



RFP 4208 November 2008

Climate Change Strategic Initiative

REQUEST FOR PROPOSALS

IDENTIFYING AND DEVELOPING CLIMATE CHANGE RESOURCES FOR WATER UTILITIES: CONTENT FOR A CENTRAL KNOWLEDGE REPOSITORY WEBSITE (RFP 4208)

Climate Change Strategic Initiative

The Water Research Foundation Strategic Research Initiatives Program focuses resources on critical drinking water issues through a coordinated, long-term research effort that comprises multiple projects. This sustained approach allows for a continuing momentum of research in selected topic areas, and projects within an initiative serve as discrete steps toward a common strategic objective. The program also fosters a more complete and timely research response to key issues than does a collection of stand-alone projects.

The Foundation has undertaken the Climate Change Strategic Initiative to develop integrated projects focused on understanding the climate change impacts on water supply, as well as to help utilities minimize water supply contribution to greenhouse gas emissions. The Foundation will commit up to \$1.0 million in funding per year for the initiative, which is expected to be substantially leveraged with partner co-funding and researcher in-kind contributions. The initiative will be sustained until the strategic initiative objectives outlined below are achieved; the target timeframe for the initiative is 5-7 years.

Applicants are encouraged to review additional information about the Climate Change Strategic Initiative at

<http://www.WaterResearchFoundation.org/theFoundation/ourPrograms/ResearchProgramSIClimateChange.aspx>

Objective

The objective of this project is to identify and develop content for a central knowledge repository website, or clearinghouse, to assist water utilities in assessing and managing the impacts of climate change.

This project is specifically intended to support the Climate Change Strategic Initiative objective of enhancing and improving water industry awareness of climate change issues and impacts. See <http://www.WaterResearchFoundation.org/theFoundation/ourPrograms/ResearchProgramSIClimateChange.aspx> for a description of this objective and for additional information.

Background

Global climate change represents a significant challenge to society. The effects and risks presented will vary regionally and the impact on water supply carries uncertainty. These uncertainties arise from our inability to predict future emissions and also from uncertainty in climate modeling of complex atmospheric process, changes in storm tracks, and other important processes. Decision makers and planners require, among other considerations, to assess how to assure secure water supplies and make associated capital investment decisions on planning horizons ranging from as little as ten to perhaps 100 years. When confronted with the prospect of such uncertainty, a utility manager may feel overwhelmed, unsure of how to evaluate the risks and assess options, and needs assistance in processing the available information and data being developed by the climate change planning community. For example, the utility manager could benefit from information summarizing the range of possible scenarios such as the confidence in the climate model outputs.

Therefore, there is a pressing need for knowledge, resources and guidance to help utilities develop comprehensive, integrated planning strategies and actions to plan for, adapt to and manage the imperatives, risks and challenges of climate change. Ultimately, this will improve the ability of utilities to adopt best practices and to more effectively use available tools for managing this critical issue. Additionally, utilities would like to be kept up-to date on the various tools, data sets and documents developed on climate change. One of the best ways of achieving this is to develop a clearinghouse website that communicates and provides a central knowledge repository of climate change information. The intent of this project is to identify and develop content for such a clearinghouse.

Research Approach

This project will identify and develop content for a clearinghouse website that provides a central knowledge repository to assist water utilities and other stakeholders in assessing and managing the impacts of climate change. There are two distinctive phases to development of the clearinghouse will occur in parallel:

- i) content identification and development
- ii) website design, development and population.

The focus of this project is on the first phase, content identification and development. The selected research team will work closely with a website development team on the second phase, website design, development, and population.

The project will entail the following three key tasks:

Task 1: State of the Science Assessment of Climate Change for Water Utilities. The approach for this task will be similar to writing a book on climate change, except that the Foundation will have flexibility to publish the assessment both in hard copy and electronically on the central repository website for easy access and download. The research team might use Water Research Foundation report 91120, “Climate Change and Water Resources: A Primer for Municipal Water Providers,” as the starting point and build upon this report by expanding the focus to include a framework setting out issues that utility managers need to consider in light of climate change impacts. The researcher will develop a high level overview of the issues requiring attention as well as a framework that will serve to organize the information on the website.

The state of the science assessment will address the following areas:

- Global Climate Models
 - What’s Available
 - Critical Assessment of Strengths and Weaknesses
 - Downscaling Issues
- Vulnerability Assessments
- Identifying & Managing Potential Impacts on Water Quantity
- Identifying & Managing Potential Impacts on Source & Receiving Water Quality
- Identifying & Managing Potential Impacts on Infrastructure
- Decision Support Systems & Risk Management Under Climate Change Uncertainty
- Developing an Energy Management Plan
- Implications of Potential Greenhouse Gas Regulations
- Developing and Managing Greenhouse Gas Inventories and Strategies to Reduce Emissions
- Carbon Trading – Regulatory, Operational and Financial Strategies and Implications
- Public Outreach & Communications
- Performance Measurement & Auditing

The approach to achieve the above focus will consist of a four-step process involving:

1. Literature review - The review should be international in scope, with particular attention paid to those countries where water utilities have demonstrated leadership in their response to climate change, such as Australia and the UK, and include on-going research and reports published by Water Research Foundation, AMWA, AWWA, UKWIR, WUCA, the IPCC, other governmental or non-governmental bodies and products such as the Stern Review.
2. Market review – This review should also be international in scope, focusing on available tools, technologies, models, resources and services (both commercial and public domain)

available to help utilities and other water supply stakeholders address climate change issues.

