

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

**Kuna Butte Soil Carbon Study**

<b>CE No.:</b> DOI-BLM-ID-B011-2010-0004-CX	<b>Lease/Serial/Case File No.:</b>
<b>Purpose and Need for Action:</b> During the past 30 years, vegetation in significant portions of the Morley Nelson Snake River Birds of Prey National Conservation Area (NCA) has been converted from perennial shrub and grass communities to invasive annual dominated communities. The recently completed resource management plan (RMP) for the NCA identified the need to restore perennial dominated communities. Restoration that includes perennials with deep, extensive root systems could help improve carbon sequestration, an important benefit for global climate change dynamics. The objectives would be to determine the differences in carbon sequestration in perennial and invasive annual dominated communities.	
<b>Description of Proposed Action:</b> This study is in support of efforts to reclaim sagebrush steppe ecosystem from invasive species. The purpose of this study is measure the carbon budget benefit of that reclamation. Specifically, this project would quantify differences in soil carbon sequestration caused by a variance in vegetation (sagebrush, bunchgrass, and cheatgrass). In an effort to attribute the differences in soil carbon to each unique grass or shrub species, a sampling scheme that is consistent with areas of contribution from each species would be discretely sampled. To accomplish this, locations with intermixed vegetation cannot be sampled. Furthermore, areas without uniform ground cover (slickspots) must be avoided as they add additional, and unwanted, heterogeneity to the sample population.  Soil samples would be taken across two transects that are perpendicular to the boundary between two contrasting vegetation communities. Transects would be set up >100 meters from known slickspot peppergrass Element Occurrences (Idaho Conservation Data Center 2006). Each transect would be approximately 20-25 meters long and the distance between sampling points would be nearly uniform throughout. An estimated distance between sampling points of about 1/2 m is expected.  A slide hammer soil sampler would be used to obtain undisturbed discrete soil samples. This device is both simple and relatively nondestructive. The depth to which samples would be taken would be the approximated depth of soil carbon influence for the species of interest, approximately 40-60 cm below ground surface. The sampling device removes soil cores that are 4 cm in diameter and 5 cm in height; this implies that approximately 8 to 12 samples would be obtained from each hole. Soil core removal would be done mainly in plant interspaces. Upon completion of sampling, surface openings would be collapsed to reduce hazards to reptiles and small mammals.  To minimize the impact of soil core removal, several steps would be taken. Vehicle travel would be limited to existing roads. Sampling transects have been selected to avoid slickspots. Once in the field, detection of slickspots along transects would trigger movement of that transect.	
<b>Project Location:</b> 4 miles S of Kuna, Idaho; T 01 N R 01 W various sections	
<b>Applicant</b> (if any): Boise State University	

**Part I – Plan Conformance Review**

**This proposed Action is subject to the following land use plan:** Snake River Birds of Prey NCA RMP  
**Date Plan Approved:** September 30, 2008

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): Upland Vegetation objectives recognize the importance of maintaining or improving vegetation conditions in the NCA. Specific management actions designate up to 5,000 acres for research purposes; allow for approximately 130,000 acres of habitat restoration; and conversion of approximately 100,000 acres of annual grasslands to perennial plant communities.

**Part II – NEPA Review**

- A. Categorical Exclusion Review: This proposed action qualifies as a categorical exclusion under 516 DM 2, Appendix 1  
Category description: 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: *Matthew McCoy* 6/8/10

*Comments/Explanation:* The proposed location for this research project is Kuna Butte, ID. No water supply, either sole or communal is located in the vicinity of the research site. Additionally, there would be no use of potentially dangerous equipment or hazardous materials during field data collection.

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: *Matthew McCoy* 6/8/10

*Comments/Explanation:* Kuna Butte is located within the boundaries of the Morley Nelson Snake River Birds of Prey NCA, which is part of the BLM's National Landscape Conservation System. This study would in no way impact nesting birds of prey, or any other members of the local ecosystem due to the scale and nature of this research project. The study site is included in Slickspot Peppergrass Management Area 6; however, impacts to slickspots would be avoided because vehicles would remain on established roads and sample transects and points would avoid slickspots. Kuna Butte is also open to the public for various types of recreation. The proposed study design would avoid impact to such public resources in several ways. First, the study site would encompass only a small area (0.03km<sup>2</sup>) of Kuna Butte, would require the use of only one vehicle, and no equipment would be left on-site. Second, the site would be occupied for only a short period of time due to the relatively short duration of sample collection.

