This announcement is to provide public notice of the National Park Service's intention to award the following project activities without competition. The notice is not a request for proposals.

NOTICE OF INTENT TO AWARD	
Funding Announcement	E12AC1H2000 P12AC10047
Project Title	Evaluation and Assessment of Sediment Toxicity and Coastal Dune Restoration at Indiana Dunes National Lakeshore
Recipient	Indiana University Northwest
Total Anticipated Award Amount	$40,000
Cost Share	NA
Anticipated Length of Agreement	Up to 5 years
Anticipated Period of Performance	Starting FY 2012
Award Instrument	Cooperative Agreement
Statutory Authority	**16 U.S.C. ss1a-2(i), 16 U.S.C. ss 1j, 16 U.S.C.ss1g**
CFDA #	15.945
DOI 505 DM 2.14	Unique Qualifications
Single Source Justification	This project requires expertise in three major scientific discipline; toxicology, dune geomorphology and botany. Due to the dynamic nature of NPS needs associated with ongoing restoration efforts that this project is designed to support, the selected collaborator must be available at a minimum weekly for onsite coordination. The combination of both a local university and the availability of the regionally recognized expertise available through Indiana University Northwest make them uniquely qualified to fulfill the requirements of this agreement. Additionally, the independent research activities of the project team in and around the Indiana Dunes National Lakeshore provide a breadth of understanding of the local ecosystems that would otherwise be lacking, and allow for long term interaction well beyond the timeframe of this agreement. Ongoing research and student based educational programs carried out by Indian university Northwest provide the additional benefit of continued monitoring and study of the project area.
Program - Point of Contact	Jerrilyn Thompson
Project Summary/Overview	This project will provide understanding of continued and emerging threats to dune resources and human health concerns with who body contact with sediments in the East Branch Little

	Calumet River enabling the park to better protect and manage the resource for public enjoyment and safety pursuant to the Organic Act of 1916. This project supports two resource initiatives; 1) Dunes restoration and 2) human health risks associated with opening up sections of the east Branch Little Calumet River to recreational paddling. Results will directly contribute to the development of strategies for restoring dune ecosystems and mitigate risk associated with recreational use of the river. This task agreement provides for the most efficient use of public resources to produce products which will contribute to effective management of natural resources by monitoring and assessing current conditions for determining success of restoration efforts. The products will assists the park in reporting to the GPRA land health goals and supports the mission of the NPS to conserve natural resources for the enjoyment of current and future generations. Benefits to the partner university include opportunities for discrimination of the information to professional audiences including scientists working in the area of natural resource assessment and land managers charges with managing natural resources. Project objectives are to 1) characterize sediment toxicity throughout the East Branch of the Little Calumet River, 2) establish a geomorphic monitoring strategy to asses both natural and anthropogenic effects of physical dune systems and 3) establish a baseline assessment of botanical density and diversity for the purpose of monitoring long-term change.

Recipient Involvement	1. Characterize sediment toxicity from 48 sediment samples using the Daphnia elutriate toxicity test using standard EPA operating procedures. 2. Perform full exposure toxicity tests using five dilution series and a control, following standard EPA operating procedures, on any of the 48 sediment samples showing a positive response to sediment exposure from task 1. 3. Perform sediment chemistry analysis on no more than 10 of the 48 sediment samples showing positive response to sediment exposure from Task 1. Sediment chemical analysis should follow EPA standard methods and include measures for: Arsenic, Barium, Cadmium, and Chromium. Copper, Cyanide, Iron, Lead, Manganese, Mercury, Nickel, Selenium, Zinc, Nitrogen, Total Phosphorus, Total Organic Carbon. And Moisture Content. 4. Sediment toxicity dose response relationships will be evaluated for toxicity values including LC50, NO Observed Adverse Effect Levels (NOAEL), Lowest Observed Effect Level (LOEL), and No Observed Effect Level (NOEL). Dependent on data results standard assessment methods would include probit analysis or equivalent calculation procedures. Chemistry information will be evaluated between toxic and non-toxic sites. The final deliverable will be a compilation of data sheets, toxic relationships, and screening and dose response dilution series results, and standard reference tests. 5. Establish a site specific (Mt. Baldy) wind speed mapping and monitoring protocol using a transect approach using GPS to establish data-collecting stations that will form the spatial network for monitoring wind speed and direction, ground elevation, and sediment studies. 6. 6 Using aerial photography, surveying techniques, and available LiDAR data establish a framework for monitoring changes over time in the geomorphic elements of the backshore and onshore (dune) zones of Mt. Baldy. 7. Asses the variability in volume and grain size of wind transported soils at 3-4 sites using a combination of sand box-traps, aerial plots (bedframe stations), and grab samples at Mt Baldy in conjunction with data derived from task 5. 8. Establish a series (12-15) of fixed vegetative monitoring plots to monitor the long term progression of restoration efforts following a standard operating procedure (Northwest Indiana Restoration Monitoring Inventory procedures). Initial Monitoring will include baseline assessments in 2012 and 2013 with follow-up visits in subsequent years. 9. One or more of the project team will be available for weekly, on the ground, meetings to discuss project needs and discuss potential restoration and monitoring efforts.

