

**Award Number:** P14AC00954

**Project Number**: MNA-68

**CFDA #:** 15.945

**Park/NPS Unit: Glen Canyon National Recreation Area**

**Title of Project: Conduct Background Research and Pilot Inventory to Determine If Unacceptable Impacts to Lakeshore Cultural Resources Exist in Glen Canyon National Recreation Area**

**Administered through the:**  Colorado Plateau Cooperative Ecosystem Studies Unit Cooperative Agreement Number H1200-09-0005

**CESU Partner: Museum of Northern Arizona**

**PROJECT CONTACTS:**

**Principal Investigator:** Kimberly *Spurr/Supervisory Archeologist, Museum of Northern Arizona, 3103 N. Fort Valley Road/Flagstaff, AZ 86001, 928-774-5211, extension 260, kspurr@mna.mus.az.us*

**Researcher :** Kimberly *Spurr (see above for contact info)*

**Partner Administrative Contact*:*** *Lynn Yeager, Controller, Museum of Northern Arizona, 3103 N. Fort Valley Road, Flagstaff, AZ 86001, 928-7745211, extension 253. lyeager@mna.mus.az.us*

**NPS Certified ATR:** *Rosemary Sucec, Cultural Resources Program Manager, Glen Canyon National Recreation Area, P.O. Box 1507, Page, AZ 86040, 928-608-6277, rosemary\_sucec@nps.gov*

**NPS Technical Expert:** *Thann Baker, Archeologist, Glen Canyon National Recreation Area, P.O. Box 1507, Page, AZ 86040, 928-608-6263, thann\_baker@nps.gov*

**FUNDING INFORMATION:**

**Amount Funded:** $43,117.51

**NPS Account Numbers:** PX.P0199540A.00.1 ($40,707.00), PH.P0200720A.00.1 ($2410.51)

**Fund Source (e.g., ONPS, FLREA, CRPP, CESU, etc.):** FLREA, CCM

NPS Funding

Is this funded using a reimbursable account number? If yes, IMR contracting needs a copy of the Interagency Agreement.

**PROJECT DATES:**

**Start Date: June 1, 2014**

***NOTE: This Task Agreement will become effective on the date of final signature or the effective date of the Award document, whichever is later.***

**End Date:** *February 28, 2015*

**NPS Administrative Contacts**

**CESU Coordinator:** Todd Chaudhry, Ph.D., National Park Service/CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011, 928-523-6638, Fax: 928-523-2014; [todd\_chaudhry@nps.gov](mailto:todd_chaudhry@nps.gov)

**Intermountain Region Administrative Contact:** Kelly Adams, Grants and Agreements Specialist, National Park Service, 12795 West Alameda Pkwy, Lakewood, CO 80228. Phone: 303-969-2303 Fax: 303-969-2992 Email: [Kelly\_adams@nps.gov](mailto:Kelly_adams@nps.gov)

**FEDERAL FINANCIAL REPORTS AND DRAWDOWN SCHEDULE:**

***Federal Financial Reports*** (Check as required for project based on spending plan, period of performance, risk, cooperator history, etc.)

{ } Quarterly { } Semi-annually { } Annually {x} Final

**Project SCHEDULE AND TECHNICAL REPORT DEADLINES:**

List all technical reports and products in sequential order as required in the scope (more lines and milestones can be added as needed):

*Project Start Date* – *July 1, 2014*

*Technical progress reports –* {x} Quarterly { } Semi-annually {x } Annually

(Check as needed from PI to monitor progress of specific project. Content should be addressed in the scope.)  
  
*Investigator’s Annual Report (IAR)* – *Not applicable*

*Database, Collections/Specimens, Archives, and Maps provided to the NPS ATR or Technical Expert* – *January 31, 2015*

*Draft Final Report* – *December 31, 2014*

*Final Report* – *February 28, 2015*

*Project End Date* – *March 31, 2015*

*Final SF425 FFR* must be submitted within 90 days of project end date

**PAYMENTS**

**2 CFR PART 215.22*:*** Cash advance (drawdown) to recipient organization shall be limited to the minimum amounts needed and be timed to be in accordance with the actual immediate cash requirements of the recipient organization in carrying out the purpose of the approved program or project. The timing and amount of cash advances shall be as close as is administratively feasible to the actual disbursements by the recipient organization for direct program or project costs and the proportionate share of any allowable indirect costs.

**2 CFR PART 215.25 (8)(e)(1):** Incur pre-award costs 90 calendar days prior to award or more than 90 calendar days with the prior approval of the Federal awarding agency. All pre-award costs are incurred at the recipient’s risk. (i.e. the Federal awarding agency is under no obligation to reimburse such costs if for any reason the recipient does not receive an award or if the award is less than anticipated and inadequate to cover such costs.)

