

**Engineer Research and Development Center
Harmful Algal Bloom Demonstration Program
Commercial Solutions Openings (CSO)
Solicitation Number: W912HZ24SC001
As authorized by 10 U.S.C. 3458(a)**

SECTION A: INTRODUCTION:

The Engineer Research and Development Center (ERDC) is issuing a Commercial Solutions Opening (CSO) authorized by the Department of Defense (DoD) Class Deviation 2022-00007. Under a CSO, the ERDC may competitively award proposals received in response to a general solicitation, similar to a Broad Agency Announcement (BAA), to acquire innovative commercial products, technologies, or services based on a review of solutions by scientific, technological, or other subject matter expert peers within the ERDC. “Innovative,” for CSO purposes, means any new technology, process, or method, including research and development (R&D), or any new application of an existing technology, process, or method. Under this CSO, all products, technologies, and services shall be treated as commercial items; products, technologies, and services do not have to be “commercially available” to be submitted in response to this solicitation. If the solution meets the requirements of the regulation, the solution is *treated as commercial* whereby the Contracting Officer will utilize commercial procedures to develop and execute the resultant award.

The ERDC, Environmental Laboratory (EL) seeks expert technical support and demonstration of scalable freshwater Harmful Algal Bloom (HAB) prevention, detection, and management technologies. The goal of this effort is to identify solutions capable of reducing the severity and frequency of HABs impacting US Army Corps of Engineers water resource development projects and other freshwaters across the Nation as authorized in The Water Resources Development Act (WRDA) of 2020, Section 128. For more information about this opportunity, including eligibility and other requirements, please read USACE Implementation Guidance (IG) for WRDA 2020 Section 128, which is available online at <https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll5/id/35927>. All interested parties are encouraged to review the IG prior to developing an application package.

Background:

HABs, which can be caused in freshwater by various cyanobacteria, represent a significant and costly threat to our Nation’s economy and natural resources. HABs impact waterways, infrastructure, operations, and associated resources nationwide. Innovative, cost-effective, and scalable technologies for early detection, prevention, and management of HABs are needed.

This announcement focuses on field demonstration of innovative HAB detection, prevention, and management technologies, or combinations of technologies, that have been successfully demonstrated at lab or pilot scales. To reduce the frequency and severity of HAB impacts to our Nation, these technologies must be cost-effective, scalable, and applicable for use in varied freshwater system types (e.g., lotic, lentic) and varied climatic ecoregions. This program will generate defensible technology cost and performance data to guide optimal technology use and implementation at field scale. Technologies that focus exclusively on water quality or drinking water are not the focus of this demonstration program.

Objectives:

The primary objectives of this request for solution briefs is to:

- Significantly reduce the frequency and effects of HABs associated with water resources development projects (for definition, see [implementation guide](#)).
- Demonstrate innovative technologies or combinations of technologies for HAB prevention or management at large field scales.
- Generate field-scale cost and technology performance data to support informed technology use and support technology transfer.

Requirements:

ERDC invites the submission of briefs that must meet the following eligibility and other requirements:

- A field validation project may be implemented anywhere in the Nation to address a HAB associated with a water resources development project. Preference will be given to projects located in the fourteen focus areas: (i) the Great Lakes; (ii) the tidal and inland waters of the State of New Jersey, including Lake Hopatcong, New Jersey; (iii) the coastal and tidal waters of the State of Louisiana; (iv) the waterways of the counties that comprise the Sacramento-San Joaquin Delta, California; (v) the Allegheny Reservoir Watershed, New York; (vi) Lake Okeechobee, Florida; (vii) the Caloosahatchee and St. Lucie Rivers, Florida; (viii) Lake Sidney Lanier, Georgia; (ix) Rio Grande River Basin, Colorado, New Mexico, and Texas; (x) lakes and reservoirs in the State of Ohio; (xi) the Upper Mississippi River and tributaries; (xii) Detroit Lake, Oregon; (xiii) Ten Mile Lake, Oregon; and (xiv) the coastal waters of the United States Virgin Islands.¹
- The proposed project must be for the purpose of determining the causes of, and/or applying technologies to effectively detect, prevent, manage, or eliminate HABs. The project must include the gathering and evaluation of technology cost and performance data that will guide technology use and support technology transfer.
- The proposed project should provide data that could be applied at multiple water resources development projects or federally constructed reservoirs in the Upper Missouri River Basin or the North Platte River Basin and could be expanded at a larger scale than the proposed demonstration per the [implementation guidance](#).
- The applicants may propose to use technology developed by the Corps under Section 1109 of WRDA 2018 (i.e., the Freshwater Harmful Algal Bloom Research and Development Initiative, Report available at <http://dx.doi.org/10.21079/11681/48176>) or other viable technologies with legal authority and ability to be permitted and applied under appropriate federal laws.
- Applicants are responsible for conducting work under applicable laws and regulations and obtaining all necessary federal, state, and local permits to include coordination with ERDC and the responsible USACE Districts for an assessment of environmental effects of any proposed action to a specific site.
- Applicant team comprises range of competencies required for successful large field-scale demonstration and expertise to quantify performance and cost, e.g., field practitioners with experience applying or utilizing proposed technology or combinations

¹ The Water Resources Development Act of 2022 (WRDA 2022 Sec 8305) added focus areas to the 6 initially listed in the original WRDA 2020 Sec 128 HAB Demonstration Program authorization, resulting in the 14 listed here.

of technologies; scientists and engineers with experience quantifying dosing, reaction times and rates; algal phycologists or other experts with experience identifying and enumerating cyanobacteria and characterizing HABs.

