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REQUEST FOR PROPOSALS (RFP)

State of the Science and Regulatory Acceptability for PFAS Residual Management Options (RFP 5170)

Due Date: Proposals must be received by **3:00 pm Mountain Time on Tuesday, November 22, 2022**

WRF Project Contact: Mary Messec Smith, msmith@waterrf.org

Project Sponsors

This project is funded by The Water Research Foundation (WRF) as part of WRF's Research Priority Program.

Project Objectives

- Identify currently available per- and polyfluoroalkyl substances (PFAS) residual management options and evaluate their suitability under various operational and regulatory circumstances.
- Provide an overview of PFAS residual management guidelines and regulations, including state-specific considerations.
- Convene a workshop with federal and state regulators and utilities to validate regulatory acceptability and limitations of various management approaches for water treatment residuals and waste management.
- Develop a tool to help utilities evaluate PFAS residual management options under various circumstances.

Budget

Applicants may request up to \$150,000 in WRF funds for this project.

Background and Project Rationale

PFAS-contaminated waste streams are the most significant emerging cost associated with water treatment. Examination of the efficacy of current waste stream recycling/disposal/technologies is needed.

Considering future hazardous material classification of specific PFAS, disposal of spent GAC and IX media and biosolids is of particular concern. Utilities need to understand different solutions' costs, management options, and regulatory acceptability. The American Water Works Association (AWWA) is currently considering a proposal to quantify the costs of managing PFAS-contaminated waste streams and residuals, but a step to validate regulatory acceptability is not included in that effort. This project would supplement AWWA's effort by bringing together regulators, utilities, and other stakeholders as a ground-truthing step to further refine the viability and acceptability along with known limitations of the different management approaches.

Research Approach

This RFP is intentionally flexible in the research approach to encourage creativity and originality from proposers. Proposers should describe how they will conduct the research to meet the objectives listed above. The following approach is intended as a starting point.

- Host a series of workshops to bring utilities and regulators together to address the challenges of managing PFAS treatment residuals and waste streams.
- Develop a comparison tool for various management approaches under differing circumstances.
- Develop a state of the science report on currently available options and limitations for PFAS disposal or destruction.

Questions to be answered through this research include the following:

- What are the current and anticipated future challenges for drinking water utilities regarding disposal of PFAS-contaminated treatment byproducts such as spent media and treatment residuals?
- What are the potential regulatory frameworks that can effectively reduce PFAS risks to public health and the environment in both drinking water and wastewater while maintaining the affordability of drinking water?
- What additional research is needed to support the safe destruction or disposal of PFAS-contaminated treatment byproducts?
- How do the residual management approaches address PFAS as a class?

Expected Deliverables

- State of the science report
- Workshop
- Comparison/decision support tool

Communication Plan

Please review WRF's *Project Deliverable Guidelines* for information on preparing a communication plan. The guidelines are available at <https://www.waterrf.org/project-report-guidelines>. Conference presentations, webcasts, peer review publication submissions, and other forms of project information dissemination are typically encouraged.

Project Duration

The anticipated period of performance for this project is 18 months from the contract start date.

References and Resources

The following list includes examples of research reports, tools, and other resources that may be helpful to proposers. It is not intended to be comprehensive, nor is it a required list for consideration.

- EPA (U.S. Environmental Protection Agency). 2020. Interim Guidance on the Destruction and Disposal of Perfluoroalkyl and Polyfluoroalkyl Substances and Materials Containing Perfluoroalkyl and Polyfluoroalkyl Substances. U.S. Environmental Protection Agency, Washington, DC, USA.

- Knappe, D. and C. Bellona, E. Dickenson, R. Marfil-Vega, E. Rosenfeldt, C. Schaefer, and B. Steglitz. Forthcoming. *Investigation of Treatment Alternatives for Short-Chain PFASs*. Project #4913. Denver, CO: The Water Research Foundation.
<https://www.waterrf.org/research/projects/investigation-treatment-alternatives-short-chain-pfass>
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Proposal Evaluation Criteria

The following criteria will be used to evaluate proposals:

- Understanding the Problem and Responsiveness to RFP (maximum 20 points)
- Technical and Scientific Merit (maximum 30 points)
- Qualifications, Capabilities, and Management (maximum 15 points)
- Communication Plan, Deliverables, and Applicability (maximum 20 points)
- Budget and Schedule (maximum 15 points)

Proposal Preparation Instructions

Proposals submitted in response to this RFP must be prepared in accordance with the WRF document *Guidelines for Research Priority Program Proposals*. The current version of these guidelines is available at <https://www.waterrf.org/proposal-guidelines>, along with *Instructions for Budget Preparation*. The guidelines contain instructions for the technical aspects, financial statements, indirect costs, and administrative requirements that the applicant must follow when preparing a proposal.

