

PROJECT ANNOUNCEMENT

**US Army Corps of Engineers (USACE)
Engineer Research and Development Center (ERDC)**

Title: UMRS Forest Resources Inventory and Analysis

Announcement Type: Initial Announcement

Funding Opportunity Number: W81EWF-25-SOI-0001

Assistance Listing Number: 12.630

Date Issued: 02 December 2024

Key Dates: Phase I announcement will be open to receive statements of interest continuously until 10:00 a.m./Central Time (CT), 02 January 2025, at which point all statements of interest must be received.

If invited to Phase II, full proposal applications will be due at 2:00 Central Time (CT), 31 January 2025.

Estimated Award Ceiling: \$50,000.00

Estimated Total Program Funding: \$550,000.00

Agency Contact: Stacy Thurman, Stacy.D.Thurman@usace.army.mil

I. Program Description

A. Short Description of Funding Opportunity

ERDC seeks applications for an R&D project to be funded by the U.S. Army Corps of Engineers (USACE) St. Louis District to conduct forest inventory, identify changes in forest community composition and stand structure, identify effects of forest management on forest stand composition, describe habitat requirements of wildlife species of concern, develop tables of desired forest stand conditions, determine innovative and cost effective means to control invasive species, and to identify the long term impacts of forest community dynamics on water and soil quality composition.

B. Background

Forest communities of large rivers are highly productive, provide valuable habitat for many species of wildlife, improve water quality, control erosion, and contribute to local and regional commerce (Nelson et al., 1997; Wiener et al., 1998; Johnson and Hagerty, 2008). The Forest Cover Act of 1960 (PL 86-717) requires the USACE to protect and develop forest and other vegetative cover. Management responsibilities for the natural resources, including federal trust species, on lands acquired for the 9-foot navigation channel on the Upper Mississippi River within the St. Louis District are the responsibility of the Rivers Project Office (RPO). The RPO manages 48,594 acres of public lands, most of which is floodplain forest. Part of these management responsibilities include monitoring of the natural resources as required by Engineering Regulation 1130-2-540.

The Upper Mississippi River is a highly regulated system that has been dramatically altered by humans. European settlers who developed the Mississippi River valley during the 1800s brought many changes to the landscape and waterways. Prior to widespread European settlement of the region, the Mississippi River System was a diverse landscape of tallgrass prairie, wetlands, savannas, and forests. Logging, agriculture, and urban development over the past 150 years have resulted in the present floodplain landscape that is highly developed. Wetlands were drained and floodplain forests were extensively logged for lumber and fuel wood. During the same period, much of the floodplain was cleared for agriculture. The hydrologic regime was also highly modified, with increased fluctuations in river discharge. Dams and river regulation throughout the basin also modified river flows. The modern landscape delivers large amounts of sediment, nutrients, and contaminants to the river. Since the construction of locks and dams, sediment accumulation and other processes in the navigation pools have greatly altered both aquatic and terrestrial habitats.

Modern forest distribution represents only a small portion of pre-European settlement floodplain forests in some reaches. The amount of bottomland forest within the Upper Mississippi River floodplain has been significantly reduced from historic levels by clearing of land for agriculture and development. Although river impoundment flooded much forested area in northern reaches, large portions of forest remain relatively intact on public lands in other river reaches, most natural floodplain communities have been replaced by agriculture. Channel dynamics and water level fluctuations that support diverse, productive floodplain communities have been altered throughout the system. Forest restoration is therefore a key component of natural resource management in the system, which in turn is based on the overarching goal of conserving, restoring, and maintaining its ecological structure and function.

C. Program Description/Objective: (brief description of the anticipated work)

Forest resource data collection and data analysis is necessary in order to develop forest management objectives at a stand, management area, river reach, and river system scale. Information gained from this project will be utilized to assist in making forest management decisions and assess changes in forest resources. An initial forest resource survey has been completed for all of the Rivers Project Office lands and a second inventory completed for Pool 24. A comprehensive analysis and comparison of the two iterations of data has also been completed for Pool 24. Year 1 of this project will focus on additional forest inventories in Pool 25 of the Mississippi River. Year 2 will focus on additional forest inventories as well as a similar comparative analysis of the two iterations of forest inventory data in Pool 25. There is the potential requirement for additional forest inventories to take place to aid with data analysis, focusing on Mississippi River Pools 25, 26, and the Open River and the lower Illinois River.

