

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-0023

CFDA No: 12.630

Statutory Authority: 10 USC 4001

Project Title: Oyster larval transport/hydrodynamic modeling at
Tangier/Pocomoke Sound, Virginia

Announcement Type: Initial Announcement

Issue Date: 15 June 2022

Statement of Interest/Qualifications Due Date: 22 July 2022 by 1700 EST.

Full Application Package Due Date, if Invited: 23 August 2022 by 1700 EST.

Estimated Award Ceiling: **\$100,000.00**

Estimated Total Program Funding **(optional)**:

Expected Number of Awards: 1

Section I: Funding Opportunity Description

Background:

The Chesapeake Bay Oyster Restoration Program will soon achieve the goal of successfully restoring oysters to 10 tributary rivers, 5 in Virginia and 5 in Maryland. This was the initial goal of the Chesapeake Bay Program's Oyster Goal Implementation Team (GIT). Restoration efforts are now being moved to the more open waters of the Chesapeake Bay mainstem, Tangier and Pocomoke Sound on the east side of the Bay mainstem near the Virginia/Maryland Border. In the late 1800s, this area was surveyed and found to hold 2,252 HA of oyster reefs, a subsequent survey in the 1980s found only 630 HA of oyster reefs, a 72% loss (Schulte 2017). Due to the non-random distribution of oyster reefs in the region, it is highly likely that the local currents and their ability to transport oyster larvae has played a key role in where reefs have come to be established and maintained over time. It is known that most oyster reef systems consist of both source and sink reefs, with the source reefs providing oyster larvae to auto-recruit on themselves, as well as provide larvae to reefs that are not located in waters where they can be self-sustaining on their own (Lipcius et al. 2015, Theuerkauf et al. 2021). There are hopes to construct a large-scale oyster reef restoration effort in this region. During the planning process, sites need to be selected and prioritized based on the benefits they can provide. Simulations from bio-physical models can be used to identify potential restoration sites based on how they fit in to the regional metapopulation. The hope of this work is to be able to utilize the information to select sites with the greatest potential to enhance the overall recruitment in the region.

Brief Description of Anticipated Work:

What are our objectives? We would like to assess the oyster larval transport dynamics of the Tangier/Pocomoke Sound region. We would like to identify source and sink areas for the regional oyster metapopulation to help us locate oyster reefs for maximum population enhancement benefits. We are interested in estimating the oyster population size that would enable a detectable regional benefit to oyster recruitment. Estimating the necessary oyster population to influence recruitment at a detectable level has, to our knowledge, never been done. The region is large and fairly open, however it is expected that due to the non-random locations of historical reefs, there are favorable currents in some areas conducive to oyster larval settlement.

Public Benefit:

How does this benefit the public? Oysters are a keystone species in Chesapeake Bay, once able to filter the entire volume of Bay water in approximately three days, but the present population, being severely depleted, takes over a year to perform this ecological service. This large-scale ecosystem restoration project taking place within a heavily urbanized estuarine river system is of considerable interest to the public. It could potentially serve as a model for restoration in urbanized estuaries in other regions. It is one of the larger ecosystem restoration projects attempted in the Chesapeake Bay region. Assessing the progress of the largest component of this project, the dual-purpose fish/oyster reefs, is necessary to determine their effectiveness as well as are they providing ecosystem benefits sufficient to justify their cost. The reefs will improve local production of commercially and recreationally valuable fished species, such as blue crabs, black sea bass, and tautog, among others. Oysters can also be a net reducer of CO₂, helping to reduce climate change impacts due to increased atmospheric CO₂ from burning fossil fuels.

The results of this study shall also be published in a peer-review journal in collaboration with Norfolk District personnel, to provide the information gathered in the proposed study to the wider scientific community.

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 Norfolk District and the Engineer Research and Development Center to provide the desired modeling. The estimated level of funding for FY22-23 is approximately \$100,000.00.

Government Involvement:

How will the government be substantially involved? USACE personnel will assist in experimental design, provide maps of sites and locations of current and historic reef habitat in the Tangier/Pocomoke Sound region, consult with the awardee on the specific proposed methodology to conduct the modeling, assist in production of a report that will also be published in a peer-reviewed science journal. USACE personnel will be co-authors on any peer-review articles that are produced from this study, assisting in writing, as well as approving the document for publication.

Section III: Eligibility Information

1. Eligible Applicants – This opportunity is restricted to non-federal partners of the Chesapeake Watershed 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: Kisha.M.Craig@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 Kisha M. Craig, 601-634-5397;
Kisha.M.Craig@usace.army.mil

2. Statement of Interest/Qualifications shall be submitted NO LATER THAN 9 JULY 2022

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 Kisha M. Craig, 601-634-5397;
Kisha.M.Craig@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 but is required if the sub-recipient 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.

3. Application package shall be submitted NO LATER THAN 9 August 2022

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 Kisha.M.Craig@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

Kisha M. Craig, Grants Specialist
US Army Corps of Engineers, Engineer Research and Development Center
3909 Halls Ferry Road
Vicksburg, MS 39180-6199
Kisha.M.Craig@usace.army.mil
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