Bureau of Land Management  
Winnemucca District Office

Field Office(s): [X] HRFO  [ ] BRFO

Categorical Exclusion  
Team Review

Applicant: NV Bureau of Mines and Geology
Proposal: Desert Queen Geothermal Gradient Well N091276
CX#: DOI-BLM-NV-W010-2012-0061-CX

Prepared By: Phil D’Amo  
Date: 9/25/12

<table>
<thead>
<tr>
<th>Name/Title</th>
<th>Resource/Agency Represented</th>
<th>Signature/Date</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mark Hall</td>
<td>Cultural Resources</td>
<td></td>
<td>Mark E. Hall 10/03/12  Class III survey needed</td>
</tr>
<tr>
<td>Mark Hall</td>
<td>Native American Consultation</td>
<td></td>
<td>Mark E. Hall 10/03/12  Consult letter to PLT &amp; Fallon</td>
</tr>
<tr>
<td>Nancy Spencer-Morris</td>
<td>T&amp;E (plants and animals)</td>
<td></td>
<td>Nancy Spencer-Morris 10/09/12</td>
</tr>
<tr>
<td>Phil D’Amo</td>
<td>Minerals</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Continue the list of specialties as necessary ..........
Bureau of Land Management
Winnemucca District Office
HRFO (W010)

Categorical Exclusion

CX#: DOI-BLM-NV-W010-2012-0061-CX

Date: 8/15/2012

Lease / Case File / Serial #: N091276

Regulatory Authority (CFR or Law): 43 CFR Subpart 3250

BLM Manual: N/A

Subject Function Code: 3250

Is the project located within a Preliminary Priority Habitat? ☑Yes ☐No

Is the project located within a Preliminary General Priority Habitat? ☐Yes ☑No

Is the project located within a National Landscape Conservation System feature (NCA, Wilderness, WSA, ISA, Scenic or Historic Trails)? ☐Yes ☑No

1. BLM District Office: Winnemucca District Office

2. Name of Project Lead: Philip Lorimer D’Amo

3. Project Title: Desert Queen Geothermal Gradient Well Drilling

4. Applicant: Nevada Bureau of Mines and Geology

5. Project Description: (briefly describe who, what, when, where, why, how)

NBMG has submitted a NOI for geothermal exploration to conduct Geothermal Gradient Well Drilling in the Desert Queen area on Public lands intended to gather information with the intent on improving the methods and accuracy of geothermal exploratory operations. Exploration activities would be performed in a time frame between approval of the NOI and 12/30/13. The geothermal gradient well drilling would include no more than 2 total wells out of a proposed 7 wells. Four of these proposed well locations are in the Humboldt River Field Office jurisdiction at Desert Queen while the other 3 are being proposed under the Black Rock Field Office jurisdiction at Pinto Hot Springs. These wells are proposed to be drilled to a total depth of 1000 feet. The first portion of the hole is planned to be drilled to 250 feet at a diameter of 8.5 inches. A 7 inch surface casing would be cemented in place with class C cement. A 6 1/8 inch drill bit would then be used to drill the remaining 750 feet.

NBMG proposed to have surveyed the route to, and the area of, the proposed drilling by the use of a qualified archeologist. If resources are identified in the proposed test route, the path of the equipment would be rerouted to avoid archeological resource occurrences. If sites cannot be
avoided, the drilling location would be eliminated.

Project dimensions (length, width, height, depth): 100 feet by 100 feet for each of the two possible locations.
Total Acres: 0.46 acres
BLM Acres: 0.46 acres

Will the project result in new surface disturbance? ☒ Yes ☐ No

Has the project area been previously disturbed? ☐ Yes ☒ No ☐ N/A
If yes, what percent of the project area has been disturbed? 0%. If only part of the project area has been disturbed, indicate disturbed area on map. Describe disturbance (and attach photo of disturbed area if you have one):

6. Legal Description:
   T. 22 S., R. 28 E., sec. 8, NE 1/4, NE 1/4
   T. 22 S., R. 28 E., sec. 8, N 1/2, SW 1/4
   T. 22 S., R. 28 E., sec. 18, N 1/2, NE 1/4

USGS 24k Quad name: Parran and Desert Peak
100k map name: Carson Sink
Land Status: ☒ BLM ☐ Private ☐ Other

Part I: Plan Conformance Review
The Proposed Action is subject to the:
☐ Paradise-Denio Management Framework Plan
☒ Sonoma-Gerlach Management Framework Plan
☐ Black Rock Desert-High Rock Canyon Emigrant Trails NCA and Associated Wilderness and Other Contiguous Lands in Nevada RMP

The proposed action is in conformance with the applicable Land Use Plan (LUP) because it is specifically provided for in the following LUP decision(s):

M 5.1 - Make no land use decision that would interfere with or prevent geothermal leasing, exploration, and/or development on public lands, or any other lands containing federally owned minerals, classified by the U.S. Geological Survey as Prospectively Valuable for Geothermal Resources, or land classification as Known Geothermal Resource Areas (KGRA).

