

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Archeological inventory and National Register testing on South Side Capitol Hill

Discipline: Cultural Resources
Type of Project: Technical Assistance
Funding Agency: National Park Service
Other Partners/Cooperators: University of Wyoming
Effective Dates: 7/1/2014 - 4/30/2016
Funding Amount: \$70,179

Investigators and Agency Representative:

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Project Abstract: The thermal features that are the unique geologic attractions of Yellowstone National Park are often fluid in their location and dynamic in their presentation. The lower Mammoth Terraces, both unique and dynamic, have developed over a zone of faults through which acidic hot water percolates upward through limestone bedrock which was deposited when ancient seas covered the area. When hot springs water erupts to the surface and cools, limestone precipitates in the form of another mineral, travertine, which forms the terraces. Opal Terrace, located across the road and a little south of the Liberty Cap formation is intermittently active with flowing water and inactive and dry. Through the last century it has been noted that when Opal Terrace is impeded (as by the adjacent tennis court in the 1940s) or during intermittent dry spells, the thermal waters flow under the road and erupt adjacent to the roadway near the Liberty Cap. Over the past few years with Opal Terrace in a dry phase, the thermal waters have flowed under the current road alignment and are creating a new terrace near the Liberty Cap.

Although this has been a reoccurring event the flow of the thermal waters are not well understood because of the numerous faults below the surface, and are currently undermining the existing road bed. The newly forming terrace is adjacent to the roadway and threatens to overtake the road. Temporary measures have been taken to protect the road by using a log bumper but this is not a solution that is advantageous to the maintenance of the road or the accreting new thermal feature. A proposed solution is to take the main flow of traffic, including all heavier traffic, away from the area by employing an old route, first developed during the earlier years of the park which would connect the road to Tower Junction with the road to Norris Junction on the south side of Capitol Hill, the first park headquarters. This would require the construction of less than 1/3 of a mile of road, in the vicinity of the old wagon road alignment and the scant remains of the Mammoth Lodge development, for through traffic while still leaving the area near Opal Terrace and the Liberty Cap (and new thermal terrace) available for auto and pedestrian traffic and the Lower Terraces parking areas.

Work To Be Done: Although several developed areas are within the area proposed for the Mammoth thermal bypass no archaeological survey has been completed in the area. A block survey of approximately 63 acres from across the top of the Capitol Hill area on the north, to the current Mammoth concessionaire stable and horse ride operation, on the south, and bounded on the east by the current Norris Junction road and to the west Tower Junction road is needed. The work must include the inventory and mapping of all historic and prehistoric sites and subsurface testing of all identified sites sufficient for determination of National Register eligibility for each archeological site.

The earliest known buildings on top of Capitol Hill (the Blockhouse and a few other housing [Supt.'s house, Buffalo Keepers cabin] and supporting buildings [barns, powerhouse, etc.]) along with an old quarry and road leading to the quarry need to be documented and tested. The wagon teamsters' bunkhouse, wagon sheds and large stables and other support buildings and the old road are located in the area proposed for the bypass. The location of these structures has never been mapped, or sub-surface tested although several of the building sites were impacted by the road subsequently built across the south slopes of Capitol Hill. The previous road alignments supporting both wagon and vehicular traffic needs to be documented. Additionally, from 1917 until its complete removal by 1950, a large Mammoth Lodge, Camp, Cabins, and Swimming Pool were located in this area. That development also needs to be documented and sub-surface tested for NR eligibility. It was also noted by a previous NPS archeologist that a surface prehistoric lithic scatter was located in this area but there was no mapping or other documentation of the prehistoric site.

Due to the fact that the area, although now not used for development, was previously heavily developed during several eras of park development, it is anticipated that a substantial amount of

mapping of no longer extant structures will be necessary. It will be necessary to conduct sufficient sub-surface testing to reach a determination on the integrity of any buried cultural remains. There will also be some archival research necessary to round out our knowledge of the development and use of the historic properties in the area although a substantial amount of that work has previously been completed.

Outcomes with Completion Dates: The field work needs to be conducted as soon as possible during the summer of 2014, presumably after July 1, 2014. The report describing both the inventory and National Register testing will need to be in final draft form by December 2014 so that YNP may complete the review and edit of the draft. A final report is needed by the end of January, 2015 so that YNP may conduct consultation with the WYSHPO prior to progress on the final design of the project.

Keywords: National Register, archeological inventory, South Side Capitol Hill, Yellowstone National Park, University of Wyoming