

SCOPING/INFORMATION PACKAGE  
**Geoprobe Coring Project**  
Cottonwood Field Office

This information package summarizes a Bureau of Land Management (BLM) proposal to allow subsurface Geoprobe coring across Bug Slope to recover intact columns of sediment. The project area is located adjacent to the Salmon River about 10 air miles south of Cottonwood, Idaho in an area referred to as Bug Slope (see attached Figure 1). Federal actions must be analyzed in accordance with the National Environmental Policy Act (NEPA) and other relevant Federal and State laws and regulations to determine potential environmental consequences.

The purpose of this report is to inform interested and affected parties of the proposal and to solicit comments to assist with the NEPA review of the proposal. Analysis of the proposal is ongoing, and will be documented in an Environmental Assessment (EA). Comments received in response to this solicitation will aid in identifying potential environmental issues related to the proposed action and to identify alternatives to the proposed action that meet the purpose of and need for the project.

The Bureau of Land Management (BLM) will also use this public participation opportunity under the NEPA to assist the agency in satisfying the public involvement requirements under Section 106 of the National Historic Preservation Act (NHPA) (16 U.S.C. 470(f)) pursuant to 36 CFR 800.2(d)(3). The information about historic and cultural resources within the area potentially affected by the proposed action will assist the BLM in identifying and evaluating impacts to such resources in the context of both NEPA and Section 106 of the NHPA.

The BLM will consult with Indian tribes on a government-to-government basis in accordance with Executive Order 13175 and other policies. Tribal concerns, including impacts on Indian trust assets and potential impacts to cultural resources, will be given due consideration. Federal, State, and local agencies, along with tribes and other stakeholders that may be interested in or affected by the proposed action that the BLM is evaluating, are invited to participate in the scoping process and, if eligible, may request or be requested by the BLM to participate in the development of the environmental analysis as a cooperating agency.

**Purpose and Need for Action**

Oregon State University (OSU) has requested to conduct subsurface coring across Bug Slope to recover intact columns of sediment beneath the surface. In accordance with the Federal Land Policy and Management Act (FLPMA), this proposed action has been reviewed for conformance with decisions from the December 2009 Cottonwood Approved RMP. Specifically, the proposal is allowed for in the RMP under:

*Goal CR-1—Preserve and protect significant cultural resources and ensure that they are available for appropriate uses.*

Objective CR-1.2—Identify cultural properties requiring physical or administrative protection measures to protect site integrity and implement necessary measures.

Action CR-1.2.3—Implement site protection measures to protect at-risk sites.

Objective CR-1.3—Standardize cultural site record information and evaluation documentation to allocate sites to cultural use categories.

Action CR-1.3.1—Establish a schedule to update existing cultural records and allocate sites to cultural use categories within five years of the signing of the ROD for this RMP. Information needed to better allocate resource use categories includes site characteristics, chronological placement, geomorphic relationships, and overall data potential. Methodology to collect such information may include but not be limited to detailed photography, intensive mapping, excavations, geomorphic analysis, and other forms of analyses.

The *need for action* is to gather information needed by the BLM on potential subsurface archeological deposits in this area. The archeological site manifests itself on the surface in places but its subsurface extent is unknown. Section 110 of the National Historic Preservation Act directs federal agencies to assume responsibility for the preservation of National Register listed or eligible historic properties owned or controlled by their agency. Federal agencies are directed to locate, inventory, nominate properties to the National Register, and to exercise caution to protect such properties. A part of the need for the action therefore comes from FLPMA that requires the BLM to administer federal surface and subsurface.

The *purpose* of the project is to map the vertical and horizontal extent of the buried geomorphic relationships across the landform. The archeological site is located in some of the stratigraphic units that cannot be observed on the surface. Data produced under this project will provide the BLM with additional information that can lead to better long-term management and fulfill Section 110 responsibilities. Archeological site protection measures to protect site integrity may be developed depending on the results of the data. These data will assist the BLM to comply with FLPMA.

### **Existing Condition**

The proposed project is located on the east side of the Salmon River on an elevated terrace east and upriver of the confluence of Rice Creek and the lower Salmon River between ¼ and ½ mile from the river's edge on a landform locally named Bug Slope. It is adjacent to the Rice Creek Bridge. The geomorphology of Bug Slope is shaped by the combined effects of several geologic processes including a large landslide, extensive alluviation of a floodplain, and down cutting of the Salmon River.

An archeological site is known to exist in the area and is exposed in several locations but because of vegetation ground cover and the complex geomorphic formation, it is difficult to trace across the entire landform.