Part II: NEPA Review
Categorical Exclusion Review: This Proposed Action qualifies as a categorical exclusion under:

☐ 43 CFR 46.210 DOI Implementation of NEPA of 1969, Listing of Departmental Categorical Exclusions (formerly 516 DM2 Appendix I)

☒ 516 DM 11.9, (BLM) B.6. Approval of Notices of Intent to conduct geophysical

Revised 01/12
exploration of oil, or gas, or geothermal, pursuant to 43 CFR 3150 or 3250, when no temporary or new road construction is proposed.
**ESA and BLM Sensitive Status Species**

<table>
<thead>
<tr>
<th>Evaluation Criteria</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Are species listed under the Endangered Species Act likely to occur in the project area? If yes, list the species in Table 1 below. Verify with USFWS or use approved list.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Are BLM NV Sensitive Species, based upon the current IM, likely to occur in the project area? If yes, list the species in the Table 1 below.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Could the proposed action result in “take” under the Migratory Bird Treaty Act? If yes, attach appropriate mitigation measures.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 1. Special Status Species that may occur in the project area:**

<table>
<thead>
<tr>
<th>ESA</th>
<th>BLM</th>
<th>Common (Scientific) Name</th>
<th>May Be Affected?</th>
<th>Mitigation for BLM Sensitive Species (Attach ESA Section 7 Compliance to Form)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Loggerhead shrike (Lanius ludovicianus)</td>
<td>Yes</td>
<td>See mitigation measures for migratory birds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Nevada dune beardtongue (Penstemon arenarius)</td>
<td>Yes</td>
<td>Plant surveys performed by a qualified botanist and following BLM protocols will be required during the appropriate season. Survey results will be reviewed and approved by the BLM biologist and appropriate mitigation measures implemented (if necessary) prior to any disturbance. All survey activities would be coordinated with the BLM biologist. Applicant should contact the BLM biologist no less than one month prior to proposed disturbance dates.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Oryctes (Oryctes nevadensis)</td>
<td>Yes</td>
<td>All vehicular traffic will be restricted to established roads and two-tracks.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ferruginous hawk (Buteo regalis) Golden eagle (Aquila chrysaetos)</td>
<td>Yes</td>
<td>May use the area for foraging</td>
</tr>
</tbody>
</table>

**Table 2 Migratory Bird Treaty Act Consideration**

<table>
<thead>
<tr>
<th>Potential MBTA Species w/in the Project Area Common (Scientific) Name</th>
<th>May Be Affected?</th>
<th>Recommended Mitigation</th>
</tr>
</thead>
</table>

Revised 01/12
Species listed in this document are representative, but not exclusive of migratory birds typically associated with this habitat.

- Black-throated sparrow (*Amphispiza bilineata*)
- Brewer's sparrow (*Spizella breweri*)
- Canyon wren (*Catherpes mexicanus*)
- Common poorwill (*Phalaenoptilus nuttallii*)
- Brewer's sparrow (*Spizella breweri*)
- Canyon wren (*Catherpes mexicanus*)
- Common poorwill (*Phalaenoptilus nuttallii*)
- Gray flycatcher (*Epidonax wrightii*)
- Green-tailed towhee (*Pipilo chlorurus*)
- Horned lark (*Eremophila alpestris*)
- Prairie falcon (*Falco mexicanus*)
- Rock wren (*Salpinctes obsoletus*)
- Sage sparrow (*Amphispiza bellii*)
- Sage thrasher (*Oreoscoptes montanus*)
- Vesper sparrow (*Pooecetes gramineus*)
- Western Burrowing owl (*Athene cunicularia*)
- Western meadowlark (*Sturnella neglecta*)

**Yes**

By implementing the following mitigations the proposed project should not negatively affect these species.

It is the responsibility of the Applicant to notify the BLM project lead and biologist of the proposed disturbance and survey dates.

