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# **NORTH CAROLINA STATE WATER INFRASTRUCTURE AUTHORITY**

**November 1, 2016 Annual Report to:**

- **Senate Appropriations Committee on  
Natural and Economic Resources**
  - **House of Representatives  
Appropriations Subcommittee on  
Natural and Economic Resources**
  - **Fiscal Research Division of the  
Legislative Services Commission**
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Prepared by

The North Carolina State Water Infrastructure Authority

November 1, 2016

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As a result of legislative changes made by the North Carolina General Assembly, the State Water Infrastructure Authority, in 2016, has been better able to carry out its assigned duties and to provide enhanced coordination of the use of the monetary resources entrusted to it by the General Assembly to improve public health and the environment for all North Carolinians.

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Pursuant to § 159G-72, the State Water Infrastructure Authority shall submit a report no later than November 1 of each year on its activity and findings, including any recommendations or legislative proposals, to the Senate Appropriations Committee on Natural and Economic Resources, the House of Representatives Appropriations Subcommittee on Natural and Economic Resources, and the Fiscal Research Division of the Legislative Services Commission.

**On behalf of the Authority, please consider this as the formal submission of the 2016 State Water Infrastructure Authority Annual Report.**

**The Authority would be pleased to respond to questions or provide additional information as may be requested by the General Assembly.**

**The State Water Infrastructure Authority thanks the North Carolina General Assembly for its support throughout 2016 and looks forward to working to continue to streamline and unify the water infrastructure funding available to the residents of North Carolina.**

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The State Water Infrastructure Authority gratefully acknowledges the support provided by the staff of the Division of Water Infrastructure in conducting the Authority's business and in preparing this report.

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# NORTH CAROLINA STATE WATER INFRASTRUCTURE AUTHORITY

## November 1, 2016 Annual Report

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The nine-member State Water Infrastructure Authority (Authority) was created by the North Carolina General Assembly in 2013 to assess and make recommendations about the state’s water and wastewater infrastructure needs and the funding programs available to the state’s local governments. A list of the current Authority members is provided in Appendix A. In 2013, the General Assembly also established the Division of Water Infrastructure (Division) in the North Carolina Department of Environmental Quality. The state’s major water-related infrastructure funding programs are located within the Division.

The purpose of this report is to provide the legislative bodies with an overview of the Authority’s activities in Fiscal Year (FY) 2016, to summarize concerns and issues discussed by the Authority regarding North Carolina’s water infrastructure, and to provide recommendations to further study and address some of those issues.

### **State Water Infrastructure Authority Activities in FY 2016**

The Authority’s 2014 Annual Report contained a number of recommendations designed to enable the Authority to better carry out its assigned duties and to improve coordination of the monetary resources entrusted to it. In 2015, the General Assembly incorporated the recommendations into the biennium budget. The Authority implemented the new legislation in 2016 and began to realize some of its most important goals by:

- Broadening the use of grant funds to encourage water and wastewater utilities to become more proactive in system management and financing by implementing the Asset Inventory and Assessment grants, and Merger/Regionalization Feasibility grants
- Implementing affordability criteria to:
  - Achieve the maximum beneficial impact from the limited funding resources available and stretch the use of limited grant funds by pairing grants with loans when financially feasible for a community
  - Increase access to low-cost or no-cost capital by the most economically distressed utilities in the state that already have high water and/or sewer rates

The newly implemented affordability criteria, Asset Inventory and Assessment grants, and Merger/Regionalization Feasibility grants are described in more detail on pages 8 and 9 of this Report

The Authority’s twelve powers and duties defined in North Carolina General Statute 159G-71 (provided in Appendix B) can be grouped into four primary areas:

1. Distribute loan and grant funds
2. Define water infrastructure needs and funding; develop a State Water Infrastructure Master Plan
3. Assess emerging practices in utility planning and funding
4. Assess need for a “troubled system” protocol

The focus areas are described below along with the Authority’s activities in each area.

## **Focus Area 1 – Distribute loan and grant funds**

The first four of the Authority’s duties focus on distributing loan and grant funds from the funding programs administered by the Division:

1. Federal-state Clean Water State Revolving Fund (CWSRF loan program)
2. Federal-state Drinking Water State Revolving Fund (DWSRF loan program)
3. Federal Community Development Block Grant-Infrastructure (CDBG-I grant program)
4. State Reserve program (grants and loans) for both water and wastewater, including Asset Inventory and Assessment grants, and Merger/Regionalization Feasibility grants

In FY 2015-2016, the General Assembly appropriated \$7.4 million in grant funds to be dispensed through the State Reserve program. Additional funds were made available by allowing the Division to move excess matching funds not needed for the two SRF programs into the state reserve program for grants. This, along with reconciliation of closed grant projects, made \$8.69 million available for the spring 2016 funding round. Note that these figures do not include funds designated to certain projects through special budget provisions.

