

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-0022
CFDA No: 12.630
Statutory Authority: 10 USC 4001

Project Title: “Evaluating the Economic Implications of Low Flow Augmentation on the Ohio River”.

Announcement Type: Initial Announcement

Issue Date: 02 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: \$45K

Estimated Total Program Funding: \$90K

Expected Number of Awards: 1

Background:

The United States Army Corps of Engineers operates and maintains more than 80 flood risk management (FRM) reservoirs within the Ohio River Basin. While the primary purpose of these projects

is to prevent flood damages, in the course of normal operation these projects make regular releases that augment the flow of downstream rivers and provide ancillary benefits to adjacent communities and transient users. Because of this augmentation, at certain times the flows on the Ohio River are actually higher than would have occurred naturally. These higher flows possibly provide benefits in the form of reduced treatment costs for dischargers, more hours of hydropower generation, fewer navigation delays, a more reliable water supply and other benefits that are not currently understood or captured.

This effort seeks to identify and, when practicable, monetize ancillary benefits resulting from augmented flows associated with releases from multi-purpose reservoir projects. Its focus will be on the impacts and benefits associated with projects operating within the borders of the Ohio River Basin on flows and benefits located along the mainstem of the Ohio River. However, the methodologies identified should be generally applicable to augmented flows from reservoirs across the United States.

At a minimum, benefits to municipal wastewater treatment plants and to water supply will be examined. Additional consideration of benefits to other industrial dischargers, navigation, hydropower and recreation are a plus, as is some discussion and consideration of the overall impacts of climate change on the benefit potential in the future.

Brief description of Anticipated Work:

The proposed project will describe how much of an influence the reservoir releases are having on the flows in the mainstem Ohio River and whether those increased flows are providing an economic benefit. This effort will involve the gathering of existing flow information, data reconciliation (developing processes for the filling of data gaps) and comparing observed flows and natural flows for each Ohio River mainstem lock and dam over the period of 1990 to present. This comparison will include a reporting of commonly used flow statistics which will serve as the basis for the economic analysis. The economic analysis will determine whether or not the difference between observed and natural flows is significant enough to result in positive benefits to wastewater treatment plants, water supplies and other river users. The overall effort should result in the development of repeatable analytical processes that can be applied to other reservoir influenced riverine systems across the United States. The results of the study will be presented in the form of a final report and the development of manuscripts for peer review should also be considered as appropriate.

Requirements:

Successful applicants will have expert knowledge and work experience in the Ohio River or similar large river systems. This shall include experience working with models such as the USACE Hydrologic Engineering Center's River Analysis System (HEC-RAS) and the routing of flows. The candidates should also have experience conducting economic analyses and relating economic conditions, futures, and uncertainties to environmental drivers.

Public Benefit:

This study will further improve our understanding of how the many water resource projects within the Ohio River Basin operate as a system. This improved understanding could lead to improvements in

water quality criteria development and application, fish and wildlife management strategies and overall resource planning activities. In combination or alone, these improvements will lead to a more enjoyable and sustainable resource for the public to enjoy. The information gathered and the lessons learned will be made publicly available to support other resource management efforts.

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 Institute for Water Resources, the Great Lakes and Ohio River Division and the Engineer Research and Development Center to provide an assessment of the potential economic benefits resulting from augmented flows on the Ohio River. The estimated level of funding for FY22 is approximately \$45,000. Additional funds of \$45,000/year for 1 additional year may be available, providing the potential funding of \$90,000 over 2 years to the successful Recipient/Awardee.

Government Involvement:

A USACE Project Delivery Team (PDT) that includes hydraulic engineers, economists and other disciplines as required, will work cooperatively with the investigator to identify key issues that must be addressed. USACE will provide flow data, data interpretation, existing flow models and general advice on approaches to hydraulic and economic analysis.

Section III: Eligibility Information

1. Eligible Applicants – This opportunity is restricted to non-federal partners of the Colorado Plateau and Great Rivers Cooperative Ecosystems Studies Units (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: 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, 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 used 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.
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
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