Project Title: INL Cultural Resource Management Office Field and Collection Activities

Project Description and Purpose:

CRMO ACTIVITIES:

This ECP only pertains to Section 110 activities carried out by the INL CRMO.

TEST EXCAVATIONS, SURVEYS, MONITORING, AND DATA RECOVERY

Archaeological excavations are completed at the INL to: 1) identify cultural resources; 2) evaluate the nature and depth of cultural deposits and corresponding potential for nomination to the National Register of Historic Places; 3) assess potential impacts from INL activities; 4) answer important research questions in compliance with the National Historic Preservation Act and other federal, state, and DOE mandates; and 5) satisfy mitigation for adverse effects. All investigations are conducted according to professional standards and guidelines presented in the INL Cultural Resource Management Plan (DOE/ID-10997) and BEA procedures: LI-1011, LI-1013, LI-1015, and LI-1017. Furthermore, CRMO activities are conducted in accordance with DOE-ID agreements with the Idaho State Historic Preservation Office and the Shoshone-Bannock Tribes, such as the 2023 Programmatic Agreement (PA) and Agreement In Principle (AIP). This ECP would also apply to Section 110 pedestrian surveys or monitoring events that have the potential to impact natural resources or radiologically sensitive areas.

Access to archaeological sites and survey areas is via established roads, two-track trails, and on foot. Off-road or cross-country vehicle travel is rarely required (see Off Road Access section below and the 2023 PA for exceptions). Archaeological surveys and mapping are pedestrian activities whereby an area is surveyed by walking at 30-meter transects to identify and record cultural resources. However, test excavations may also be required and involve minor soil disturbance in the form of controlled manual excavation of 50 x 50-centimeter shovel probes and/or 1x1 meter test pits, completed according to OSHA standards and typically not exceeding 1 meter in depth. Individual 1x1 meter test pits may be contiguous with other test pits to provide a suitable exposure of significant cultural deposits or features. All test excavations are completed manually using shovels, trowels, brushes, and other hand tools. Excavated soils are sifted through 1/8 inch mesh screens, collected on plastic tarps, and returned as backfill to the resulting holes. Artifacts recovered during test excavation and screening are collected for subsequent analysis and permanent curation, or agreed process through Section 106 consultation. Samples of soil, charcoal, vegetation, bone, and other organic materials may also be taken from within the confines of the test excavations. The number of shovel probes and test pits excavated at a given site will vary depending on site size, geomorphology, and surface artifact distribution. If human remains are encountered at any time, all work will cease until required notifications are made as outlined in BEA MCP-8003and DOE-ID work instruction 09.WI.01.01.

SOIL SAMPLING

Collecting and studying soils and sediments is an important component of archaeological fieldwork to understand archaeological site formation processes, predict the potential for buried cultural resources, contextualize the broader geoarchaeological history of the INL, or identify source material for artifact composition all of which connect to broader efforts related to the National Historic Preservation Act. Soil samples are typically collected using a 2-4 inch bucket auger, soil probe, or tile spade that does not usually exceed one meter in depth.

Depending on the nature of the study, an entire column of soil may be collected for analysis or a specific part of the stratigraphic sequence may be targeted. Small soil samples may be collected for analyses such as Optically Stimulated Luminescence (OSL) dating or X-ray fluorescence (XRF) characterization. Every effort is made to remove the surface of a soil as an intact mat that is then replaced once the hole is filled. If soils are replaced, soil layers are backfilled in the order they are excavated when the auger hole is closed.

HISTORICAL OBJECTS, MARKERS, AND SIGNAGE

There are a range of historical markers and signage across the INL that highlight important cultural resources, archaeological sites, or places of historical significance or interest. Over time, these markers may need to be updated or replaced due to weathering, fading, or necessary updates to interpretive text or photographs. Some of these signs are carsonite markers that can be emplaced with a post pounder, while others are more permanently emplaced using wooden or metal posts. Voluntary removal of institutional objects (i.e., objects removed under auspices other than Section 106) for accession by the INL Archives may have no NEPA impacts, but may require additional review by CRMO. Installation of interpretive displays, including those that exhibit historical or institutional objects, may also have no NEPA impacts, but require additional review by CRMO.