Proposals that include the production of web- or software-based tools, such as websites, Excel spreadsheets, Access databases, etc., must follow the criteria outlined for web tools presented in the *Web Tool Criteria and Feasibility Study for The Water Research Foundation Project Deliverables* at <https://www.waterrf.org/project-report-guidelines#deliverables>.

Eligibility to Submit Proposals

Proposals will be accepted from domestic or international entities, including educational institutions, research organizations, governmental agencies, and consultants or other for-profit entities.

WRF's Board of Directors has established a Timeliness Policy that addresses researcher adherence to the project schedule. The policy can be reviewed at <https://www.waterrf.org/policies>. Researchers who are late on any ongoing WRF-sponsored studies without approved no-cost extensions are not eligible to be named participants in any proposals. Direct any questions about eligibility to the WRF project contact listed at the top of this RFP.

Administrative, Cost, and Audit Standards

WRF's research program standards for administrative, cost, and audit compliance are based upon, and comply with, Office of Management and Budget (OMB) Uniform Grants Guidance (UGG), 2 CFR Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, and 48 CFR 31.2 Contracts with Commercial Organizations. These standards are referenced in WRF's *Guidelines for Research Priority Program Proposals* and include specific guidelines outlining the requirements for indirect cost negotiation agreements, financial statements, and the Statement of Direct Labor, Fringe Benefits, and General Overhead. Inclusion of indirect costs must be substantiated by

a negotiated agreement or appropriate Statement of Direct Labor, Fringe Benefits, and General Overhead. Well in advance of preparing the proposal, your research and financial staff should review the detailed instructions included in WRF's *Guidelines for Research Priority Program Proposals* and consult the *Instructions for Budget Preparation*, both available at <https://www.waterrf.org/proposal-guidelines>.

Budget and Funding Information

The maximum funding available from WRF for this project is \$150,000. The applicant must contribute additional resources equivalent to at least 33 percent of the project award. For example, if an applicant requests \$100,000 from WRF, an additional \$33,000 or more must be contributed by the applicant. Acceptable forms of applicant contribution include cost-share, applicant in-kind, or third-party in-kind that comply with 2 CFR Part 200.306 cost sharing or matching. The applicant may elect to contribute more than 33 percent to the project, but the maximum WRF funding available remains fixed at \$150,000. **Proposals that do not meet the minimum 33 percent of the project award will not be accepted.** Consult the *Instructions for Budget Preparation* available at <https://www.waterrf.org/proposal-guidelines> for more information and definitions of terms.

Period of Performance

It is WRF's policy to negotiate a reasonable schedule for each research project. Once this schedule is established, WRF and its sub-recipients have a contractual obligation to adhere to the agreed-upon schedule. Under WRF's No-Cost Extension Policy, a project schedule cannot be extended more than nine months beyond the original contracted schedule, regardless of the number of extensions granted. The policy can be reviewed at <https://www.waterrf.org/policies>.

Utility and Organization Participation

WRF encourages participation from water utilities and other organizations in WRF research. Participation can occur in a variety of ways, including direct participation, in-kind contributions, or in-kind services. To facilitate their participation, WRF has provided contact information, on the last page of this RFP, of utilities and other organizations that have indicated an interest in this research. Proposers are responsible for negotiating utility and organization participation in their particular proposals. The listed utilities and organizations are under no obligation to participate, and the proposer is not obligated to include them in their particular proposal.

Application Procedure and Deadline

Proposals are accepted exclusively online in PDF format, and they must be fully submitted before 3:00 pm Mountain Time on Tuesday, November 22, 2022.

The online proposal system allows submission of your documents until the date and time stated in this RFP. To avoid the risk of the system closing before you press the submit button, do not wait until the last minute to complete your submission. Submit your proposal at:

<https://forms.waterrf.org/222617046387863>

Questions to clarify the intent of this RFP and WRF's administrative, cost, and financial requirements may be addressed to the WRF project contact, Mary Messec Smith at (303) 347-6134 or msmith@waterrf.org. Questions related to proposal submittal through the online system may be addressed to Caroline Bruck at (303) 347-6118 or cbruck@waterrf.org.

5170 Utility and Organization Participants

The following utilities have indicated an interest in possible participation in this research. This information is updated within 24 business hours after a utility or an interested organization submits a volunteer form, and this RFP will be re-posted with the new information. **(Depending upon your settings, you may need to click refresh on your browser to load the latest file.)**

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