The general route of the Nez Perce National Historic Trail passes through the area. No trail tread has been discovered during the course of archeological pedestrian surveys.

There are three BLM roads designated open to motorized travel in the project area, which are the American Bar Road, the road to the Community Corrals, and an unnamed road. There is also the Community Corrals as well as an undeveloped recreation site that are used throughout the year but primarily in the spring, fall, and winter.

A portion of the proposed project area is within a grazing lease; however, livestock are not on the allotment in August. The project area is located in lightly developed portions of the canyon within the Lower Salmon Scenic Special Recreation Management Area and Lower Salmon Area of Critical Environmental Concern. Important recreational values include white water rafting, power boating, fishing, camping, hunting, hiking, swimming, and sightseeing. In addition to high scenic and recreational values, the corridor contains lands of critical environmental concern including habitat for Endangered Species Act (ESA)-listed and BLM sensitive species (wildlife, plants, and fish), big game species (mule deer and white tailed deer), upland game species, non-game species, and cultural resources. The project

area is also within the area under consideration for potential addition to the National Wild and Scenic Rivers System.

### **Proposed Action**

OSU has requested to conduct subsurface coring across Bug Slope (Figures 1 and 2) to recover intact columns of sediment beneath the surface. These samples will be used to study the geologic properties of these cored sedimentary sequences and combine their data into a larger geoarchaeological model that predicts where archaeologically relevant geological deposits are distributed in the Bug Slope area. OSU will enter these data into a software program used to compile and compare core data in order to construct three-dimensional stratigraphic model. This model will provide the BLM with a better understanding of this area's subsurface archeological potential.

The proposal is to place up to 40 Geoprobe direct-push sediment cores across the expanse of the project area, outside of the fenced area. In addition to the collection of the physical cores, it is proposed to employ an electrical conductivity cone penetrometry probe in spaces not sampled by the regular core holes. Figure 3 shows the proposed sample locations. The majority of the proposed sample locations are adjacent to the existing roads but not in the road prisms. The short-term sampling project would take place in mid-August 2014 over a two-week period for about 8 to 10 hours a day. The project area is located in portions of the following legal description: Boise Meridian, T. 30 N., R. 1 W., Section 25.

Subsurface sediment cores will be gathered with a Geoprobe 7822DT, which is a rubber track-mounted hydraulically powered probing machine (Figure 4) to recover intact sediment samples from subsurface contexts. A Geoprobe 7822DT is designed to drive specialized tools into the ground to obtain continuous sequences of sediment samples. Each core segment measures 1.8 inches diameter. Information from the bore hole samples will be analyzed on site and the data recorded. Each bore hole will be backfilled with sediment and bentonite chips after gathering the necessary data. The electrical cone penetrometry probe pushes a 1.8-inch diameter metal probe rod into the ground in order to measure the *in situ* physical properties that are used to interpret sediment grain size without having to remove a physical sediment core. No sediment is removed using this process. About 25 electrical cone probes will be placed in the spaces between the physical Geoprobe core retrievals.

The Geoprobe equipment is 64 inches wide and 133 inches long. The height with mast (unfolded) is 187 inches. It has 12 inch wide rubber tracts. When idling or when moving, the Geoprobe produces a lower sound level that is roughly equivalent or less than a lawn mower. When drilling its noise level is less than a leaf blower or chainsaw. The Geoprobe 7822DT does not use cutting fluids or drilling liquids of any kind. The Geoprobe 7822DT rig mast can be adjusted in many directions to extract cores from uneven and moderately sloped ground so no ground preparation (leveling) is needed. Rake and shovel will be used to repair any incidental ground disturbance caused by the Geoprobe's tracks. If necessary, native seed mixture will be used to reseed areas.

### **Preliminary Issues**

Preliminary issues to be addressed in the environmental assessment and/or guide alternative development, issue analysis and development of design features of the proposed action include the following:

- Are there potential impacts to the Nez Perce National Historic Trail?
- Are there effects to the resource values of the Lower Salmon River ACEC?
- Are there impacts on the Salmon River Scenic Special Recreation Management Area?

- Are there impacts to the outstandingly remarkable values identified for the segment of the Salmon River found suitable for addition to the National Wild and Scenic Rivers System?

### **Preliminary Alternative Development**

The only alternative identified by the BLM at this time is No Action. Under the No Action Alternative the BLM would not authorize the project. No subsurface coring or electronic probing would be permitted.

### **Decision to be Made**

The BLM will make a decision whether or not to authorize OSU to implement the proposed action.