ESTABLISHING FENCING OR BARRIERS AROUND CULTRAL RESOURCES

In certain instances, it may be necessary to establish or remove a fence/barrier or otherwise mark out the location of a particular cultural resource. These barriers are typically employed to protect cultural resources by marking out a location for avoidance during long-term project activities or site stabilization efforts. A T-post fence or jack fencing are common barriers, but temporary markers such as pin flags, wooden stakes, or laths may also be emplaced in the ground to delineate avoidance areas. T-posts are typically installed using a post-pounder while other barriers or markers are emplaced by hand or using a hammer. Over time, these barriers may need to be refurbished to ensure their proper functioning.

COLLECTION OF GEOLOGICAL MATERIALS

According to Battelle Energy Alliance's prime contract with DOE, Management and Operation of the Idaho National Laboratory (INL), section H.33 (e), "The Contractor shall prohibit the unauthorized collection of natural resources from INL Site lands." To obtain authorization for the collection of such objects, an approved research proposal must be obtained following guidance outlined in MCP-8010 or appropriate permissions must be obtained from the INL CRMO Manager and DOE-ID.

Geological materials, most notably rocks, were used by people of the past to produce tools and other objects. For example, there is an outcrop of obsidian near the northern boundary of the INL where raw nodules were collected for use. The INL CRMO may need to collect geological materials from locations such as these for further study and characterization. Geological materials may also need to be collected to contextualize archaeological site formation processes or to better understand the geological history of the INL, all of which connect to broader efforts related to the National Historic Preservation Act. All materials are collected using labeled bags that denote the exact collection point and the contents of the bag.

COLLECTION OF BIOLOGICAL MATERIALS

According to Battelle Energy Alliance's prime contract with DOE, Management and Operation of the Idaho National Laboratory (INL), section H.33 (e), "The Contractor shall prohibit the unauthorized collection of natural resources from INL Site lands." To obtain authorization for the collection of such objects, an approved research proposal must be obtained following guidance outlined in MCP-8010 or appropriate permissions must be obtained from the INL CRMO Manager and DOE-ID.

The collection of biological materials such as fauna or flora may be necessary for dating archaeological sites or for better characterizing past human diets or paleoenvironments. This takes form through the collection of biological materials from archaeological sites or nearby environs for radiocarbon dating or for further taxonomic classification to better understand how people of the past utilized these resources, all of which connect to broader efforts related to the National Historic Preservation Act. All materials that are collected will be mapped and photographed in situ prior to removal. They will then be placed in appropriate storage containers with adequate packing (e.g., paper towel, bubble wrap). In some instances, special procedures will be developed for the extraction and storage of some macrofaunal elements such that DNA and stable isotope analysis may be attempted. Charcoal deposits will be mapped, collected, and stored separately for subsequent radiocarbon dating.

OFF-ROAD ACCESS

In rare cases, it may be necessary for INL CRMO staff to travel off INL roads. This may be due to the need to access remote archaeological sites or survey areas with limited road access or to shuttle people with physical constraints limiting their ability to walk long distances to important sites (e.g., Tribal elders). As documented in the 2023 PA between DOI-ID and SHPO, the following are included:

- One-time pass of off-road vehicles or passenger vehicles for the survey or collection
- One-time pass of off-road vehicles or passenger vehicles to convey Shoshone-Bannock Tribal members to otherwise inaccessible important cultural sites to only occur when soils are dry.

SITE STABILIZATION EFFORTS

In some cases, the integrity of cultural resources may be threatened due to unauthorized visitation, animal grazing, or ongoing natural processes such as erosion, loss of vegetation, or alluvial action. This may require stabilization efforts and can include, but are not limited to, putting up cameras or signs to limit access, planting vegetation to stabilize soils, and setting up or emplacing soil fencing, matting, or geotech fabric to limit soil deflation.

