



**National Park Service  
U.S. Department of the Interior**

**NOTICE OF INTENT TO AWARD**

**This Funding Announcement is not a request for applications. This announcement is to provide public notice of the National Park Service's intention to fund the following project activities without full and open competition.**

| <b>ABSTRACT</b>                                   |                                                                                          |
|---------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Funding Announcement</b>                       | P14AS00182                                                                               |
| <b>Project Title</b>                              | Inventory & Monitor NR Status & Trends in NPS Geologic Resources Inventory               |
| <b>Recipient</b>                                  | Colorado State University                                                                |
| <b>Principle Investigator / Program Manager</b>   | Dr. Judith Hannah                                                                        |
| <b>Total Anticipated Award Amount</b>             | \$963,655.00                                                                             |
| <b>Cost Share</b>                                 | none                                                                                     |
| <b>New Award or Continuation?</b>                 | Continuation under Cooperative Agreement P14AC00728                                      |
| <b>Anticipated Length of Agreement</b>            | From date of award until 12/31/2015                                                      |
| <b>Anticipated Period of Performance</b>          | From date of award until 12/31/2015                                                      |
| <b>Award Instrument</b>                           | Cooperative Agreement                                                                    |
| <b>Statutory Authority</b>                        | 16 USC 1(g) 16 USC 1a-2(j) 16 USC 5933                                                   |
| <b>CFDA # and Title</b>                           | 15.945 Cooperative Research and Training Programs – Resources of the NPS CESU's          |
| <b>Single Source Justification Criteria Cited</b> | (2) Continuation                                                                         |
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## OVERVIEW

**PROJECT DESCRIPTION:** The National Park Service’s Organic Act of 1916 states that the mission of the NPS is to promote and regulate the use of national parks, monuments, and other units “... to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.” Implied by this mission is the critical need to possess accurate, comprehensive baseline data on the “natural and historic objects” in national park units. Only with such data can managers assess whether park resources are being adversely impacted by anthropogenic activities originating inside and/or outside park boundaries.

“The Service will:

- Identify, acquire, and interpret needed inventory, monitoring, and research, including applicable traditional knowledge, to obtain information and data provided for in law and planning documents.
- Define, assemble, and synthesize comprehensive baseline inventory data describing the natural resources, and identify the processes that influence those resources.
- Use qualitative and quantitative techniques to monitor key aspects of resources and processes at regular intervals.
- Analyze the resulting information to detect or predict changes, , that may require management intervention, and to provide reference points for comparison with other environments and time frames.
- Use the resulting information to maintain—and, where necessary, restore—the integrity of natural systems.

The five long-term, programmatic goals of the Service wide Inventory and Monitoring (I&M) Program define the scope, mandate, and action plan of the program. These goals are categorized as follows:

- **Baseline Inventories** – Inventories of basic biological and geo-physical natural resources components will be completed in all natural resources parks. In addition, to ensure these data are available to park managers, data management systems will be developed to manage the data sets collected at the park level and provide regional and national summaries of selected inventory items.
- **Long-term Monitoring** – Long-term monitoring programs will be implemented in an effort to learn how to monitor changes efficiently and effectively in ecosystem health over various spatial and temporal scales.
- **Decision Support** – Research and development studies will be conducted to create geographic information systems and other tools needed to convert inventory and monitoring field data into management information that can be used to identify alternative courses of management actions, assess trade-offs, and evaluate consequences.
- **Integration** – Efforts will be initiated to integrate natural resources inventory and monitoring programs with the activities of other decision-making units of the NPS, such as the divisions in Planning, Facilities, and Lands; Visitor and Resource Protection; and, Partnerships, Interpretation and Education, Volunteers, and Outdoor Recreation. These efforts will be directed toward establishing natural resources preservation and protection as an integral part of overall park management, and toward coordinating all natural resources activities.
- **Partnerships and Cooperation** – The NPS will develop cooperative efforts with other federal and state agencies to share resources and achieve common goals, thus avoiding unnecessary duplication of effort and expense. Every effort will be made to develop cost-sharing and technology exchange agreements with other agencies conducting inventories or monitoring activities.

## **The Geologic Resource Inventory**

The Geologic Resources Inventory (GRI) Program provides the baseline inventory information described in NPS Director's Order 77. Funded under the Natural Resource Challenge and managed by the Geologic Resources Division (GRD), the GRI helps managers integrate the use of geologic resource information in resource management decisions. The GRI Program provides managers with information on geologic resources via the following products:

- A “scoping meeting bringing together local geologic experts and staff to discuss geologic resource management issues with a subsequent summary that documents the outcome of the scoping meeting, including a plan for digital geologic mapping and discussion of geologic features, processes, and issues
- A digital geologic map and,
- A comprehensive geologic report.

CSU research associates fall into three categories: those responsible for the GIS/mapping component of the GRI, those responsible for the scoping and report writing components of the GRI, and GIS specialist/geographer responsible for seamlessly integrating the GIS/mapping component into an easily utilized, geologic map poster into the report.