### **Public Input Needed**

Comments are specifically requested on the proposed action and preliminary issues. Comments made on this proposal would be most helpful if they are received by May 15, 2014 and are directly relevant to the proposal and project area. The BLM will not reject public feedback outside established public involvement timeframes; however, these comments may be considered secondary to comments received in a timely manner and may only be assessed to determine if they identify concerns that would substantially alter the assumptions, proposal, design, or analysis presented in the EA. Comments sent electronically should be sent to [blm\\_id\\_geoprobeCoringproject@blm.gov](mailto:blm_id_geoprobeCoringproject@blm.gov) with the title of this project in the subject line. Please identify whether you are submitting comments as an individual or as the designated spokesperson on behalf of an organization. Issues that are outside the scope of the proposal will not be addressed at this planning level.

*Before including your address, phone number, e-mail address, or other personal identifying information in your comment, be advised that your entire comment – including your personal identifying information – may be made publicly available at any time. While you can ask us in your comment to withhold from public review your personal identifying information, we cannot guarantee that we will be able to do so.*

The primary contact for questions and comments for this analysis is David Sisson, Archeologist, who may be contacted at 1 Butte Drive; Cottonwood, ID 83522; or at 208-962-3782.

### **Attachments:**

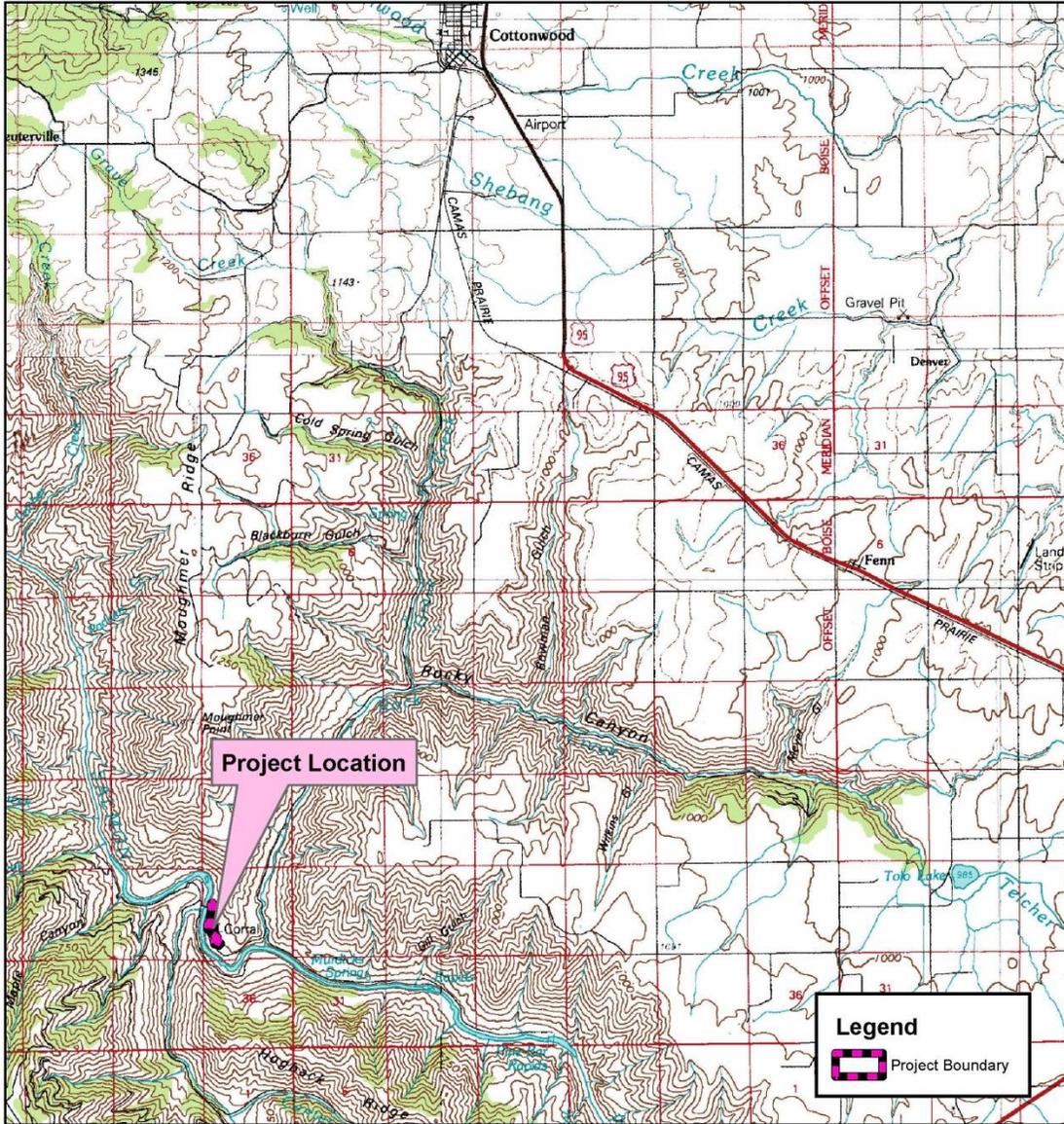
Figure 1: General Project Location

Figure 2: Project Location

Figure 3: Bore Hole and EC Probe Proposed Locations

Figure 4: Photo of Geoprobe Equipment

# Figure 1 General Project Location



The surface management status ("land ownership") should be used as a general guide only. Official land records, located at the Bureau of Land Management (BLM) and other offices, should be checked for up-to-date information concerning any specific tract of land.

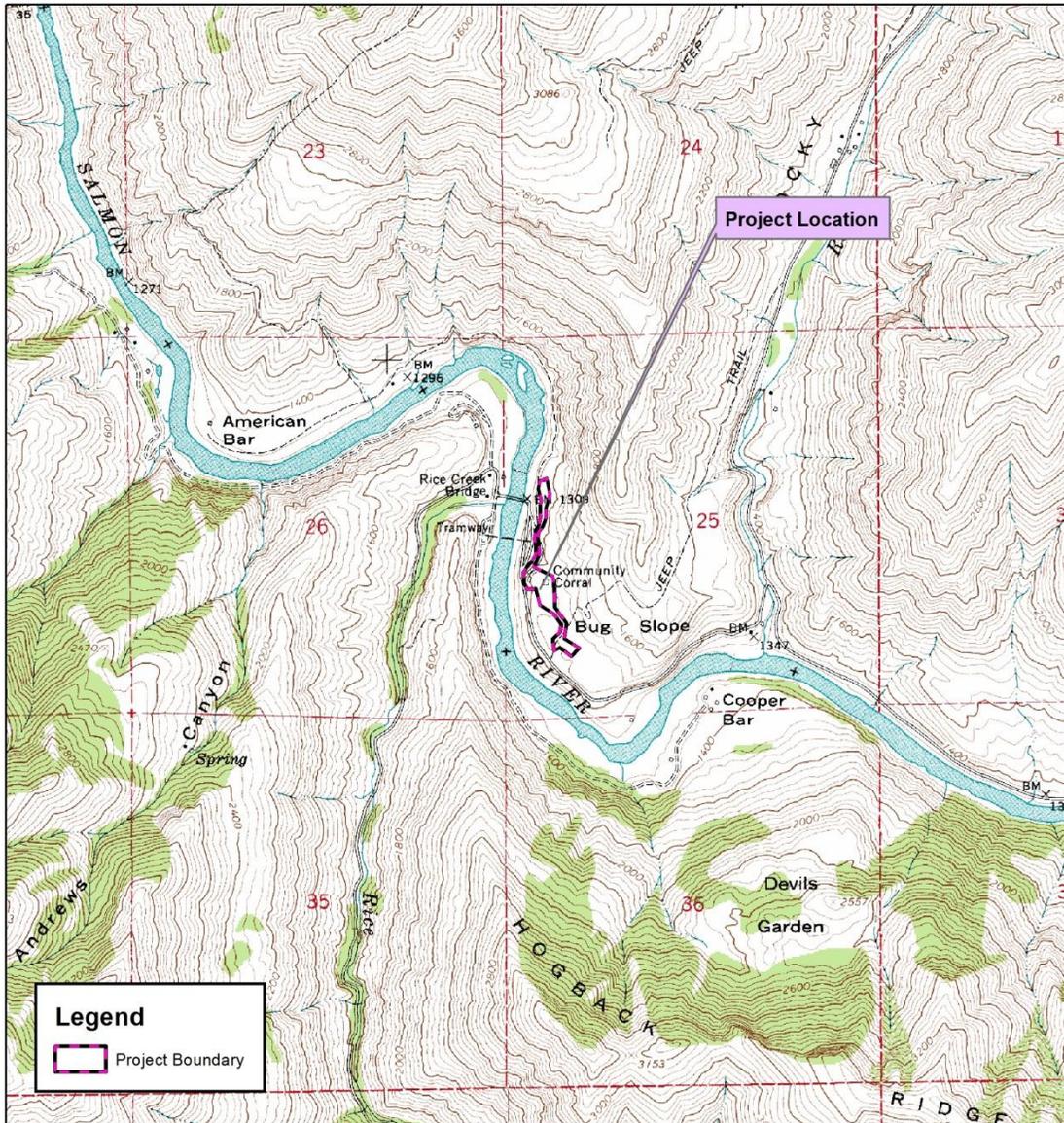
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Map Projection: NAD 1983 UTM Zone 11N



