Life-Cycle Analysis to Support Cost-Effective Enhanced Aquifer Recharge

Informational Webinar for Applicants

EPA STAR RFA

December 1, 2021

- Review application Information for the EPA STAR RFA:

  "Life-Cycle Analysis to Support Cost-Effective Enhanced Aquifer Recharge"

- Provide guidance for eligibility, submission, technical aspects of application process

- Answer questions about the application process

Webinar Ground Rules

- Please hold your questions until all EPA presentations have been made.

- You may type your questions in the comments box.

- No specific research project or idea can be discussed but, clarifying questions regarding what is written in the RFA announcement may be answered.

- These slides will be provided after the webinar.

- Please keep yourself muted during the presentation.

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- **Eligibility Contact:** Ron Josephson, Eligibility & Peer Review Officer (josephson.ron@epa.gov); phone: 202-564-7823

- **Electronic Submissions:** Debra M. Jones, Administrative Officer (jones.debram@epa.gov); phone: 202-564-7839

RFA & Award Information

- RFA will close on January 13, 2022, at 11:59:59 pm Eastern Time

- Estimated Number of Awards: 1 Cooperative Agreement

- Anticipated Funding Amount: $2M total for 3 years.

- Cost sharing is not needed or allowed

- Proposed budget must not exceed $2M.

- Details in the section **II. Award Information** of the RFA.

Read the RFA very carefully, all necessary information is provided

Research Areas:

1. **Identification of Priority Research and Development Needs to Support EAR.**

2. **Development of Tools, Models, and Frameworks to Support EAR Implementation.**

Applications under this solicitation should address **both** of the research areas. **Applications that do not address both research areas may not be rated as highly as those that do.** Bulleted topics are listed under each research area for applicants to consider in shaping their research project. Applicants are not required to respond to all of the bulleted topics or limit the research scope to these bulleted topics.

Research Area 1

Identification of Priority Research and Development Needs to Support EAR

- Literature review

  - Identify, evaluate, & summarize costs & benefits of various water management methods, EAR processes, methods to quantify costs & benefits, etc.

- EAR Stakeholder/Proponent Engagement

  - Design and implement a process to engage water managers, EAR stakeholders, including tribes, and project proponents to identify the highest research priorities and frameworks for EAR implementation.

- Based on the literature review and EAR stakeholder/proponent engagement, develop a research framework for identified data gaps.

Development of Tools, Models, and Frameworks to Support EAR Implementation

- Develop methods for addressing priority needs identified under Research Area 1

    - Economic models, and/or life-cycle cost frameworks to assist in planning and comparing/contrasting different EAR operations in different settings, including varying source water quality, subsurface conditions, impacts to the receiving aquifer, recharge rates, operation and maintenance, and end-uses.

    - Potential regulatory, legal, and/or institutional barriers should be identified and, where feasible, be addressed in developed frameworks (e.g., recharge wells are regulated as Class V injection wells by EPA and state regulations vary) (EPA/CDM, 2017).

    - Economic models should incorporate environmental benefits (e.g., elimination or reduction of stormwater/wastewater discharges) and other environmental and social factors.

Development of Tools, Models, and Frameworks to Support EAR Implementation

- Develop tools to help water resource managers identify and implement planning strategies and best management practices for EAR to address the following end user goals to ultimately provide secure and clean sources of drinking water.

- Develop relevant cost and benefit tools that include different drivers and co-benefits of EAR

- Case Studies: The development of tools should incorporate the use of case studies to validate the research approach and demonstrate how the tools can be used by utilities and other regional water management entities in a practical scenario.

- Outputs may include publications of research results in peer-reviewed journals, guidance documents, decision support tools, models, demonstrations and case studies, reports, and presentations related to EAR analysis and strategies.

- Tools, models, and frameworks should be transferable to different regions of the United States, account for regional variations in costs, and be applicable in different physical/site and hydroclimatic settings, including consideration of extreme weather events and climate change.

- They should allow individual communities to insert place-specific data on capital costs; labor costs; hydrogeochemical conditions; historical, current and projected weather conditions; and other local factors that contribute to variations in life-cycle costs.

- They should help users to estimate the life-cycle costs of EAR projects in a simple and understandable manner.

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Applicants should describe the following:

- Type of collaboration/support proposed and what role it will play in the overall project.

- How the collaboration will enhance the capacity of the project. How will results be useable by state/local agencies, utilities, and impacted communities

- How related or complementary projects/studies will be coordinated with activities of the project.

- How you will ensure that the collaboration will materialize during project performance.

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Eligible to Apply (Section III. Eligibility Information)

Public and private nonprofit institutions/organizations

Public and private institutions of higher education

Hospitals located in the U.S

State and local governments

Federally Recognized Indian Tribal Governments

Foreign collaborators, data collection or use are OK

- International Budget needs to be justified, reviewed, and approved

- Section **IV. Application And Submission Information** of the RFA

- To apply under this solicitation, use the application package available at **Grants.gov**

- For further submission information see: **RFA Section IV.F.** "Submission Instructions and other Submission Requirements"

- Note: All necessary forms are included in the electronic application package, with the exception of the current and pending support form, available at: **Research Funding Opportunities: How to Apply and Required Forms**

Make sure to include the current and pending support form as part of the Project Narrative of your Grants.gov submission

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Required application package materials include:

- EPA Human Subjects Research Statement (HSRS)
- Scientific Data Management Plan (SDMP)
- Community Engagement Plan

Other Information

Please refer to the following RFA sections for additional Information:

IV. Application And Submission Information

- Required application package materials including:
  - EPA Human Subjects Research Statement (HSRS)
  - Scientific Data Management Plan (SDMP)

V. Application Review Information

- Peer Review Criteria
- Relevancy Review Criteria

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Thank you!