Monitoring forest conditions following forest management actions is important to evaluate their effectiveness. Forest management has been conducted by USACE on the UMRS for over 30 years, but follow-up monitoring has been lacking. Completed forest management actions include reforestation, interplanting, timber stand improvement (TSI), prescribed burning, and invasive species treatment. This project will include conducting forest management actions and evaluating the effects of those actions on forest stand health, composition, and regeneration.

This project will also take advantage of lessons learned from recent forest management projects to refine and enhance the Upper Mississippi River Systemic Forest Stewardship Plan (Guyon et al., 2012). This plan is the guiding document used by USACE foresters on the Upper Mississippi River in developing synchronized forest management plans and prescriptions. Revision of this plan will include more detailed R&D to develop desired forest conditions for different floodplain forest communities and stand structure and how this will meet the habitat requirements of species of concern. Identification of specific wildlife habitat requirements will be needed for species of concern to ensure that wildlife management objectives are being met through an active forest management program.

Invasive species are one of the largest threats to habitat integrity of the floodplain forest resource. One example of these threats is Japanese hops. It is an annual invasive species that has greatly expanded its dominance in the floodplain over the past ten years. Hops grows rapidly and will completely dominate a forest canopy gap, greatly reducing natural reforestation. This project will look to identify innovative and economically feasible means to quickly reforest canopy gaps to reduce the impact of invasive species such as Japanese hops or reed canary grass. This project will also describe the current and projected impact of the Emerald Ash Borer on green ash, the second most dominant tree within RPO management areas. The objective will be the development of a Special Status Report that describes the impact following the loss of green ash from floodplain forests and potential for Japanese hops or other invasives to dominate the resulting canopy gaps.

D. Public Benefit

The public will directly benefit from this work in the form of improved ecosystem health and sustainability, and the health and well-being of people who recreate on these public lands or live in close proximity to them. The knowledge gained by this work will allow the RPO to effectively manage the public's lands along the Mississippi and Illinois rivers, which goes hand in hand with the public's ability to safely enjoy the outdoors, participate in wildlife observation, and support nature-based tourism economies. The data gathered through this work will be publicly available to support other research and monitoring efforts and public or private managers of adjacent lands.

E. Authorization: 10 USC 4001

F. Legal Requirements

Each Cooperative Agreement awarded under this announcement will be governed by 2 CFR 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards", 2 CFR 1100 Subchapter D—Administrative Requirements Terms and Conditions for Cost-Type Grants and Cooperative Agreements to Nonprofit and Governmental Entities and the DoD research general terms and conditions located at <https://www.nre.navy.mil/work-with-us/manage-your-award/manage-grant-award/grants-terms-conditions>.

G. Program-Specific Requirements

Successful applicants should have expert knowledge and work experience in the Upper Mississippi River System (UMRS) floodplain ecosystem, particularly the impounded section of the UMRS, riverfront and floodplain forest communities, and the community dynamics of large river terrestrial systems. The candidates should have prior experience with inventory and monitoring of vegetation features within these systems including mapping, data collection, and statistical analysis. The candidates will also be required to submit three (3) quarterly reports and one (1) annual report each year of the cooperative agreement to provide updates on the implementation of the project.

II. Federal Award Information

The following information applies to awards issued under this announcement:

- This is a new program
- The Government anticipates 1 Federal award from this announcement, but reserves the right to award more or less
- The total amount of funding expected to be awarded through this announcement is \$550,000.00
- The expected amount of funding for each award is \$50,000.00 for Year 1, \$100,000.00 for Year 2, \$150,000.00 for Year 3, \$150,000.00 for Year 4, and \$200,000.00 for Year 5.
- Award(s) from this announcement will be Cooperative Agreement(s)
- The anticipated period of performance is 5 years.
- Applications for renewal or supplementation of existing projects are eligible to compete with applications for new Federal awards
- The government reserves the right to accept only portions of an application and to

- negotiate with potential awardees.
- Government’s substantial involvement includes working cooperatively with the investigator to identify issues the protocol must address, develop field and training materials, and assist the investigator personnel with activity logistics and field work. The Government may also provide workspace and equipment as necessary.

III. Eligibility Information

A. Eligible Applicants

This opportunity is restricted to non-federal partners of the Great Rivers Cooperative Ecosystems Studies Unit (CESU).

Disclosures of current and pending support made in this application may render an applicant ineligible for funding. Prior to award and throughout the period of performance, ERDC may continue to request updated continuing and pending support information, which will be reviewed and may result in discontinuation of funding.

Religious organizations are entitled to compete on equal footing with secular organizations for Federal financial assistance as described in E.O. 13798, “Promoting Free Speech and Religious Liberty.”

