

This Funding Announcement is not a request for applications. This announcement is to provide public notice of the National Park Service (NPS), intention to fund the following project activities **without** competition.

ABSTRACT	
Funding Announcement	P17AS00221
Project Title	Evaluation of Trends in Fire Regime, Fuel Loads, and Vegetation in Chiricahua National Monument, Arizona
Recipient	University of Maine at Farmington
Total Anticipated Award Amount	\$0
Cost Share	
Anticipated Length of Agreement	May 15, 2017-May 15, 2022
Anticipated Period of Performance	May 15, 2017-May 15, 2022
Award Instrument	Master Cooperative Agreement
Statutory Authority	54 U.S.C. §101702(a)
CFDA # and Title	15.944
Single Source Justification Criteria Cited	Unique Qualifications
Point of Contact	Katie Gaertner, Katie_gaertner@nps.gov

OVERVIEW

The objective of this Agreement is to increase the understanding of recent wildfire characteristics and of changes in vegetation and fuel patterns in relation to fire and climate in Chiricahua National Monument. Specifically, the Agreement is intended to:

- 1) Collect plot and landscape-scale data related to vegetation, fuel loading, fire regime attributes, and weather trends to characterize changes in fire regimes and forest structure related to fire occurrence;
- 2) Develop predictive models to identify key drivers of fire regime attributes, to characterize landscape-scale vegetation and fuel outcomes from fire events, and to assess the potential influence of climate change on fire regime and vegetation trends;
- 3) Communicate results and implications to NPS personnel and the public.

STATEMENT OF JOINT OBJECTIVES/PROJECT MANAGEMENT PLAN

Information transfer to the public and other land managers will be a major component of this project. Recent fires in the Chiricahua Mountains have burned 75% of the mountain range and their effects can be observed from all trails and viewpoints in the Monument. 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 Monument 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. The University of Maine at Farmington offers courses in forest ecology, conservation, and environmental science and results from this project will be used in curriculum development to train the next generation of forest scientists, land managers, and policy makers.

RECIPIENT INVOLVEMENT

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 loading.
3. Use assembled data to build predictive models for fire regime attributes and landscape conditions.
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 CHIR.
6. Provide spatial and tabular data generated by the project to CHIR in mutually agreed upon standard formats.

NATIONAL PARK SERVICE INVOLVEMENT

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 CHIR.
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

**DEPARTMENT OF THE INTERIOR
SINGLE SOURCE POLICY REQUIREMENTS**

Department of the Interior Policy (505 DM 2) 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, and for which competition would have a significant adverse effect on the continuity or completion of the activity;
- (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. Barton and his colleagues have a unique set of vegetation inventory plots that were installed in Chiricahua NM in the early 2000s prior to the recent large wildfires. The pre-fire data and expertise to utilize and re-sample the existing plots necessary · is work are not available from any other source.

Dr. Barton's lab at the University of Maine at Farmington is uniquely qualified to cooperate in this project due to its technical expertise in collecting and analyzing vegetation and fuel data in the Chiricahua Mountains and modeling fire regime attributes and landscape-scale vegetation and fuel patterns in this and similar ecosystems. Dr. Barton's lab has conducted research in the Sky Islands for nearly 30 years and its staff have authored numerous peer-reviewed publications on the ecology and fire ecology the Madrean pine-oak forests in this area. In addition, Dr. Barton's lab has an extensive record of communicating results to a wide range of management, scientific and public audiences.