Land clearing or other surface disturbance associated with the proposed action would be conducted outside of the migratory avian breeding season, (March 1 - August 31) whenever feasible, to avoid potential destruction of active bird nests. Nests are considered active if they contain eggs or young or if evidence of reproductive behavior (i.e. mated pairs, courtship displays, territorial defense, carrying nesting materials, transporting food, etc.) is observed (MBTA 1918). When surface disturbance must be created during the migratory avian breeding season (March 1 – August 31), a survey performed by a BLM approved biologist following BLM approved methodologies would be conducted for active nests. This survey would be conducted no more than ten (10) days prior to and no less than three (3) days prior to proposed disturbance activities. The results of the survey must be submitted to and approved by the BLM biologist prior to any surface disturbance. If active nests are located, disturbance activities may be postponed, a protective buffer...
prior to any surface disturbance. If active nests are located, disturbance activities may be postponed, a protective buffer may be established, or other appropriate protective measures would be instigated to avoid disturbance to the nest or reproductive behaviors until the nests are no longer active. The start and end dates of the seasonal restriction may be based upon site-specific information such as species, elevation, and weather patterns which affect breeding chronology. The Applicant must notify the BLM biologist a minimum of five (5) work days prior to the proposed survey date to allow time for survey coordination.

Vehicular traffic should be restricted to currently established roads or two-tracks.

Mitigation Measures/Remarks: See Attached

The Proposed Action has been reviewed to determine if any exceptions described in 43 CFR 46.215 Categorical Exclusions: Extraordinary Circumstances apply. (See attached page)
Part III: DECISION:
I have reviewed this plan conformance and NEPA compliance record and have determined that the proposed project is in conformance with the approved land use plan and that no other environmental analysis is required.

☑ Project authorization is subject to mitigation measures identified above. (This is a NEPA Decision. A separate program implementation decision is necessary.)

☐ It is my decision to allow for implementation of the project, as described, with the mitigation measures identified above and attached as stipulations, conditions of approval, terms of conditions, etc. This is a combined NEPA and program implementation decision.

Authorized Official ___________________________ Date: 10-25-2012
(Signature)

Administrative Review or Appeal Opportunities
A person who wishes to appeal to the Interior Board of Land Appeals must do so under 43 CFR 4.411 and must file in the office of the officer who made the decision (not the board), in writing to Acting Field Office Manager, Humboldt River Field Office, 5100 East Winnemucca Boulevard, Winnemucca, Nevada 89445. A person served with the decision being appealed must transmit the notice of appeal in time to be filed in the office where it is required to be filed within thirty (30) days after the date of service.

The notice of appeal must give the serial number or other identification of the case and may include a statement of reasons for the appeal, a statement of standing if required by § 4.412(b), and any arguments the appellant wishes to make. Form 1842-1 provides additional information regarding filing an appeal.

No extension of time will be granted for filing a notice of appeal. If a notice of appeal is filed after the grace period provided in §4.401(a), the notice of appeal will not be considered and the case will be closed by the officer from whose decision the appeal is taken. If the appeal is filed during the grace period provided in §4.401(a) and the delay in filing is not waived, as provided in that section, the notice of appeal will not be considered and the appeal will be dismissed by the Board.

The appellant shall serve a copy of the notice of appeal and any statements of reason, written arguments, or briefs under §4.413 on each adverse party named in the decision from which the appeal is taken and on the Office of the Solicitor, Pacific Southwest Regional Solicitor, U.S. Department of the Interior, 2800 Cottage Way, Room E-2753, Sacramento, California 95825-1890. Service must be accompanied by personally serving a copy to the party or by sending the document by registered or certified mail, return receipt requested, to the address of record in the bureau, no later than 15 days after filing the document.

In addition, within thirty (30) days of receipt of this decision you have the right to file a petition for a stay together with your appeal in accordance with the regulations at 43 CFR 4.21. The petition must be served upon the same parties specified above.
Pursuant to 43 CFR 4.471(c), a petition for stay, if filed, must 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.

43 CFR 4.471 (d) provides that the appellant requesting a stay bears the burden of proof to demonstrate that a stay should be granted.

At the conclusion of any document that a party must serve, the party or its representative must sign a written statement certifying that service has been or will be made in accordance with the applicable rules and specifying the date and manner of such service (43 CFR 4.422(c)(2)).
43 CFR 46.215
Categorical Exclusions: Extraordinary Circumstances

DOI-BLM-NV- W010-2012-0061-CX

Yes | No | (a) Have significant impacts on public health or safety
    |    | (b) Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.
    |    | (c) Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].
    |    | (d) Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.
    |    | (e) Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.
    |    | (f) Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.
    |    | (g) Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.
    |    | (h) Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.
    |    | (i) Violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.
    |    | (j) Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).
    |    | (k) Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).
    |    | (l) Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).

