



Keeping Our Finger on the Pulse of Water

How WRF Prepares the Water Sector to Seize Opportunities & Meet Challenges

By Julia Dinmore, The Water Research Foundation

When it comes to water research, The Water Research Foundation (WRF) is a world leader. But how do we keep our finger on the pulse as challenges to the water sector develop rapidly? A key lies in our approach to identifying priorities for our “flagship” Research Priority Program (RPP), which receives 60% of WRF’s research funding and is designed to address the greatest research needs of the entire water sector.

The Research Priority Program launched when WRF embarked on its vision to create a true One Water research organization—a transformation that required considerable investment of time and resources from staff and volunteers alike. As most successful transformations do, the RPP started with learning. At the outset, WRF focused on engaging with and listening carefully to the very diverse perspectives that comprise the water sector. This required both dedication and openness, two qualities of the WRF staff that Peter Grevatt, CEO, got to witness firsthand: “I’m in awe of how our team does this. They leave all of their assumptions at the door and take the most holistic view in working with our subscribers, volunteers, and research partners to understand the research gaps that will best position the sector to meet the needs of the communities we serve.”



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These organization-wide efforts culminated in the implementation of WRF’s biannual Research Planning Summit, a coming together of experts from every corner of the water sector to help WRF determine how to best focus research funds and efforts. The 2024 Research Planning Summit saw participation from over 215 experts, with approximately 60% of participants coming from subscribing utilities. This extensive subscriber representation helps WRF deliver subscriber value—a key organizational goal underlying all that we do. During the invitation process, WRF focuses on ensuring the broadest representation of perspectives possible. That means including participation from a diversity of individuals from a variety of utility sizes, geographies, and communities. This attention to representation proved key. As Peter pointed out, when you ensure broad representation at the front end of the research planning process, “the final deliverable is reflective of not only a One Water perspective but also a set of priorities that address the needs of the greatest diversity of subscribers.”

Throughout these Summits, the WRF research team expertly facilitates conversations across utilities, water sector associations, industry, consulting engineers, and academicians to hone in on the most critical research concepts across our five research themes: Healthy Communities and Environment, Treatment: Innovation and Optimization, Efficient Resource Use and Recovery, Resilient Infrastructure, and Utility Operations and Management. Across these themes runs a cross-cutting compass of four key priorities: Climate Risk Assessment and Adaptation, Communication,

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Environmental Justice, and Digital Transformation. These priorities help guide discussions across each of the research planning focus groups. When asked about the emergence of these cross-cutting themes, Kenan Ozekin, WRF Research Unit Leader, reflected that “Fifteen years ago, our research planning process didn’t consider things like environmental justice and diversity as much as it does now. I think those things really began surfacing with Flint, Michigan, but there was even more emphasis during COVID . . . Over the last four or five years, we’ve had to find new ways to fold these concepts into our projects comprehensively.” This critical development underlines WRF’s commitment to conducting research at the pace of water.

Over the course of three intense engagements, participants brainstorm research concepts, refine . . . and refine some more. Eventually, each of the 16 subtopic groups under the 5 broad themes lands on three key ideas to prioritize. When they aren’t actively facilitating, WRF staff are working behind the scenes comparing notes, ensuring that ideas from different subtopic groups don’t clash and that prior research hasn’t already addressed the concepts being put forward. Even before the Summit begins, the research team is working feverishly to collect data for participants to reference during their discussions. Kenan proclaims data collection as “the most important step for the Summit itself. We put all of that in front of our Summit participants and ask them to help us determine the most important needs.”



2024 Research Advisory Council

With such an abundance of valuable ideas from the Summit, WRF must then decide which ones to actually pursue. That’s where the Research Advisory Council (RAC) comes in. Members of the RAC evaluate the full breadth of One Water research concepts and select the most critical projects for funding.

When asked what characteristics make a strong RAC member, Diane Taniguchi-Dennis—RAC Chair and CEO of Clean Water Services—said, “RAC members



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are people who can holistically see what's going on in the water sector, but they also have this sort of spark of innovation and deep curiosity." Being that RAC members operate entirely as volunteers, that spark of curiosity and innovation is critical, and that light shines brightly at the RAC meetings, which take place twice every year. From the provided concepts—presented by the WRF research team—RAC members decide which projects to move forward with funding, turning those great ideas into action. Diane describes her role as RAC chair as "helping to foster the communication that's needed to make these choices and to help [the group] come to alignment." It's a tall order given the breadth of perspectives and potential projects, but the results are well worth the deliberation.

The RAC funded 26 new One Water research projects through the 2024 Research Priority Program covering a broad set of priorities including microplastics, nature-based solutions, energy management, greenhouse gases, artificial intelligence, and so much more. It was impossible for Diane to choose a favorite upcoming project: "I just love them all!" However, she did remark on the incredible technological development within the sector (and the world) that she's witnessed across her life and career: "I went to college in the era when we didn't have personal computers. There weren't laptops. We took our handy typewriters to work . . . And just from when I went to college to where I am today—seeing the technologies change—I imagine how we can take the datasets from a utility and be able to have even faster and more adaptive decision making."

Technology and research continue to develop at an unprecedented rate. Keeping on the cutting edge has never been more important for The Water Research Foundation. Thanks to the dedication of our volunteers and staff and careful strategic planning, we are more equipped than ever to balance on that well-sharpened blade. As Diane said, "It's such an exciting time . . . I really can't imagine how this is going to unlock the future, and I'm excited that WRF is going to be part of that." We're excited, too.

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