

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Archeological Projects at Yellowstone NP North Entrance, Obsidian Creek Near Apollinaris Springs, Norris Parking Area, and Madison Power Line Corridor

Discipline: Cultural
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Montana
Effective Dates: 4/1/2011 - 9/30/2013
Funding Amount: \$15,000

Investigators and Agency Representative:

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Project Abstract:

48YE357 Heavy Equipment Access to Obsidian Creek

A recent decision by the park staff working on the road rehabilitation/reconstruction projects involves returning a short portion of Obsidian Creek to its original channel prior to the new channel and culvert under the road created in the 1930s road reconstruction. This work will require road construction equipment to access Obsidian Creek upstream, to the east of the present road. The area is within the boundary of the National Register eligible site 48YE357 and although previous work has been conducted to identify archeological sites and test for buried cultural deposits in areas along the road corridor where disturbance is expected, this area is outside those previous studies. Paul Sanders, 1995 and 1998, and Mack Short, 1997 conducted initial survey and National Register testing of sites within the road corridor and Paul Sanders, report pending, conducted data recovery excavations at another area of 48YE357 in the summer of 2008.

The previous road corridor inventory did not identify any surface archeological sites within the road corridor but did inventory the area near Obsidian Creek just south of Apollinaris Springs. Since precontact and historic archeological sites are more frequent near streams, and since heavy equipment access to the stream bed will disturb the bank (which will later be rehabilitated) sub-surface testing is necessary in the new area of effect of the equipment disturbance. If sub-surface cultural deposits are located, testing along the creek will continue until an area with no surface or buried cultural deposits can be located.

The additional work would include sub-surface shovel tests at close intervals and where evidence of buried cultural materials is recovered, 1 meter x 1 meter test excavations will be conducted to ascertain the nature and significance of the cultural remains. Buried obsidian and other tool stone flake debris is ubiquitous throughout this area and would not be significant archeological evidence to warrant full data recovery operations. But hunting and domestic tools whose analysis could increase our knowledge of activities, hearths, and other features would be significant and further disturbance of the area should be avoided.

Sub-surface Archeological Testing at 24YE198/118 (the Triangle)

Yellowstone National Park plans to increase parking capacity while separating traffic from parking in two areas, across from the Yellowstone Park Transportation Historic District and across from the businesses located on Park Street in Gardiner, Montana.

The park is also proposing various alternatives for expansion of the North Entrance kiosk area by adding an additional, larger entrance kiosk and additional traffic lanes for in-bound and out-bound visitors and staff. The preferred alternative involves expanding the entrance area and moving all of the facility approximately 100 feet to the northwest of its current location. Pedestrian pathways from the Park Street area to the Roosevelt Arch are being proposed to provide a safe means for pedestrians to view the arch and interpretation panels providing the historic views of the time when it was constructed. To alleviate the congested vehicular traffic around the Roosevelt

Arch, the park is proposing to construct a bypass road east of the arch connecting Park Street in Gardiner to the North Entrance Road, allowing those who do not wish to stop (such as frequent visitors), or have already visited the arch as a pedestrian to enter the park without cluttering the narrow roadway under the arch.

This project will conduct, in spring of 2011, subsurface archeological auger probes, shovel tests, and excavation units in all areas where disturbance is being proposed to ascertain if significant buried cultural deposits are present. If that should be the case, the parking/roadway will be moved to an area with no subsurface cultural remains or a proposal for recovery of archeological data will be developed in consultation with the Montana State Archeologist. Since the results of the subsurface testing could require design changes, and due to the fact that the Finding of No Significant Impact (FONSI) associated with the environmental assessment of this project must be developed in early summer, park staff will work with the University of Montana archeological crew during the sub-surface testing. It is also hoped that a preliminary (or final) report of the testing could be received as soon as possible to facilitate accuracy in our environmental assessment and FONSI and initiate a plan for further archeological data recovery, if warranted. In addition to the testing report, a revised Montana Cultural Site Form for 24YE198/118 will be required.

