
ANNUAL WATER INFRASTRUCTURE REPORT

NORTH CAROLINA STATE WATER INFRASTRUCTURE AUTHORITY

Fiscal Year 2019-2020 Report

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. The General Assembly also established the Division of Water Infrastructure (Division) and consolidated the major water and wastewater infrastructure funding programs in the Division within the Department of Environmental Quality. The enabling legislation is North Carolina General Statute 159G.

Each year, the Authority is required to provide an overview of its activities, summarize concerns and issues that it discussed, and make recommendations to address those issues. This report fulfills the legislative requirement for Fiscal Year 2019-2020.

Part 1 – Activities of the State Water Infrastructure Authority

During this fiscal year, the State Water Infrastructure Authority focused on the issue of small water and wastewater utility viability, continued to implement the nationally recognized master plan for North Carolina’s water infrastructure, and continued to offer a transparent and streamlined funding process to applicants. Specifically,

- The Authority recognizes that realistic, long-term solutions to utility organizational and financial issues must be addressed, in addition to infrastructure funding, for utilities to achieve permanent system viability
- The Authority continued to develop a process framework to ensure viable utilities
- The Authority focused on how to incorporate lessons learned from viable utilities regarding utility partnerships and best practices
- In December 2019, the North Carolina League of Municipalities included an article entitled “North Carolina’s Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability” in its quarterly publication

The Authority’s most significant accomplishments in FY 2019-20

- Continued to focus on small water and wastewater system viability
- Continued to develop a process framework to ensure viable utilities
- Strengthened utility partnership and regionalization resources
- Gained continued regional exposure of “North Carolina’s Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability” through the NC League of Municipalities’ publication, Southern City

The Authority’s twelve powers and duties defined in North Carolina General Statute 159G-71 (provided in Appendix B) are grouped into four primary areas which are described below along with the Authority’s activities in each area:

- Distribute loan and grant funds
 - Water infrastructure needs, funding; Statewide Water and Wastewater Infrastructure Master Plan
 - Assess emerging practices in utility planning and funding
 - Assess the need for a “troubled system” protocol
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Focus Area 1 – Distribute Loan and Grant Funds

The Authority saw continued strong demand for all funding programs administered by the Division and awarded a total of \$278 million in grants and loans for 87 projects, from the following programs:

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 & Assessment grants, and Merger/Regionalization Feasibility grants

Funding Available in FY 19-20

This FY, the General Assembly proposed an appropriation of \$13.5 million in funds (\$10 million recurring and \$3.5 million non-recurring) to be disbursed through the State Reserve program. However, because the budget was not enacted, only the \$10 million in recurring funds was available this fiscal year.

The Division can move excess matching funds not needed for the two SRF programs and unused funds from the reconciliation of other grant projects into the State Reserve program for grants.

The funds appropriated by the General Assembly are the only source of funding for the Asset Inventory & Assessment grants and the Merger/Regionalization Feasibility grants, which assist utilities in taking the first steps toward developing permanent infrastructure, organizational and financial solutions to become viable.

FY 19-20 is the second fiscal year in which the Authority awarded funds in two rounds for the DWSRF loan program. Based on North Carolina's response to the 2015 EPA Drinking Water Needs Survey, the state's allocation was increased two years ago such that it resulted in an appropriation of \$35 million. The 2020 Needs Survey is currently underway in conjunction with the Division of Water Resources Public Water Supply Section; the Survey results will impact the amount of DWSRF funding allocated by the EPA in future years.

Continued use of the affordability criteria allowed the Authority to stretch the state's limited grant funds by pairing grants with loans when financially feasible for a community. Grant funds are targeted to small communities with the highest water and sewer rates in the state, compared to other utilities.

Figures 1 and 2 show the number of applications funded and the amount of funding awarded, by program.

