Request for Statements of Interest
Funding Opportunity Announcement

Federal Awarding Agency:
U.S. Army Corps of Engineers,
Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180-6199

Funding Opportunity No: W81EWF-20-SOI-0017
CFDA No: 12.630
Statutory Authority: 10 USC 2358
Project Title: Detection, prevention, management, and scalable technologies for harmful algal bloom reduction
Announcement Type: Initial announcement
Issue Date: 21 April 2020
Statement of Interest/Qualifications Due Date: 21 May 2020
Full Application Package Due Date, if Invited: 21 June 2020
Estimated Award Ceiling: $2M per
Estimated Total Program Funding (optional): $6M total over 3 years. $1M for base and each of the 2 option years.
Expected Number of Awards: The government may issue more than 1 award from this announcement.
Section I: Funding Opportunity Description

Background:

Aquatic nuisance species, including harmful algae, impact USACE waterways, infrastructure, operations, and associated resources across the Nation; it's estimated that nutrient pollution and harmful algal blooms cause an estimated $1B in lost tourism revenue alone. In response, innovative, cost-effective, and scalable technologies for early detection, protection, and management of aquatic nuisance species are required. Harmful algal blooms are increasing in frequency and duration, resulting in environmental, socio-economic, and human/wildlife health concerns. Future mitigation strategies to reduce these impacts are critical to USACE mission. This research effort focuses on the early detection, protection, and management of harmful algal blooms within the Western Lake Erie Basin, and throughout the Ohio region. Research to address the need to improve capabilities and technologies to respond to, and to mitigate, harmful algal bloom events is needed. Technologies that can be scaled to demonstrate physical, chemical, or biological mitigation approaches to manage harmful algal blooms is particularly needed.

Brief Description of Anticipated Work:

This research will focus on the following objectives:

Objective 1: Develop and demonstrate a process or technology for the reduction of harmful algal bloom (HAB) events through 1) decreased number of events, 2) limiting formation of biomass and toxicity in a HAB bloom, 3) early and rapid detection of HAB, or 4) mitigating algal biomass and toxins after an event, through physical, chemical, AND/OR biological processes.

Objective 2: Field demonstration of a process or technology that mitigates a HAB event; the process or technology can demonstrate reduction in biomass and toxicity AND/OR demonstrate reduction in available nutrients feeding the bloom within an aquatic system.

Objective 3: Demonstrate potential scalability of the process or technology to encompass a large HAB event or large spatial extent.

Public Benefit:

Harmful algal blooms are increasing in number of events, spatially, and intensity in lakes, reservoirs, and rivers across the nation. Widespread harmful algal blooms result in public health concerns and economic impacts estimated at $4.5B in Florida alone. The proposed research will increase early detection, prevention, and management of harmful algal blooms before, during, and after an event; scalable technology is also critical to managing a harmful algal event. This information is critical to develop future mitigations strategies to reduce environmental, socio-economic, and human/wildlife health concerns resulting from harmful algal blooms.

Section II: Award Information

Responses to this Request for Statements of Interest will be used to identify potential investigators for studies to be sponsored by the Engineer Research and Development Center to provide harmful algal bloom reduction strategies. The estimated level of funding for FY20 is approximately $2M. Additional funds of $2M/year for two optional years may
be available, providing the potential funding of $6M over three years to the successful Recipient/Awardee. Depending on findings in the early years of this effort, funding needs may increase above the anticipated $2M/year in subsequent years of this project; however, total funding will not exceed $6M over the life of this cooperative agreement.

**Government Involvement:**

Government employees will be involved through: 1) review of protocols, site selections, and experimental design; 2) coordination with other agencies, as needed; 3) technical review of publications and presentations, dissimilation of the results of the publications.

**Section III: Eligibility Information**

1. **Eligible Applicants** – This opportunity is restricted to non-federal partners of the Great Lakes-Northern Forest, Southern Appalachian Mountains, and Great Rivers Cooperative Ecosystems Studies Unit (CESU).

2. **Cost Sharing** – This action will be 100% funded by USACE.

**Section IV: Application and Submission Information – Two Phase Process**

**Phase I: Submission of a Statement of Interest/Qualifications.**

1. **Materials Requested for Statement of Interest/Qualifications:**
   a. Please provide the following via e-mail attachment to: Deberay.R.Carmichael@usace.army.mil
   (Maximum length: 2 pages, single-spaced 12 pt. font).

   1. Name, Organization and Contact Information
   2. Brief Statement of Qualifications (including):
      • Biographical Sketch,
      • Relevant past projects and clients with brief descriptions of these projects,
      • Staff, faculty or students available to work on this project and their areas of expertise,
      • Any brief description of capabilities to successfully complete the project you may wish to add (e.g. equipment, laboratory facilities, greenhouse facilities, field facilities, etc.).

   Note: A proposed budget is NOT requested at this time.

   The administrative point of contact is Deberay Carmichael, 601-634-5337; Deberay.R.Carmichael@usace.army.mil

2. **Statement of Interest/Qualifications shall be submitted NO LATER THAN 21 May 2020.**

   Based on a review of the Statements of Interest received, an investigator or investigators will be invited to move to Phase II which is to prepare a full study proposal. Statements will be evaluated based on the investigator’s specific experience and capabilities in areas related to the study requirements.
Phase II: Submission of a complete application package to include a full technical proposal including budget, if invited.

