



**Date Posted: Friday, August 14, 2020**

## **REQUEST FOR PROPOSALS (RFP)**

### ***Impact of a Haloacetic Acid MCL Revision on DBP Exposure and Health Risk Reduction (RFP 5085)***

**Due Date:** Proposals must be received by 2:00 pm Mountain Time on  
**Thursday, October 29, 2020**

**WRF Project Contact:** Dr. Djanette Khiari, [dkhiari@waterrf.org](mailto:dkhiari@waterrf.org)

#### **Project Sponsors**

This project is co-funded by The Water Research Foundation (WRF) and the American Water Works Association (AWWA) as part of WRF's Research Priority Program.

#### **Project Objectives**

The objectives of this project are to develop:

- A holistic assessment of the potential impacts of potential new regulatory levels for HAA5, HAA6Br, or HAA9.
- A defensible database and analysis available to water systems for discussion with regulatory authorities.
- An understanding of the benefits of compliance technologies for a future rule, which will allow water systems to make preliminary evaluations of water treatment improvements they may have to incorporate after the regulations are revised.
- Guidance to water systems and regulators on consequences of implementing changes to respond to a revised maximum contaminant level (MCL) for haloacetic acids (HAAs).

#### **Budget**

Applicants may request up to \$275,000 in WRF funds for this project. WRF funds requested and total project value are evaluation criteria considered in the proposal selection process.

#### **Background and Project Rationale**

An extensive data collection effort for haloacetic acids (HAA5 and HAA9) and brominated haloacetic acids (HAA6Br) is underway as a part of the fourth Unregulated Contaminant Monitoring Rule (UCMR4). The sample collection will be completed in 2020, and QA/QC and analysis of the data are expected in 2021. The UCMR4 data will inform the U.S. Environmental Protection Agency's regulatory determination process for any future revisions of the Stage II Disinfection Byproduct (DBP) Rule. It is anticipated that future revisions of the DBP Rule will address brominated DBPs due to the higher toxicity levels of brominated DBPs compared to their chlorinated analogs.

This project is aimed at evaluating the impact of a revision to the HAA MCL on overall DBP exposure and health risk reduction. The project is expected to inform discussion of various regulatory alternatives and

benefit drinking water systems that may be concerned about compliance with future regulatory requirements. Current DBP regulations consider trihalomethane (THM) and HAA5 reduction to be surrogates for the reduction of risks posed by exposure to other DBPs. As such, the best available technologies (BATs) identified in current rules were aimed at overall reduction of cancer risks. This project will also provide additional data on the performance of the previously identified BATs in connection with the new grouping of brominated DBPs analyzed under the UCMR4.

### **Research Approach**

- Conduct a literature review that demonstrates a good understanding of the problem and highlights the potential impacts on water systems, factoring in the impact of strategies to reduce HAA concentrations on formation of other DBPs, simultaneous compliance with other regulations, and water treatment plant and distribution system operations.
- Query UCMR4 for HAA5, HAA6Br, and HAA9 and the individual species data to compile the national occurrence of all HAA9 species and groups. Using the information gathered, calculate the extent of water systems that will be impacted by revised MCLs for HAA5, HAA6Br, or HAA9, individually or in combination.
- Obtain the most up-to-date, scientifically-sound, life-time cancer risk values for all HAA9 species. Using the health information combined with the water quality data compiled, calculate overall cancer risk exposure attributable to HAA5, HAA6Br, and HAA9.
- Evaluate the impact of revised HAA regulations on overall DBP formation (total organic halogen, total organic bromine, THM4+, HAAx) and potential health risk reduction. This step is anticipated to include literature data as well as bench-scale experiments (and/or full-scale sampling) to understand the use of the previously identified BATs, as well as other potential/feasible technologies that water systems may utilize, for compliance with new HAA related MCLs.

### **Expected Deliverables**

The final deliverable will provide necessary information to regulators to support sound regulations and guidance to water systems when implementing changes to respond to a revised MCL for HAAs.

### **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 24 months from the contract start date.

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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 20 points)
- Communication Plan, Deliverables, and Applicability (maximum 15 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.

### **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 \$275,000. 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 \$275,000. **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 2:00 pm Mountain Time on Thursday, October 29, 2020.** All proposal documents must be compiled into two PDF files consisting of your technical review documents and your financial review documents. All forms and components of the proposal are available in the *Proposal Component Packet* zip file on the proposal website at <https://proposals.waterrf.org/Pages/RFPs.aspx>. An FAQ and a tutorial are also available. A login is required to access the proposal website and download the packet. Proposers are encouraged to create logins and verify the validity and compatibility of the system well in advance in order to avoid last-minute errors or delays.

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.

Questions to clarify the intent of this RFP and WRF's administrative, cost, and financial requirements may be addressed to the WRF project contact, Dr. Djanette Khiari at (303) 734-3478 or [dkhiari@waterrf.org](mailto:dkhiari@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](mailto:cbruck@waterrf.org).

## 5085 Utility and Organization Participants

The following utilities have indicated 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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