



Water Infrastructure
ENVIRONMENTAL QUALITY

2017

North Carolina's Statewide Water and Wastewater **INFRASTRUCTURE MASTER PLAN**

The Road to Viability



State Water Infrastructure Authority

- Created in 2013 under North Carolina General Statute 159G-70
- Nine-member body with primary responsibility for awarding both federal and state funding for water and wastewater infrastructure projects.
- Development of a statewide master plan is one of twelve tasks assigned to the authority
- Department of Environmental Quality's Division of Water Infrastructure serves as staff for the authority

The State Water Infrastructure Authority has taken major steps toward helping owners and operators of water and wastewater utilities reach the master plan's goal of viable water and wastewater systems statewide in NC by:

- Implementing Asset and Inventory Assessment Grants and Merger/Regionalization Feasibility grants
- Developing and distributing the master plan, with its valuable resources and tools, and making the plan accessible statewide through a targeted outreach and communication program

Water & Wastewater Infrastructure System Needs and Funding

- Over the next 20 years, capital cost estimates for water & wastewater system needs in North Carolina range from \$17 to \$26 billion.
- While subsidized loans are the primary vehicle to help make infrastructure more affordable, the authority recognizes that only a fraction of today's infrastructure capital needs can be met with currently available state or federal subsidized funding levels.
- The remaining needs must be funded by the utility providers. If not funded, these add to the backlog of infrastructure investments that continue to be deferred.

The Department of Environmental Quality's Division of Water Infrastructure supports the work of the nine-member State Water Infrastructure Authority, created in 2013 by the North Carolina General Assembly to assess and make recommendations about the state's water and wastewater infrastructure needs. One of the authority's specific tasks is to develop a statewide master plan to meet the state's water infrastructure needs.

Now available, "North Carolina's Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability" is the state's roadmap for viable water and wastewater utilities that safeguard public health, protect the environment, support vibrant communities, and encourage economic development.

Over the next 20 years, capital cost estimates for water and wastewater system needs in North Carolina range from \$17 to \$26 billion – most likely at the higher end of the range. While subsidized loans are the primary vehicle to help make infrastructure more affordable, the authority recognizes that only a fraction of today's infrastructure capital needs can be met with currently available state or federal subsidized funding levels.

The state will best be able to meet these water infrastructure needs by ensuring individual utilities are, or are on a path to be, viable systems. A viable system is one that functions as a long-term, self-sufficient business enterprise, establishes organizational excellence, and provides appropriate levels of infrastructure maintenance, operation, and reinvestment that allow the utility to provide reliable water services now and in the future.

The master plan applies broadly to owners and operators of water and wastewater utilities and systems that serve the public. Local elected officials, town and county managers, utility governing boards, customers, stakeholders, and the general public all have key roles in achieving viable utilities. The state's role is to foster long-term viability in three integrated focus areas:

- Infrastructure Management
- Organizational Management
- Financial Management

The authority's master plan addresses the alignment of organizational and financial management practices to support the operation of utilities as self-sufficient business enterprises. The plan provides strategies for utility management, including renewal/replacement, asset management, and regionalization, all of which are increasingly important in times of limited resources and budgetary constraints.

"North Carolina's Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability"

Vision for the Future

- The state will best be able to meet its water infrastructure needs by ensuring individual utilities are, or are on a path to be, viable systems.
- A viable system is one that functions as a long-term, self-sufficient business enterprise, establishes organizational excellence, and provides appropriate levels of infrastructure maintenance, operation, and reinvestment that allow the utility to provide reliable water services now and in the future.
- The state's role is to provide resources to help utilities address organizational and financial management challenges that may be contributing to physical infrastructure limitations.