Focus Area 1 Accomplishments

- Awarded a total of \$278 million in grant and loan funds:
 - CWSRF loan funds – \$145.5 million
 - DWSRF loan funds – \$95.7 million
 - CDBG-I grant funds – \$26.7 million (*\$36.8 million**)
 - State Reserve loan and grant funds for wastewater – \$5.2 million
 - Asset Inventory & Assessment grant funds – \$4.4 million (*\$17.4 million**)
 - Merger/Regionalization Feasibility grant funds – \$500,000 (*\$500,000**)
- (*) *Amount requested in complete, eligible applications*
- Awarded 2 grants totaling \$350,00 to the Local Government Commission on behalf of the Town of Eureka and the Cliffside Sanitary District to fund water/wastewater operating deficits for FY 19-20

Figure 1. Number of Wastewater and Drinking Water Applications Funded – FY 2019-2020
 (Total number applications funded = 87; see Appendix C for data)

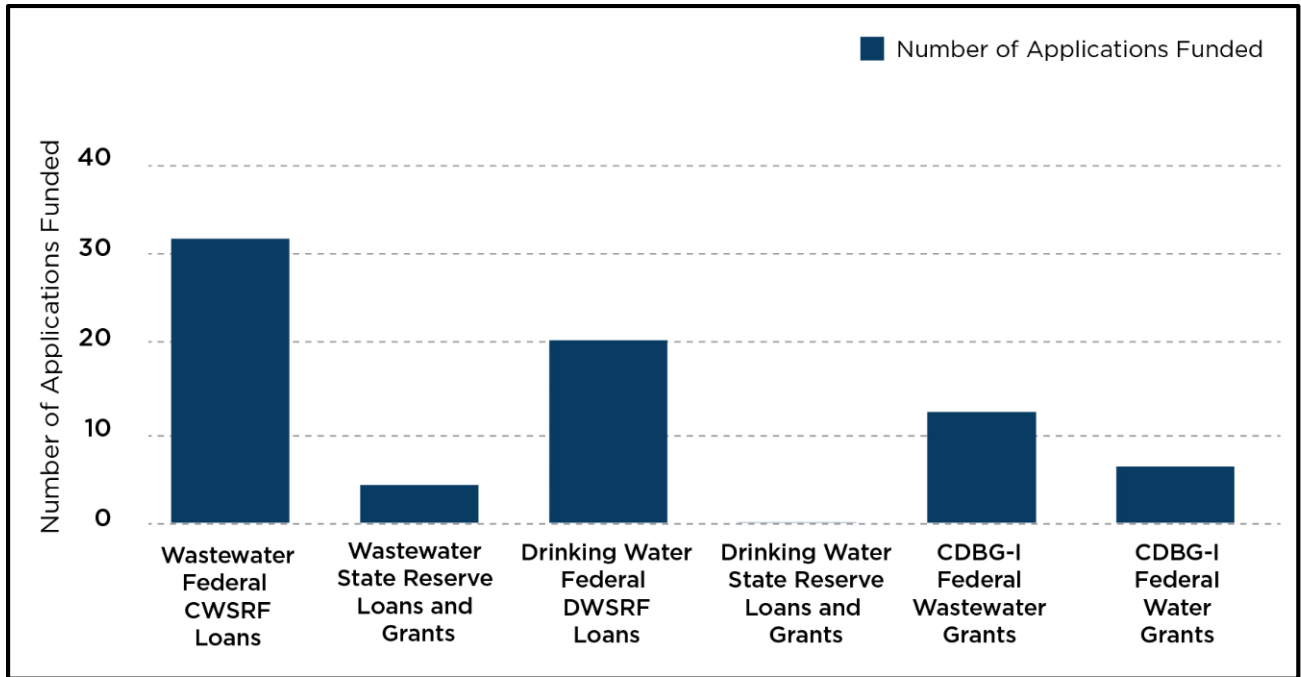
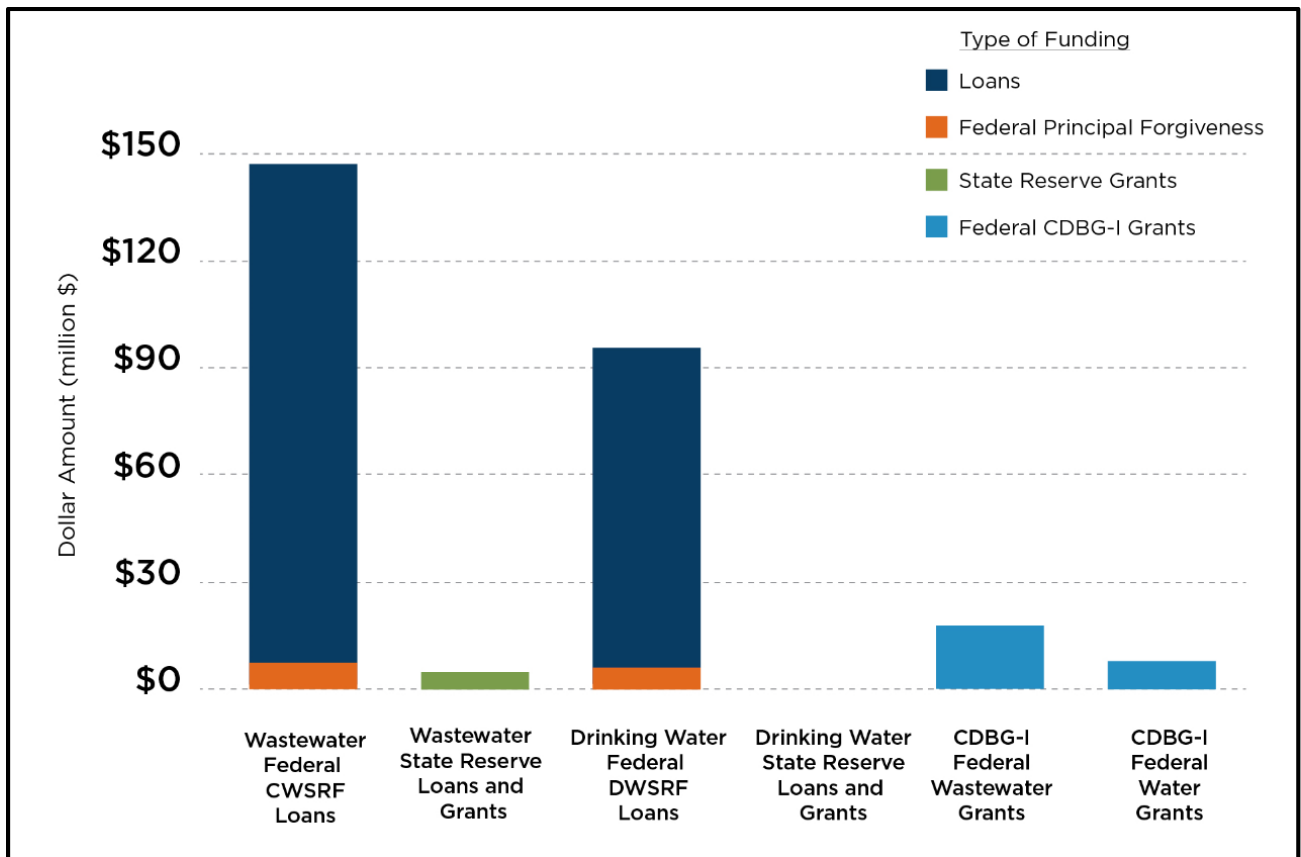