National Park Service Involvement	1. Participate and collaborate jointly with the Recipient in carrying out the scopes of work. NPS staff will assist the PIs with all field aspects of the project. NPS staff will collect all sediment samples for the toxicological work. 2. To provide a NPS technical representative to ne to assist with specifics of the project as needed. 3. Review and approve one stage of work before the next stage can begin. 4. Review and approve proposed modifications or sub-grants, prior to award. 5. Direct or redirect the work because of interrelationships with other projects. 6. Immediately halt an activity if detailed performance specifications are not met. 7. Oversee Recipient discretion with respect to scope of work. Organizational structure, staffing, mode of operations and other management processes, combined with close monitoring or operational involvement during performance under this Task Agreement.

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NOTICE OF INTENT TO AWARD	
Funding Announcement	E12AC1H2000 P12AC10311
Project Title	Ojibwe Use and Impact on Forests at Voyagers national Park
Recipient	University of Minnesota
Total Anticipated Award Amount	$50,172
Cost Share	NA
Anticipated Length of Agreement	Up to 5 years
Anticipated Period of Performance	June 1, 2012-December 31, 2013
Award Instrument	Cooperative Agreement

Statutory Authority	**U.S.C. ss1a-2(i)** authorizes the National Park Service 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 National Park Service 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. **16 U.S.C. ss1i** (PL 110-229 Sec.301) Authorizes cooperative agreements that provide clear and direct benefits to park natural resources and provide for the preservation, conservation, and restoration of coastal and riparian systems, watersheds, and wetlands; preventing, controlling, or eradicating invasive exotic species that are within a unit of the National Park System or adjacent to a unit of the national Park System; or for restoration of natural resources, including native wildlife habitat or ecosystems. The agreement will enhance science-based natural resource stewardship at the unit of the national Park System and benefit the parties to the agreement. **16 U.S.C. ss1g** authorizes the NPS to enter into cooperative agreements that involve the transfer of NPS appropriate 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 pursuant to section **6305** of title 31 to carry out public purposes of National Park Service programs.
CFDA #	15.945
DOI 505 DM 2.14	Unique Qualifications

Single Source Justification	Dr. Kurt Kipfmueller was selected to participate in this project due to his unique qualifications and technical expertise in the field of dendroecolgy. Dr. Kipfmueller is a broadly-trained and versatile dendrochronologist with expertise and training that spans a wide array of disciplines and research interests. Dr. Kurt Kipfmueller was selected due to his extensive experience and knowledge in reconstructing fire regimes and forest successional patterns and his understanding of upper Great Lakes forest ecology. A main aspect of his research investigates the dynamics of forest ecosystems in the western United States dominated by lodgepole pine, but he has also conducted abundant research in the Boundary Waters Canoe Area Wilderness (BWCAW) to investigate fire history and reconstruct climate history from tree rings. The BWCAW is located adjacent to Voyageurs National Park. He is also one of only a handful of dendrochronologists worldwide that work extensively with northern white cedar and has developed multiple chronologies of growth from white cedar, red pine, and white pine within the upper Great lakes.
Program - Point of Contact	Jerrilyn Thompson
Project Summary/Overview	PROJECT ABSTRACT: This project investigates the ise of forest resources by the Oijbwe Indians in Voyagers National Park(VNP). We will investigate fire history patterns in the vicinity of known Oijbwe historical sites, establishments dates of selected northern white-cedar stands (a culturally important forest species), and investigates scarring on maple trees potentially resulting from sugar bush activities. We will use dendrochronological approaches to develop a chronological history of potential Ojibwe within VNP to better inform management plans seeking to restore the landscape using active management approaches.