Applications received in FY 2015-2016 for both loans and grants totaled \$345 million; the Authority awarded \$251 million (see Figures 1 and 2). The funds available through the loan programs met most of the loan requests. As in previous years, the total requests for grant funds outpaced the total availability.

As demonstrated in Figures 1 and 2, there is a significant demand for the Asset Inventory and Assessment grants as well as the Merger/Regionalization Feasibility grants. The purpose of both of these grants is to encourage utilities to become more proactive in the management and financing of their systems, so that they can ultimately end long-term reliance on grant funding. The requests for these grants indicates the real need for these types of state programs to help foster the long-term viability of utilities. These grants are discussed in more detail in Focus Area 3 of this report.

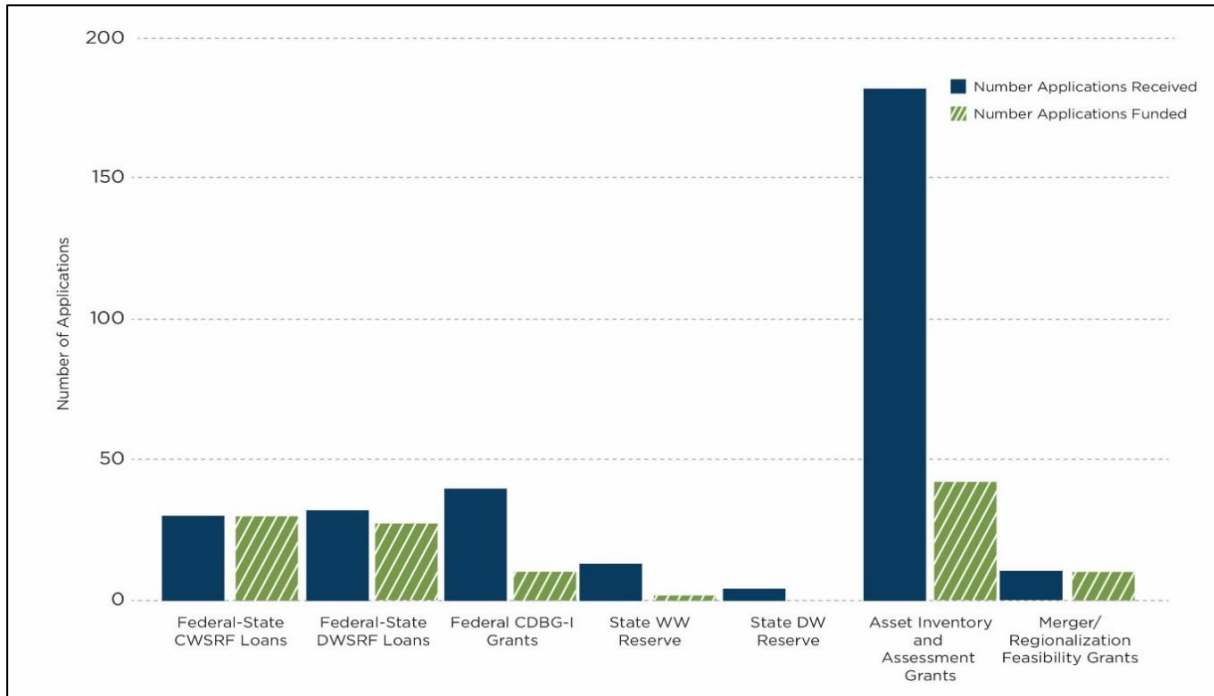
### **Focus Area 1 Accomplishments**

Awarded a total of \$251 million in grant and loan funds:

