



NEPA Categorical Exclusion Determination Form

Program or Field Office: U.S. Department of Energy (DOE) Office of Legacy Management (LM)

Project Title: Regenerative Grazing Study

Location: Shirley Basin South, Wyoming, Disposal Site

Proposed Action or Project Description:

DOE LM is proposing to conduct a regenerative grazing study at the Shirley Basin South, Wyoming, Disposal Site (SBS). The study would investigate soil carbon levels in relation to historical and current land use, rangeland condition, and impacts of grazing. This project contributes to LM Goals 1 (Protect human health and the environment), 4 (Sustainably manage and optimize the use of land and assets), and 5 (Sustain management excellence). Grazing would be implemented under the LM and rancher grazing lease and would occur on LM's SBS, Pathfinder Mines Corporation/UR-Energy's Shirley Basin North, Wyoming, Site (SBN), and an adjacent U.S. Bureau of Land Management (BLM)-managed site. The five study areas are located in Carbon County, Wyoming, approximately 60 miles south of Casper and 35 miles north of Medicine Bow on the SBS, SBN, and BLM-managed land.

Each study area, within grazed and ungrazed pastures, would require the collection of composite soil samples. Samples would be analyzed at a laboratory for soil properties and carbon content. Plant clippings would be collected to obtain aboveground biomass weights. Vegetation and ground cover data would be collected through visual observations. Researchers would compare data from each of these parameters between the five study areas.

Sampling would be conducted in the spring of 2021 and continue in 2022 and 2023. This study would be supported by the LM site manager (SBS) and Pathfinder Mines Corporation/UR Energy (SBN). Support would need to be obtained from BLM. Five-year license agreements/property access agreements would be prepared and obtained prior to the start of the study. Concurrence of this study would be required with Pathfinder Mines Corporation/UR Energy and BLM before work would commence. Legacy Management Support staff would provide a soil scientist and range conservationist to oversee the University of Wyoming subcontractor. Also assisting with this project would be a local rancher and a local Medicine Bow conservationist.

The study areas are within the range of two species protected under the Endangered Species Act: Ute ladies'-tresses (*Spiranthes diluvialis*) and western fringed prairie orchid (*Platanthera praeclara*). Prior to conducting the work, the study areas must be surveyed by a qualified ecologist. If potential habitat is not present, work may proceed. If potential habitat is present, surveys must be conducted during the appropriate season when the species can be positively identified. If present, measures must be taken to avoid all impacts to these plants; unavoidable impacts would require consultation with the U.S. Fish and Wildlife Service, and this must be complete before work can proceed.

The State of Wyoming has designated core areas and other conservation areas to protect the greater sage-grouse. The Shirley Basin South site is not within any of these areas, although a core area exists immediately south of the site. Outside of core areas, there are no restrictions on human activities related to greater sage-grouse.

An archaeological survey would be conducted to determine the presence of archaeological sites within the proposed project's area of potential effect. Upon completion of the survey, a consultation would be conducted on the results and the proposed undertaking with the Wyoming State Historic Preservation Officer and the relevant federally recognized tribes. Proposed work would not commence until the National Historic Preservation Act Section 106 and tribal consultations would be completed before proposed activities commence.

Categorical Exclusion(s) Applied:

- B.1.24 Property transfers
- B3.1 Site Characterization and environmental monitoring
- B3.8 Outdoor terrestrial ecological and environmental research

For the complete DOE National Environmental Policy Act (NEPA) regulations regarding categorical exclusions, including the full text of each categorical exclusion, see Subpart D of Title 10 *Code of Federal Regulations* Section 1021 (10 CFR 1021).

Regulatory Requirements in 10 CFR 1021.410(b): (See full text in regulation)

The proposal fits within a class of actions that is listed in Appendix A or B to 10 CFR Part 1021, Subpart D



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To fit within the classes of actions listed in 10 CFR Part 1021, Subpart D, Appendix B, a proposal must be one that would not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health, or similar requirements of DOE or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment facilities (including incinerators), but the proposal may include categorically excluded waste storage, disposal, recovery, or treatment actions or facilities; (3) disturb hazardous substances, pollutants, contaminants, or CERCLA-excluded petroleum and natural gas products that preexist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources, including, but not limited to, those listed in paragraph B(4) of 10 CFR Part 1021, Subpart D, Appendix B; (5) involve genetically engineered organisms, synthetic biology, governmentally designated noxious weeds, or invasive species, unless the proposed activity would be contained or confined in a manner designed and operated to prevent unauthorized release into the environment and conducted in accordance with applicable requirements, such as those listed in paragraph B(5) of 10 CFR Part 1021, Subpart D, Appendix B.

- There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal.
- The proposal has not been segmented to meet the definition of a categorical exclusion. This proposal is not connected to other actions with potentially significant impacts (40 CFR 1508.25(a)(1)), is not related to other actions with individually insignificant but cumulatively significant impacts (40 CFR 1508.27(b)(7)), and is not precluded by 40 CFR 1506.1 or 10 CFR 1021.211 concerning limitations on actions during preparation of an environmental impact statement.

Based on my review of the proposed action, as NEPA Compliance Officer (as authorized by the LM Director per DOE Policy 451.1), I have determined that the proposed action fits within the specified classes of action, the other regulatory requirements set forth above are met, and the proposed action is hereby categorically excluded from further NEPA review.

**NEPA Compliance Officer Signature and
Determination Date**
