

NATIONAL WATER REUSE ACTION PLAN

COMPLETED ACTION

Action 2.19 Advance Strategies for Permitting Innovative Wastewater Management Practices and Water Reuse



Background

Case studies have illustrated the need for effective permitting processes to enable innovation of treatment technologies and wastewater management. The implementation of innovative technologies and management practices will likely have to navigate traditional permitting processes, which are often not conducive to the adoption of emerging solutions. However, innovative technologies and practices may result in more efficient and cost-effective solutions for meeting permit requirements and producing additional benefits to EPA priorities outside the National Pollution Discharge Elimination System (NPDES) program (i.e., alternative water supplies).

While this action focused on NPDES permits, it also evaluated how other types of permits, such as state-level water reuse permits, can influence or be influenced by NPDES permits. The action team held a national workshop of invited experts, regulators, and utility leaders designed to advance the thinking among the wastewater sector on what can be done to accelerate innovation, while ensuring the integrity of the permitting programs. This workshop also resulted in a summary report, [A Framework for Permitting Innovation in the Wastewater Sector](#), that builds a foundation of content for future permit writer trainings.

Accomplishments/Impact

- Developed the report [A Framework for Permitting Innovation in the Wastewater Sector](#), which calls attention to, and increases the priority of, improving permitting processes to address discharges associated with innovative technologies and management strategies. In addition to synthesizing key characteristics of effective regulatory relationships and processes around innovation, the report includes representative case spotlights and actions that regulators, utilities, and others can take to support innovation.
- Outlined recommendations and next steps to facilitate permitting of innovative and complex projects in the wastewater sector.
- Engaged permitting authorities and permittee agencies and built a framework for future permit writer trainings that encourage the adoption of innovative technologies and management practices.
- Gained support and buy-in from key leaders in the regulatory and utility community.

Action Team

Action Leaders

- **U.S. Environmental Protection Agency (EPA)**
 - Justin Mattingly, formerly Office of Water
 - Kevin Weiss (weiss.kevin@epa.gov)
- **Stanford University—Water in the West Program**
 - Felicia Marcus (felicia.marcus@stanford.edu)
- **University of California, Berkeley (UC Berkeley)—Wheeler Water Institute**
 - Michael Kiparsky (kiparsky@berkeley.edu)
- **Water Innovation Services**
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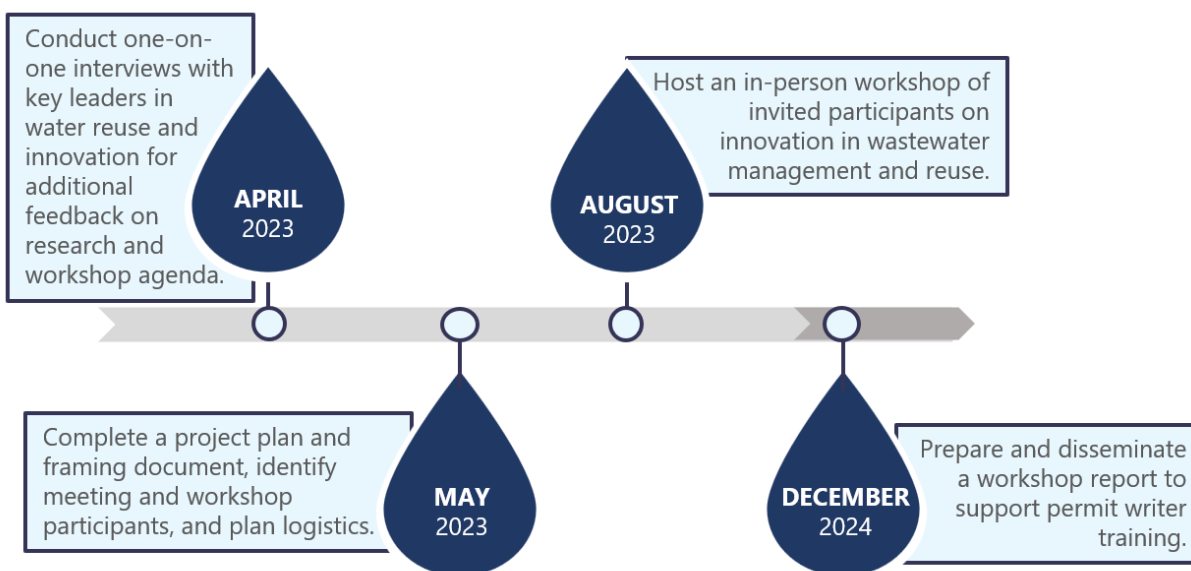
Action Partners

- **Association of Clean Water Administrators**
- **Johnson Foundation at Wingspread**
- **Water Innovation Services**
- **WaterReuse Association**

Lessons Learned

- Despite prevailing opinions that permitting practices inhibit innovation in the water sector, utility managers still largely rely on these practices. Rather than abolishing permitting, there is a clear path forward to improving the process.
- Building more effective regulatory relationships that support a collaborative and innovative permitting process can accelerate the implementation of sustainable environmental infrastructure.

Action Implementation Process



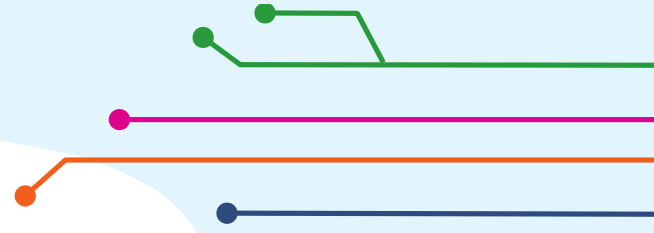
Potential Future Activity

There are several recommendations proposed by action leaders to accelerate the adoption of innovative wastewater management technologies and strategies, such as:

- Continued engagement with permittees and regulatory authorities to improve the understanding of NPDES permitting regulations.
- Engage regulators and the public early in the permitting process to collaboratively identify options for innovation.
- Develop fact sheets on state-specific issues that provide information on navigating tough permitting roadblocks confined to specific jurisdictions or geographies.

Additional Resources

- EPA (2022). Navigating the NPDES Permitting Process for Water Reuse Projects: Strategies to Enable Recycling and Protect Water Quality. March 2022. Report developed under WRAP Action 2.6. Available at: https://www.epa.gov/system/files/documents/2022-03/navigating_the_npdes_permitting_process_for_water_reuse_projects_march_2022.pdf

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- Rosenblum, E., Marcus, F., Raucher, R., Sheikh, B., & Spurlock, S. (2022). Multi-agency Water Reuse Programs: Lessons for Successful Collaboration. Report developed under WRAP Action 2.16. Available at: https://www.epa.gov/system/files/documents/2022-03/multi-agency_water_reuse_programs-lessons_for_successful_collaboration_march_2022.pdf