

**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-22-SOI-0021

CFDA No: 12.630

Statutory Authority: 10 USC 4001

Program Title: “Delivering Scalable Harmful Algal Bloom (HAB) Prevention and Management Technologies for Freshwater Ecosystems for the Ohio River”

Announcement Type: Initial announcement

Issue Date: 01 June 2022

Statement of Interest/Qualifications Due Date: 05 July 2022; 1300 central time zone

Full Application Package Due Date, if Invited: 01 August 2022; 1300 central time zone

Estimated Award Ceiling: \$500,000

Estimated Total Program Funding (optional): \$1,500,000 total over 3 years; with \$500,000 for base year and \$500,000 per year for two optional years; optional years are contingent on Congressional authorization and funding appropriation

Expected Number of Awards: The Government will issue only 1 award from this announcement.

Section I: Funding Opportunity Description

Background:

Aquatic nuisance species, including harmful algae, impact US waterways (including those maintained by USACE), infrastructure, and associated resources across the Nation; it's estimated that Harmful Algal Blooms (HABs) cause an estimated \$1B per year in lost tourism revenue alone. In response, innovative, cost-effective, and scalable technologies for early detection, prevention, and management of aquatic nuisance species are required. HABs are increasing in frequency and duration, resulting in environmental, socio-economic, and human/wildlife health concerns. Prevention and management of HABs within the Ohio River is of interest, as is research that produces knowledge and scalable HAB prevention and management tools applicable to lentic and lotic systems across the Nation. Research to address the need to improve capabilities and technologies to anticipate and rapidly respond to/mitigate HAB events is needed. Scalable physical, chemical, and/or biological HAB technologies to manage HABs are particularly needed.

This project will establish an interdisciplinary collaboration between USACE and a Southern Appalachian Mountains or a North Atlantic Coast CESU network member. This collaboration will leverage resources to identify research opportunities and pursue actions necessary for accelerating the delivery of scalable HAB management technologies. This collaboration will seek to build upon and expand (but in no way duplicate) current HAB research efforts ongoing in the Ohio River and North Atlantic regions, thus leading to expanded technology transfer opportunities. Special topics of interest for this funding opportunity announcement are described as part of the "brief description of anticipated work" section below. Investigators should have demonstrated experience pertaining to HABs and aquatic nuisance species control techniques.

Brief Description of Anticipated Work:

Required Work Objectives: This CESU project is intended to develop and demonstrate scalable solutions that will minimize the frequency and effects of Harmful Algal Blooms (HABs) to our Nation's waterways. Special topics of interest for proposals include but are not limited to: (1) scalable technologies to manage, control, and/or mitigate HABs in lentic OR lotic freshwater systems; and (2) approaches for identification of priority areas for proactive HAB management within large-scale lotic systems (e.g., cyanobacteria "seed beds" or HAB onset "hot spots" in mainstem, tributaries or backwaters) and effective treatments for identified priority areas.

This CESU project will develop and demonstrate a process or technology for the reduction of HAB events and their effects through 1) decreased HAB size, duration and frequency, 2) decreased HAB biomass and toxicity, or 3) reduced HAB biomass and toxins during or after an event, through physical, chemical, AND/OR biological processes. Successful proposals will provide compelling information illustrating that the proposed technology would be feasible for deployment to manage HABs that occur at large scales within freshwater systems. Successful proposals will also (a) clearly identify question(s) the proposed project will seek to answer (i.e., project technical objectives); (b) clearly describe the tasks and data required to answer those question(s) (i.e., data quality objectives); (c) specifically address the scalable potential of the management measures or technology being proposed; and (d) describe envisioned project deliverables by task and by year. Proposals that demonstrate intent to maximize use of existing federal and state HAB programs, activities, and data are encouraged. Successful proposals will identify quantitative and qualitative success criteria for each project task and objective; identification of go/no-go decision points at the end of each year is also encouraged.

Public Benefit:

Harmful algal blooms (HABs) are increasing in number of events, spatially, and intensity in lakes, reservoirs, and rivers across the Nation, resulting in public health concerns and billions of dollars in economic impacts. The proposed research will increase early/proactive and scalable HAB management capabilities that will support responders before, during, and after an event. This information is critical to develop future mitigation strategies to reduce environmental, socio-economic, and human/wildlife health concerns resulting from HABs.

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 for delivery of HAB prevention, detection and management technologies that will be applicable to freshwater bodies in OH but also transferable to water resource development projects across the Nation. The estimated level of funding for FY22 is approximately \$500,000. Additional funds of \$500,000 per year for 2 additional years may be available, providing the potential funding of \$1,500,000 over 3 years to the successful Recipient/Awardee; optional year funding is contingent on Congressional authorization and funding appropriation. Depending on findings in the early years of this effort, funding needs may increase above the anticipated \$500,000 per year in subsequent years of this project; however, total funding will not exceed \$1,500,000 over the life of this cooperative agreement.

Government Involvement:

Government employees will be involved through: 1) cooperation in protocol development, review and recommendations of site selections, and review and recommendation of specific experimental design; 2) coordination with other agencies, as needed; 3) technical review of publications and presentations, dissemination of the results of the publications.

Section III: Eligibility Information

1. Eligible Applicants – This opportunity is restricted to non-federal partners of the Southern Appalachian Mountains and North Atlantic Coast Cooperative Ecosystem Study Units (CESUs)
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:
stacy.d.thurman@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 Specialist, stacy.d.thurman@usace.army.mil

2. Statement of Interest/Qualifications shall be submitted NO LATER THAN 05 July 2022; 1300 central time zone

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 Specialist, phone number; stacy.d.thurman@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 shall be utilized if the subrecipient uses it. 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.

9. Optional, highly encouraged: Summary cost table by year showing totals for categories identified in items 1-8 above.
3. Application package shall be submitted NO LATER THAN 01 August 2022; 1300 central time zone
4. Submission Instructions
Applications may be submitted by e-mail, or Grants.gov. Choose ONE of the following submission methods:

- a. E-mail:

Format all documents to print on Letter (8 ½ x 11”) paper. E-mail proposal to stacy.d.thurman@usace.army.mil

- b. Grants.gov: <https://www.grants.gov/>:

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. **Selectable:** 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

Stacy Thurman, Grants Specialist

US Army Corps of Engineers, Engineer Research and Development Center

3909 Halls Ferry Road

Vicksburg, MS 39180-6199

Stacy.D.Thurman@usace.army.mil