

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-0012

CFDA No: 12.630

Statutory Authority: 10 USC 2358

Project Title: Willamette Valley Prairie Pollinator Studies

Announcement Type: Initial announcement

Issue Date: 17 March 2022

Statement of Interest/Qualifications Due Date: 18 April 2022, 4:00 PM, CDT

Full Application Package Due Date, if Invited: 18 May 2022, 4:00 PM, CDT.

Estimated Award Ceiling: Initial funding of up to \$95,000 dollars is expected.

Estimated Total Program Funding (**optional**): \$475,000 over base and 4 option years if funding available

Expected Number of Awards: We expect to issue a single award from this announcement, but the government may issue multiple awards depending on the statements of interest received and availability of funding.

Section I: Funding Opportunity Description

Background:

The Willamette Valley Project manages important remnant terrestrial habitats at 13 dams in the Willamette watershed. These habitats include Willamette Valley wetland and upland prairie systems hosting four flowering plant species and a butterfly listed under the Endangered Species act and numerous other plants and animals of conservation concern. The Fern Ridge Research Natural Area, designated in 1988 as an example of Willamette Valley wet prairie, hosts the largest remnant population of *Erigeron decumbens* (Willamette daisy, listed endangered).

While various sampling efforts have yielded collections and partial species lists, no pollinator inventory has been completed at any lake in the Willamette Valley system, and so the prevalence of rare species in need of management is poorly understood. The Prairie Plant Working Group (led by U.S. Fish and Wildlife Service) has identified understanding pollination in *E. decumbens* as an important research need to support recovery efforts for this endangered plant. Increased knowledge of the relationships between pollinators and remnant and restored plant communities would inform management and restoration goals for both rare species and prairie habitats. Understanding pollinator response to vegetation management methods and associated changes to plant communities could improve site management. Increased understanding of the ecology of pollinators at Corps sites could inform management methods in critically rare prairie habitat throughout the Willamette Valley/Puget Trough/Georgia Basin ecoregions.

Studies partially supported by the Corps since 2019 have yielded progress toward understanding the Willamette daisy breeding system and Willamette Valley-Puget Trough prairie pollinator communities, plant-pollinator interactions, and preliminary results regarding their variation in space and time. We now request Statements of Interest to expand these studies to additional sites and seasons, and additionally examine pollen limitation in Willamette daisy; the systems' response to management such as prescribed fire and herbicide treatment; and resilience to climate change.

Brief Description of Anticipated Work:

Studies may include additional inventory at Fern Ridge, initial inventory at Valley fringe prairies at Dorena Lake, and other sites throughout the region; analysis of pollinator networks their variability within and between seasons, among sites, and among management regimes; pollen identification and tracking on the landscape; comparisons of pollinator relations in remnant and restored rare plant sites; and the response of pollinator communities and networks to climate variability and habitat management activities such as prescribed fire and herbicide application. Examination of plant response to pollinator communities may include in-depth examination of pollen limitation

of conservation dependent species such as Willamette daisy, Kincaid's lupine, and golden paintbrush as well as native prairie matrix species. There is potential to support experiments using nursery-cultivated native plants or targeted habitat manipulation. Specimen identification may be supported with DNA bar-coding, and pollinator effectiveness studies may be initiated, possibly using eDNA methods. Specimens shall be accessioned into regional collections and published, with duplicate reference material provided to Corps biologists.

Objectives:

Objective 1: Inventory pollinators on Corps of Engineers and other prairie sites by determining existing collections to species and designing and executing additional sampling. Confirm identification with DNA bar-coding as needed. Publish a Willamette Valley-Puget Trough prairie pollinator fauna in collaboration with regional collection such as the Oregon State Arthropod Collection. Describe and quantitatively analyze variation in inventoried communities across space and time.

Objective 2: Determine pollinator relationships of *Erigeron decumbens* and other plant species on Corps of Engineers prairies, nearby restoration sites, and other remnant populations. What are the primary pollinators of rare prairie plants? What proportions of rare and other species' pollen do they carry? What other plant species do pollinators depend on during rare plant flowering periods and before and after the season? Constructing pollinator networks and identifying and tracking pollen loads may be necessary to accomplish this objective.