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

Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Matthew McCoy</i> 6/8/10
<i>Comments/Explanation:</i> Sample collection at the Kuna Butte site would have negligible environmental impact and would not promote conflict regarding such impacts. The utilization of public and private resources at the site would be limited to occupation of public recreation area at a small spatial and temporal scale. No other site resources would be required for completion of the study objectives. The impacts associated with collecting small, discrete soil samples are well understood and not controversial in the scientific community.		
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Matthew McCoy</i> 6/8/10
<i>Comments/Explanation:</i> There would be virtually no uncertainty regarding the environmental impact of this study. Soil samples would be collected to a depth less than 60cm by a small diameter (5cm) soil sampler. The effects on soil biota at this scale would be negligible when considering volume of soil resources in the Kuna Butte area.		
5. Establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects.		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Matthew McCoy</i> 6/8/10
<i>Comments/Explanation:</i> No alternative use of public resources within the Kuna Butte area would be motivated or promoted by this study. Vehicle use would be constrained to roadways that are already established and care would be taken to ensure that there would be no disturbance to local biota beyond the specific sample sites.		
6. Have a direct relationship to other actions with individually insignificant, but cumulatively significant environmental effects.		
Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Matthew McCoy</i> 6/8/10
<i>Comments/Explanation:</i> The impacts associated with data collection would be inconsequential both spatially and temporally; therefore, they would not be expected to overlap with other actions that could have similar impacts.		
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 <input type="checkbox"/>	No <input checked="" type="checkbox"/>	Specialist Signature/Date: <i>Dean Shaw</i> 6/9/10
<i>Comments/Explanation:</i> Kuna Butte is not eligible for the National Register of Historic Places in Idaho.		
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 Steiger</i> 6/9/10 Specialist Signature/Date for Wildlife: <i>Craig Carpenter</i> 6/10/10 Specialist Signature/Date for Aquatics: <i>Craig Carpenter</i> 6/10/10
Plants <i>Comments/Explanation:</i> The small annual/biennial mustard commonly known as slickspot peppergrass ( <i>Lepidium papilliferum</i> ) is common in the Kuna Butte area. Kuna Butte is included in slickspot peppergrass management area 6. This small herbaceous plant is currently listed as Threatened under the Endangered Species Act and would receive special attention for the duration of this study. Slickspot peppergrass grows in visually distinct micro-sites, and the avoidance of such sites is not only ecologically important, but necessary to ensure that all samples are collected within a homogeneous plant community. The study requirements therefore illustrate that the study objectives would be aligned with the need to avoid disturbance of slickspot peppergrass. Additional ongoing studies are being conducted by Dr. Ian Robertson with Boise State University regarding slickspot peppergrass pollinator and seed predation in the Kuna Butte area. Coordination with Dr. Robertson regarding the present study has ensured that Kuna Butte would be well-suited to accommodate both research projects.		
Wildlife <i>Comments/Explanation:</i> Several special status raptors, songbirds, and reptiles occur in the area. None are listed under the Endangered Species Act. Field data collection would occur after most avian species have fledged their young. Reptiles would generally be active above ground. The limited spatial and temporal disturbances associated with the proposed data collection would have minimal impacts to special status wildlife species.		
Aquatics <i>Comments/Explanation:</i> There are no aquatic ecosystems within 1 mile of the project area.		
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>Matthew McCoy</i> 6/8/10; <i>Dean Shaw</i> 6/9/10

<i>Comments/Explanation:</i> The proposed action would be in compliance with laws associated with the protection of the environment.		
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>Matthew McCoy</i> 6/8/10
<i>Comments/Explanation:</i> There are no low income or minority populations living in the project area. Low income or minority visitors to the area would not be affected any differently by the proposed activities than any other visitor.		
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 Shaw</i> 6/9/10
<i>Comments/Explanation:</i> Access to the area would not be affected by the proposed action.		
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>Matthew McCoy</i> 6/10/10
<i>Comments/Explanation:</i> Non-native invasive plants are common in some portions of the study area. Because of the limited surface disturbance associated with the project, it would not be expected to alter their present distribution. This research project directly supports efforts to reclaim sagebrush steppe ecosystems from invasive species in southwestern Idaho. Isolated occurrences of whitetop, perennial pepperweed, and Canada thistle have been identified and treated in the area before or during 2007. This action would not be expected to facilitate the spread of these occurrences. Placing transects >100m from known slickspot peppergrass EOs would minimize the potential for changes in invasive non-native species caused by sampling to adversely affect EOs.		
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: /s/ Tricia Roller		Date: 6/11/10
Name: Patricia Roller		
Title: Field Manager, Morley Nelson Snake River Birds of Prey NCA		

### 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.

Any appeal of this decision must follow the procedures set forth in 43 CFR Part 4. Within 30 days of the decision, a notice of appeal must be filed in the office of the authorized officer at the Four Rivers Field Office, Boise District, 3948 Development Ave, Boise, ID 83705. If a statement of reasons for the appeal is not included with the notice, it must be filed with the Interior Board of Land Appeals, Office of Hearings and Appeals, U.S. Department of the Interior, 801 North Quincy St. Suite 300, Arlington, VA 22203 within 30 days after the notice of appeal is filed with the authorized officer.

To file a petition for stay pursuant to 43 CFR part 4.21(b), it must accompany your notice of appeal and 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.

If a petition for stay is submitted with the notice of appeal, a notice of appeal and petition for stay must be served on each party named in the decision from which the appeal is taken, and with the IBLA at the same time it is filed with the authorized officer.

A copy of the notice of appeal, any statement of reasons, and all pertinent documents must be served on each adverse party named in the decision from which the appeal is taken and on the *Office of the Solicitor, Field Solicitor-U.S. Department of the Interior, University Plaza, 960 Broadway Avenue, Suite 400, Boise, Idaho 83706*, not later than 15 days after filing the document with the authorized officer and/or IBLA.

Mitigation Measures/Other Remarks:

Remarks:

Authorizing Official: /s/ Tricia Roller

Date: 6/11/10

Name: Patricia Roller

Title: Field Manager, Morley Nelson Snake River Birds of Prey NCA