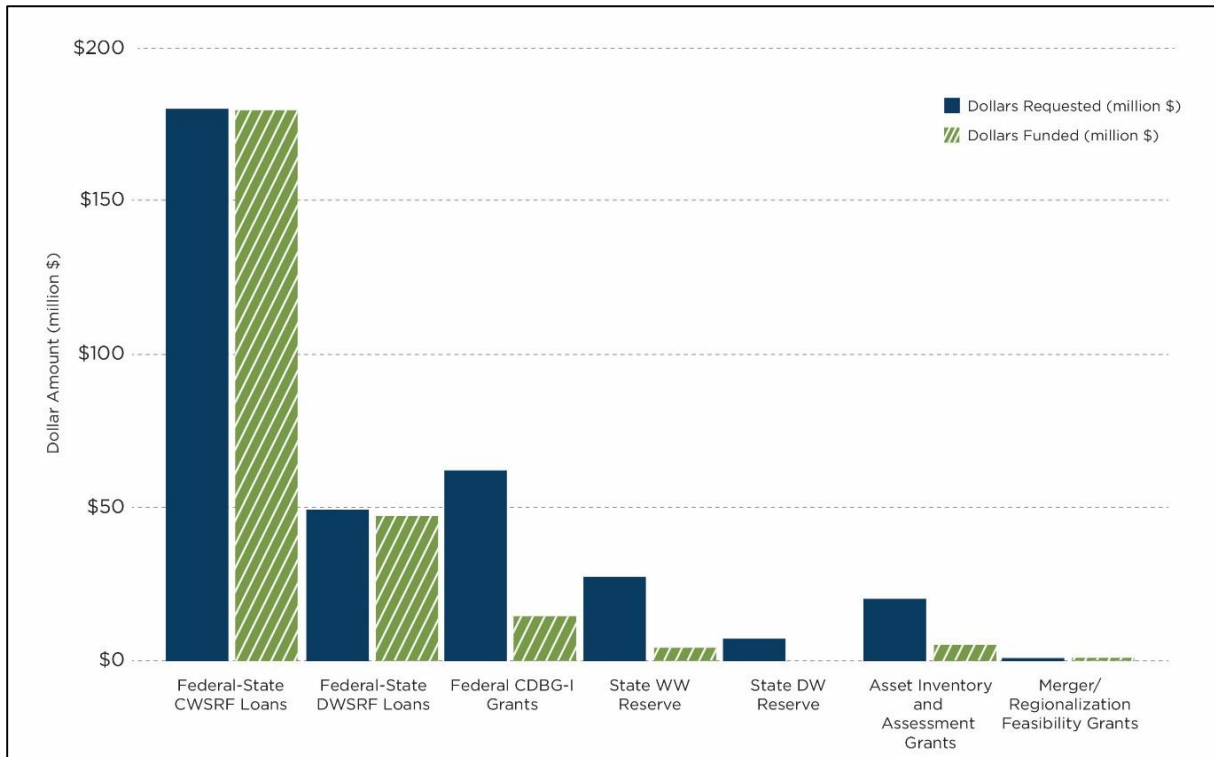
- CWSRF loan funds – \$180 million (\$180 million requested)
- DWSRF loan funds – \$47 million (\$49 million requested)
- CDBG-I grant funds – \$14 million (\$62 million requested)
- State Reserve loan and grant funds for both water and wastewater – \$4.2 million (\$34 million requested)
- Asset Inventory and Assessment grant funds – \$5.13 million (\$20 million requested)
- Merger/Regionalization Feasibility grant funds – \$490,000 (\$490,000 requested)

The requests for Asset Inventory and Assessment grants and Merger/Regionalization Feasibility grants indicate the significant need for these types of programs to help foster utilities that are viable for the long-term

**Figure 1. Number of Applications Received and Funded – Fall 2015 and Spring 2016 Application Rounds**  
 (Total number applications received: 311; total number applications funded: 121; see Appendix C for data)



**Figure 2. Amount Requested in Applications and Funded – Fall 2015 and Spring 2016 Application Rounds**  
 (Total amount requested: \$345 million; total amount funded: \$251 million; see Appendix C for data)



## **Focus Area 2 – Define water infrastructure needs and funding; develop Master Plan**

The next four duties include defining the statewide water and wastewater infrastructure needs, examining funding sources and their adequacy to meet the identified needs, and assessing the role of the State to develop and fund water infrastructure.

### **Affordability Criteria**

Affordability criteria are used to determine ways to realize the greatest beneficial impact from the currently available funding resources and ensuring that funds are used in a coordinated manner.

The criteria address the relative affordability of a project for a community compared to other communities in the state, based on the following factors, at a minimum: water and sewer service rates, median household income (MHI), poverty rates, employment rates, the population of the community served, and past expenditures by the community on water infrastructure compared to that community's capacity for financing water infrastructure improvements.