Recipient Involvement	Investigate fire history and cultural use of forest resources Voyageurs national Park (VNP) by developing cross dated fire histories from fire-scarred trees collected in the vicinity of known archaeological sites. In addition, we will collect species composition and tree demographic information land use activities, and vegetation development. Culturally-important northern white-cedar stands will also be investigated to establish their history and demographic progress. Finally, known or suspected sites where maple sugar was harvested and processed will be examined to determine the feasibility of identifying and dating past sugar bush activities. **Methodolofy** *Fire History* In conclusion with National Park Service (NPS) archaeologist we will select 20 sites with evidence of cultural use or occupation by Ojibwe people. We will search each selected site for fire-scarred trees, stumps, and snags and document the locatuion anad number of visible lscars on each sample. Cross sections and partial cross sections will be removed ferom at leat 2 fire scarred trees, stumps, or logs in each stand following sampling guidleines set by NPS personnel. All fire-scarred samples
National Park Service Involvement	• NPS partners will provide access to archaeological data and assistance with the identification and interpretation of site during field work. • NPS partners will aid in locating archaeological sites in the field and determining the physical extent of sites • NPS partners insist on transporting researchers and gear by boat to base camps and archeological sites. • NPS expertise will be provided to aid in interpretation of fire history and modified tree results with respect to cultural resources use. • NPS partners will approve all sampling protocols and suggests modification to mitigate sampling impacts on archaeological sites and park visitor impacts throughout the project, particularly in heavy use or sensitive park areas. This may include the identification of alternative suitable sampling locations.

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NOTICE OF INTENT TO AWARD	
Funding Announcement	E12AC1H2000 P12AC10429
Project Title	GLRI91: Understand casual pathways of avian botulism by analyzing gut contents of affected birds
Recipient	Northern Michigan University
Total Anticipated Award Amount	27,500
Cost Share	NA
Anticipated Length of Agreement	Up to 5 years
Anticipated Period of Performance	Starting in FY 2012
Award Instrument	Cooperative Agreement
Statutory Authority	**16 U.S.C. ss1a-2(i), 16 U.S.C. ss 1j, 16 U.S.C. ss 1g**
CFDA #	15.945
DOI 505 DM 2.14	Unique Qualifications
Single Source Justification	The proposed investigator from Northern Michigan University (Dr. Jill Leonard) conducted a previous pilot study of bird gut contents. This pilot work was limited in scope and cost and was intended to determine the feasibility of a more intensive study. The proposed work continues and extends the previous study by increasing the number of birds analyzed; focusing on a more specific sophisticated set of birds species and questions, and exploring previously unidentifiable bird gut content components using new genetic tools. It also incorporates the bird gut content work more fully into overall GLRI botulism project activities. The investigator worked closely with the NPS_USGS GLRI botulism work group to review the results of the pilot study and develop appropriate questions for additional analysis. A new investigator would not have Dr. Leonard insights into the project history, its scientific requirements, or its management implications. We consider these insights critical to the success of the bird gut content work as well as GLRI Projects 91 and 73 overall
Program - Point of Contact	Jerrilyn Thompson