1. Address to Request Application Package
   The complete funding opportunity announcement, application forms, and instructions are available for download at Grants.gov.

   The administrative point of contact is Deberay Carmichael, 601-634-5337; Deberay.R.Carmichael@usace.army.mil

2. Content and Form of Application Submission
   All mandatory forms and any applicable optional forms must be completed in accordance with the instructions on the forms and the additional instructions below.

   a. SF 424 R&R - Application for Federal Assistance
   b. Full Technical Proposal – Discussion of the nature and scope of the research and technical approach. Additional information on prior work in this area, descriptions of available equipment, data and facilities, and resumes of personnel who will be participating in this effort should also be included.
   c. Cost Proposal/Budget – Clear, concise, and accurate cost proposals reflect the offeror’s financial plan for accomplishing the effort contained in the technical proposal. As part of its cost proposal, the offeror shall submit cost element breakdowns in sufficient detail so that a reasonableness determination can be made. The SF 424 Research & Related Budget Form can be used as a guide. The cost breakdown should include the following, if applicable:
      1. Direct Labor: Direct labor should be detailed by level of effort (i.e. numbers of hours, etc.) of each labor category and the applicable labor rate. The source of labor rates shall be identified and verified. If rates are estimated, please provide the historical based used and clearly identify all escalation applied to derive the proposed rates.
      2. Fringe Benefit Rates: The source of fringe benefit rate shall be identified and verified.
      3. Travel: Travel costs must include a purpose and breakdown per trip to include destination, number of travelers, and duration.
      4. Materials/Equipment: List all material/equipment items by type and kind with associated costs and advise if the costs are based on vendor quotes and/or engineering estimates; provide copies of vendor quotes and/or catalog pricing data.
      5. Subrecipient costs: Submit all subrecipient proposals and analyses. Provide the method of selection used to determine the subrecipient.
      6. Tuition: Provide details and verification for any tuition
amounts proposed.

7. Indirect Costs: Currently the negotiated indirect rate for awards through the CESU is 17.5%.

8. Any other proposed costs: The source should be identified and verified.


4. Submission Instructions
Applications may be submitted by mail, e-mail, or Grants.gov. Choose ONE of the following submission methods:

a. Mail one unbound copy of your complete proposal to:
   US Army Corps of Engineers, Engineer Research & Development Center
   Attn: Deberay.R.Carmichael
   3909 Halls Ferry Road
   Vicksburg, MS 39180-6199

b. E-mail:
   Format all documents to print on Letter (8 ½ x 11") paper. E-mail proposal to Deberay.R.Carmichael@usace.army.mil

   Applicants are not required to submit proposals through Grants.gov. However, if applications are submitted via the internet, applicants are responsible for ensuring that their Grants.gov proposal submission is received in its entirety.

   All applicants choosing to use Grants.gov to submit proposals must be registered and have an account with Grants.gov. It may take up to three weeks to complete Grants.gov registration. For more information on registration, go to https://www.grants.gov/web/grants/applicants.html.

Section V: Application Review Information

1. **Peer or Scientific Review Criteria:** In accordance with DoDGARs 22.315(c), an impartial peer review will be conducted. Subject to funding availability, all proposals will be reviewed using the criteria listed below (technical and cost/price). All proposals will be evaluated under the following two criteria which are of descending importance.

   a. **Technical (items i. and ii. are of equal importance):**
      i. Technical merits of proposed R&D.
      ii. Potential relationship of proposed R&D to DoD missions.

   b. **Cost/Price:** Overall realism of the proposed costs will be evaluated.

2. **Review and Selection Process**
a. **Categories:** Based on the Peer or Scientific Review, proposals will be categorized as Selectable or Not Selectable (see definitions below). The selection of the source for award will be based on the Peer or Scientific Review, as well as importance to agency programs and funding availability.

i. **Selective:** Proposals are recommended for acceptance if sufficient funding is available.

ii. **Not Selectable:** Even if sufficient funding existed, the proposal should not be funded.

Note: The Government reserves the right to award some, all, or none of proposals. When the Government elects to award only a part of a proposal, the selected part may be categorized as Selectable, though the proposal as a whole may not merit such a categorization.

b. No other criteria will be used.

c. Prior to award of a potentially successful offer, the Grants Officer will make a determination regarding price reasonableness.

### Section VI: Award Administration Information

1. **Award Notices**
   
   Written notice of award will be given in conjunction with issuance of a cooperative agreement signed by a Grants Officer. The cooperative agreement will contain the effective date of the agreement, the period of performance, funding information, and all terms and conditions. The recipient is required to sign and return the document before work under the agreement commences. **Work described in this announcement SHALL NOT begin without prior authorization from a Grants Officer.**

2. **Administrative Requirements**
   
   The cooperative agreement issued as a result of this announcement is subject to the administrative requirements in 2 CFR Subtitle A; 2 CFR Subtitle B, Ch. XI, Part 1103; and 32 CFR Subchapter C, except Parts 32 and 33.

3. **Reporting**
   
   See 2 CFR Sections 200.327 for financial reporting requirements, 200.328 for performance reporting requirements, and 200.329 for real property reporting requirements.

### Section VII: Agency Contact

Deberay.R.Carmichael,

Grants Specialist

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