The Authority developed and implemented affordability criteria to help stretch the state's limited grant funds by pairing grants with loans when financially feasible for a community. The priority systems that incorporate the affordability criteria were first implemented in the spring 2016 funding round. The affordability criteria methodology evaluates four key measures: population; local government unit parameters (population change, percent of population below poverty, median household income, unemployment, and property valuation per capital); future operating ratio incorporating current debt load as well as the impact of the proposed project; and rates and future debt per connection. The criteria are used to prioritize funding and, for project grants, to determine the percentage of loan/grant mix for a local government unit. A detailed report about the affordability criteria implementation was submitted to the Environmental Review Commission and the Fiscal Research Division in April 2016.

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

One of the Authority's most significant accomplishments in 2016 was the preparation of the draft of "North Carolina's Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability."

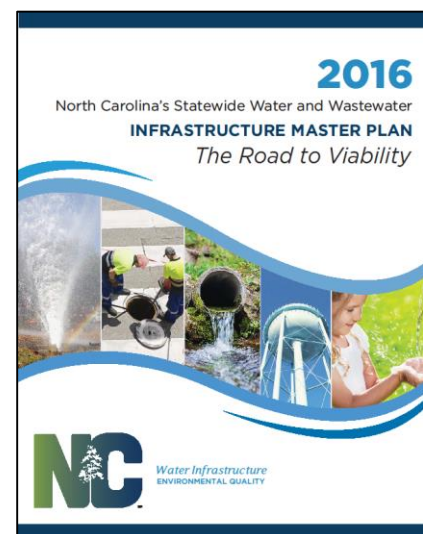
The Master Plan is intended to apply broadly to owners and operators of water and wastewater utilities and systems that serve the public. The purpose of the Master Plan is to provide the North Carolina General Assembly, utility governing boards, and the public with a roadmap for water and wastewater utility viability.

The Authority is currently soliciting public comments about the draft Master Plan. The public comment period will be open for four weeks. The draft Master Plan is available here:

<http://portal.ncdenr.org/web/wi/master-plan>

### **Focus Area 2 Accomplishments**

- Developed and implemented affordability criteria to help stretch limited grant funds by pairing grants with loans when financially feasible for a community
  - The Authority solicited public comments about the affordability criteria for three weeks prior to approving the criteria
- Prepared draft of ***North Carolina's Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability***



## Vision for the Future

The Authority's vision is for viable water utilities across North Carolina. The goal is for all 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; this process promotes 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

### Master Plan Vision

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

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 and renewal/replacement without long-term reliance on grant funds

The state's role is to foster the long-term viability of individual water and wastewater utilities by providing access not only to capital funds but also to resources that help utilities address organizational and financial management challenges that may be contributing to physical infrastructure limitations

By supporting utilities as they implement the three management focus areas, the state can help assure that its limited capital resources are used most effectively. In many cases, the improvements achieved will ultimately allow many utilities to access non-subsidized forms of capital.

## Achieving the Vision

Achieving viable water utilities across North Carolina requires actions by the state, local governments and 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 by:
  - Assisting utilities that operate in some of the state’s most rural, economically distressed areas that have some of the highest utility rates in the state, in creating permanent management and infrastructure solutions
  - Making project funding decisions that recognize that many entities can afford to incur some amount of debt or obligate some amount of funding toward a project
  - Prioritizing applications for funding that represent best practices for utility management
- Acknowledge that when water utilities are not viable or are not on a path to become viable, permanent solutions are needed that go beyond simply constructing or repairing infrastructure

Grant funds are targeted to projects that help utilities transition to permanent local funding solutions and eventually the ability to access non-subsidized forms of capital

**Focus Area 3 – Assess emerging practices in utility planning and funding**

These activities concentrate on investigating methods of utility planning, management and funding, and watershed planning approaches. This year, for the first time, the State Water Infrastructure Authority made available two new types of grants to encourage proactive best management practices: Asset Inventory and Assessment grants, and Merger/Regionalization Feasibility grants.