All of the above questions must be answered negatively before the Categorical Exclusion may be approved. This checklist is taken from 43 CFR 46.215

Prepared By: Philip Lorimer D'Amo Date September 25, 2012

Effective 11/15/08
Replaces 6/21/05 #3612
Bureau of Land Management
Winnemucca District Office
HRFO (W010)

Categorical Exclusion/Cultural Resources Inventory Needs Assessment Form

CX#: DOI-BLM-NV-W010-2012-0061-CX

Date: 8/15/2012

Lease / Case File / Serial #: N091276

Regulatory Authority (CFR or Law): 43 CFR Subpart 3250

BLM Manual: N/A

Subject Function Code: 3250

Is the project located within a Preliminary Priority Habitat? ☐ Yes ☒ No

Is the project located within a Preliminary General Priority Habitat? ☐ Yes ☒ No

Is the project located within a National Landscape Conservation System feature (NCA, Wilderness, WSA, ISA, Scenic or Historic Trails)? ☐ Yes ☒ No

1. BLM District Office: Winnemucca District Office

2. Name of Project Lead: Philip Lorimer D’Amo

3. Project Title: Desert Queen Geothermal Gradient Well Drilling

4. Applicant: Nevada Bureau of Mines and Geology

5. Project Description: (briefly describe who, what, when, where, why, how)

NBMG has submitted a NOI for geothermal exploration to conduct Geothermal Gradient Well Drilling in the Desert Queen area on Public lands intended to gather information with the intent on improving the methods and accuracy of geothermal exploratory operations. Exploration activities would be performed in a time frame between approval of the NOI and 12/30/13. The geothermal gradient well drilling would include no more than 2 total wells out of a proposed 7 wells. Four of these proposed well locations are in the Humboldt River Field Office jurisdiction at Desert Queen while the other 3 are being proposed under the Black Rock Field Office jurisdiction at Pinto Hot Springs. These wells are proposed to be drilled to a total depth of 1000 feet. The first portion of the hole is planned to be drilled to 250 feet at a diameter of 8.5 inches. A 7 inch surface casing would be cemented in place with class C cement. A 6 1/8 inch drill bit would then to be used to drill the remaining 750 feet.

NBMG proposed to have surveyed the route to, and the area of, the proposed drilling by the use of a qualified archeologist. If resources are identified in the proposed test route, the path of the equipment would be rerouted to avoid archeological resource occurrences. If sites cannot be
avoided, the drilling location would be eliminated.

Project dimensions (length, width, height, depth): 100 feet by 100 feet for each of the two possible locations.
Total Acres: 0.46 acres
BLM Acres: 0.46 acres

Will the project result in new surface disturbance? ☑ Yes ☐ No

Has the project area been previously disturbed? ☐ Yes ☑ No ☐ N/A
If yes, what percent of the project area has been disturbed? 0%. If only part of the project area has been disturbed, indicate disturbed area on map. Describe disturbance (and attach photo of disturbed area if you have one):

6. Legal Description:
   T. 22 __ N., R. 28 __ E., sec. 8 __, NE __ 1/4 __, NE 1/4
   T. 22 __ N., R. 28 __ E., sec. 8 __, N __ 1/2 __, SW 1/4
   T. 22 __ N., R. 28 __ E., sec. 18 __, N __ 1/2 __, NE 1/4

   USGS 24k Quad name: Parran and Desert Peak
   100k map name: Carson Sink
   Land Status: ☑ BLM ☐ Private ☐ Other ____________.

7. Maps located at:
   T:\NV\GIS_Work\WMD\Project\Minerals\Leaseable\Geothermal\NBGM Geothermal
   or PDFs:
   S:\Needs Assessment\NBMG\Desert Queen

Revised 01/12
8. To be completed by Cultural Resource Specialist (CR):

Area of Potential Effect:
APE Acreage: 0.46

Records Check:
Records Examined: BLM database & NVCRIS
Results: Cultural surveys conducted within 1 mile of the proposed well pads are CR2-0050, 2-0059, 2-0741, 2-2239, and 2-2549.

Inventory Type Needed:
None
Categorical Exemption (Number______)
Reconnaissance______
Class I______
Class II______
Class III_X
Architectural______

Rationale for Inventory Type determination: CR2-0050 and CR2-0059 were Class II surveys and done over 20 years ago. CR2-0741 was done over 20 years ago, and doesn’t cover the locations of all the drill pads. CR2-2239 was done for a fiber optic cable and doesn’t cover the entire APE. CR2-2549 was done for a transmission line project and does not cover any of the specified well pad locations.

Tribal Notification/Consultation Needs: none
Rationale: In previous consultations with the Fallon Paiute and Shoshone tribe, they voiced concerns only when drilling was being done on Desert Queen peak. Tribe(s) to be contacted: none

Public Notification Needs: none
Rationale: Temporary disturbance; area will be reclaimed.
Person(s), group(s) to be contacted: none

CRS Approval: S/Mark E. Hall
Date: 9/9/2012

Field or other appropriate Manager Concurrence:
Date: 01/2012

Revised 01/12