B. Cost Sharing or Matching

This action will be 100% funded by USACE.

C. Conflict of Interest

a) General Requirement for Disclosure

You and your organization must disclose any potential or actual scientific or nonscientific conflict of interest(s) to us. You must also disclose any potential or actual conflict(s) of interest for any identified sub recipient you include in your application. We may have to ask you more questions if we need more information.

At our discretion, we may ask you for a conflict-of-interest mitigation plan after you submit your application. Your plan is subject to our approval.

b) Scientific Conflict of Interest

Scientific collaborations on research and development projects are generally the result of close collaboration prior to the submission of applications for support. Accordingly, these collaborations should be considered when considering potential conflicts of interest. The potential conflict is mitigated by the disclosure of these collaborations, and the list of current and pending support you provide for

senior and key researchers. Therefore, you must include in your list of current and pending support all collaborators, even if they did not formally provide support.

D. Other

a) Licensure or Certification

You must include the Acknowledgment of Support and Disclaimer on all materials created or produced under our awards. This language may be found in the Terms and Conditions included in the award documents.

E. Certifications, representations, and assurances

1. To apply for grants and other funding opportunities the applicant entity must have an active registration in the System for Award Management (SAM). Applications will not be accepted through Grants.gov or other methods unless the entity is registered in SAM. Registration in SAM now includes the acceptance of Certifications and Assurances. See <https://www.grants.gov/web/grants/grantors/grantor-standard-language.html> for details on how to register in SAM, and Grants.gov
2. The Federal Assistance Certifications Report is an attestation that the entity will abide by the requirements of the various laws and regulations; therefore, as applicable, you are still required to submit any documentation, including the SF-LLL Disclosure of Lobbying Activities (if award value exceeds \$100,000.00), and, if applicable, informing DoD of unpaid delinquent tax liability or a felony conviction under any Federal law.
3. Certification Regarding Disclosure of Funding Sources. By checking "I Agree" on the SF 424 (R&R) block 17 you agree to abide by the following statement: "By signing this application, I certify the proposing entity is in compliance with Section 223(a) of the William M. (Mac) Thornberry National Defense Authorization Act for Fiscal Year 2021 which requires that: (a) the PI and other key personnel certify that the current and pending support provided on the proposal is current, accurate and complete; (B) agree to update such disclosure at the request of the agency prior to the award of support and at any subsequent time the agency determines appropriate during the term of the award; and (c) the PI and other key personnel have been made aware of the requirements under Section 223(a)(1) of this Act. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. code, Title 218, Section 1001)."

IV. Application and Submission Information (2 Phase Process)

A. Phase I: Submission of Statement of Interest (SOI)

1. Materials Requested for Statement of Interest/Qualifications:

a. Please provide the following via e-mail attachment to Phoebe Fuller, Phoebe.V.Fuller@usace.army.mil & Stacy Thurman, Stacy.D.Thurman@usace.army.mil (Maximum length: 2 pages, single-spaced 12 pt. font).

i. Name, Organization and Contact Information

ii. 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 Stacy Thurman, Stacy.D.Thurman@usace.army.mil

2. ERDC will only accept SOIs submitted on or before 02 January 2025, 10:00 a.m./ Central Time (CT).

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.

B. Phase II (if invited): Submission of Full Application Package

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 Stacy Thurman, 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. In addition, a data management plan is required to be included.

A data management plan is a document that describes which data generated through the course of the proposed research will be shared and preserved, how it will be done, or explains why data sharing or preservation is not possible or scientifically appropriate, or why the costs of sharing or preservation are incommensurate with the value of doing so. See also: DoD Instruction 3200.12. <https://www.esd.whs.mil/Directives/issuances/dodi/>

Data management plans are generally 2 pages in length, and must include the following considerations:

- (1) The types of data, software, and other materials to be produced.
- (2) How the data will be acquired.
- (3) Time and location of data acquisition, if scientifically pertinent.
- (4) How the data will be processed.
- (5) The file formats and the naming conventions that will be used.
- (6) A description of the quality assurance and quality control measures during collection, analysis, and processing.
- (7) A description of dataset origin when existing data resources are used.
- (8) A description of the standards to be used for data and metadata format and content.
- (9) Appropriate timeframe for preservation.
- (10) The plan may consider the balance between the relative value of data preservation and other factors such as the associated cost and administrative burden. The plan will provide a justification for such decisions.
- (11) A statement that the data cannot be made available to the public when there are national security or controlled unclassified information concerns (e.g., “This data cannot be cleared for public release in accordance with the requirements in DoD Directive 5230.09.”)