**Focus Area 3 Accomplishments**

Implemented two new grant programs to incentivize system viability through:

- Asset Inventory and Assessment
- Merger/Regionalization Feasibility

**Asset Inventory and Assessment Grants**

For many local government units, water and sewer infrastructure is an amalgam of old, buried infrastructure that a town or industry such as a textile mill may have installed 50 or 100 years ago. This aspect of infrastructure management is a major challenge for utility staff. Asset inventory and Assessment (AIA) grants are available to inventory the existing water and/or sewer system, document the condition of the inventoried infrastructure, and enable utilities to take steps to define and prioritize critical projects. The information gained from these projects can then be maintained (usually with modern asset management software) and enables utilities to become more proactive in management and financing of their systems. The tasks included in these grants are:

- Identify system components and where they are located
- Determine the condition of critical components

“Our customers expect water and sewer service to always be available, but the infrastructure required to provide these services are very much “out-of-sight-out-of-mind.” Also, retaining existing industry while simultaneously attracting economic development to Rocky Mount depends on having reliable well-maintained infrastructure. The AIA grant will help us better understand what we have, what work needs to be done and when, and what it will cost. As a result, we’ll be able to present a business case to our City Council including how to “right-size” our utility rates to better prepare both our water and our sewer utility for the future.”

Jonathan Boone, P.E.  
Director of Public Works & Water Resources  
City of Rocky Mount



- Establish costs for replacement/repairs/upgrades (capital) as well as for continuous operations and maintenance (O&M)
- Prioritize the most critical projects to be completed
- Prepare a realistic Capital Improvement Plan (CIP) that includes the identified critical projects

AIA grant applications are ranked based on project benefits, system management and affordability, with the goal of prioritizing applications that reflect the greatest likelihood that information obtained through the grant will be utilized for future management of the system.

These grants are available through the State Reserve Programs to local government units and nonprofit water corporations.

Affordability criteria do not limit eligibility or grant percentage for these grants, but a match is required. Grants are limited to \$150,000 over a period of three years.

**Merger/Regionalization Feasibility Grants**

Utilities may operate more efficiently under different organizational structures or by gaining economies of scale for treatment facilities. Merger/Regionalization Feasibility (MRF) grants are available to voluntarily investigate the feasibility of: consolidating management of multiple utilities into a single utility operation; utilizing management companies; developing shared resources with other local government units; providing regional treatment; and determining the best way of carrying out the consolidation or regionalization alternatives. The MRF grants provide funds for a utility to identify the challenges, benefits, implications and costs of each alternative and then work with potential partners to implement a permanent solution. These grants may be especially helpful for systems that are non-compliant or non-viable.

MRF grant applications are ranked based on technical, organizational and affordability status with the goal of prioritizing systems with fewer connections, more compliance issues, smaller staffs, greater financial barriers, or any combination of the above that may hinder system viability and the ability to self-fund or conduct a feasibility study.

“Making sound decisions about the short term operational and long term capital needs of our physical assets requires timely and accurate information about those assets. The AIA grant will allow us to build this core of critical information in support of an Asset Management system that will serve our needs for many years to come. Decisions on investments in modernization of our existing infrastructure as well as system expansion projects will be made in a more fully informed environment, utilizing limited financial resources in a timely and efficient manner. Our success in these efforts is a critical aspect of economic development in our service area.”

Dan Harbaugh  
Executive Director  
Tuckasegee Water and Sewer Authority

“The Merger/Regionalization Feasibility grant was a great benefit to the City of Claremont as it will allow us to better plan for the future and evaluate what the best long-term solution is for safely and cost-effectively managing our wastewater system. As a manager, I really appreciate that the City is able to analyze and examine a variety of different options, something that would not have been as feasible without the grant funds.”

Catherine Renbarger  
City Manager  
City of Claremont

These grants are available through the State Reserve Programs and are limited to \$50,000 over a period of three years. Affordability criteria do not limit eligibility or grant percentage for this grant program, but a match is required.

### **Other Best Practices**

The Authority will continue to assess best practices in watershed planning and basinwide water resources management such as interbasin transfers, water quality, and related utility planning and management issues. The MRF grants may assist utilities as they evaluate river basin-based alternatives.

### **Focus Area 4 – Assess need for “troubled system” protocol**

One of the Authority’s specific tasks is to assess the need for a “troubled system” protocol. However, it is recognized that most utilities throughout the state are probably somewhere within a range between “viable” and “troubled.”

The new grant program to analyze the benefits of a voluntary merger/ regionalization opportunity might be an appropriate first step to investigate potential solutions for more troubled units.

The Local Government Commission (LGC) of the Department of State Treasurer uses multiple benchmarks to evaluate the financial condition of a utility. The data for comparison to the established benchmarks are reported in the audited financial statements of each unit of local government that operates a water and/or wastewater system. In its reviews of the audited financial statements, LGC staff also look for indications of poor operational and internal controls over the utility system and often the entire governmental entity.

