UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Twin Falls District
Shoshone Field Office
400 West F Street
Shoshone, Idaho 83352

CATEGORICAL EXCLUSION REVIEW SHEET

NEPA No. DOI-BLM-ID-T030-2014-0004-CX

A. Background

The Bureau of Land Management has an Assistance Agreement with Boise State University (BSU) to perform both behavioral and habitat field studies on a naturally occurring population of pygmy rabbits (*Brachylagus idahoensis*) located west of Wedge Butte in the Shoshone Field Office (see Map 1). This study proposal involves investigating the possible role that an increase in protein levels of a select forage species may have on the pygmy rabbit population within the study site. Nitrogen fertilization of sagebrush has been shown to increase levels of protein in Wyoming big sagebrush foliage. Increased foliar protein may in turn improve habitat quality for sage steppe herbivores that forage on sagebrush.

Boise State University investigators are proposing to apply nitrogen fertilizer to individual sagebrush plants and measure responses in crude protein, plant defensive chemistry and pygmy rabbit foraging behavior. Urea fertilizer, at 46% nitrogen content, is proposed to be applied at a 1 meter radius around selected plants. Fertilizer would be spread mechanically at a rate equivalent to 45 pounds per acre. A pilot study in January 2014 would fertilize up to a maximum of 10 individual plants on BLM-managed public land in the Wedge Butte study site in southern Blaine County, Idaho. The experimental design likewise necessitates an identical number of untreated individual sagebrush in the investigation. It is anticipated that additional studies involving nitrogen fertilization treatments of 20 to 25 individual sagebrush plants would be performed in the larger study area shown on Map 1 for up to four subsequent years. This larger study area includes public land in Blaine, Camas and Lincoln Counties.

Some segments of the pygmy rabbit habitat field study are also being conducted in collaboration with researchers at the University of Idaho (UI) and Washington State University. Researchers from the UI are proposing to collect and record climactic data in the pilot study site shown on Map 1 using automated equipment. The climactic information is expected to provide additional insight into the physiological and biochemical response of Wyoming big sagebrush (*Artemesia tridentata wyomingensis)* to increased soil nitrogen levels.

The self-contained weather station would be mounted on a tripod 2-meters in height anchored to the ground with guy wires. The weather sensors and data recording units would be powered by AA batteries. To the extent possible, the weather station would be placed where it is not visible from either Highway 75 or the two-track roads that occur in the study site. The weather station would only be operational during the winter and

summer seasons. The weather station would not be located within 1-kilometer line-of-site distance of any sage-grouse leks in occupied or undetermined management status.

These two proposed study activities are examined here to determine whether they may be categorically excluded from further National Environmental Policy Act review.

Consideration of Extraordinary Circumstances:

This Categorical Exclusion Review (CER) Sheet documents the review of the proposed action to determine if any of the extraordinary circumstances described in 516 DM 2, Appendix 1 apply. If any of the extraordinary circumstances apply to the proposed action, then an EA or EIS must be prepared. Any evidence or concerns that one or more of the exceptions may apply must be brought to the attention of the manager who is authorized to approve the proposed action.

1. The proposed action would not have significant impacts on public health or safety.

The pilot site fertilization project to be conducted in early 2014 proposes to treat a total surface area estimated to be 207 square feet with commonly available commercial nitrogen fertilizer in solid pelleted form. The experimental activities planned for the larger study area scheduled to begin in the fall of 2014 would treat a total of 518 square feet annually. From outward appearance the project area contains no unique or unusual characteristics or resource values that would result in increased levels of human interest or visitation. The area receives a low, dispersed level of use by humans. Precipitation in the form of rain or snow following application of the fertilizer would dissolve and move the fertilizer into the surface soil. Any level of incidental contact the public may experience from traveling through the fertilized plots would be removed by the natural downward migration of the nitrogen compounds following their conversion to an aqueous form.

The siting of the small, portable self-contained weather station would occur at a location where it would attract the least amount of human attention. It would be placed within the study site as far removed from areas of public use and travel as possible. Use of the general project area, while very limited, is usually greater during the summer season and less in the winter.

The project is not thought to result in any significant change to public health or safety. The BLM authorized officer has the ability to suspend or terminate in whole or in part the proposed project if unforeseen impacts occur which result in conditions being inadequate to protect the public health and safety or to protect the environment.

2. The proposed action would not 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.

There are no known ecologically significant or critical areas within the proposed project site. The proposed soil fertilization activity would not have significant impacts on the migratory bird species known or expected to utilize habitat in or near the project area. The presence of the pelleted fertilizer on the soil surface is expected to be discernible for at most seven days following application. Integration of the fertilizer material into the surface soil and its

translocation into the subsurface soil horizons would eliminate any chance of migratory birds coming in direct contact with the substance. The uptake and integration of the additional plant available nitrogen by the treated big sagebrush would not result in discernible impacts to the suite of migratory birds that use the general project area for courtship, nesting, feeding and/or fledging activities.