Project Summary/Overview	Avian botulism has caused large scale bird mortality in Lake Michigan since 2006. This work aims to 1) identify what affected birds consumed prior to death, 2) clarify botulinum toxin transfer pathways, and 3) make recommendations for research and management activities related to the larger GLRI Project 91 work plan.
Recipient Involvement	A The recipient agrees to: a) Develop, with NPS and USGS, appropriate research questions and methods related to bird gut contents and avian botulism. b) Identify composition of bird gut contents using both traditional and emerging gut content analysis tools. c) Use results to make recommendations for research and management activities related to avian botulism. B NPS is substantially involved with this agreement and agrees to: a) Jointly with Northern Michigan University and USGS, identify appropriate research questions and develop the scope of work. b) Conduct beach monitoring activities at Sleeping Bear Dunes National lakeshore and provide the bird carcasses for analysis by USGS (botulism testing) and northern Michigan University (gut content analysis). c) Provide project oversight and technical assistance. d) Coordinate the proposed worth with other ongoing studies and projects as part of GLRI Projects 91 (NPS) and 73 (USGS). e) Help analyze data and develop joint publications.

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NOTICE OF INTENT TO AWARD	
Funding Announcement	E12AC1H2000 P12AC10449
Project Title	Mapping lake bottom environments in Great lakes national parks using satellite
Recipient	Michigan Technological University – Michigan Tech Research Institute
Total Anticipated Award Amount	$60,000 (20,000 from GLRI 91; $40.000 from GLRI 89)
Cost Share	NA
Anticipated Length of Agreement	Up to 5 years
Anticipated Period of Performance	
Award Instrument	Cooperative Agreement
Statutory Authority	16 U.S.C. ss 1a-2(i), 16 U.S.C. ss 1i, 16 U.S.C. ss1g
CFDA #	15.945
DOI 505 DM 2.14	Unique Qualifications

Single Source Justification	NPS has begun to map lake bottoms at Sleeping Bear Dunes and other Great Lakes national parks, but current tools have limitations in terms of depth and spatial scope. The proposed work continues and expands on the NPS bottom-mapping effort by using new satellite-based tools to determine lake depth and bottom features. MUT-MTRI has used similar satellite imagery to conduct an analysis of submerged vegetation growth throughout the Great Lakes, with great local success in the vicinity of Sleeping Bear Dunes, so the proposed work represents a continuation of their previous work with local satellite date. Unique qualifications-Via non-NPS funding MTU-MTRI has already completed a submerged aquatic vegetation map for the Sleeping Bear Dunes, National Lakeshore area, enabling the best remote sensing products to be selected for analysis of the area. Accordingly, MTRI has already purchased some of the commercial high-resolution satellite imagery data required for this project and will contribute that imagery in-kind. Additionally, MTRI's previous work with submerged vegetation resulted in Great Lakes-specific depth algorithm that will be applied directly to the proposal satellite-based bathymetric work. Finally, MTRI has collected some depth control points as part of its aquatic vegetation mapping project and has co-developed the bathyboat sonar tool, both of which will be useful for ground-truthing hard to map inshore regions. The proposed satellite-based method is novel and innovative. The MTRI NPS. They are among the only researchers have conducted their own pilot work to test its accuracy at Sleeping Beat Dunes, at no cost to NPS. They are among the only researchers conducting such work nationwide, and are certainly the only ones familiar with the Great Lakes context. Because of their precious work with submerged vegetation they are also uniquely equipped to contribute in-kind support in the form of locally-based depth algorithms and satellite imagery.
Program - Point of Contact	Jerrilyn Thompson

