Project Completion Report
Rocky Mountains Cooperative Ecosystem Studies Unit (RM-CESU)

Project Title: UNIVERSITY OF MONTANA NATIONAL REGISTER TESTING AT SHEEPEATER CLIFF, AND ADDITIONAL WORK AT FISHING BRIDGE, HORSETRAILER PARKING, AND ISA LAKE BRIDGE

Project Code: UMT-234, J1580100301

Type of Project: RESEARCH

Funding Agency: National Park Service FLHP FUNDS

Partner University: THE UNIVERSITY OF MONTANA

NPS Agreement Technical Representative:
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Start Date of Project: May 20, 2010
End Date of Project: September 30, 2013

Funding Amount: $45,000

Project Summary
This project includes archeological inventory and National Register testing for the Golden Gate to Norris segment of road reconstruction to facilitate evolving designs for improved parking areas. It also includes an archeological inventory for the FHWA project to replace the Isa Lake Bridge. Additional archeological excavation work and geoarcheological prospecting work has been added to the RM-CESU agreement to facilitate the replacement of the buried water line at Fishing Bridge within the boundaries of precontact buried archeological site 48YE1, which is a NPS line item funded project.

The archeological inventory and NR testing for the area proposed for new horsetrailer parking and access road is located in the northwestern portion of Yellowstone National

Park, in the west central portion of the 7.5 minute Mammoth, Wyoming-Montana Quadrangle from the Grand Loop Road south of Glenn Creek on Swan Lake Flats. Sheepeater Cliff, site 48YE29, is located in the northwestern portion of the park approximately 3.8 miles south of Glenn Creek in the southwest corner of the Mammoth, Wyoming 7.5 Minute Quadrangle. The Geophysical testing and excavation units in support of the new water line are located on the north shore of Yellowstone Lake in the central portion of the park within the boundaries of prehistoric site 48YE1 located in the Fishing Bridge developed area. The Isa Lake Bridge is located in steep mountain terrain on the Grand Loop Road as it passes over Craig Pass between Old Faithful and West Thumb. The area is in the middle western portion of the Craig Pass, Wyoming 7.5 minute Quadrangle, approximately 8 miles east of Old Faithful.

The University of Montana completed its 2010 field season between May 15 and September 15, 2010, for the National Register testing project. The main goal of the projects was to determine the National Register eligibility of several sites in the vicinity of Sheepeater Cliffs, Swan Lake Flat, Isa Lake Bridge, and Fishing Bridge. The university surveyed and tested approximately 150 acres within these various areas, including 18 acres at Swan Lake Flat, 2 acres at Sheepeater Cliff, 100 acres at Fishing Bridge, and 7 acres at Isa Lake Bridge. A total of 19 sites were evaluated, including four at Swan Lake Flat, one at Sheepeater Cliff, 13 at Fishing Bridge, and one at Isa Lake. Of the 19 sites visited during the field season, 12 were also evaluated for their National Register eligibility. These sites were tested by the excavation of 403 shovel test pits and 33 1x1-meter test units, yielding approximately 2,900 artifacts. Of the 403 STPs, 78 were excavated at Swan Lake Flat and 325 were excavated at Fishing Bridge. Of the 33 test units, six were excavated at Swan Lake Flat, 12 at Sheepeater Cliff, and 12 at Fishing Bridge. In addition to the hand excavations, the university also used sub-surface imaging, including magnetometry and ground-penetrating radar, to evaluate the potential for landforms to have buried archaeological features. This work was conducted at Fishing Bridge and yielded positive results. Six prehistoric features were identified at 48YE549 behind the Fishing Bridge Store, with each feature dating to between approximately 1,300 and 200 years ago, during the Late Prehistoric period. Ethnobotanical and pollen analysis of the feature contents is on-going, as is analysis of source provenance of approximately 50 obsidian and dacite artifacts collected during survey and excavations. The work at these locations was conducted by faculty, staff, and students from the University of Montana, as well as field school students from six additional universities from across North America.

All of the archeological inventory and NR testing work was completed and the final report for the Isa Lake archeological survey has been received. The draft report(s) for the NR and geophysical testing at Fishing Bridge, Sheepeater Cliff, and Swan Lake Flats have been received in the spring of 2011. All collected artifacts will be processed and cataloged for placement in the YNP Museum collections.

The total cost of the project is $45,000 with $25,000 provided by the parks line item budget for the Fishing Bridge Water System replacement and $20,000 from the FHWA for archeological support on the Golden Gate to Norris and Isa Lake Bridge projects. The project was facilitated through a Rocky Mountain CESU agreement with the direct costs being $38,298 and the indirect costs (17.5% CESU) being $6,702. All of the funds were obligated and the project, upon receipt of the final reports will be completed.

The direct benefit to the public from this project will be improved road, bridges, and water lines. Components of the project will be presented at various archeological meetings and conferences

Prepared by Elaine Skinner Hale, Archeologist, RPA, Yellowstone National Park 307-344-2156, July 26, 2010

Number of students participating in this project: undergraduates, graduate students, degrees conferred.

The University of Montana graduate students, under the direction of Dr. Douglas MacDonald, conducted all of the archeological work. Field work took approximately 1920 hours with project management and supervision taking another 300 hours. Elaine Skinner Hale, YNP archeologist contributed 250 hours assisting with field work and in project coordination. The analysis of the geophysical testing and artifact processing will be completed at the University of Montana, and the production of the final reports completed by spring of 2011. The results of the geophysical testing in the Fishing Bridge area will guide the continued archeological work needed to support the replacement of the water line in the area.

Note: Final product is a CD on file at Cultural Specialist's Office, Rocky Mountains Cooperative Ecosystem Studies Unit, University of Montana, Missoula, Montana. As of 7/2011, Basement Room 003, Davidson Honors College.