**CESU REQUIRED PRODUCTS (may be different from those products required by the ATR – See Statement of Work for Products required by the NPS unit):**

The Principal Investigator will prepare a brief report abstract suitable for public distribution and two hard copies and an electronic version (in PDF file format) of the final report and mail all toTodd Chaudhry, National Park Service, CPCESU, NAU P.O. Box 5765, Flagstaff, AZ 86011. Please be sure to include the project number (e.g.; NAU-###, UMT-###, and UAZDS-###) and the P number on the cover page of the final report.

**PROJECT ABSTRACT:**

Lake Powell boating visitors can potentially cause inadvertent and intentional deterioration of Lakeshore cultural resources. Impacts to cultural resources have been documented by park staff over time. NPS Management Policies 2006 1.4.7.1 Unacceptable Impacts require that the service place a standard that offers assurance that impairment will not occur. The CESU partner, Museum of Northern Arizona, will perform the necessary work to position GLCA to make a determination as to whether or not unacceptable impacts are occurring and if so, what steps can be taken to avoid impacts that could be considered unacceptable or lead to impairment. They will conduct background research to develop appropriate monitoring forms and then conduct a pilot field study of 8 – 10 days to test the validity of the forms. A report will summarize the results of the literature review, how the monitoring protocols were established, and analyze the baseline data collection to assess the impacts to cultural resources. It will also recommend management strategies based on limited data collection and suggestions for modification of forms that will be used in a full scale assessment in FY15.

**Scope of Work:**

Four tasks will be completed for this project:

1. **Background Research**: Review existing literature and data to establish expectations for the nature and severity of potential impacts, as well as the 2006 NPS Management Policies as it pertains to avoiding impairment and/or determining if unacceptable impacts are occurring. These expectations will inform the development of appropriate monitoring protocols through established indicators and standards for quality. Sources of information may include (a) published and unpublished material related to visitor behavior and visitor impacts having the potential to contribute to effects on cultural resources; (b) technical reports describing the physical processes of erosion in specific environmental and geomorphic contexts relevant to the study area; (c) site-specific records and monitoring reports from GLCA describing observed impacts.

Expectations may be developed for (a) types of sites being impacted (e.g. artifact scatters, architectural, etc.); (b) context of sites being impacted (open, sheltered, etc.); (c) types of impacts occurring (intentional: collection piles, architectural modifications, defacement, etc.; unintentional: littering, graffiti, digging boat anchors, etc.); (d) causes of impacts (day-use; overnight camping; group size; etc.) ( e) acceptability of impacts (scale of acceptable to unacceptable); (f) potential management responses; (g) factors identified in the “No-Impairment Policy.”

Deliverables: Summary results of background research in a narrative or table format for review by GLCA. The format and content of the summary must be sufficient to convey the potential range of expectations that will guide the following tasks.

Substantial Involvement: GLCA will contribute staff and materials to support the delivery of relevant documents and data housed at the park to the cooperator. GLCA will also contribute time for review of Task 1 deliverables and conduct the appropriate level of compliance.

Timeline: July – September 2014

1. **Develop Methodology**: Develop appropriate monitoring protocols conforming to the VERP framework that establishes indicators and standards for quality, defines sampling parameters for inventory, and defines strategies and tactics to address identified impacts. This task will include the development of three components in sufficient detail to assess the factors used to determine unacceptable impacts:

Monitoring form indicators of impairment include (a) spatial and temporal extent of impacts: (b) severity, duration, and timing; (c) direct and indirect effects; and (d) cumulative effects.

Sampling strategy [sampling parameters] from VERP include (a) random sample stratified by use zones; (b) judgmental sample directed at sites with documented impacts; and (c) control sample directed at sites with no documented impacts.

Analysis requirements [standards for quality] include describing how the developed methodology will assess impacts and result in recommended management strategies.

Deliverables: Design for archeological monitoring describing monitoring criteria, sampling strategy, and analysis requirements in a narrative format with appended forms and maps for review by the park. The format and content of the survey design must be sufficient to convey the scope of field work and subsequent data analysis.

Substantial Involvement: GLCA will contribute staff and materials to support the delivery of relevant documents and data housed at the park to the cooperator. GLCA will also contribute time for review of Task 2 deliverables.

Timeline: July – September 2014

1. **Monitor for Baseline Data**: Field work (8-10 days) to implement the developed methodology will be conducted to collect baseline data and support data analysis and report production. The cooperator will coordinate with the park on logistics and scheduling field sessions.

Deliverables: Letter report describing the cooperators field work results in sufficient detail to minimally identify the sites monitored and preliminary observations.

Substantial Involvement: GLCA will contribute staff and vessels to support the lake-based monitoring efforts.

Timeline: September or October 2014

1. **Data Analysis/Report Production:** The results of baseline data collection will be analyzed to assess the impacts to cultural resources in the context of factors described in the design for archeological monitoring. Data analysis will account for observations requiring the amendment of expectations, monitoring criteria and forms, and recommended management strategies.