Norris Parking Area Expansion

Improvements to the Norris Geyser Basin Parking Area are needed to facilitate the larger volume of visitors and the increased number of long RV's that are entering the park. The proposed expansion of the parking area will be on the southeastern portion in a wooded area with rolling topography. In 2002, the Office of the Wyoming State Archaeologist conducted survey 100 feet from the centerline of the Mission 66-period road and parking area in anticipation of improvements to the road and parking area with disturbance confined to the present footprint. The results of that inventory were no historic properties located. The proposed expansion of the parking area is outside the area of previous archeological inventory so additional inventory must be conducted. The additional inventory area is approximately 4 acres and is bounded by the existing parking area to the west, the access road to the parking area to the north, and a line extended from the existing parking area on the south.

The project will require pedestrian inventory of the ground surface to identify any historic or precontact archeological sites expressed on the surface. Shovel tests may be employed at the crew chief's discretion but the rolling nature of the ground surface suggests campsites or work areas may not be present. If archeological artifacts sufficient to meet the definition of a Wyoming Cultural site (greater than 14 prehistoric artifacts or 50 historic artifacts within close proximity) or diagnostic artifacts (any number) are discovered the site (or isolated find) will be recorded on a Wyoming Cultural Properties Form, with three copies provided to the park. A small project inventory report may be provided for this project only or the inventory report may be combined with the Madison Power Line archeological inventory, which will be described later. There is no immediate need for this inventory report as planning for this project will continue through 2012.

Madison Power Line Archeological Inventory

Archeological inventory needs to be conducted within the present boundary of the power line easement from the modern bridge over the Gibbon River south of the Madison Museum, approximately two linear miles south to the power line junction box on the Mesa Pits road. The line was originally constructed in the 1950s, prior to the requirement for archeological survey of the area. To bring the new Madison Waste Water plant on line in mid-summer, 2011, the power company will need to use heavy equipment to install three-phase power to the water treatment plant. Therefore, pedestrian inventory of the utility corridor is needed.

The area has been previously disturbed from power line construction and vegetation clearing and on-going line maintenance. Previous road survey in the vicinity identified a few historic archeological sites but few precontact archeological sites. The power corridor south of the Gibbon River bridge passes through an area near the Firehole Canyon Drive, where historic remains may be found. The ground terrain is forested rolling terrain away from water sources and is not expected to yield a large number of archeological sites. Significant archeological sites, both historic and precontact, have been recorded at Madison Junction and near the Gibbon River. There are also historic archeological dump sites within the Mesa Pits along the old Mesa

Wagon Road. The Mesa road and the last pit (well away from the survey area) is a spring to early summer carcass dump which attracts grizzly bears and is dangerous to approach. Therefore, working as quickly as possible in the Mesa road area, working in a large, noisy group (which may include wetlands and plant specialists), and providing a vehicle to retreat to on the Mesa road is required (as well as the usual bear spray and radios.)

Should historic or prehistoric archeological sites be identified, the field work must include returning to those sites the next day to conduct shovel tests to ascertain the integrity and significance of the sites. A archeological inventory report and Wyoming cultural Sites forms for all newly recorded sites will be provided to the park as soon as possible, to facilitate the needed power line upgrade work.

Outcomes with Completion Dates:

1. Sub-surface excavations within boundary of NR eligible site 48YE357 for heavy equipment access to Obsidian Creek just south of Apollinaris Springs, including small project report
2. Sub-surface testing within boundary of the North Entrance "Triangle" site 24YE198/118 for expansion of roads, parking, entrance kiosk, and pedestrian sidewalks, including small project report
3. Inventory and National Register Testing of archeological sites along an approximately 2-mile linear power line corridor from the bridge over the Gibbon river south of Madison Junction to the power line junction box on Mesa Pit Road, including site forms and inventory report
4. Archeological Inventory of approximately 3 acre area on the south east end of the Norris Geyser Basin Parking Lot for expansion of parking, including site forms and inventory report

1-4 expected completion by December 31, 2012.

5. GIS data (shapefiles) for all archeological sites recorded and digital copies of all reports including an executive summary of the salient components of the archeological work (for CESU)
6. ANCS+ database
7. Archeological inventory report and cultural site forms for the newly inventoried areas (inventory reports for the two areas, Norris Geyser Basin and Madison power line, may be combined)
8. A report on the findings of the sub-surface investigations at 48YE357 and 24YE198/118 (reports for the two areas may be combined although the North Entrance report needs to be expedited)

5-8 shall be completed no later than July 31, 2014.

Keywords: archeology, technical assistance, Yellowstone National Park, University of Montana