## **GRI Status**

Through June, 2014, scoping meetings to evaluate geologic resources and issues have been held for 269 park units in 48 states, 4 territories, and the District of Columbia. In addition to GRI staff, resource managers and geologic experts from the U.S. Geological Survey (USGS), state geological surveys, and universities participated in these meetings. Summaries of the meetings are posted on the NPS website. The GRI Program has completed digital geologic maps/GIS for 239 of the 270 I&M parks, and geologic reports for 128 parks.

## **RECIPIENT INVOLVEMENT**

- **Participate in the remaining scoping meeting**—as part of the GRI; CSU RAs participate in scoping meetings. One of the report writer Research Associates (RA) is always present at scoping meetings to record the discussions and prepare a scoping summary as a basis for the final GRI reports. The NPS facilitator at the meeting sends out the draft scoping summary to scoping participants soliciting additional information and to ensure the captured information is correct. Participating GIS RAs may present GIS information, facilitate discussion of geologic map data for resource management, and prepare “mapping plans” for inclusion in the scoping summary. Only one scoping meeting, remains for this project.
- **Produce Digital Geologic Maps**—the primary product of the GRI is a digital geologic map. Transforming existing geologic maps into a digital format, and then converting that into the data model, is a complex task, entailing the conversion of map data from multiple textual (paper and Mylar) maps, a time intensive and involved process. Working alongside NPS Geologic Resource Division (GRD) staff, CSU RAs and student interns evaluate existing park map coverage and construct a work breakout structure that identifies the critical path necessary to generate a final product. These tasks include digitizing paper maps and associated map data, and then converting the digital data into the data model. All accompanying map unit descriptions and references are converted into help files that link to the units depicted on the maps. RAs perform quality control on the final product and post it on the NPS Integrated Resource Management Application (IRMA) site. Depending on the work assignments, any of the tasks identified above may be

assigned to CSU RAs or NPS staff; in any event the interaction among the team is seamless. To enhance the user-friendliness of the digitized maps, extensive pull down menus are incorporated into the product. As per federal regulations, the RAs provide all requisite Federal Geographic Data Committee (FGDC) metadata for each map.

- **Write Geologic Reports**—Working with GRD staff, CSU RAs prepare the geologic reports that accompany the maps. These reports contain geologic resource management information, descriptions of features and processes, and a geologic bibliography. Generating these components requires extensive research, distillation, and compilation of available information in order to provide to park resource managers a concise, usable document. Also in conjunction with GRD staff, CSU RAs maintain a report style guide to standardize and maximize consistency across NPS and CSU authors and a nontechnical geologic glossary for our primary audience of nongeoscientists. To augment the GIS/map product's utility, one RA is dedicated to producing a hard copy poster of the map which is then incorporated into the final report. Upon completion, reports are distributed to each park and posted on the GRD website.
- **Train New GRI Staff Members** —the lead CSU RA is responsible for training new CSU RAs and student interns as well as digital mappers in term positions in GRD and regional offices. The lead RA also serves as an instructor at periodic NPS Office of Natural Resource Information System schools on the use and applicability of geologic GIS information.
- **Maintain Professional Proficiency** —Digital mapping technology progresses quickly. CSU RAs maintain their GIS expertise through annual mapping conferences and short courses. The report writer RAs maintain their geologic expertise through participation in annual geologic conventions or short courses.
- **Participate in Projects Ancillary to the GRI** - the high level of competency attained by the CSU team is recognized throughout other NPS program areas and this GIS expertise is shared through a variety of GRI derivative activities including an Online Map Service and Data Viewer, linking GRI data to the USGS National Map Database, and assisting with the Coastal Engineering Inventory. Additionally, CSU RAs work with the NPS Alaska Regional Office on a variety of integrated GIS/repeat photography projects in parks in that region.

## NATIONAL PARK SERVICE INVOLVEMENT

Substantial involvement on the part the National Park Service is anticipated for the successful completion of the objectives to be funded by this award. In particular, the National Park Service will be responsible for the following:

- **Provide Program Planning and Budgeting**—initial planning and budgeting for the program occurs through a joint meeting with the principal investigator during which the NPS GRI program manager identifies workload needs and priorities, discusses how to meet those needs, and explores opportunities to institute new approaches for capturing program efficiencies. Follow-up meetings between the two principals occur every several months, with frequent communication by phone and e-mail to discuss progress and the implementation of innovations. Work is carried out by NPS and CSU staff members, who collaborate closely to assure that products meet NPS requirements and Congressional mandates.
- **Schedule and Facilitate Scoping Meetings**—scoping meetings are organized by GRD staff. Participants include GRD staff, CSU RAs (GIS and report team members), members of other academic institutions, the U.S. Geological Survey, state geological surveys, and park staff. Meetings are facilitated by GRD staff with meeting summaries prepared by CSU RAs. Scoping summaries are reviewed and ultimately distributed by GRD staff to meeting participants.
- **Initiate and Participate in Digital Map Production**—Work assignments for the digital map production include both CSU and GRD staff members. Because the task is multi-faceted, staffs

from both organizations commonly share responsibilities for completing work on an individual park project. Source material is acquired by GRD prior to joint GRD/CSU evaluation and assigned a GMap number which initiates the production process. Meetings are routinely conducted to evaluate progress and determine future tasks. Coordination of work assignments is done collaboratively by each team. After quality control of the final product is completed and the map served through the GRD website and NPS Integrated Resource Management Applications (IRMA) portal, hard copy notification is made by GRD staff to interested parties and stakeholders and GRD staff updates the GRI master tracking database.

