

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Geophysical Archaeological Survey and Mapping of Quartermaster Dump Site Area, Fort Laramie National Historic Site

Discipline: Cultural Resources
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Wyoming
Effective Dates: 3/15/2011 - 5/31/2014
Funding Amount: \$10,000

Investigators and Agency Representative:

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Project Abstract:

During the 2010 spring runoff on the Laramie River, major damage was sustained by the Quartermaster Dump downstream from the main fort area. Over 27 meters (90 feet) were lost to erosion at the maximum area of impact. Total length of the impacted area was over 500 feet long. The NPS has been developing a plan to mitigate the damage this flooding caused to cultural resources in the area. The newly exposed riverbank area was examined by archaeologists from the Santa Fe NPS office and both artifacts and features were found to be freshly exposed most of them historic in provenience. An unknown number of features and artifacts have been lost. Based on the 1994 and 1996 work in this area (see Walker 1998), additional intact deposits should continue to exist even further back from the riverbank.

To determine more precisely how much of the Quartermaster Dump area remains, Fort Laramie National Historic Site (FOLA) requires updated geophysical surveys across the dump area to establish the present extent of the dump. The area was previously surveyed in 1994, but over the years the geophysical and archeological data have become compromised due to landscape changes and corruption of the data files. Re-survey of the area is the necessary first step toward a comprehensive mitigation plan for the Quartermaster Dump Site area that would include clear recommendations (e.g., stabilization of sediments, data recovery excavations, etc.). Emphasis for these recommendations is especially needed for the area of the 2010 impact.

Scope of Work and Products

- Geophysical survey with magnetic gradiometer unit to delineate updated site boundaries, artifact concentrations and documentation of artifact types visible on the surface. No collection of artifacts will occur during this project. Exposed items at high risk of loss or vandalism will be reported to FOLA personnel.
- Using Total Station and GPS, document details of landform including riverbank impact area in three dimensions
- Assess options for treatment to address impact; including but not limited to stabilization, data recovery, and/or no-action.

Outcomes with Completion Dates:

Draft technical report January 31, 2014, final report due March 31, 2014 along with accompanying field documentation.

Keywords: Geophysical Survey, Archaeological Survey, Mapping, Fort Laramie NHS, University of Wyoming