#### **Focus Area 4 Accomplishments**

The Authority and the Local Government Commission are working to develop scalable strategies and practices to assist “troubled” systems, with the goal of seeking permanent solutions to their water infrastructure issues

The LGC and the Division of Water Infrastructure recognize that a community’s challenges in funding its water and wastewater utility can be related to its overall financial management issues. The agencies have found that a system more on the “troubled” end of the range may lack sufficient organizational and/or financial management tools as evidenced by:

- Internal control issues, lack of timely audited financials, accounting and reporting issues, and low cash balances, based on information gathered by the LGC
- Issues related to water and wastewater system billing/revenue generation policies, utility rates, condition assessments, lack of enforcement of collection and cut-off policies, and affordability considerations

While an overarching protocol that could be applied to any system would be ideal, the Authority recognizes that the potential to be “troubled” may result from a number of different circumstances that may be unique to each community and require approaches tailored to an individual community’s needs.

In partnership with the LGC and other agencies and organizations, the Authority will continue its work to develop a troubled system protocol.

## **Issues Identified by the Authority**

Through the Authority's work this year, key issues for water and wastewater utilities continued to emerge. Many of these issues have been addressed broadly in the draft Master Plan, but further work is needed in order to implement approaches, strengthen partnerships and enhance communications resources.

### **1. Integrated best practices in utility management are essential for viable utility systems**

Best practices for water and wastewater utilities encompass:

- **Infrastructure Management** which involves long-term master planning and includes:
  - Knowing the risk of failure of key water infrastructure components
  - Taking proactive approaches and making informed decisions to construct, operate, maintain and renew/replace infrastructure that will minimize long-term costs
  - Having funding in place so that the right investments are made at the right time
- **Organizational Management** which involves all levels of a utility's organization in understanding the long-term nature of water and wastewater infrastructure needs, supporting the plan to address and finance needs in a prioritized manner, and building customer and stakeholder support
- **Financial Management** which involves planning to generate the revenues needed to construct, operate, maintain, and repair/replace utility infrastructure – including reserves for unexpected events – without long-term reliance on grant funds

Providing grant funds simply to construct or repair infrastructure – without requiring long-term management plans for infrastructure, organization and finances – does not move a utility toward viability

While the draft Master Plan provides a roadmap for utilities to move toward viability through integrating these best practices, the challenge is to better communicate to utility providers about the resources available from agencies, water and wastewater organizations, and professional societies.

### **2. The funding road ahead**

Water and wastewater infrastructure needs for North Carolina over the next 20 years are estimated to range from \$17 billion to \$26 billion. Over the next two fiscal years, including the additional funds provided by the Connect North Carolina Bond funds for water infrastructure, approximately \$700 million will be available through the funding programs administered by the Division. The Authority will continue to critically assess the prioritization of the projects applying for these limited funds.

Federal loan programs, such as the CWSRF and DWSRF programs, provide substantial savings and must continue to be the primary means of infrastructure funding for the vast majority of utilities in the state.

Some utilities have limited access to the loan capital sources because they may lack the infrastructure management, organizational management, and/or financial management practices to support loan debt. For these utilities, the challenge is to strengthen their management in order to increase their access to these programs.

### 3. Utility revenues must provide appropriate infrastructure funding levels

To function well over the long term, utilities must establish and maintain an environment in which the rates and fees that it charges are adequate to pay bills, put funds away for both future capital expenditures and unanticipated issues, and maintain, repair, and replace equipment and infrastructure before it reaches the end of its useful life. These revenues are essential in delivering safe and reliable drinking water and wastewater services that protect public health and the environment.

The Authority developed and implemented affordability criteria to help stretch the state's limited grant funds by pairing grants with loans when financially feasible for a community. Since grant funds are limited, utilities need strategies to generate revenue.

Several State-supported resources that assist utilities with such strategies are:

- The State and Local Finance Division of the Department of State Treasurer – The Division assists local governments in determining the effectiveness of their financial management and offers broad assistance in financial administration to local governments
- The Environmental Finance Center at the University of North Carolina's School of Government – The Center provides a wide variety of capital planning and rate setting tools designed to help utilities assess and implement improved financial practices

Both policymakers and experienced water and wastewater infrastructure professionals in North Carolina agree that the days of plentiful federal or state grant funds are a thing of the past

While grant funds were more readily available decades ago, the funds were provided to deal with initial investments needed to meet major regulatory changes, and were never intended to also pay for later renewal of the infrastructure

The challenge is to communicate these available resources to utility providers through partnerships with other agencies, water and wastewater organizations, and professional societies.

