

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 financial assistance for the following project activities without competition.

ABSTRACT	
Funding Announcement Number	P17AS00454
Project Title	Quantifying the effects of the 2016 Coyote Fire on fuel loading and forest structure in Guadalupe National Park
Recipient	Wesleyan University
Anticipated Federal Funding	\$0
Anticipated Period of Performance	7/10/17-7/10/22
Award Instrument	Cooperative Agreement
Statutory Authority	54 U.S.C. §101702(a)
CFDA # and Title	15.944 Natural Stewardship
Single Source Justification Criteria	Unique Qualifications
Point of Contact	Katie Gaertner Katie_Gaertner@nps.gov

BACKGROUND AND OBJECTIVES

The objective of this Agreement is to increase the understanding of the 2016 Coyote Fire characteristics and of changes in vegetation and fuel patterns in Guadalupe Mountains National Park. Specifically, the Agreement is intended to:

- 1) Collect existing plot and landscape-scale data related to vegetation, fuel loading, and fire regime attributes and forest structure related to characterize changes in live and dead and downed fuel loadings in response to the Coyote Fire; and
- 2) Communicate results and implications to NPS personnel, managers from other areas who are confronting similar fuels management challenges, and the public.

Use of existing datasets collected in Guadalupe National Park (GUMO) will be necessary to assess drivers of recent fire regime attributes and to characterize changes in vegetation and fuel related to large wildfire occurrence. The project requires a cooperator who is familiar with the fire ecology and vegetation trends of the Chiricahua Mountains and Sky Islands ecosystems. In addition, the cooperator must have a demonstrated ability to collect and interpret field samples necessary to inform models of landscape-scale fire regime attributes and vegetation and fuel patterns. The cooperator also must be skilled in techniques for assessing and quantifying changes in fuel loads and forest stand structure.

Dr. Helen Poulos, Adjunct Assistant Professor of Environmental Studies at Wesleyan University, is a forest and fuels management expert who has worked in west Texas and other Sky Island ranges for almost 20 years. She has over 30 peer-reviewed publications and reports on the ecology and fire ecology of the Madrean pine-oak and mixed conifer forests across the region. In addition, she has a unique set of vegetation and fuels monitoring plots that were installed in Guadalupe Mountains National Park in 2009 prior to the recent large wildfire. Dr. Poulos has an extensive record of communicating results to a wide range of management, scientific, and public audiences. She was on the steering committee for the recent

2016 Association for Fire Ecology conference entitled “Beyond hazardous fuels: Managing fire for social, economic, and ecological benefits,” and at that conference she moderated a special session on vegetation type conversion in response to high severity wildfire. Dr. Poulos also has published and translated scientific results for managers and general audiences through newspaper articles, technical reports, and presentations.

STATEMENT OF WORK

Information transfer to the public and other land managers will be a major component of this project. The Coyote Fires in the Guadalupe Mountains burned 75% of the mountain range and its effects can be observed throughout the park. This level of visibility provides opportunities to highlight the influence of fire in the Sky Islands and the role of fire science in informing current and future management efforts in the Park and in related ecosystems. In addition, public, private, and non-governmental organizations that manage Sky Islands and are concerned with fire and vegetation trends could directly use the information provided by this project to further their understanding of these systems and achieve their organizational goals. Results from this collaboration will be submitted for publication in peer-reviewed scientific journals and will be presented at national and regional scientific conferences. These outreach activities provide opportunities for the scientific community to benefit from the research results by advancing knowledge about Sky Island fire ecology. Wesleyan University offers courses in forest ecology, conservation, and environmental science and the results from this project will be used in curriculum development to train the next generation of forest scientists, land managers, and policy makers.

RECIPIENT AGREES TO:

1. Provide previously collected pre-fire vegetation inventory data to be incorporated into the analysis products.
2. Collect and analyze additional field data using accepted scientific methods to characterize the post-fire patterns of vegetation and fuel loadings.
3. Relate changes in forest stand structure and fuel loadings to fire severity and topography.
4. Submit peer-reviewed journal articles for publication in a scientific journal.
5. Produce written reports of the project activities with sufficient detail of data collection methods and data summaries to allow for the data to be used in other collaborations in the future and for the development of recommendations for fire management planning for GUMO.
6. Provide spatial and tabular data generated by the project to GUMO in mutually agreed upon standard formats.

NATIONAL PARK SERVICE AGREES TO:

1. Work with the Recipient throughout the project to provide existing NPS data to be incorporated into the analysis products and to review analysis methods and reports.
2. Provide input into the project to ensure that data and analysis products are compatible with past efforts and will adequately address fire management needs at GUMO.
3. Provide assistance for the collection of field data as necessary to support the project.
4. Provide reimbursement of project costs in accordance with approved budget.
5. Analyze the effects of this project to ensure National Environmental Policy Act (NEPA) compliance, propose necessary mitigations, and process a NPS research permit for the project activities.

SINGLE-SOURCE JUSTIFICATION

NATIONAL PARK SERVICE SINGLE SOURCE POLICY REQUIREMENTS

Department of the Interior Policy (505 DM 2) and National Park Service Policy FAP&P 1443-2015-06 requires a written justification which explains why competition is not practicable for each single-source award. The justification must address one or more of the following criteria as well as discussion of the program legislative history, unique capabilities of the proposed recipient, and cost-sharing contribution offered by the proposed recipient, as applicable.

In order for an assistance award to be made without competition, the award must satisfy one or more of the following criteria:

- (1) Unsolicited Proposal – The proposed award is the result of an unsolicited assistance application which represents a unique or innovative idea, method, or approach which is not the subject of a current or planned contract or assistance award, but which is deemed advantageous to the program objectives;
- (2) Continuation – The activity to be funded is necessary to the satisfactory completion of, or is a continuation of, an activity presently being funded, for which competition would have a significant adverse effect on the continuity or completion of the activity. A single source on the basis of continuation must demonstrate that competition would result in a substantial duplicate cost to the government that cannot be recovered through competition.;
- (3) Legislative intent – The language in the applicable authorizing legislation or legislative history clearly indicates Congress' intent to restrict the award to a particular recipient of purpose;
- (4) Unique Qualifications – The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as location, property ownership, voluntary support capacity, cost-sharing ability if applicable, technical expertise, or other such unique qualifications;
- (5) Emergencies – Program/award where there is insufficient time available (due to a compelling and unusual urgency, or substantial danger to health or safety) for adequate competitive procedures to be followed.

NPS did not solicit full and open competition for this award based the following criteria:

Dr. Poulos' lab at Wesleyan University is uniquely qualified to cooperate in this project due to its history of work at GUMO and throughout the region, and its technical expertise in collecting and analyzing vegetation and fuel data in this locale and in other similar ecosystems. Dr. Poulos' lab has conducted research in Sky Island systems for almost 20 years and they have authored numerous peer-

reviewed publications on the ecology and fire ecology of Madrean forests throughout the region. In addition, Dr. Poulos' lab has an extensive record of technology transfer and science delivery to diverse audiences.

Dr. Poulos has a unique set of vegetation inventory plots that were installed in 2009 across the Guadalupe Mountains prior to the 2016 Coyote Fire. Her pre-fire fuels and vegetation data and her expertise in forest quantification and statistical analyses are unique and they are not available from any other source.