Not required, but highly desired:

- Applicants are encouraged to submit evidence of previous successful laboratory or pilot-scale field demonstrations of the technologies proposed. This opportunity is intended to support field-scale demonstrations, not research and development.
- Successful pre-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 (if proposing a multi-year project).

Estimated Government Funding Profile:

- The maximum total funding available for all awards under this announcement is \$4,500,000.
- The Government may elect to award up to 5 awards. Multi-year proposals may be submitted.
- The Government may elect to award all years for selected projects or only the first year(s) of selected projects, depending on proposals received.

**This maximum total funding available amount may change dependent upon availability of funds in the fiscal year 2024 budget.*

Estimated Period of Performance: 12 months after award date for single year awards; 24 months or longer for multi-year awards.

Desired End-state:

- Reduced HAB intensity or impact in the waterbody where technology demonstration occurs.
- Electronic database of technology demonstration performance data gathered for each project and technology; provides end-users with access to data used to generate results, including key figures and tables in the final demonstration report.
- Final demonstration project reports, which document how each technology or combination of technologies demonstrated in a freshwater body performed against established objectives identified in the proposal and in the approved work plan; also documents cost of the technology demonstration and includes a cost section in the final report, which outlines key consideration for others seeking to utilize the demonstrated technology in a different freshwater or estuarine system.
- Published performance data on HAB prevention and management technologies to aid in applicability determination for field site use. For each technology, published demonstration data should inform why it worked, how it worked, and how the technology was deployed so that informed decisions can be made in regard to future use at other sites.

This request for solution briefs is a two-step project announcement:

Step 1: This announcement is being issued to solicit solution briefs ONLY. The purpose of the solution brief submissions is to identify potential partners that may have promising solutions relative to fulfilling the requirements herein. An offeror that describes a promising solution may be asked questions regarding their solution via email or requested to virtually attend a solution pitch with the Government project team. The Government reserves the right to move straight to Request for Proposal (RFP) based on solution brief only. Further, an offeror's inability to accept an invitation to provide a solution pitch does not preclude them from receiving an RFP.

Step 2: If a solution is selected and funding is available, the Government will issue an RFP. If a solution is selected and funding is not available, the Government may request that the solution be maintained in the electronic library for consideration and subsequent funding availability up to three years after submission. If a solution is not selected, the offeror will be notified generally within 30 days of submission.

SECTION B: SOLUTION BRIEF PREPARATION AND SUBMISSION

NOTE: The Government reserves the right to not select a solution if it omits any of the required information below.

DO NOT INCLUDE CLASSIFIED OR PROPRIETARY INFORMATION

1. GENERAL FORMATTING REQUIREMENTS: Solution briefs shall be **no more than five pages** and submitted electronically. All submissions must be clear, legible, and conform to the following general formatting guidelines:

- Paper: Pages shall be 8.5 x 11 inches, single sided, with each page numbered "X of Y pages."
- Margins: Minimum of 1 inch on all sides.
- Type Font: 12 point Times New Roman, single spaced.
- Acronyms: Spell out all acronyms the first time they are used. One page of the proposal body is allocated to spell out acronyms, abbreviations and symbols.
- Language: English.
- Electronic file format: PDF, compatible with current Adobe Acrobat Reader. File size less than 20 MB.

2. TECHNICAL REQUIREMENTS:

- Describe the proposed solution and how it will enhance the mission effectiveness of the agency. The proposed solution shall not simply repeat the Strategic Focus Area but rather provide convincing evidence that the proposed solution or potential capability fulfill a Government requirement, close capability gaps, or provide technological advancements. The following examples of convincing evidence are strongly encouraged

- Authentic company URL or web address. Note: The Government may elect to use the information provided as part of its continuous market research. However, the government is not obligated to use the URL or web address as part of its evaluation process to determine the Selectee or Awardee.
- Summary of product commercialization currently used in the open market.
- Pictures, diagrams, models, or figures to depict the essence of the proposed solution.
- Describe how the proposed solution is “innovative” and the feasibility of the solution solving an agency challenge, including examples demonstrating possible application of the proposed innovation or existing use of the solution in the commercial marketplace.
“Innovative” is defined as any technology, process, or method, including research and development, that is new as of the date of submission of a proposal, or any application that is new as of the date of submission of a proposal of a technology, process, or method existing as of such date.

