

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: University of Montana Field School National Register Testing at Sheepsteater Cliffs, and additional work at Fishing Bridge, Horse Trailer Parking, and Isa Lake Bridge

Discipline: Cultural
Type of Project: Research
Funding Agency: National Park Service
Other Partners/Cooperators: University of Montana
Effective Dates: May 20, 2010- September 30, 2013
Funding Amount: \$45,000

Investigators and Agency Representative:

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Project Abstract: The University of Montana archeological field school, the Montana Yellowstone Archeological Project (MYAP), through this cooperative agreement, will conduct a variety of archeological inventory, National Register testing, salvage archeological excavations for a new water line through an eligible site known to have human burials, and ground penetrating radar testing. The work at each site is different.

On Swan Lake Flats the field school will conduct a block archeological inventory of approximately 100 acres south of Glenn Creek to identify surface and buried cultural sites in the area proposed for the access road to the newly proposed horsetrailer parking. Additional shovel tests and excavation units may be needed to identify areas of previously recorded sites 48YE141 and 48YE143 that may be impacted by laying back the slopes to widen the road corridor and to construct a large vehicle parking area. Shovel tests and text excavation units may also be required to identify the NR eligibility status of any newly recorded sites. All sites will be recorded on a Wyoming Cultural Property Form and an inventory and testing report will be prepared, although the report may combine all of the information for the other localities for which archeological work will be performed. See map. An inventory report for the new area surveyed and up-dated Wyoming cultural Properties forms for 48YE141 and 48YE143 will be generated.

National Register test excavations will be conducted at the Sheepsteater Cliff, site 48YE29 to identify if the positive shovel tests from last years' work indicate intact buried stratigraphy and cultural remains. Other sites in this area are severely bioturbated by rodents, buffalo wallows, freeze-thaw activity and do not contain significant information about early peoples use of the area and its resources. If intact cultural levels are discovered a data recovery plan will be developed to further excavate the area proposed for an expanded parking area. The data recovery plan and actions are not covered under this agreement. The National Register test excavations will be extensive and confined to the area of potential impact from the expanded parking lot. See map. An excavation report and an up-dated Wyoming Cultural Property form for 48YE29 will be generated.

The archeological work needed in support of the water line replacement in the Fishing Bridge developed area includes geophysical testing, ground penetrating radar (GPR) to locate anomalies (potential features) that are buried under the existing road pavement and elsewhere, and excavation units to identify and recover archeological artifacts in the areas of new ground disturbance. Previous water line excavations in the 1940s - 1960s in the Fishing Bridge area and within the boundary of precontact archeological site 48YE1 have twice unearthed human remains buried over 3000 years ago. The object of the geophysical testing and the test excavations is to avoid any anomalies that may indicate burials and to salvage any buried cultural remains (other than human remains) that may be impacted by the new water line. The current water line is buried 7 feet under the road through the Fishing Bridge area and needs to remain in service while the new water line is installed on the other side of the road for approximately 85% of the length of the new installation. The remaining 15% of the new water line installation will be new ground disturbance away from the roadway and it in this area that both GPR and salvage excavation work will be needed. The proposed new water line will be re-routed to avoid impact to buried cultural layers to the greatest extent possible and will absolutely not impact any features that appear to be human burials. If salvage excavations indicate the possibility of human burials, the least intrusive probing will be conducted to identify the nature of the buried cultural remains and if human remains are suspected all work will stop before impact to the remains occurs. Yellowstone NP will supply a map of the existing water line and the proposed location for the new water line. NAGPRA-related actions are not covered by this agreement.

The analysis of the GPR results will guide the proposed placement of the water line and subsequent test and salvage excavation units. An excavation report, including the GPR report, as well as an up-dated Wyoming Cultural Property form for 48YE1 will be generated.

The historic Isa Lake Bridge is scheduled for major rehabilitation and reconstruction in the near future. In order to rehabilitate the bridge in its present location a temporary bridge will be constructed adjacent to the existing bridge and the road alignment will temporarily be altered to facilitate the temporary bridge. A class III archeological survey of the area adjacent to and in the vicinity of the bridge and the proposed temporary and current road alignment is needed prior to planning the project. The Isa Lake Bridge is situated at the top of Craig Pass and the waters from one side of Isa Lake drain into the Atlantic Ocean and the waters from the other side of the lake drain into the Pacific Ocean. Previous iterations of the road corridor in this area involved an earthen berm and a culvert, prior to the 1930's construction of the present wood bridge. The high mountain location, the adjacent wetlands, the narrow corridor of passage, and previous road construction suggest that possible precontact archeological sites will be scant. If significant archeological sites are located National Register testing of the sites will be conducted. An inventory report and Wyoming Cultural Properties forms will be generated. If no cultural properties are found the inventory report will indicate the area surveyed, the methods used and other pertinent information.

For all of the archeological work described above except the GPR investigations, the University of Montana field crew will provide GIS data in the form of shapefiles that outline site boundaries, datums (if determined), lineal sites/features, and isolates. The perimeter of surveyed areas can be delivered as hardcopy sketch maps if GPS is not available. These sketches will be on USGS 7.5 minute topographic quadrangles. The data will be accompanied by Federal Geographic Data Committee (FDGC) metadata and will be delivered in a digital format. Photographs will be taken of survey areas, documented sites, and site features to be included in the reports and site forms.

Outcomes with Completion Dates: September 30, 2011

- (1) National Register Test Excavations and Report at Sheepeater Cliff 48YE29
- (2) Ground Penetrating Radar Investigations for new water line at Fishing Bridge (48YE1)
- (3) Test Excavations in areas of new ground disturbance for Fishing Bridge water line (48YE1) and report
- (4) Inventory and National Register Testing for access and horse trailer parking area on Swan Lake Flats with report
- (5) Archeological Inventory of area around Isa Lake Bridge
- (6) GIS data (shapefiles) for all archeological sites recorded and digital copies of all reports including a completion report of the salient components of the archeological work (for RM-CESU)
- (7) Original field forms, maps, and other data
- (8) ANCS+ database

Keywords: Archeological inventory, National Register Testing, Sheepeater Cliffs, Fishing Bridge, and Isa Lake Bridge Yellowstone National Park, University of Montana archeological field school, Montana Yellowstone Archeological Project (MYAP)