- **Generate Geologic Map Layouts**—GRD staff members oversee and coordinate the development of geologic map overview graphics, or “layouts.” GRD staff members provide editorial and content review and suggestions, and manage work plans and workflow of CSU interns. GRD staff members work closely with CSU GIS team members to ensure GIS and cartographic standards are being met.
- **Initiate, Oversee, and Prepare Geologic Reports**—the preparation of GRI reports is a team effort, using the skills, abilities, and available resources of both CSU RAs and GRD employees. GRD staff provides administrative oversight, assigning reports to CSU RAs and tracking report progress, as well as writing reports. Yearly GRI work plans are developed by GRD staff with input from CSU RAs, who discuss annual goals with their CSU supervisor during annual performance appraisals. Individual reports are initiated and facilitated by the GRD via a kick-off meeting involving NPS park, region, and GRI staff, CSU RAs, and other interested parties. As part of the GRI report process, writers, either from GRD or CSU, conduct research, utilizing NPS, USGS and CSU library facilities and databases, making consistent contact with CSU library and interlibrary loan staff members. The NPS Technical Information Center, regional offices, and archaeological centers routinely provide reference material that is incorporated into reports. Draft reports and subsequently incorporate comments from reviewers. Draft reports incorporate information from the NPS–facilitated scoping meetings and the digital geologic map data provided by GRD and CSU GIS team members. Draft reports are distributed by the GRI report coordinator (a GRD employee) for internal NPS review and external technical and professional copy-editing reviews. GRD staff arranges reviewers and shepherds reports between reviewers and CSU RAs. GRD and CSU staff members work closely together during the review process, and GRD staff ensures that CSU RAs are adequately addressing reviewers’ comments. GRD report team members document inconsistencies in map products and editorial errors that are discovered by CSU RAs during report writing or layout development. These items are conveyed to GRD and CSU map team members as appropriate. CSU and GRD report team members collaborate on the development of report graphics and the final formatting of reports. In addition, GRD and CSU staff members work together on the periodic revision and improvement of the report template.
- **Provide Necessary Equipment for the Production of the GRI products** - This includes, but is not limited to, computer hardware, computer software, and associated supplies.

## 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.

The National Park Service did not solicit full and open competition for this award based the following criteria:

## **(2) CONTINUATION**

### **SINGLE SOURCE JUSTIFICATION DESCRIPTION:**

#### **THIS IS A NOTICE OF INTENT TO AWARD**

This is a Task Agreement (P14AC01177) under Cooperative Agreement (P14AC00728) in the amount of \$963655.00 with a period of performance from date of award until 12/31/2015.

"This proposed project between Colorado State University and the NPS is authorized to go through the Rocky Mountains CESU at the negotiated overhead rate of 17.5% because it passes the test of substantial involvement by the NPS, public purpose and consistency with the mission of the CESU Network".

Also, on the SF 424 forms that the partner sponsored programs office fills out for each project, requires a CFDA number - 15.945, which is the number associated with the CFDA Title:

COOPERATIVE RESEARCH AND TRAINING PROGRAMS - RESOURCES OF THE NATIONAL PARK SERVICE (CESU).

## STATUTORY AUTHORITY

- A. 16 U.S.C. §1g authorizes the NPS to enter into cooperative agreements that involve the transfer of NPS appropriated funds to state, local and tribal governments, other public entities, educational institutions, and private nonprofit organizations for the public purpose of carrying out National Park Service programs.
- B. 16 U.S.C. §1a-2(j) Cooperative research and training programs authorizes the NPS to enter into cooperative agreements with public or private educational institutions, states, and their political subdivisions, for the purpose of developing adequate, coordinated, cooperative research and training programs concerning the resources of the national park system. Pursuant to such agreements, the cooperator may accept from or make available to the NPS technical and support staff, financial assistance for mutually agreed upon research projects, supplies and equipment, facilities, and administrative services relating to cooperative research units as the Secretary deems appropriate (research projects subject to Federal Acquisition Regulation excluded).  
Modified 5/31/05 – Agreement Handbook Memorandum Number 2
- C. 16 U.S.C. §5933 Cooperative agreements. The Secretary is authorized and directed to enter into cooperative agreements with colleges and universities, including but not limited to land grant schools, in partnership with other Federal and State agencies, to establish cooperative study units to conduct multi-disciplinary research and develop integrated information products on the resources of the National Park System, or the larger region of which parks are a part.