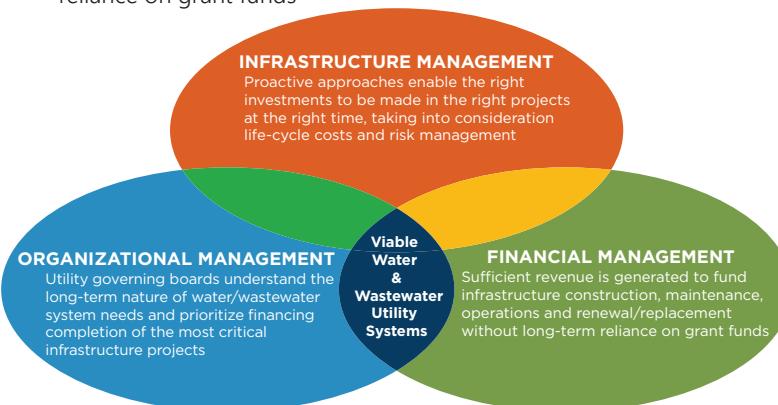
State Water Infrastructure Authority's Goal

The master plan applies broadly to owners and operators of water and wastewater utilities and systems that serve the public. The State Water Infrastructure Authority's goal is for utilities to:

- Recognize that users and beneficiaries of water infrastructure must pay, to the greatest extent possible, for the cost of operating, maintaining, and renewing that infrastructure
- Be proactive in the management of water infrastructure by understanding the condition of infrastructure, identifying the most critical components, and establishing prioritized long-term renewal and modernization plans which promote transparent decision-making with customers and stakeholders
- Establish financial plans that enable the utility to fund both operation and maintenance as well as long-term infrastructure renewal without long-term reliance on grant funds

Best practices in utility management are essential for viable utility systems that are robust in three key integrated focus areas:

- Infrastructure Management** – By taking proactive approaches to enable the right investments to be made in the right projects at the right time, taking into consideration life-cycle costs and risk management
- Organizational Management** – Through governing boards (elected officials, appointed officials and owners) understanding the long-term nature of water/wastewater systems and prioritizing the financing and completion of the most critical infrastructure projects
- Financial Management** – Through sufficient revenue generation to fund infrastructure construction, maintenance, operations, renewal/replacement, and reserves for unexpected events without long-term reliance on grant funds



Best practices in utility management are essential for viable utility systems that are robust in three key integrated focus areas.

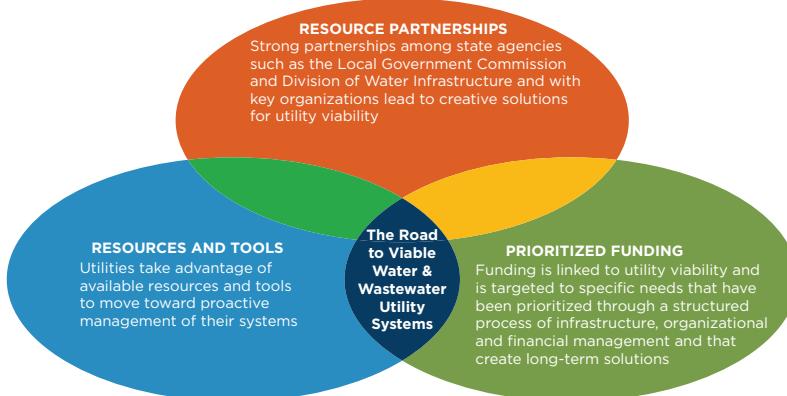
Achieving the Master Plan Vision

Achieving viable water utilities across NC requires actions by the state, local governments & water utility providers to:

- Ensure that, to the greatest extent practicable, water utilities operate as enterprise systems that generate sufficient revenue to cover all operating, maintenance, and capital expenditures, as well as funding reserves for unexpected events
- Promote viable water utilities through the state water infrastructure funding programs
- Acknowledge that when water utilities are not viable or are not on a path to become viable, solutions are needed that go beyond simply constructing or repairing infrastructure

Moving forward in achieving utility viability involves:

- Resource partnerships** among state and federal agencies, key organizations and utility providers for more cohesive support as they work to reach and maintain viability by leveraging existing resources and programs
- Resources and tools** that support proactive utility management
- Prioritized funding** that is linked to utility viability



Together, the state, local governments and utility providers will move forward in achieving viability in the three focus areas through resource partnerships, use of resources and tools, and prioritized funding linked to viability.