Project Summary/Overview	BACKGROUND AND OBJECTIVES Benthic habitat mapping identified as a high priority in NPS ocean and Great lakes stewardship strategies. Such information on lake bottom environments is also critical for a growing number of great Lakes Restoration Initiative projects, including Project 91 (Research Near shore Lake Michigan Ecological Changes". Several tools for mapping lake bottoms are available, and NPS has pursued sonar-based mapping for priority locations at Sleeping Bear Dunes National Lakeshore and other great Lakes parks. However, the application of this technology are limited in terms of depth (i.e., not suitable for very shallow areas) and spatial scope (i.e., too labor-intensive for broad park-wide applications). Recently NPS became aware of a new potential mapping tool suitable for larger areas and shallower waters. This satellite-based approach is highly complementary to the ongoing NPS mapping efforts. We propose to 1) use these satellite-based tools to broadly map lake depths and bottom types on the shoals and inshore areas of Sleeping Bear Dunes national Lakeshore, 2) asses their accuracy and suitability for more widespread NPS applications, and 3) as funds permit, conduct preliminary work at other Great lakes national parks.
Recipient Involvement	A. The recipient agrees to: a) Assist NPS in becoming a registered user if commercially available satellite imagery and issuing a request for such imagery for Great lakes national parks. b) Apply Great lakes-specific depth algorithm to develop high-resolution bathymetric maps for Sleeping Bear Dunes National Lakeshore (and potentially additional parks). c) Ground-truth satellite-derived data using NPS LiDAR data, NPS sonar data, and new bathymetric data collected by MTRI's Bathy Boat. d) Provide NPS with GIS-based data layers showing bathymetric contours and where possible, lake bottom type.
National Park Service Involvement	B. NPS is substantially involved with this agreement and agrees to: a) Register as a user of commercially available satellite imagery and request images for Great Lakes national parks. b) Provide existing LiDAR and sonar bathymetric data to MTRI for use in ground-truthing the satellite-based bathymetric values. c) Integrate results with complementary lake bottom mapping efforts to create a seamless lake bottom map for Sleeping Bear Dunes National Lakeshore.

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NOTICE OF INTENT TO AWARD	
Funding Announcement	E12AC1H2000 P12AC10454
Project Title	Historical and Projected Trends in U.S. National Parks for Vulnerability Analyses and Adaptation of Resource Management
Recipient	University of Wisconsin, Madison
Total Anticipated Award Amount	$114,000
Cost Share	N/A
Anticipated Length of Agreement	One year
Anticipated Period of Performance	Starting FY12
Award Instrument	Cooperative Agreement
Statutory Authority	**16 U.S.C. ss1a-2(i),**
CFDA #	15.945
DOI 505 DM 2.14	Unique Qualifications

Single Source Justification	Successful completion of this project requires a cooperator with extensive expertise in climate data analysis and experience connecting climate science to resource management. The applicant is uniquely qualified to perform the activity based upon a variety of demonstrable factors such as technical expertise and experience in this emerging filed. Dr. Jack Williams is the Director of the Center for Climatic Research and Professor of Climate, People, and Environment at the University of Wisconsin, Madison. Dr. Williams has statistically downscaled all 24 projections of future climate produced from the IPCC for the world (Tabor and Williams, 2010). He also published a unique analysis that highlighted the development of future novel climates (Williams et al. 2007) and their implications for conservation (Williams and Jackson 2007). He has worked with Conservation International, the state of Wisconsin Initiative on Climate Change Impacts (http://www.wicci.wisc.edu/climate-map.php), and other natural resource management programs. Dr. Williams was chosen as the ideal cooperator because of his unique expertise and demonstrated skill in the spatial analysis of historic and project climate trends for the U.S. and his ability to apply these results to resource management.
Program - Point of Contact	Jerrilyn Thompson
Project Summary/Overview	The purpose of this project is to increase knowledge and understanding for land management agencies, the university cooperator, and the broader climate science community of how the climate has changed historically and is projected to change in and around the U.S., and National Parks. Historical and projected climate analyses are not currently available for U.S. National Parks at a scale that is useful to managers. This represents a fundamental data need for resource management under climate change. This agreement will produce climate change projections at finer spatial scales than is currently available for all national parks and the U.S. lower 48 states.
Recipient Involvement	Geographic information System spatial data files contacting historical and projected spatial data; Federal Geographic Data committee metadata for the GIS files; Information by park (test, tables, time-series graphs, key maps); Report of methods details and major results.

National Park Service Involvement	The NPS will provide extensive scientific direction and collaboration from NPS Climate Change Scientist Patrick Gonzalez, including working jointly with Dr. Williams to carry out the full scope of work. Dr. Gonzalez has conducted research on global historical and projected climate trends and their application to natural resource management. In addition, Dr. Gonzalez serves on the Intergovernmental Panel on Climate change (IPCC) which produces the definitive periodic assessment of climate trends and ecological impacts. Dr. Gonzalez will draw on this expertise in providing scientific direction and in collaboration with Dr. Williams. NPS will also provide data possessed by the agency, including 1) vector file of national park boundaries 2) historical climate spatial data for the US 48 states, annually 1895 – 2009 3) (~800) spatial resolution, Daly et at 2008) and 3) specific data and meta data requirements for NPScape.