### **Next Steps**

In the coming year, the Authority will explore the following issues and will provide recommendations to the General Assembly to help improve the state's infrastructure as well as the decision-making processes used for investing in them:

- Monitoring and evaluating recent changes in funding programs and levels
- Strengthening resource partnerships in planning, training and communications
- Developing a troubled system protocol

### **Monitoring and Evaluating Recent Funding Program Changes**

A great deal of change has taken place in the state's approach to assistance with water and wastewater infrastructure funding. A key activity in the near term will be managing these changes and evaluating their impacts to ensure that funding is linked to supporting a utility's viability. Future recommendations for modifications to the funding programs may be a result.

Beginning with the 2013 creation of the Authority and including the 2016 Connect North Carolina Bond funding, there has already been a great deal of change in the state's approach to assistance with water and wastewater infrastructure funding

The Authority recognizes that the new approach of evaluating affordability criteria and making combination grant/loan awards based on these criteria will need to be closely monitored and evaluated, with the help of stakeholders and those receiving the awards. As with any major program change, this will likely require some modification as experience is gained with the new approach. The Authority will continue its work to maximize the effective use of the state's water infrastructure investments and ensure that the state realizes the most benefit over the long term through the best use of both state and federal funds.

### **Strengthening Resource Partnerships**

Multiple opportunities exist for strengthening resource partnerships among agencies such as the LGC and the Division. Partnerships with the university and community college systems, water and wastewater organizations, local governments and utility governing boards can be enhanced to leverage and expand on many existing resources and programs. Such partnerships will lead to creative solutions for utility viability and will enhance the long-term success of the state's funding programs.

Division staff will continue to promote discussions on planning, training and communications programs with these and other partners that may include:

- University of North Carolina School of Government and the School's Environmental Finance Center
- North Carolina Rural Water Association
- Southeast Rural Community Assistance Project
- North Carolina Waterworks Association and Water Environment Association
- NC Waterworks Operators Association
- North Carolina League of Municipalities
- North Carolina Association of County Commissioners
- North Carolina Councils of Government
- University of North Carolina System
- North Carolina Community College System
- North Carolina Department of Commerce

#### **Topics and issues that may be addressed with these partners include:**

- Affordability
- Water and sewer rates
- Training in:
  - Infrastructure management
  - Asset management
  - Financial management
  - Technical issues
- Building the capacity of utility governing boards
- Communicating complex utility management issues

### **Developing a troubled system protocol**

In partnership with the Local Government Commission and other agencies and organizations, the Authority will work to develop a troubled system protocol. The goal of a troubled system protocol is to seek permanent solutions to water infrastructure issues. While a protocol that could be applied to any system would be ideal, the Authority recognizes that the potential to be "troubled" may result from a number of different circumstances that may be unique to each community and require approaches tailored to an individual community's needs.

### **Longer-Term Subjects**

There are a number of longer-term subjects that the Authority will continue to research and monitor for future study. These may include communications resources, regional coordination, managing other types of water resources, partnership solutions, and improved procurement policies as follows:

- Resources available for communication to help engage and increase understanding of and support for infrastructure funding by utility governing boards, utility staff, customers and stakeholders
- Regional coordination
  - The potential role of metropolitan and rural planning organizations
  - Interstate water sharing
  - Basinwide water resources management issues such as interbasin transfers and water quality
- Management of reclaimed water, grey water, stormwater, and other types of water
- Partnership solutions such as inter-local agreements, contracts, engaging private entities, shared management opportunities and other types of mutually-beneficial arrangements
- Improvement of procurement policies including laws, regulatory frameworks, communications, and universal practices
- Development of project monitoring practices to ensure that the finished project meets its specific objectives, such as reducing inflow/infiltration, reducing water loss, and providing levels of treatment required to meet permit limits

The recommendations developed by the Authority in the next year will enable the Authority to better carry out its assigned duties and to provide enhanced coordination of the use of the monetary resources entrusted to it by the General Assembly to improve public health and the environment for all North Carolinians.

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## APPENDIX A

### State Water Infrastructure Authority Members

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The nine-member State Water Infrastructure Authority (Authority) was created by the North Carolina General Assembly in 2013. The current members of the Authority are listed in Table A.1.