The siting of the 2-meter tall weather station may provide a bird perch that could be used by raptors, ravens (Corvus corax) and other birds that prey on some species of migratory birds that utilize the general project area for breeding, nesting, brood rearing or fledging activities. The arrangement of climatic measurement and collection devices on the weather station may function as perch deterrents for raptors and ravens, thereby reducing or eliminating this potential threat to migratory birds.

Implementation of the proposed project would result in no discernible increase in human caused impacts to the local population of the Birds of Conservation Concern over current levels.

3. The proposed action would not have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2)(E)].

The proposed application of pelleted plant fertilizer at rates at or below common fertilization rates to a maximum of 25 mature big sagebrush plants is not expected to result in highly controversial environmental effects. Placing the small self-contained weather station in an inconspicuous location near the fertilizer treatment areas is not expected to be highly controversial or cause conflicts amongst resource uses. The planned action would not directly or indirectly result in conflicts amongst resource values and uses in the general project area.

4. The proposed action would not have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.

The proposed action would not have highly uncertain and potentially significant environmental effects or involve unknown environmental risks. Similar lands and soil types in the general project area have been converted to agricultural purposes that include fertilization practices similar to the proposal with the intention of increasing the production of livestock forage. No unique impacts or consequences have resulted from this practice. The proposed small, spot fertilization treatments are not expected to result in any unique or unknown risks to the affected native plant community or any of the other resource values.

The compact weather station and supporting structure would be placed in a location out of the direct line-of-site of sage-grouse leks in occupied or undetermined management status. If it is determined the most suitable location for the facility is in direct line-of-site of the sage-grouse leks the climatic recording unit will be located a minimum of 1 kilometer from the leks. This siting measure would negate the likelihood of the weather station causing measureable environmental impacts.

5. The proposed action would not establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects.

The proposed action involves a suite of small scale controlled vegetation studies. The projects are purely experimental in nature with no direct linkage to potential future actions that may result in significant environmental effects. Information gained from conducting the experimental fertilization studies are not expected to establish a model for future actions. The proposed project would not establish a precedent for future actions or represent a decision in principle about future actions with potentially significant environmental effects because there are no future actions or proposals to apply fertilizer to big sagebrush plant communities on public land. Any proposed future projects must be evaluated on their own merits including an assessment of the likely environmental impacts.

Collecting seasonal weather information at the pygmy rabbit habitat study area would assist in the analysis of the measured response of any change in pygmy rabbit foraging habits from vegetation fertilization treatments. Future use of the climatic information collected at the study site, in and of itself, would not lead directly to a resource action with potentially significant environmental impact.

6. The proposed action would not have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.

There are no other projects proposed in the vicinity of the project areas that would have a direct relationship to and/or lead, in the aggregate, to significant cumulative effects. The collection of seasonal site-specific climate information may be integrated into a regional climatic database but these weather measurements are not expected to directly result in management actions that contribute to significant environmental impacts. The proposed actions do not have a direct relationship to other actions or planned management prescriptions in the area.

7. The proposed action would not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by the bureau.

The proposed projects involve the surface application of pelleted agricultural fertilizer around 10 to 25 mature big sagebrush plants for a distance of 1 meter around the base of each plant. The installation of a small, automated weather station with supporting structure in an unobtrusive location for a period not to exceed 5 years is not expected to cause any cultural impacts. This action is not expected to result in any effect to cultural resources.

If there are any future or inadvertent historic, cultural or paleontological property discoveries made during project implementation, there will be an immediate ceasing of the project activities and the Shoshone Field Manager and Archeologist will be contacted for further investigation (see also 36 CFR 800.11 and SPA). In the event that American Indian human remains, unassociated funerary objects, or grave goods are encountered, work in the immediate vicinity of the discovery will cease, and BLM shall comply with NAGPRA as outlined in 43 CFR 10 by consulting with the SHPO and implementing appropriate mitigation.

8. The proposed action would not 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.

The proposed action would not adversely affect listed plant species because there are no known occurrences of threatened or endangered plants in the project areas. The surrounding area provides habitat for two Idaho BLM Sensitive plant species. The two Sensitive plant species are Picabo milkvetch (Astragalus oniciformis), a BLM Type 3 and mourning milkvetch (Astragalus atratus inseptus), a BLM Type 4 (recently removed from the Type 3 listing). Scattered populations of mourning milkvetch are known to occur in the pilot project area. The soil and habitat conditions in the pilot project area are not suitable for Picabo milkvetch. The expanded project area shown on Map 1 provides suitable habitat conditions and known populations of the two Sensitive milkvetch. The size of the study area combined with the dispersed nature of the treatment sites is not expected to result in a significant impact to the ecological conditions that support the BLM Sensitive plant species that occur in the general proposed project area.