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NOTICE OF INTENT TO AWARD	
Funding Announcement	E12AC1H2000 P12AC100451
Project Title	Northeast Region Public Engagement at Three National Park Sites: Evaluation and Future Strategies
Recipient	Stephen F. Austin State University
Total Anticipated Award Amount	$75,000
Cost Share	NA
Anticipated Length of Agreement	Up to 5 years
Anticipated Period of Performance	Starting FY 2012
Award Instrument	Cooperative Agreement
Statutory Authority	**16 U.S.C. ss1a-2(i), 16 U.S.C. ss1j, 16 U.S.C. ss1g**
CFDA #	15.945
DOI 505 DM 2.14	Unique Qualifications

Single Source Justification	a) The Northeast Region (NER) has had a collaborative relationship with Dr. Coble for three years. Initial projects included a multidisciplinary advisory board on evaluation in NER and as a member of an academic team that worked on the future of NPS interpretation and research. Last year Dr. Coble presented findings and research at a regional symposium on civic engagement and interpretive outcomes. At that time she proposed research at one visitor facility Boston re-Public Engagement. Since that time the project has diversified to include thee facilities and expanded in term of literature reviews and research on future practices. Two new NPS sites were added to NER and a third is anticipated. The design and implementation of this project will directly affect the planning of visitor services and civic engagement at theses and future sites. Therefore the scope of the project has changed and the need to design and scope the project is added, Dr. Coble and her team are a cohort of three universities/academic affiliations that are collectively working towards this project. The institutions will implement a team approach, rather than competing for the same project (as they have in the past). Given the scope and complexity in research design-this team approach will serve the project better than a competitive one. It will collectively advance the science, knowledge and theory of visitor orientation and engagement in the field of recreation management and interpretation.
Program - Point of Contact	Jerrilyn Thompson

Project Summary/Overview	The purpose of this project is to design, implement and document a new process to compare and contrast the variety, depth, and quality of visitor experiences at two visitor facilities in the Boston Metro Area, and one new facility in fort Mchenry, Baltimore. The three sites include Boston Historical Park Visitor Center in Fannie Hall, a traditional visitor contact area with an information desk, a bookstore and exhibits; Boston Harbor Island, where the contact pavilion is an open air roofed facility built on a city greenway; and Fort Mchenry Visitor Center, a completely new facility with multimedia, exhibits, and film. The goal of the project is to provide a series of best practices for future visitor center/contact area design, staffing, exhibitory and cost effectiveness. This project provides a unique opportunity to compare and contrast different approaches to visitor experience and could provide windows to how visitors seek out and interact with spaces designed to guide potential experiences in parks and the success of those strategies. The knowledge gained from this research can be applied to new and remodeled locations for visitors contact throughout the service and as a guide for other agencies and private enterprises.
Recipient Involvement	• Conduct a detailed literature review. • Collaboratively identify/prioritize project needs and work with the multi-disciplinary team and the NPS to design the research project. • Develop research projects protocols to ensure consistency and richness of data. • Assemble and train research team and NPS staff at each site in a consistent fashion to ensure consistency. • Work with NPS Social Science program staff to obtain OMB approval. • Asses visitor interpretive outcomes at the three sites (e.g., onsite and/or long-term outcomes). • Collect and analyze data to answer research questions and validate conclusions. • Provide a detailed report and conduct a close-out session with the NPS.

National Park Service Involvement	• Provide sustained input and guidance from three park superintendents, chiefs of interpretation, and key regional staff. • Collaboratively refine research questions, formulate objectives, and design the research project. • Participate in focus groups consisting of NPS staff and partners to provide baseline data to the researchers in terms of design history and original intent of the different facilities. • Review progress and approve phases in the research process, with direction of project subject to change based in findings and NPS needs. • Provide NPS housing and office space to the evaluation teams.