Objective 3: Pursue additional research questions relevant to other plant species and sites. For example, how do prairie plant/pollinator communities vary in space and time? How do they respond to prescribed fire and other management techniques? How do they respond to unusual weather extremes, and how do these responses relate to expectations of climate change in these systems? Can rare plant population growth be improved by habitat manipulations aimed at pollinators? How do pollinator networks at Corps rare plant sites compare to those in other jurisdictions? How do pollinator communities relate to common measures of prairie health? Can reproductive contributions of individual pollinator species and single pollinator visits be quantified?

Public Benefit:

Evidence of pollinator decline has motivated broad efforts to conserve and support pollinator populations. Understanding the pollinator fauna and its relationships with conservation-dependent plant species and sites will assist in managing resources in public trust. State-wide and regional citizen science projects are producing broad-scale inventory results, but these are limited to the bee fauna, and do not address other potentially critical pollinator taxa. This agreement will yield detailed prairie pollinator inventories to serve as a baseline to which future changes in pollinator health may be

compared and will inform pollinator conservation efforts across jurisdictions in western Oregon and beyond. Specimens will be deposited in regional collections (e.g., Oregon State Arthropod Collection, U.S. National Pollinating Insect Collection) so will be available for future taxonomic and ecological study.

Willamette daisy is a federally listed endangered plant endemic to the Willamette Valley of Oregon. Its decline was primarily driven by habitat loss, there are several knowledge gaps inhibiting its recovery, including ignorance of its pollinator relations. Golden paintbrush (listed threatened) may be dependent on a single vulnerable species of bumblebee, and pollinator relationships of other rare plants are poorly understood. Prairie habitats in the Willamette Valley and adjacent Puget Trough and Georgia Basin are of critical conservation concern. Understanding how these rare plants and rare plant communities interact with their pollinator communities may yield broadly applicable management prescriptions and novel characterizations of plant-animal interactions.

Manipulative experiments may yield novel theoretical and practical insights into plant-pollinator relationships. Understanding plant/pollinator communities' response to management methods will improve management approaches and understanding their response to climate variability will aid regional managers in confronting climate change.

Understanding pollinator communities and their ecological dependencies is thus strongly in the public interest: as a baseline to understand and prevent pollinator decline; as a tool to recover endangered species; and as a knowledge base for improving management methods to benefit both natural areas and agricultural production on adjacent land.

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 Portland District Willamette Valley Project and the Engineer Research and Development Center to provide prairie pollinator studies at Willamette Valley Project and similar sites. The estimated level of funding for FY22 is approximately \$95,000. Additional funds of up to \$95,000/year for 4 additional years may be available, providing the potential funding of \$475,000 over 5 years to the successful Recipient/Awardee.

Government Involvement:

The Willamette Valley Project will work cooperatively with the investigators to identify key factors pollinator studies could address, determine appropriate field methods, review research designs, evaluate data as it becomes available, and adjust methods accordingly. Key staff are located at the Fern Ridge office, west of Eugene, Oregon. WVP will provide background material as available and participate in technical meetings for planning purposes and where the results of this work are discussed. WVP personnel may accompany researchers in the field and participate in data collection as appropriate.

The Government may also assist in data analysis review and provide workspace and equipment as necessary.

Section III: Eligibility Information

1. Eligible Applicants – This opportunity is restricted to non-federal partners of the Pacific Northwest 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: traci.k.hoofman@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 Traci K. Hoofman, traci.k.hoofman@usace.army.mil

2. Statement of Interest/Qualifications shall be submitted NO LATER THAN 18 April 2022, 4:00 PM, CDT.

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](https://www.grants.gov).

The administrative point of contact is Traci K. Hoofman, traci.k.hoofman@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 along with backup documentation. Provide the method of selection used to determine the subrecipient. Subrecipients must be registered in sam.gov. If a subcontractor will be utilized in lieu of a subrecipient, this will need to be notated.
 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 18 May 2022, 4:00 PM, CDT.

4. Submission Instructions

Applications may be submitted by mail, 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 traci.k.hoofman@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

Traci K. Hoofman, Grants Specialist

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