Urban Water Innovation Network Transitioning toward sustainable urban water systems

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Project C4-1 Financial Models and Strategies to Support the Transition to One Water

PROJECT OUTPUTS

This project will explore the perspectives of One Water and outline the current financial model for separate services and the extent of their integration.

It will identify instances where the current model works well and challenges it poses to the One Water model.

Based on these, it probes four lines of analysis about One Water: governance, financial strategy, economic soundness, and public support.

These lines of analysis pave a path forward to study the major questions and integrate answers toward a more effective implementation of One Water.

The following materials are anticipated to support the transition to sustainable water management:

- Evaluation and status of financial systems and programs to support the transition
- Analysis of financial programs, policies and impediments
- Academic publications including a framework paper on the financial system

At its core, One Water in an urban setting relies on the integrated management of all water services, including water supply, wastewater, stormwater and recycled water.

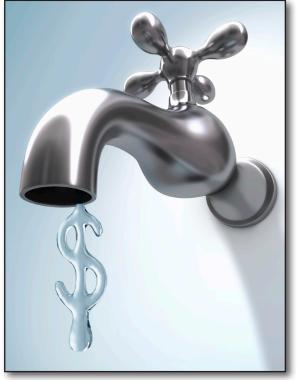
The benefit of taking the One Water approach lies in efficient use of natural resources and infrastructure. For example, a water utility that is resource-constrained in its water supply sources can utilize wastewater, stormwater and recycled water in creative ways to reduce its need to exploit natural water sources more extensively. Infrastructure efficiencies and reduced need for rate increases may also be realized through this coordinated approach.

This is demonstrated by Los Angeles' move toward a One Water approach, where the Mayor explained "We need an integrated water strategy that increases local water supplies and improves water security" (Blair, 2016).

An expanded concept of One Water involves co-benefits and extends its meaning to include integration with other urban sectors, such as in the

use of green infrastructure to create livability enhancements in cities through urban gardens, open space and enhanced ecological systems. This expanded concept is more difficult to finance than the basic concept because:

- It may not be supported by stakeholders with different value sets; and
- 2. It cannot be financed normally thru fees based on cost-of-service





Effective Utility Management

In January 2017, the U.S. Environmental Protection Agency and other collaborators published the Effective Utility Management (EUM) Primer for Water and Wastewater Utilities. Financial Viability was identified as a key attribute of effective utility management.

Measured in terms of both short-term and long-term capacities, the financial viability assessment takes the following measures into consideration:

- Budget management effectiveness
- Financial procedure integrity
- Bond ratings
- Rate adequacy

One Water solutions must be developed to support the financial viability of utilities and to support extension of co-benefits by providing feasible ways to link urban water systems and support interdependent sectors, such as economic advancement and social safety nets. The challenge of One Water is to find solutions that create co-benefits and offer viable financial strategies. Examples of these are found in cases that range across innovations such as green infrastructure, water recycling and stormwater harvesting.

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DATA

The following data will be generated:

- Survey of financial officers and staff
- Financial health benchmarks of water service providers
- Strategies for financing green infrastructure and alternative water systems

PROJECT KEYWORDS

- Finanical viability
- One Water
- Policy barriers
- Financial health benchmarks
- Green infrastructure and
 alternative water systems

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