**Table A.1. Current State Water Infrastructure Authority Members**

<b>Cite § 159G-70.(b)</b>	<b>Position Requirements</b>	<b>Name</b>	<b>Title</b>	<b>Appointing Authority</b>
(1)	Director of Division of Water Infrastructure* / Serves as Authority Chair	Kim Colson – Chair	Director, Division of Water Infrastructure	Ex-Officio
(2)	Secretary of Commerce* / Familiar with Water or other Infrastructure Improvements for the Purpose of Promoting Economic Development	Dr. Patricia Mitchell	Assistant Secretary, Rural Development Division; Dept. of Commerce	Ex-Officio
(3)	Director of Local Government Commission* (Dept. of State Treasurer)	Robin Hammond	Assistant General Counsel, Local Government Commission	Ex-Officio
(4)	Professional Engineer in Private Sector Familiar with Wastewater Systems	JD Solomon	Vice President, CH2MHILL	Governor
(5)	Knowledgeable about Federal Funding for Wastewater and Water Systems	Johnnie Carswell	Burke County Commissioner	Governor
(6)	Knowledgeable about Urban Wastewater or Water Systems	Leila Goodwin	Water Resources Engineer	Senate Pro Tempore
(7)	Knowledgeable about Rural Wastewater or Water Systems	Charles Vines	Mayor, Town of Bakersville	Senate Pro Tempore
(8)	County Commissioner or Resident of a Rural County Knowledgeable about Public Health Services	Cal Stiles	Cherokee County Commissioner	Speaker of the House
(9)	Familiar with Wastewater, Drinking Water and Stormwater Issues and State Funding Sources	Maria Hunnicutt	Manager, Broad River Water Authority	Speaker of the House

\* Or designee

## **APPENDIX B**

### **Powers and duties of the State Water Infrastructure Authority (NCGS 159G-71)**

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North Carolina General Statute 159G-71 lists the following as the Authority's powers and duties:

1. Review recommendations for grants and loans submitted to it by the Division of Water Infrastructure
    - Determine the rank of applications
    - Select the applications that are eligible to receive grants and loans
  2. Establish priorities for making loans and grants, consistent with federal law
  3. Review the criteria for making loans and grants and make recommendations, if any, for additional criteria or changes to the criteria
  4. Develop guidelines for making loans and grants
  5. Develop a master plan to meet the State's water infrastructure needs
  6. Assess and make recommendations on the role of the State in the development and funding of wastewater, drinking water, and stormwater infrastructure
  7. Analyze the adequacy of projected funding to meet projected needs over the next five years
  8. Make recommendations on ways to maximize the use of current funding resources (federal, State, local) and ensure that funds are used in a coordinated manner
  9. Review the application of management practices in wastewater, drinking water, and stormwater utilities and to determine the best practices
  10. Assess the role of public-private partnerships in the future provision of utility service
  11. Assess the application of the river basin approach to utility planning and management
  12. Assess the need for a "troubled system" protocol
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**APPENDIX C****2015-2016 Loan and Grant Program Applications Received and Funding Awarded in 2016**

Table C.1 provides a summary of the applications received by the Division in September 2015 and March 2016 and funding awarded by the Authority in January 2016 and July 2016, respectively.

**Table C.1. 2015-2016 Loan and Grant Program Applications Received and Funding Awarded in 2016**

<b>Funding Program and Application Round</b>	<b>Number Applications Received</b>	<b>Number Applications Funded</b>	<b>Dollar Amount Requested</b>	<b>Dollar Amount Funded</b>
<b>Federal-State Clean Water State Revolving Fund (CWSRF):</b> Sept. 2015 and March 2016 Application Rounds	30	30	\$180 million	\$180 million
<b>Federal-State Drinking Water State Revolving Fund (DWSRF):</b> Sept. 2015 Application Round	32	27	\$49.3 million	\$46.9 million
<b>Federal CDBG-I:</b> Sept. 2015 Application Round	40	10	\$61.7 million	\$14.1 million
<b>State Reserve Program:</b>				
• <b>State Wastewater Reserve (grants and loans):</b> March 2016 Application Round	13	2	\$26.8 million	\$4.2 million
• <b>State Drinking Water Reserve (grants and loans):</b> March 2016 Application Round	4	0	\$7.2 million	\$0 million
• <b>Asset Inventory and Assessment Grants:</b> March 2016 Application Round	182	42	\$20 million	\$5.1 million
• <b>Merger/Regionalization Feasibility Grants:</b> March 2016 Application Round	10	10	\$490,000	490,000
<b>Totals</b>	<b>311</b>	<b>121</b>	<b>\$345 million</b>	<b>\$251 million</b>