3. Development of the assessment – The assessment should capture the critical findings of the literature and market reviews in a format delineated by the areas identified above.
4. Review of the assessment – The Expert Panel members for the Climate Change Strategic Initiative (see “Project Oversight” below) will review and approve the assessment. The research team may consider identifying additional utility members or other experts to provide feedback on the assessment.

The final assessment document will be developed with multiple distribution channels in mind, particularly in electronic format for easy download (e.g., PDF). The assessment will provide a key reference for climate change terminology that serves as guidance signpost to modules on the clearinghouse website.

Task 2: Compilation and Review of Clearinghouse Website Content. The research team will identify and compile readily available climate change information relevant to water utilities as content for the clearinghouse website, including but not limited to:

- Climate change relevant information from other organizations
- Available tools, strategies and best practices to mitigate/adapt to climate change
- Global climate models and available data sets
- Relevant regulatory and legislative information
- Contact information for organizations and individuals who can serve as climate change resources for utilities

The compiled content will be reviewed and approved by the Climate Change Strategic Initiative Expert Panel before it is posted on the clearinghouse website. The research team will work closely with the Foundation website development team to help ensure the availability and compatibility of the website content compiled under this task.

Task 3: Climate Change Research Map. The research team will develop a map summarizing climate change research being done by the Foundation and other U.S. and international organizations. The map should be prepared in electronic format and should be organized and easily navigable by key areas or topics of research. The map will be used by the Foundation to evaluate what research is completed and ongoing, what research remains to be done, and how Foundation research fits into the larger body of U.S. and international climate change research.

Proposal Preparation Instructions

Proposals submitted in response to this RFP must be prepared in accordance with the Water Research Foundation “Guidelines for Solicited Proposals.” The most current version of these guidelines is available at <http://www.WaterResearchFoundation.org/research/projectAdmin/proposalGuidelines.aspx>. The guidelines contain instructions that the applicant must follow when preparing a proposal.

Eligibility to Submit Proposals

This RFP solicits proposals from all technically qualified U.S. based or non-U.S. based applicants, including educational institutions, research organizations, federal or state agencies, local municipalities, and consultants or other for-profit entities.

The Foundation's Board of Trustees has established a Timeliness Policy that addresses researcher adherence to project schedule. The policy can be reviewed at <http://www.WaterResearchFoundation.org/research/projectAdmin/policies.aspx>. Researchers who are late on any ongoing Foundation sponsored studies without an approved no-cost extension are not eligible to be a named participant in any proposal. If you have any questions about your eligibility for Foundation projects, please contact your current Foundation project manager directly.

Budget and Funding Information

The maximum funding available from the Foundation for this project is \$300,000. A minimum 25 percent of the total project value must be contributed by the applicant (i.e. the applicant's minimum contribution must equal one-third of Foundation funds requested). Therefore, the minimum total value of this project is \$400,000, (\$300,000 in Foundation funds and \$100,000 in applicant contribution). Acceptable forms of applicant contribution include cost-share, applicant in-kind or third-party in-kind that meet Code of Federal Regulation (CFR) requirements in 2 CFR Part 215.23, or the requirements of Office of Management and Budget (OMB) Circular A-102.24. The applicant may elect to contribute more than 25 percent to the project but the maximum Foundation funding available remains fixed at \$300,000. Proposals that request less than \$300,000 from the Foundation need only contribute 25 percent of the total project value.

Indirect costs are allowable based on the rate approved by the applicant's cognizant agency or by supporting documentation contained in the proposal. Detailed budget preparation instructions are provided in the "Guidelines for Solicited Proposals."

Period of Performance

The proposed project schedule should be realistic, allowing ample time for the preparation of final reports and for review of project results.

Project Oversight

This project will be conducted under the Climate Change Strategic Initiative. The strategic initiative is overseen by an Expert Panel that develops and administers the long-term research plan for the initiative and recommends projects to the Foundation Board of Trustees for funding. As part of the strategic initiative process, an annual review is held in which PIs for all ongoing projects under the initiative to present findings and upcoming project activities to the Expert Panel. The annual review is supplemental to the Project Advisory Committee (PAC) process described in the "Guidelines for Solicited Proposals." It is expected that the PI for this project will participate in these annual reviews during the research phase of the project. Travel costs for the PI to participate in the annual reviews should be included in the proposed budget for the

project. Additional information concerning the annual review process is available at <http://www.WaterResearchFoundation.org/research/projectAdmin/proposalGuidelines.aspx>

Utility Participation

The Foundation is especially interested in receiving proposals which include both participation and contribution of resources from water utilities in the research effort. Information on utilities that have indicated an interest in participating in this research project is attached. While the Foundation makes utility participation volunteers known to applicants, it is the applicant's responsibility to negotiate utility participation in their particular proposal, and the utilities are under no obligation to participate.

Application Procedure and Deadline

Proposals must be postmarked or date-stamped by the carrier on or before February 13, 2009. Seven copies, plus one unbound copy (8 copies total) of the proposal should be sent to:

**Proposals – RFP 4208
Water Research Foundation
6666 W. Quincy Avenue
Denver, CO 80235**

Questions to clarify the intent of this Request for Proposals may be addressed to the project manager, Dr. Kenan Ozekin, at 303.734.3464 or by e-mail at kozekin@WaterResearchFoundation.org.