Environmental Aspects or Potential Sources of Impact:

Air Emissions

Project activities have the potential to release ozone depleting substances and greenhouse gases.

Minor amounts of fugitive dust will be generated while traveling to and from archaeological study locations from travel on existing gravel roads and two track trails and while screening excavated soils.

Discharging to Surface-, Storm-, or Ground Water

NA

Disturbing Cultural or Biological Resources

There is the potential for this work to impact vegetation and for project personnel to interact with various wildlife species. A Biological Resource Review will be arranged within two weeks prior to the initiation of any activities that might disturb soil or vegetation and again following completion of project activities. A nesting bird survey is included with the Biological Resource Review for actions occurring between April 1 - October 1 per compliance with the Migratory Bird Treaty Act. Bat surveys are also included with the Biological Resource Review in accordance with the INL Bat Protection Plan.

Test excavations have the potential to impact biological resources through disturbance of soil and vegetation. Impacts will be minimized by placement of test units to avoid direct impacts to established shrubs and other sensitive vegetation and to avoid nesting birds. Similarly, the collection of cultural, geological, and biological materials disturbs the original context of these objects, and collection or excavation requires sampling strategies or excavation plans as discussed in MCP-8016 or MCP-8010 and in accordance with Secretary of Interior (SOI) standards.

CULTURAL RESOURCES: Project-specific activities, unknown at this time, have the potential to cause effects to built environment and/or archaeological historic properties. A project-specific Section 106 cultural review cannot be completed as a full scope of work has not been developed. Work may not proceed without completion and documentation of the Section 106 process.

Generating and Managing Waste

When wastes are generated, how they are disposed can adversely affect the environment. Managing wastes appropriately and responsibly and implementing recycling or reuse practices, where feasible, during project activities can reduce the potential impact on the environment.

Archaeological investigations are expected to generate only minor amounts of uncontaminated industrial waste. The small amount of waste that may be generated could include uncontaminated personal protective equipment and garbage such as plastic water bottles or other miscellaneous waste. All waste generated will be managed in accordance with laboratory procedures.

Releasing Contaminants

When chemicals are used during the project there is the potential for spills that could impact the environment (air, water, soil).

Using, Reusing, and Conserving Natural Resources

Project description indicates materials will need to be purchased or used that require sourcing materials from the environment. Being conscientious about the types of materials used could reduce the impact to our natural resources.

Fuel will be used in vehicles while traveling to and from study locations. Paper will be used for note-taking, illustrations, and to bag or protect fragile artifacts. Polyethylene bags and aluminum foil may be used for artifacts and samples.

Determination

For Categorical Exclusions (CXs), the proposed action must not: (1) threaten a violation of applicable statutory, regulatory, or permit requirements for environmental, safety, and health, or similar requirements of Department of Energy (DOE) or Executive Orders; (2) require siting and construction or major expansion of waste storage, disposal, recovery, or treatment or facilities; (3) disturb hazardous substances, pollutants, contaminants, or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-excluded petroleum and natural gas products that pre-exist in the environment such that there would be uncontrolled or unpermitted releases; (4) have the potential to cause significant impacts on environmentally sensitive resources (see 10 CFR 1021); (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, Appendix B. The proposal has not been segmented to meet the definition of a categorical exclusion. Segmentation can occur when a proposal is broken down into small parts in order to avoid the appearance of significance of the total action. However, segmentation does not include proposals that are developed and potentially implemented over multiple phases where each phase results in a decision whether to proceed to the subsequent phase. There is no extraordinary circumstance related to the proposal that is likely to cause a reasonably foreseeable significant adverse effect or for which DOE does not know the environmental effect. Extraordinary circumstances are unique situations presented by specific proposals, including, but not limited to, scientific controversy about the environmental effects of the proposal; uncertain effects or effects involving unique or unknown risks; and unresolved conflicts concerning alternative uses of available resources.

