

# WHAT IS THE WATER RESOURCES UTILITY OF THE FUTURE?

Forty years after the passage of the Clean Water Act, public agency leaders are transforming the way they deliver clean water services. At the heart of this transformation is the emergence of new technologies and innovations that can stretch ratepayer dollars, improve the environment, create jobs and stimulate the economy. The most progressive of today’s clean water agencies are defining what is meant by the Water Resources Utility of the Future (UOTF).

For decades terms like “sewage treatment” or “sewage agencies” were used to describe our nation’s wastewater treatment agencies, but these terms are changing. These utilities are now being called “clean water agencies,” “enterprises,” or “resource recovery agencies”. What does this mean? Instead of solely collecting and transporting wastewater to central treatment plants, these utilities are recovering valuable resources, partnering in local economic development, and aligning themselves as members of the watershed community in order to deliver maximum environmental benefits at the least cost.

Today’s clean water utilities do this by reclaiming and reusing water, extracting and finding commercial uses for nutrients and other constituents in the waste stream, capturing waste heat and latent energy in biosolids and liquid streams, generating renewable energy using their land and other horizontal assets, and using green infrastructure to manage stormwater – all of which results in a profound improvement to the quality of life.

These actions signal that the market for innovation in the clean water sector is strong. Resistance to change, however, is also significant, and is reinforced by several key trends: regulatory pressures; strained utility/local, state and federal budgets; customer confusion about the benefits of innovation;

skyrocketing demands for capital competing for every dollar; risk and regret associated with technology failure, and venture capital looking elsewhere for faster and safer returns.

Nothing short of a national strategy to reform the U.S. water sector is likely to drive the kind of change that will be needed to fully address future challenges and embrace new opportunities. This Call for Federal Action defines tangible steps that we can take as a nation to realize a shared vision for the future. It presents ten priority actions that Congress and the federal government can take to help the Water Resources Utility of the Future become a reality. We call on Congress, the U.S. Environmental Protection Agency, the U.S. Department of the Interior, the U.S. Department of Agriculture, the U.S. Department of Energy, and other key federal agencies to rethink their relationship to the water sector, take these ten key actions, and make the UOTF possible for all utilities.

**This publication draws from the *Water Resources Utility of the Future... A Blueprint for Action*, developed by the National Association of Clean Water Agencies (NACWA), the Water Environment Research Foundation (WERF), and the Water Environment Federation (WEF).**

MOTIVATION	ACTIVITY	INNOVATION
Reduce Cost	Energy Efficiency	Energy Efficient Equipment & Networks
	Energy Recovery	Methane & Hydrogen Recovery, Heat Recovery
	Operating Efficiency	Automation and Smart Operations, Asset Management, Sourcing
Diversify Revenue	Water Reuse	Industrial Cooling, Recharge, Landscape, Golf Course Irrigation
	Materials Recovery	Phosphorous Compounds, Nitrogen Compounds, Metals
	Materials Conversion	Bioplastics, Pyrolysis Fuel Oil, Algal Biomass, Solid Fuels, Fertilizers
	Biosolids Reuse	Liquid Fertilizer
	Energy Generation	Photovoltaics, Wind Turbines
Support Community & Economy	Growth Planning	Sector Expansion, Targeted Upgrades, Managed Package Plants
	Community Partnering	Nonpoint Source Controls, Biowaste Conversion to Methane, Green Infrastructure