The existing plant community provides suitable to marginal habitat characteristics for the BLM Sensitive wildlife species considered likely to occur in the project area. There are no known threatened or endangered animals in the project area; however, the experimental sagebrush fertilization treatment sites are in areas identified as supporting suitable habitat for greater sage-grouse (Centrocercus urophasianus), a Candidate species. The proposed project areas are mapped as Preliminary Priority Habitat (PPH) for sage-grouse. The areas mapped as PPH were derived by considering sage-grouse lek density, attendance and connectivity factors with the intent of delineating habitat of highest value for conservation and maintenance of sage-grouse populations. Records at the Shoshone Field Office reveal that the initial project area contains three occupied sage-grouse leks within one mile or less of the planned action area. A total of 10 occupied sage-grouse leks occur within or adjacent to the larger project area shown on Map 1. The larger area is expected to be part of the design for the expanded experimental study that is expected to occur in two to five years. Sage-grouse have been observed utilizing habitat on public land in the general vicinity of the projects during the breeding, nesting and winter use periods. The proposed action of fertilizing a 1-meter area around up to 25 individual big sagebrush plants would not result in a measureable change in the suitability of the habitat in the area to support greater sage-grouse use over current conditions. The planned action is not going to result in a detectable change in habitat quality or use by the local population of Townsend's big-eared bat (Corynorhinus townsendii) or fringed motis (Myotis thysanodes). It is not expected to alter the level of use of the habitat in the project area by migratory birds and would result in no discernible increase in human caused impacts to the local population of the Birds of Conservation Concern over current levels. This extraordinary circumstance does not apply because the small number of randomly located fertilizer treatment areas would pose minimal, short term disturbance or change in habitat conditions for the suite of BLM Sensitive wildlife species known or expected to occur in the proposed project area.

The siting of the 2-meter tall weather station may provide a perch that could be used by raptors and ravens that prey on sage-grouse that utilize the general project area for courtship, late nesting, brood rearing or wintering activities. The arrangement of climatic measurement and collection devices on the weather station may function as perch deterrents for raptors and ravens, thereby reducing or eliminating this potential threat to sage-grouse. The installation and operation of the weather station would at most, result in a minimal adverse change in the threat posed to sage-grouse from avian predation.

9. The proposed action would not violate a Federal law, or a State, local, or tribal law or requirement imposed for the protection of the environment.

The extraordinary circumstance does not apply because the proposed actions would not violate any laws or requirements imposed for the protection of the environment.

10. The proposed action would not have a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).

The proposed actions would cause no discernible effect on low income or minority populations. The application of pelleted fertilizer at the dispersed and small number of locations would be performed by BSU students and faculty thus no additional job opportunities would be created by these projects. The weather station would be installed, monitored and removed by students attending UI. In addition, no low income and or minority populations would be affected by the planned action.

11. The proposed action would not 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).

The proposed actions would not affect access to public lands. The anticipated physiological response by the individually treated big sagebrush plants is not expected to be discernible across the landscape. The weather station would be placed in an unobtrusive location and it is expected to project a maximum of 3 feet above the native big sagebrush. The proposal is not expected to have any influence on access or ceremonial use of Indian sacred sites nor is it expected to result in a physical change in the composition or physical/topographic appearance of any sacred sites in the general project area.

12. The proposed action would not 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).

Almost without exception, native plant communities occurring on the Snake River Plain contain one or more noxious weeds or invasive non-native plant species. The proposed project area is no exception. The presence of a relatively intact native big sagebrush plant community with its associated native herbaceous understory in the proposed project sites has acted to suppress and contain the occurrence and rate of spread of annual non-native plant species. The proposed application of pelleted fertilizer in a plot 2-meters in diameter around 10 to 25 individual mature big sagebrush plants is likely to result in increased annual growth of both the treated big sagebrush and the herbaceous plants growing within 1- meter or so of its base. The presence of a noxious weed or non-native invasive plant species or its propagule in or immediately adjacent to the treatment area is a possibility. The total annual treatment area for the proposed project may range from slightly less than 0.005 acres to about 0.012 acres. The proposed project with its small size and dispersed nature is not expected to result in a perceptible increase in growth or expansion of the range of noxious or non-native invasive plant species in the area.

The installation, monitoring and removal of the tripod structure containing the climatic instruments would result in some limited soil surface disturbance within a 4- meter square area. Dispersed tracks created by students monitoring the operation of the weather station would also

cause some disturbance to the surface soil. The magnitude of this disturbance action is not expected to result in a detectable increase in noxious or non-native invasive plant species at the pygmy rabbit habitat study site.

Participating Staff

Name of Participant	Position Title or Resource Expertise	Initial	Date
Gary Wright	Wildlife Biologist	GJW	1/10/2014
Danelle Nance	Botanist	DAN	1/8/2014
Lisa Cresswell	Cultural Resources, Shoshone Field Office NEPA Coordinator	LC	1/8/2014
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