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 a full budget in sufficient detail so that a reasonableness determination can be made. A recommended template will be included in the invitation to Phase II. 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.

d. R&R Senior/Key Person Profile

1. Biographical Sketch

2. Disclosure of Current and Pending Support:

- i. A list of all current projects the individual is working on, in addition to any future support the individual has applied to receive, regardless of the source.
- ii. Title and objectives of the other research projects.
- iii. The percentage per year to be devoted to the other projects.
- iv. The total amount of support the individual is receiving in connection to each of the other research projects or will receive if other applications are awarded.
- v. Name and address of the agencies and/or other parties supporting the other research projects.
- vi. Period of performance for the other research projects.

e. SF-LLL Disclosure of Lobbying Activities (if award value exceeds \$100,000.00)

3. ERDC will only accept full application packages submitted on or before 31 January 2025, 2:00 Central Time (CT).

4. Submission Instructions

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 Thurman, 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>.

Organizations must have a Unique Entity Identifier (UEI) and active System for Award Management (SAM) registration to apply for Federal financial assistance.

C. Application Withdrawal:

An applicant may withdraw an application at any time before award by written notice via email. Notice of withdrawal shall be sent to the agency point of contact identified in this announcement and are effective upon receipt.

D. Funding Restrictions

Per 2 CFR § 200.216, funds may not be used to procure telecommunications equipment or video surveillance services or equipment produced by

- Huawei Technologies Company,
- ZTE Corporation Hytera Communications Corporation,
- Hangzhou Hikvision Digital Technology Company,
- Dahua Technology Company
- any subsidiary or affiliate of such entities

Funds from an award may not be used to attain fee or profit.

V. Application Review Information

A. Selection Criteria

Applications will be evaluated using the following criteria, listed in descending order of importance:

- Technical merits of the proposed research and development; and
- Potential relationship of the proposed research and development to Department of Defense missions

B. Review and Selection Process:

Each application will be reviewed based on the selection criteria above rather than against other applications submitted under this Announcement.

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.

In addition to the technical/program review, the DoD performs a budget review and a risk review as directed by 2 CFR 200.206, including a review of the Federal Awardee Performance and Integrity Information System (FAPIIS). Applicants may review information in FAPIIS and comment on any information entered into that system. Comments made by applicants will be taken into account in addition to other information in considering applicants' integrity, business ethics, and record of performance.

VI. Federal Award Administration Information

The notification e-mail regarding a selection is not authorization to commit or expend DoD funds. A DoD grants officer is the only person authorized to obligate and approve the use of federal funds. This authorization is in the form of a signed Notice of Award. Applicants whose applications are recommended will be contacted by a DoD grants officer to discuss any additional information required for award. This may include representations and certifications, revised budgets or budget explanations, or other information as applicable to the proposed award. The award start date will be determined at this time.

VII. Reporting Requirements

The terms and conditions of the award will provide the specifics on how to submit the reports and any required sections for those reports.

In accordance with 2 CFR 200.328 (Financial Reporting) and 2 CFR 200.329 (Program Performance)

Report	Requirements/Form	Frequency	Means of Submission
ERDC Progress Report	Progress during the period covered by the corresponding SF 270 via email submission	Upon submission of the SF 270	E-mail
Research Performance Progress Reports (Interim and Final)	OMB Control Number: 0704-0527	Annually	E-mail
Financial Report	SF 425	Quarterly	E-mail
Payment Report	SF 270	Monthly	E-mail
Closeout Report	See OAR Article VI of DoD R&D General Terms and Conditions	Once	E-mail

Awardees will need to comply with the reporting requirements in 2 CFR 170: Reporting Subaward and Executive Compensation Information.

The terms and conditions of the award will provide the specifics on how to submit the reports and any required sections for those reports.

VIII. Federal Contacts

Questions should be directed to:

Stacy Thurman
Grants Specialist
Stacy.D.Thurman@usace.army.mil

Zavien Beal
Grants Officer
Zavien.T.Beal@usace.army.mil

Questions regarding Grants.gov should be directed to: the toll-free number 1-800-518-4726 and email at support@grants.gov.

IX. Other Information

The Federal government is not obligated to make any Federal award as a result of the announcement. Only grants officers can bind the Federal government to the expenditure of fund.

Applicants are advised to monitor Grants.gov for potential amendments to this Notice of Funding Opportunity. You can also elect to be automatically notified by Grants.gov whenever there is a change to the opportunity.

Applications must not include any information that has been identified as classified national security information under authorities established in Executive Order 12958, Classified National Security Information.