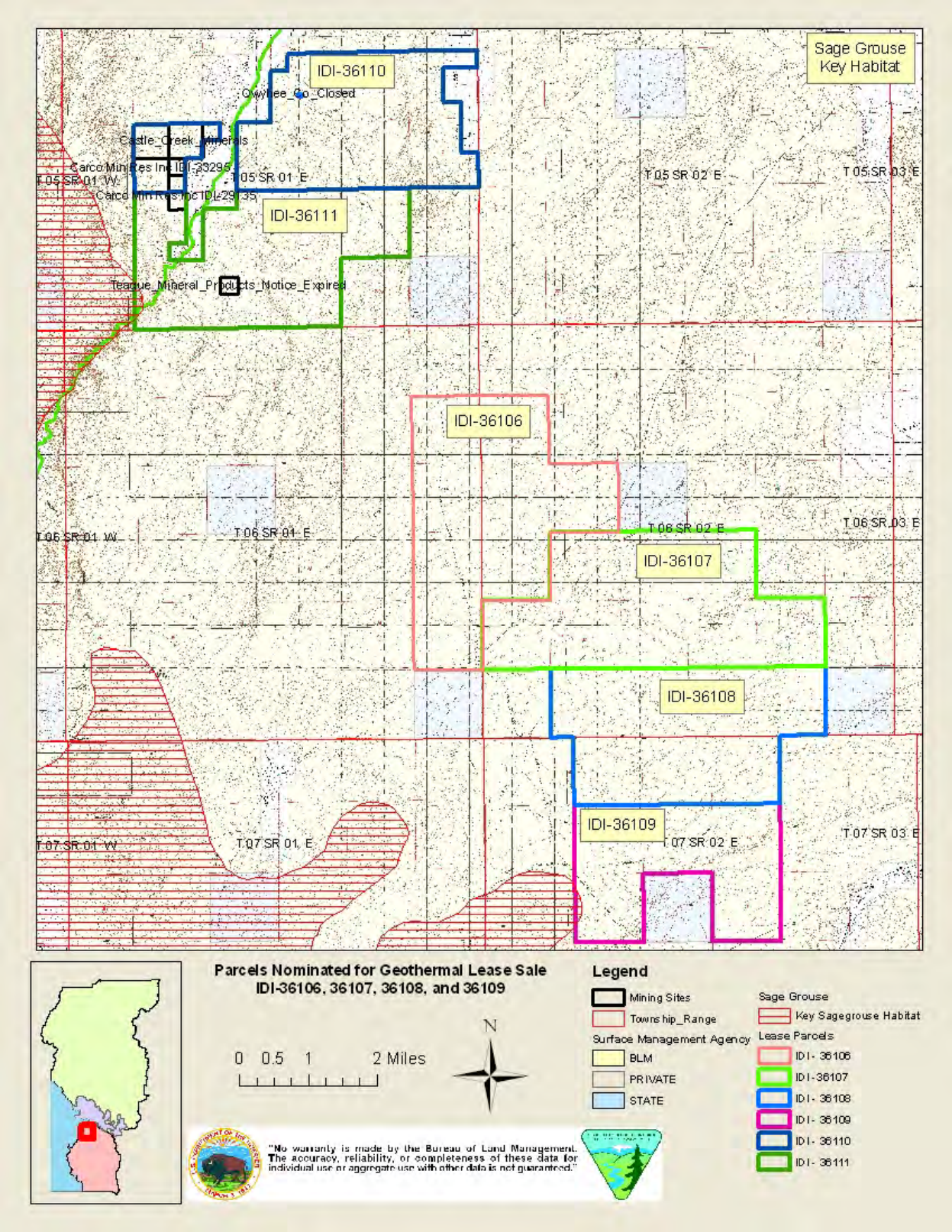
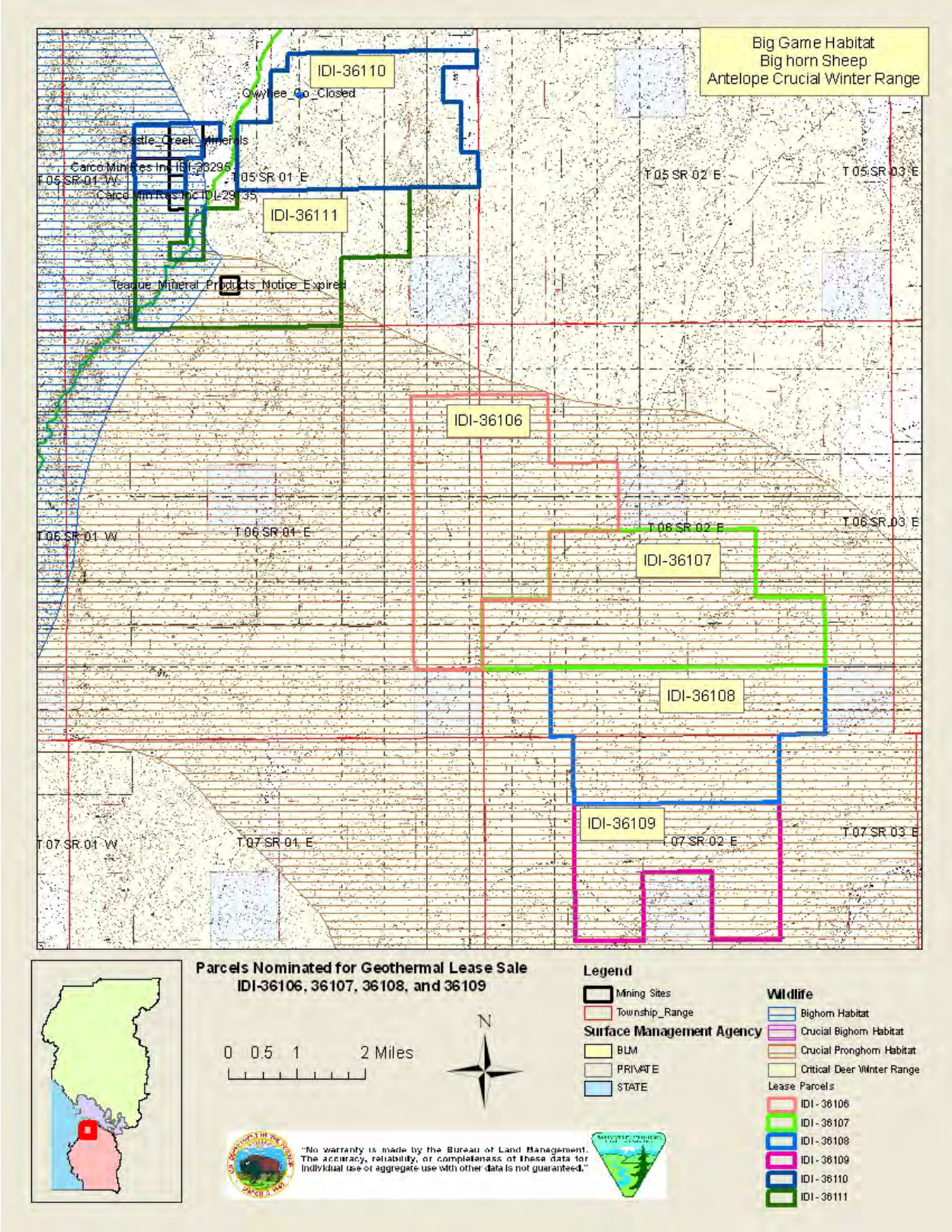
/s/ Forrest Griggs	12/23/2009
Preparer	Date
/s/ Matthew McCoy	12/23/09
NEPA Specialist	Date
/s/ Arnold L Pike	12/23/09
Bruneau Field Manager	Date

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations.

Map of Nominated Parcels



Map of Key Sage-grouse Habitat



Map of Big Game Habitat