

**Categorical Exclusion Review**  
U.S. DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Boise District Office  
Four Rivers Field Office

**Virginia Tech Seismic Research**

<b>CE No.:</b> DOI-BLM-ID-B020-2011-0043-CX	<b>Lease/Serial/Case File No.:</b> IDI-36911
<b>Purpose and Need for Action:</b> Virginia Tech applied for a short-term Right-of-Way to conduct seismic research in support of the EarthScope Program ( <a href="http://www.earthscope.org">www.earthscope.org</a> ) in order to study the geologic evolution and tectonics of Idaho and Eastern Oregon. Targets for research include the Idaho Batholith, the terranes in Oregon and westernmost Idaho that were accreted to North America, and the faulting and volcanism associated with more recent extension of the continent.	
<b>Description of Proposed Action:</b> Issue a short-term Right-of-Way for controlled source seismic survey. The applicant would drill 8"-12" diameter 75-150 foot deep holes at three locations for seismic shots. A single shot would be exploded in each hole. Temporary casing at the top of drill hole would be cut off and the site would be rehabilitated following the shot. Seismometers 8"-12" in size would be placed in small holes 100 meters apart along existing roads to record data. All instruments would be removed within days of completed shot. Previously disturbed sites have been selected for site locations. Site size would be limited to that needed for positioning the truck mounted drill rig. The tests are currently scheduled for August 2011. Hole drilling would occur in the three (3) months prior to August. Each hole would take 1-3 days to prepare.	
<b>Project Location:</b> Site 1- T 13 N, R 7 W Section 10 NESE Rock Creek Road, site is on edge of road (if site proves too difficult for truck placement alternate site is on private lands); Site 2 - T 13 N, R 5 W Section 22 NENE, site is in existing borrow pit; Site 3 - T 13 N, R 1 W Section 14 NESW, site is in existing rock pit. Sites 1 & 2 are in Washington Co., site 3 is in Adams County.	
<b>Applicant:</b> Virginia Tech Dept. of Geosciences	
<b>Part I – Plan Conformance Review</b>	
<b>This proposed Action is subject to the following land use plan:</b> <b>Date Plan Approved:</b>	
The proposed action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decision(s) (objectives, terms, and conditions):	
Mineral, Energy, and Geologic Resources	
BLM will manage geological, energy, and minerals resources on the public lands. Geological resources will be managed so that significant scientific, recreational, ecological and educational values will be maintained or enhanced.	
Remarks: Cascade MFP FEIS page 56	
<b>Part II – NEPA Review</b>	
A. Categorical Exclusion Review: This proposed action qualifies as a categorical exclusion under 516 DM 2, Departmental Categorical Exclusion: 1.6 Nondestructive data collection, inventory (including field, aerial, and satellite surveying and mapping), study, research, and monitoring activities.	
B. Departmental List of Extraordinary Circumstances Review: Before any non-Energy Act CX is used, you	

must conduct sufficient review to determine if any of the following extraordinary circumstances apply (516 DM 2, Appendix 2). If any of the extraordinary circumstances are applicable to the action being considered, either an EA or an EIS must be prepared for the action. Part 516 of the Departmental Manual (516 DM 2, Appendix 2) states that extraordinary circumstances exist for individual actions within CXs which may: (Mark applicable answer for each item. If "yes", prepare an EA/EIS and append this form to it.)

**List of Extraordinary Circumstances**

1. Have significant impacts on public health or safety.

Yes  No  Specialist Signature/Date: **David Wolf** 4/14/2011

*Comments/Explanation:* The seismic sites would be far from any populated area. The explosive charge would be contained underground with no surface or residual affect anticipated.

2. 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; or ecologically significant or critical areas, or is not in compliance with the Fish and Wildlife Coordination Act.

Yes  No  Specialist Signature/Date: /s/ **Matt McCoy** 4/14/2011

*Comments/Explanation:* Chemical tests before and after similar shots have shown that they do not change the chemistry of ground or surface water (e.g., Klemperer & Cash, 2007, J. African Earth Studies). Each of the sites occurs in Key greater sage-grouse habitat; however, because the sites would be adjacent to roads, in previously disturbed areas, and would disturb <0.1 acres,, they would have negligible impacts to habitat. No cultural resources, parks, refuges, wilderness, Wild & Scenic Rivers, National Natural Landmarks, prime farmlands, floodplains, monuments or other ecologically significant lands involved.

3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].