References: B3.1 "Site characterization and environmental monitoring", B3.3 "Research related to conservation of fish, wildlife, and cultural resources"

Justification: For the DOE procedures regarding categorical exclusions, including the full text of each categorical exclusion, see 10 CFR 1021.102 and Appendix B to 10 CFR Part 1021, and also Section 5.4 (Applying one or more categorical exclusions to a proposal) and Appendices B and C of DOE's National Environmental Policy Act Implementing Procedures (June 30, 2025). Requirements and guidance in 10 CFR 1021.102 and DOE's National Environmental Policy Act Implementing Procedures: (See full text in regulation and in Implementing Procedures).

The proposal fits within a class of actions that is listed in Appendix B to 10 CFR Part 1021 or Appendix B and C of DOE's NEPA Implementing Procedures (June 30, 2025).To fit within the classes of actions listed in Appendix B to 10 CFR Part 1021, or Appendix B of DOE's NEPA Implementing Procedures, a proposal must satisfy the conditions that are integral elements of the classes of actions in Appendix B of both 10 CFR Part 1021 and DOE's NEPA Implementing Procedures.

There are no extraordinary circumstances related to the proposal that may affect the significance of the environmental effects of the proposal. DOE or an applicant may modify the proposal to avoid reasonably foreseeable adverse significant effects such that the categorical exclusion would apply.

The proposal has not been segmented to meet the definition of a categorical exclusion.

[Note: For proposals that fit within the categorical exclusions listed in Appendix C of DOE's NEPA Implementing Procedures, see DOE's notice of adoption for the subject Appendix C categorical exclusion for additional considerations. DOE notices of adoption for other agency categorical exclusions may be found on DOE's Section 109 webpage.]

B3.1 Site characterization and environmental monitoring. Site characterization and environmental monitoring (including, but not limited to, siting, construction, modification, operation, and dismantlement and removal or otherwise proper closure (such as of a well) of characterization and monitoring devices, and siting, construction, and associated operation of a small-scale laboratory building or renovation of a room in an existing building for sample analysis). Such activities would be designed in conformance with applicable requirements and use best management practices to limit the potential effects of any resultant ground disturbance. Covered activities include, but are not limited to, site characterization and environmental monitoring under CERCLA and RCRA. (This class of actions excludes activities in aquatic environments. See B3.16 of this appendix for such activities.) Specific activities include, but are not limited to: Geological, geophysical (such as gravity, magnetic, electrical, seismic, radar, and temperature gradient), geochemical, and engineering surveys and mapping, and the establishment of survey marks. Seismic techniques would not include large-scale reflection or refraction testing; Installation and operation of field instruments (such as stream-gauging stations or flow-measuring devices, telemetry systems, geochemical monitoring tools, and geophysical exploration tools);Drilling of wells for sampling or monitoring of groundwater or the vadose (unsaturated) zone, well logging, and installation of water-level recording devices in wells; Aquifer and underground reservoir response testing; Installation and operation of ambient air monitoring equipment; Sampling and characterization of water, soil, rock, or contaminants (such as drilling using truck- or mobile-scale equipment, and modification, use, and plugging of boreholes);Sampling and characterization of water effluents, air emissions, or solid waste streams; Installation and operation of meteorological towers and associated activities (such as assessment of potential wind energy resources);Sampling of flora or fauna; and Archeological, historic, and cultural resource identification in compliance with 36 CFR part 800 and 43 CFR part 7.

B3.3 Research related to conservation of fish, wildlife, and cultural resources. Field and laboratory research, inventory, and information collection activities that are directly related to the conservation of fish and wildlife resources or to the protection of cultural resources, provided that such activities would not have the potential to cause significant impacts on fish and wildlife habitat or populations or to cultural resources.

Approved by Robert Herzog, DOE-ID NEPA Compliance Officer on: 9/9/2025