

NATIONAL PARK SERVICE
FINANCIAL ASSISTANCE: NOTICE OF INTENT TO AWARD

This announcement is not a request for applications.

This announcement is to provide public notice of the National Park Service's intention to award a task agreement under a previously competed or single source justified master cooperative agreement.

ABSTRACT	
Funding Announcement Number	P17AS00654
Project Title	Analysis of Late Pleistocene and Holocene Environmental Change and Landscape Evolution in White Sands National Monument
Recipient	Vance Holliday, University of Arizona
Anticipated Federal Funding	\$41,290
Non-federal Cost Share	\$3,103
Anticipated Period of Performance	September 6, 2017 – August 31, 2020
Award Instrument	Task Agreement
Statutory Authority	54 U.S.C. §100703
CFDA # and Title	15.945 CESU
Point of Contact	Katie Gaertner Katie_gaertner@nps.gov

BACKGROUND AND OBJECTIVES

Cooperative Agreement Number P17AC00671 was entered into by and between the Department of the Interior, National Park Service, (NPS), and the University of New Mexico (hereafter referred to as 'Recipient') for the purpose of providing research, technical assistance, and/or education, as described below. Unless otherwise specified herein, the terms and conditions as stated in the Cooperative Agreement will apply to this Task Agreement. This agreement is also subject to the terms and conditions of Cooperative Agreement Number P14AC00921 for the Colorado Plateau Cooperative Ecosystems Studies Unit.

STATEMENT OF WORK

Sampling Areas

Field work and sampling is a necessary first step to the proposed project. Searching for suitable deposits to investigate can be accomplished by examining natural exposures, in particular along the bluffs of western Alkali Flats, and via soil coring, focusing on settings accessible to coring equipment and that might have continuous sedimentary records conducive to preserving ancient plant remains. Several sections are known along western Alkali Flats exposing long, dateable stratigraphic sequences. Sequences suitable for coring and that likely contain paleobotanical records from Paleoindian times are found in Garton Draw, which crosses a WHSA parcel on the southeast side of U.S. 70, across from WHSA headquarters. Additional sampling areas may be found in the prehistoric paleo-lakes and wetlands in the basin.

Methods

Establishing a numerical chronology is essential for understanding the evolution of the landscape and

plant communities and for making regional comparisons with such chronologies as well as archaeological sequences elsewhere. The most accurate and precise as well as most applicable dating method is radiocarbon (C14). Samples need only contain carbon (typically as charcoal, soil organics, terrestrial shell, or bone). OSL dating (optically stimulated luminescence) may also be applied where carbon is not available, but siliciclastic sediments (e.g., dune sands) are available, although OSL precision is significantly lower than radiocarbon.

A wide array of potential paleobotanical analyses are available. Preservation issues dictate that the most likely plant remains to be present in the Tularosa Basin are phytoliths (silica plant waste) and macrobotanical remains (e.g., twigs, leaves; charcoal). Pollen and diatoms may also be locally preserved. Stable carbon and nitrogen isotopes should be ubiquitous as well.

Kick-off Meeting and Finalization of Work Plan (September-October 2017)

Shortly after the agreement is approved a conference call will be conducted to review the final approved agreement, finalize work plans, and start project planning.

Pre-field Planning (September - October 2017)

Prior to the initiation of fieldwork, the recipient will review the GIS files for project boundaries. Additionally, they will also review the files of all previously documented sites within the survey area and the shapefiles for the site boundaries will be downloaded into sub-meter GPS units. The recipient will also consult with the Monument about the in-field documentation of surface artifacts.

Fieldwork (November 2017- June 2019)

Field work and sampling will be composed of searching for suitable deposits to investigate by examining natural exposures, in particular along the bluffs of western Alkali Flats, and via soil coring, focusing on settings accessible to coring equipment and that might have continuous sedimentary records conducive to preserving ancient plant remains. Establishing a numerical chronology (mapping the chronology) is essential for understanding the evolution of the landscape and plant communities and for making regional comparisons with such chronologies as well as archaeological sequences elsewhere. Sampling locations will be adjusted as samples return from the lab.

Lab Analyses (November 2017- January 2019)

Lab analyses will consist of a wide array of potential paleobotanical analyses as well as dating. Lab analyses will be completed for phytoliths (silica plant waste), macrobotanical remains (e.g., twigs, leaves; charcoal), pollen, and diatoms. Stable will also be tested for carbon and nitrogen isotopes, and dating will be completed radiocarbon (C14) methods for carbon based materials (typically as charcoal, soil organics, terrestrial shell) and OSL (optically stimulated luminescence) for inorganic materials.

Report Production (January 2019-March 2020)

A draft final report will be produced for review detailing the findings of the project and recommendations for future management. Review comments on the draft report will be incorporated and the final report printed and delivered along with GIS datasets. Information and products developed will be shared through peer reviewed publications and the development of interpretive materials in the future.

B. Project schedule and products:

Task Schedule

Task No.	Description	Estimated Dates
1	Kick-off Meeting and Finalization of Work Plan	<i>September-October 2017</i>
2	Pre-field Consultation and Planning	<i>September - October 2017</i>
3	Fieldwork	<i>November 2017- June 2019</i>
4	Lab Analyses	<i>November 2017- January 2019</i>
5	Report Production	<i>January 2019-March 2020</i>

Project End Date: 30 August 2020

RECIPIENT AGREES TO:

1. Conduct site survey, data analysis, and data entry using NPS data management applications and guidelines.
2. Provide project reports including informal briefings on the project and written final reports.
3. Complete application procedures, to obtain park research permits prior to initiating fieldwork and to abide by all conditions of research permits.
4. Not conduct ground-disturbing research activities without prior approval from WHSA park superintendent.
5. Not publish or publicly divulge specific locality information for sensitive, rare, or endangered species or cultural sites located at the park.

NATIONAL PARK SERVICE AGREES TO:

1. Provide information needs, priorities, guidelines, data management specifications and applications, and technical specifications for the park.
2. Provide cultural clearance and documentation according to Section 106 of the National Historic Preservation Act and any other applicable statutes, regulations, and guidelines.
3. Provide environmental clearance and documentation according to the National Environmental Policy Act and any other applicable statutes, regulations, and guidelines.
4. Assist the recipient in applying for research permits using NPS' Internet-based Research Permit and Reporting System.
5. Review inventory plans, draft reports, technical information, study/ research methods, and maps and provide written comments for the final report.

6. Provide knowledgeable personnel in the area and/or obtain and provide existing resource inventory and monitoring data and materials useful to the project.
7. Transport researchers to remote park areas through White Sands Missile Range.
8. Provide park housing (if available) for researchers visiting the park.
9. At its discretion, the NPS may choose to have a peer review of the draft report.