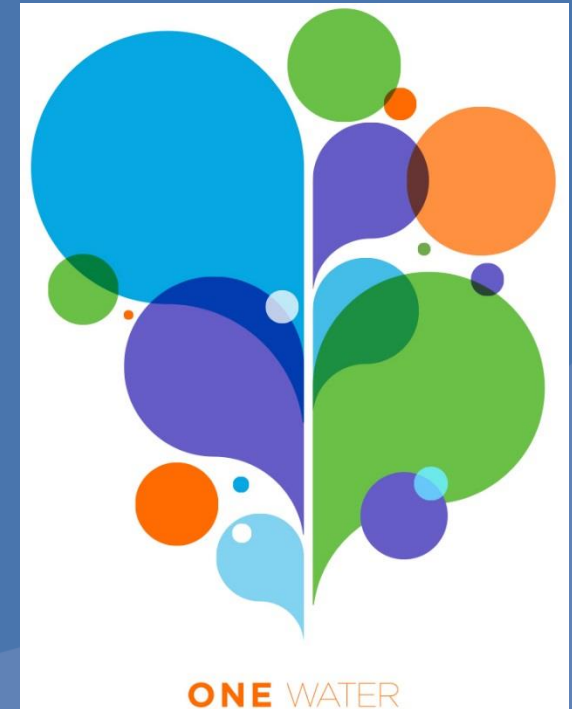




## Integrated Water / Integrated Planning Research



advancing the science of water

Beate M. Wright, PE  
Executive Director, DC Office  
Water Research Foundation

# WRF 4660

## Blueprint for One Water

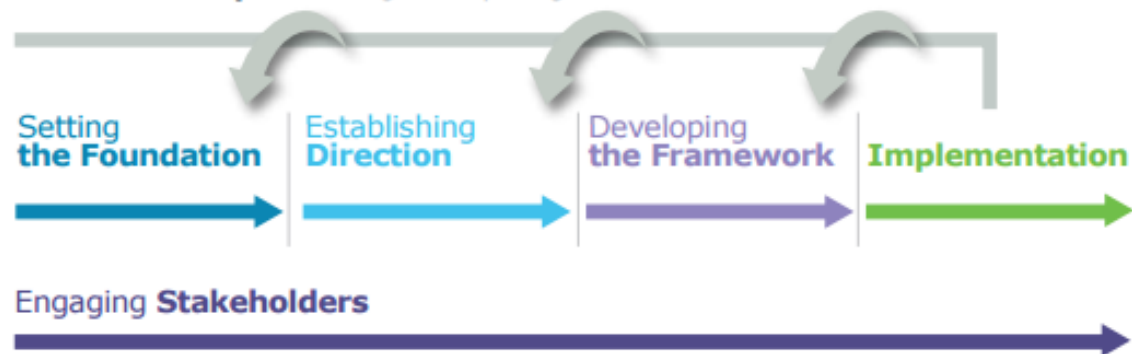


One Water is the future of the water industry. Many benefits are realized when the barriers traditionally separating water, wastewater, stormwater, and reuse are broken down.

### Robert C. Renner, PE, BCEE

Chief Executive Officer | Water Research Foundation

**Feedback Loop:** Monitoring and Reporting Informs First Four Phases



- A One Water approach considers the water cycle as an **integrated** system
- The Blueprint presents a **framework** for adopting a One Water approach
- Blueprint is **scalable** (utility, city, regional level)
- End product is **flexible** - It doesn't have to be a comprehensive plan (framework, document, scope)

<http://www.waterrf.org/Pages/Projects.aspx?PID=4660>

# WRF 4623

## Integrating Land Use & Water Supply Planning



# WRF 4615

## Framework for Evaluating Alternative Water Supplies

- Objective: Identify opportunities to **diversify water supplies** through better coordination between water utilities and the **land use planning** and development community.
- Lit Review published in 2016
- Objective: Develop a framework for water supply planning and evaluation that integrates the relationship between **resilience**, **reliability** and **sustainability**, and cost
- Framework will help utilities overcome limitations of traditional cost-based approaches

# WRF 4469

## Water & Electric Utility Integrated Planning



# WRF 4625

## Distributed Energy Resource Development at Water & Wastewater Utilities

- Objective: Investigate who, what, why, and how water and electric utilities engage in **integrated planning**
- Findings: Cross utility planning **not common**, electricity demand management is a driver for electric utilities, water scarcity is a driver for cross utility planning, alternative water sources are used to reduce demand for energy intensive water supplies.
- Research partners: AWWA & NYSERDA
- Objective: Identify and discuss opportunities for **distributed energy resource** (DER) development at water and wastewater utilities and provide a practical utility guidebook
- Research partner: WE&RF