# Figure 2 Project Location



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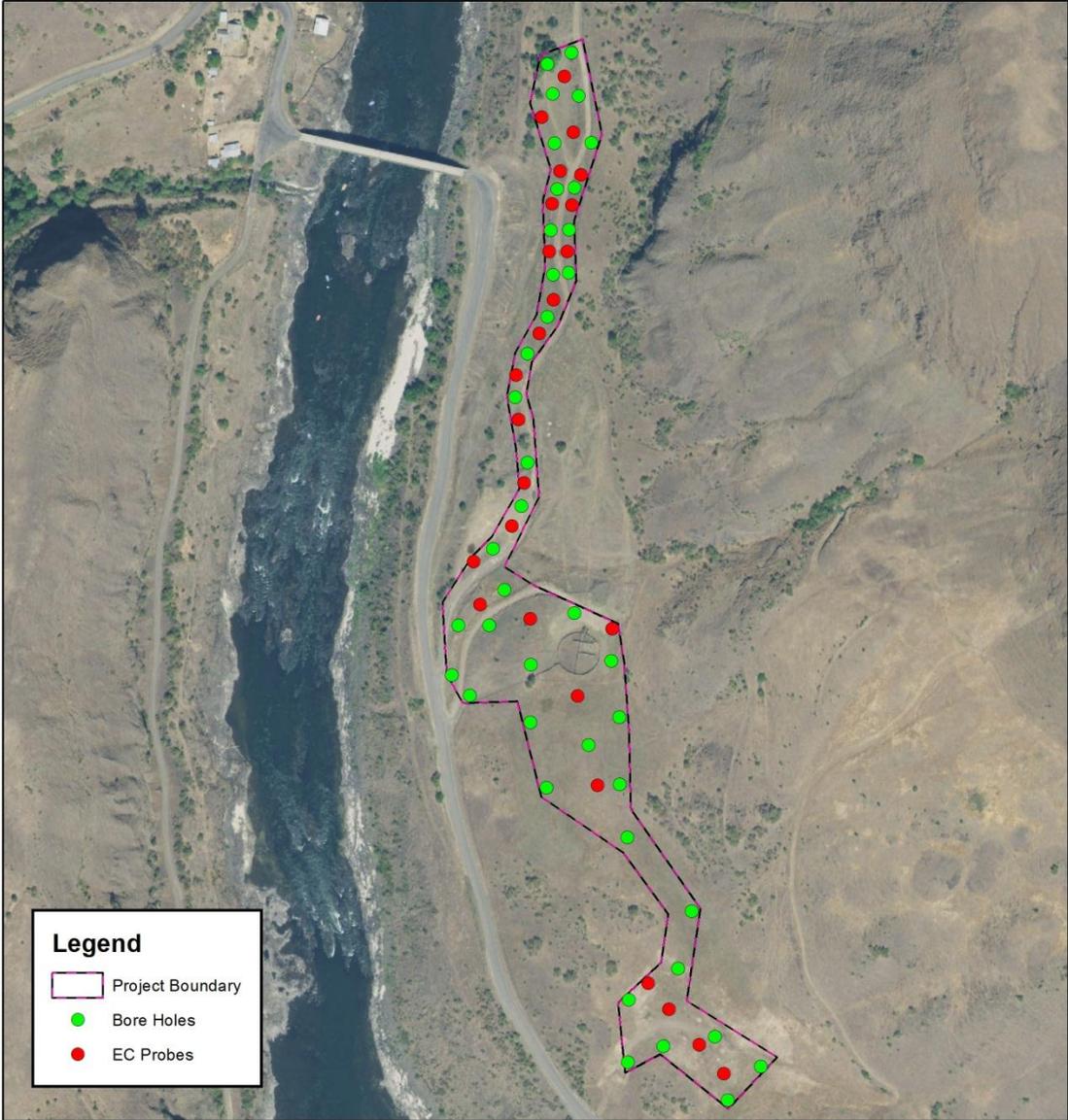
Map Projection: NAD 1983 UTM Zone 11N



Map Created: 3/13/2014

# Figure 3

## Bore Hole and EC Probe Proposed Locations



**Legend**

- Project Boundary
- Bore Holes
- EC Probes



Map Created: 3/13/2014

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Map Projection: NAD 1983 UTM Zone 11N





**Figure 4**  
**Photo of Geoprobe Equipment**



From <http://geoprobe.com/7822d#photos> (Accessed on 3/12/2014)