3. ROUGH ORDER MAGNITUDE (ROM) – Estimated price ONLY. Further details will be requested for full proposal if selected.

4. SUBMISSION

SAM Registration: It is critical that offerors are registered in the System for Award Management (SAM), <https://sam.gov/> ; offerors will not be eligible for an award if not registered in SAM at the time of submission. Additionally, entities are required to be registered to receive contracts (not just grants) and the address from the solution must match the registration information in SAM.

Solution Submission: For a solution to be evaluated for possible selection, it must be submitted via the electronic form at erdcwerx.org from the Harmful Algal Bloom Demonstration Program CSO Submit Solution link; submissions will be accepted through **5PM EST, 10 May 2024** A hardcopy will not be accepted. Offerors may submit solution amendments any time prior to the deadline.

When a submission is made, a confirmation email will be sent by the ERDCWERX portal to the email address supplied in the submission form.

Please ensure that the email address listed in your proposal is current and accurate. Please contact us by emailing info@erdcwerx.org to share details of changed email address and/or company points of contact after proposal submission.

Due to the large amount of expected interest in this CSO, and to maintain a written record of questions, the ERDC will be accepting individual questions through the ERDCWERX portal by using their Question Submission Form. The questions and answers will be published and regularly updated on the ERDCWERX Frequently Asked Questions (FAQ) page.

5. SELECTION

Solutions received in response to this announcement will be selected based upon an initial review of how innovative and feasible the solution is at solving an agency challenge, the potential to enhance the mission effectiveness of the agency, and funding availability.

If a solution is selected and funding is available, an RFP will be issued by the Contracting Officer, which shall include a request for further details or documents prior to award (i.e., contractor self-developed Performance Work Statement (PWS) or Scope of Work (SOW), delivery details... etc.). A PWS is similar to a Service Level Agreement (SLA) used in the commercial marketplace. The PWS shall detail the proposed work to be completed during the period of performance, deliverables, etc. As many solutions will likely be performed/provided at military installations, the Government will provide the applicable security requirements to be included in any award. As appropriate, the Government may engage in a collaborative process to develop the PWS/SOW, deliverables, data rights, and necessary terms and conditions for the award.

Issuance of a RFP does not guarantee award. Award will be made once a proposal is accepted based on the proposal evaluation criteria in SECTION C.

The government reserves the right to select none of the submissions.

SECTION C: PROPOSAL EVALUATION

Proposals received in response to an RFP will be evaluated in accordance with the following evaluation criteria by scientific, technological, and/or other subject matter experts:

- Technical Merit
 - Feasibility and applicability of proposed solution to the requirements and objectives detailed in this Individual Program Requirement (IPR).
 - Alignment with selection criteria identified in the Implementation Guidance for Section 128 of the Water Resources Development Act of 2020, Harmful Algal Bloom Demonstration Program Section 4.f.
<https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll5/id/35927>
 - (1) The project's potential to significantly reduce the frequency and effects of HABs associated with water resources development projects.
 - (2) The project's utilization of new, innovative methods or tools, or technology being developed under the Freshwater Harmful Algal Bloom Research and Development Initiative (<https://ansrp.el.erdc.dren.mil/hab.html>).
 - (3) The degree to which the project leverages existing Federal and State data and ongoing programs and activities of Federal and State agencies.
 - (4) Preference will be given to projects that address a HAB issue associated with a water resources development project in the fourteen focus areas identified in the "requirements" section above.
 - Importance to agency programs
 - Will assess the solution's potential to enhance the mission effectiveness of the agency.

- Funds availability
 - Will assess the availability of funding to procure the solution.

Price Reasonableness Determination: Price shall be considered to the extent appropriate, but at a minimum, the Contracting Officer will use market research as the primary method to determine that the price is fair and reasonable. The Government may elect to use external market research in the evaluation of the proposal. The ERDC must determine the price fair and reasonable prior to award using the procedures at DFARS subpart 212.209. In some circumstances, the Contracting Officer may request information from the offeror regarding recent purchase prices paid by the Government and/or commercial customers for the same or similar commercial items.

SECTION D: AWARD

All resultant contracts will be firm-fixed price. All items, technologies, and services (including research and development) procured via this CSO are treated as commercial. ERDC is conducting this CSO on a full and open basis and intends to award contracts in accordance with FAR part 12 and the FAR part that is deemed most appropriate for the solution proposed (i.e., FAR part 13, 15, and/or 35).

FAR / DFAR clauses will be integrated into contracts on a case-by-case basis based on proposed scope.

Additional terms and conditions may be required as circumstances necessitate; examples of such would be data rights, security, R&D, educational institutions, etc.

The government does not plan to engage in the debrief process outlined in FAR part 15 but will provide feedback to unsuccessful offerors as appropriate and at its discretion.

Award may be made using any appropriate vehicle (e.g., FAR-based contracts and Other Transactions) in accordance with applicable authorities that are effective at the time of the award.