Yes  No  Specialist Signature/Date: **David Wolf** 4/14/2011

*Comments/Explanation:* The proposed action would have minimal environmental effects, none controversial, and would not conflict with any other resource use.

4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.

Yes  No  Specialist Signature/Date: **David Wolf** 4/14/2011

*Comments/Explanation:* The proposed action is a common scientific study/industry practice and impacts from the activities are well understood and documented.

5. Establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects.

Yes  No  Specialist Signature/Date: **Matt McCoy** 4/19/2011

*Comments/Explanation:* The proposed action would be a one-time occurrence that does not imply or establish a precedent for any future actions.

6. Have a direct relationship to other actions with individually insignificant, but cumulatively significant environmental effects.

Yes  No  Specialist Signature/Date: **David Wolf** 4/14/2011

*Comments/Explanation:* The proposed action would be a discrete activity with no tie to other actions or activities other than related seismic studies.

7. Have significant impacts on properties listed or eligible for listing on the National Register of Historic Places as determined by either the bureau or office.

Yes  No  Specialist Signature/Date: **Dean C. Shaw** 4/20/2011

*Comments/Explanation:* No eligible sites would be involved.

8. Have significant impacts on species listed or proposed to be listed on the List of Endangered or Threatened

Species, or on designated Critical Habitat for these species.		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date for Plants: <i>Mark E. Steiger</i> 4/15/2011 Specialist Signature/Date for Wildlife: /s/ <i>Matt McCoy</i> 4/14/2011 Specialist Signature/Date for Aquatics: <i>J. Allen Farter</i> 4/15/2011
Plants <i>Comments/Explanation:</i> Previous disturbance, no T&E species or Critical Habitat involved.		
Wildlife <i>Comments/Explanation:</i> No Threatened or Endangered species are known to occur in the immediate vicinity of the proposed action. All sites occur in Key habitat for greater sage-grouse, a Candidate species. The Conservation Plan for Greater Sage-grouse in Idaho (Idaho Department of Fish and Game 2006) identifies human disturbance within 0.6 miles of active leks (occupied by birds between 6 PM -9 AM, March 15-May 15) as one of the primary threats to sage-grouse. The proposed sites are 1.4 to 6 miles away from leks. The active status of the leks was undetermined in 2010. Because the sites are in previously disturbed areas and activity would occur >0.6 miles from leks, sage-grouse would not be expected to be affected by the proposed action. Other BLM special status species occur in the area; however, impacts to these species would also be expected to be negligible as discussed above.		
Aquatics <i>Comments/Explanation:</i> Sites 1 and 2 would be >0.25 miles from aquatic habitats. The gravel pit at Site 3 has water and wetland obligate plant species, but the pond is not connected to other natural surface water features. The proposed activity would be away from the wetland and would not disturb any aquatic species.		
9. Violate a Federal, State, local, or tribal law or requirement imposed for the protection of the environment.		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Dean C. Shaw</i> 4/20/2011
<i>Comments/Explanation:</i> Proposed action would be in conformance with all applicable laws and requirements.		
10. Have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>David Wolf</i> 4/14/2011
<i>Comments/Explanation:</i> The proposed action would be located in areas remote from all populations.		
11. 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).		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Dean C. Shaw</i> 4/20/2011
<i>Comments/Explanation:</i> The proposed action would not limit access to and/or use of sacred sites or adversely affect the integrity of any known site.		
12. 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).		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Lonnie Huter</i> 4/14/2011
<i>Comments/Explanation:</i> The proposed action would not involve any vegetative component or any activity that would introduce or spread noxious weeds or non-native invasive species.		
I certify that none of the Departmental exceptions (Extraordinary Circumstances) listed in the above Part II (516 DM 2, Appendix 2) apply to this action; therefore, this categorical exclusion is appropriate for this situation. Remarks:		
Authorizing Official: <i>Ferry A. Humphrey</i> Date: 4/20/2011		
Name:		
Title:		

**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 further environmental analysis is required. It is my decision to implement the project, as described, with the mitigation measures either identified below or with the stipulation(s) described above.

Mitigation Measures/Other Remarks: Include standard ROW stipulations.

Remarks: Include additional stipulations – 1) require notification of BLM and appropriate County Sheriff 24 hours prior to planned detonation and 2) drilling operations may not take place before June 1, 2011.

Authorizing Official: *Teruy A. Humphrey* Date: 4/20/2011

Name:

Title: