

Strengthening Collaboration for Urban Water Systems

Joining-Up Urban Water Management with Urban Planning and Design
(SIWM5R13/4853)

The Central Issue

Urban water systems keep our cities healthy, safe, and livable, but this process can damage natural resources, drainages, and ecosystems. The goal is to deliver high levels of water services at lower cost to the triple bottom line, while providing co-benefits to linked human and natural systems.

It is difficult to achieve a complete system while urban planners and water managers work separately from each other. Moving forward with innovative integrated water management solutions requires new partnerships between water managers who promote the solutions and urban planners who will implement them. The study identifies where urban planners and water managers can work together on innovative solutions, and remove the governance gap that separates urban planning and water service professionals.

Context and Background

Water management involves multiple types of water agencies. The traditional organization and operation of urban management was acceptable, affordable, and best practice, but this approach is less viable with global and regional stressors. The goal of “One Water” is to think of water as a complete system and understand the connections between drinking water, wastewater, stormwater, and natural systems.

A key challenge to achieving One Water is the location or design of urban development. Urban development patterns are not controlled by the water managers who support these solutions.

Findings and Conclusions

A key tool for collaboration is the use of legal mandates. The purpose of such laws is to coordinate local water supply and urban planning decisions. Scenario planning is another tool that can help develop plausible future scenarios which allow decision makers to evaluate what is preferable and how to get there. Often, lack of time emerged as a primary reason why collaboration does not occur – as water



This project investigates the key inhibiting and enabling factors in coordinating efforts across the urban planning, design, and water management sectors.

managers and planners have many other competing priorities. In addition, inadequate knowledge of the other profession’s roles and expertise further inhibits effective collaboration. Overall, institutional-related barriers are the most commonly cited impediments to collaboration.

Management and Policy Implications

This report can help anyone interested in strengthening collaboration between urban planning and water management in their community. The report findings and recommendations are based on interviews with experts, a large national survey of water and planning professionals, case studies of five communities, and a two-day workshop with water and planning managers.

Top strategies to bridge the gap between professions include scenario planning, visioning, and goal setting which might show that different agencies within a city or municipality share common goals. Similarly, collaborating on project evaluation and improving or creating common or consistent data sets were suggested at the workshop. The research findings can help identify capital improvement plans, stormwater and green infrastructure plans, and climate adaptation plans where involving their planning counterparts would benefit future planning and water management.



Executive Summary



Related WRF Research

Project Title	Research Focus
Integrating Land Use and Water Resources: Planning to Support Water Supply Diversification (4623)	Examines different scales of alternative water supplies, drivers/benefits of integration across sectors, and how to overcome the practical barriers to coordinated efforts. Includes a planning guide to help coordinate efforts between the sectors.
Toolbox for Completing an Alternatives Analysis as Part of an Integrated Planning Approach to Water Quality Compliance (SIWM9R14/4854)	Includes a User's Guide to help municipalities and utilities determine whether to pursue U.S. EPA's Integrated Planning Framework (IPF) and how to use current tools and information to prepare a successful integrated water plan. User's Guide can help communities determine if integrated planning is the appropriate pathway, and provides considerations to develop a successful integrated plan.
Institutional Issues for Integrated 'One Water' Management (SIWM2T12)	Identifies key barriers and strategies to develop integrated systems with lower costs and better resiliency, and lays out a framework to transition to a One Water approach. Includes case studies on utilities working towards these goals.
Pathways to One Water: A Guide for Institutional Innovation (SIWM2T12a)	Governance, regulations, finance, and culture are often cited as barriers to achieving integrated water management and innovation in water technologies. In an effort to clarify and explain these barriers, WERF, the Water Research Foundation, and Water Research Australia undertook this study to define the barriers and produce a guide to move towards a One Water approach.
Blueprint to One Water (4660)	Advances the adoption of a One Water approach through a user-friendly blueprint for the practical application of One Water planning. This blueprint is beneficial for utilities across multiple water resource sectors, including water supply, wastewater, reuse, watershed management, stormwater, and energy and resource recovery. Includes summarized case studies and best practices, a stakeholder survey, and one-on-one interviews with participating utilities.

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