Deliverables: A draft report will be prepared and submitted to the park for review describing the results of field work, data analysis, and amendments to the original methodology and forms as necessary. The report will contain sufficient detail to evaluate the quality and effectiveness of the monitoring and data analysis efforts with appended forms, maps, photographs, etc. Following a 30-day review period, the cooperator will submit a final report incorporating any review comments.

Substantial Involvement: GLCA will contribute staff time for review of Task 4 deliverables.

Timeline: Draft final report due December 31, 2014

**COOPERATIVE AGREEMENTS OR TASK AGREEMENTS INVOLVING COOPERATORS WORKING ON-SITE**

**Background**

In cooperative agreements or task agreements with universities where the university utilizes interns, student employees, research associates (RAs) or cooperators on-site (hereafter called “cooperator personnel”), these cooperator personnel sometimes work on government sites in close proximity to federal employees. It is illegal (without specific statutory authority) for federal employees to directly supervise the cooperator personnel or any university employees or for the students or other university employees to supervise federal employees. When cooperator personnel are working on an NPS site, it is important that there is a clear distinction between students and federal employees.

**Office Environment and Vehicles**

* The office space of the cooperator personnel and NPS personnel should be clearly labeled (Name and NPS or University affiliation on office or cubicle space).
* Cooperator personnel should be listed separately from NPS personnel in telephone lists, other identification or organizational rosters, and publication credits.
* Cooperator personnel should not receive “all-employee” e-mail or other communications intended for NPS personnel (unless it relates directly to the work the cooperator is doing for the NPS). When the e-mail does relate to the work being done, a copy of the same e-mail message should be sent to the University or cooperator’s supervisor.
* Cooperator personnel may use NPS e-mail systems when the communication relates directly to the work the cooperator is doing for the NPS. The e-mail addresses of the cooperator personnel must include a label associated with their NPS e-mail address that identifies the cooperator’s status (i.e., “Linda Webb, Cooperator” would be the label associated with the e-mail address, [linda\_webb@contractor.nps.gov](mailto:linda_webb@contractor.nps.gov)). Doing so clearly identifies this individual each time they send an e-mail message using the NPS system, and it identifies their status as a research associate, student intern or student employee in the e-mail directory.
* Unless stipulated in the agreement, cooperator personnel should not drive government vehicles.
* Unless stipulated in the agreement, cooperator personnel should not ride as a passenger in a government vehicle. When this is planned as part of the agreement, an appropriate amount of liability insurance should be negotiated.
* Prior written approval by the Park Superintendent or Center Manager must be obtained in order for a task to allow cooperator personnel to drive or ride in government vehicles.

**Supervision and Scheduling**

* Each task must specify the university’s/cooperator’s supervisor for the cooperator personnel.
* Unless stipulated in the agreement, NPS staff should not set hours for cooperator personnel, specify where the work should be done, or conduct performance appraisals. National Park Service staff may give performance feedback to the cooperator personnel supervisor.
* Cooperator personnel should report leave, scheduling, and other related issues to the university or cooperator’s supervisor, not to NPS employees. The supervisor of the cooperator personnel should then communicate with the NPS. National Park Service employees cannot directly supervise cooperator personnel on a day-to-day basis. Work should be given to the cooperator personnel (via the cooperator’s supervisor) on a “task basis.” Cooperators should work without NPS supervision to accomplish each task, although technical consultations and cooperation is permissible.
* The Cooperator will be responsible for any disciplinary action needed to correct student employee conduct or performance problems. The NPS agreements technical representative will inform the university/cooperator’s supervisor of any conduct or performance problems.
* The Cooperator will remove student employees from their positions if they fail to improve performance or address conduct issues.
* The NPS will review and provide feedback to students or interns regarding work assignments.
* The NPS will inform the cooperator of conduct or performance problems with cooperator personnel so that the university can counsel employees and correct the performance problems.
* The NPS will recommend to the cooperator dismissal of cooperator personnel based on conduct or performance issues.
* The Cooperator will hire students, interns or RAs to work on NPS tasks identified in the agreement. Hiring will be conducted in consultation with the NPS Agreements Technical Representative (ATR).
* The Cooperator will: pay students, interns or RAs for hours they have worked in support of the agreement.

**Representation and Communication**

* Cooperator personnel cannot in any way represent themselves to the public as NPS employees.
* Cooperator personnel are required to wear visible identification at all times.

**Other Issues**

* Cooperator personnel should not list an NPS affiliation on publications, but rather should list the cooperative agreement under which the work was performed.
* Cooperator personnel should not be invited to official NPS “social” events.
* Cooperator personnel will follow the local policy of the facility when federal facilities are closed due to early release for holidays, snow days, etc.

**PRODUCTS:**

* Monitoring form specifically designed to assess whether impairment exists of the cultural resources along the Lake Powell Shoreline;
* A report summarizing the literature search, the results of the pilot survey, and some sense of the condition of impacts from that. Will also include recommendations for a full-fledge study in subsequent years when the WASO funding is received. That may include modifications to the monitoring form based on the pilot survey, among other things.

**BUDGET:** See attached budget