Figure 2. Amount of Funding Awarded for Wastewater and Drinking Water Applications – FY 2019-2020
 (Total amount funded = \$278 million; see Appendix C for data)



Green Projects

The CWSRF program includes provisions to fund green projects, requiring at least 10 percent of the funds available from the capitalization grant to be used for this purpose, subject to receiving sufficient qualifying project applications. Green projects address green infrastructure such as certain stormwater best management practices, energy efficiency improvements, reuse, rainwater harvesting and stream restoration. In FY 19-20, the Authority awarded funds for four green projects totaling \$9.7 million. Two of the projects provided energy efficiency at wastewater treatment plants, one provided the elimination of a wastewater pump station for energy savings and one provided stream restoration.

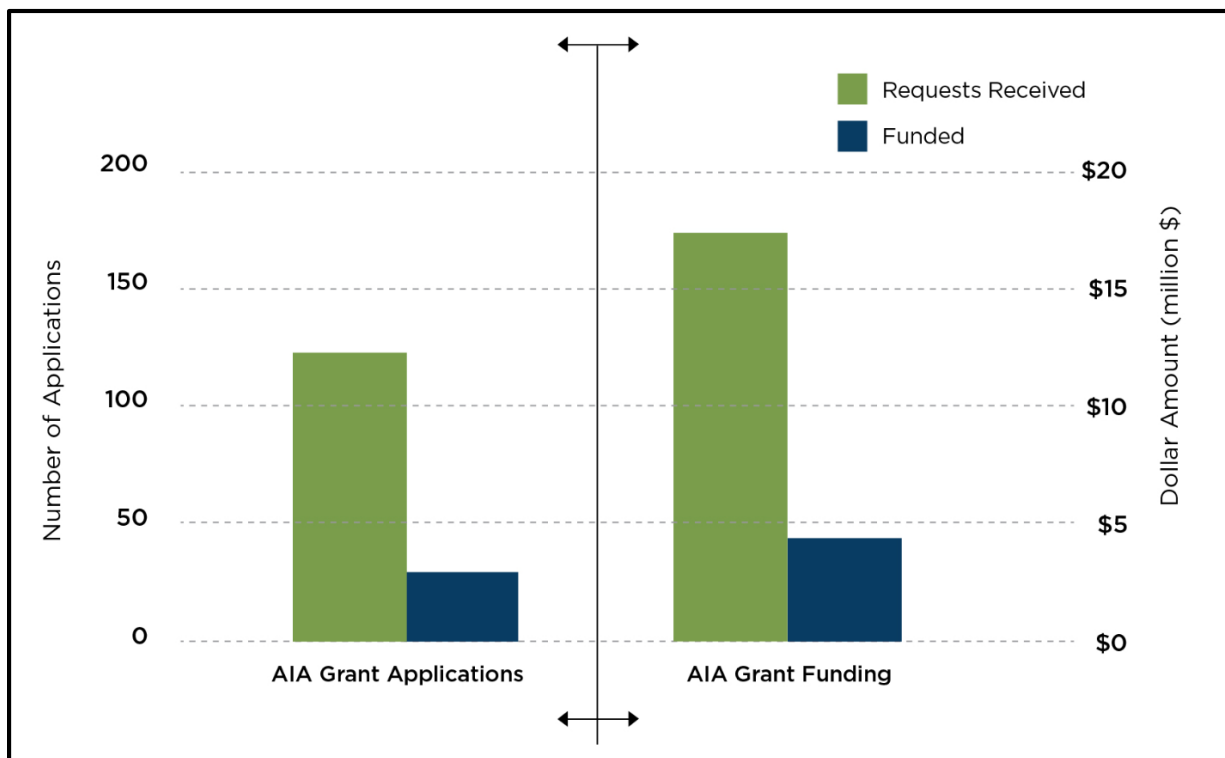
Asset Inventory & Assessment Grants

Figure 3 demonstrates the continuing significant demand for the Asset Inventory & Assessment (AIA) grants. The requests for these grants indicate the real need for this type of state programs to help foster the long-term viability of utilities. These grants are discussed in Focus Area 3 of this report.

Merger/Regionalization Feasibility Grants

Ten complete, eligible applications for Merger/Regionalization Feasibility (MRF) studies were received and funded by the Authority, totaling \$500,000. These grants are discussed further in Focus Area 3.

Figure 3. Number of AIA Grant Applications Received and Funded, & Amount Requested and Funded (*) – FY 2019-2020 Application Round (Number received/funded = 129/31; amount requested/funded = \$17.4 million/\$4.4 million; see Appendix C)



(*) Number of complete, eligible applications received

Use of Funds for Water or Wastewater Utility Operating Deficits

Senate Bill 691, effective in September 2019, allows funds from the State Wastewater Reserve and the State Drinking Water Reserve to be used to provide grants to the Local Government Commission (LGC) of the Department of the State Treasurer on behalf of certain local governments to fund operating deficits of a public water or wastewater system. The Authority awarded total of \$350,000 in grants from the Reserve program to the LGC on behalf of two local government units to fund operating deficits in their water/wastewater systems: \$200,000 related to the Town of Eureka and \$150,000 related to the

Cliffside Sanitary District. Without these funds, these utility systems may have become insolvent. The legislation and the Authority’s concerns about the use of funds for this purpose are described in detail in Part 2 of this report.

Projects Funded by the State Water Infrastructure Authority 2014-2020

Since the Authority was formed in 2013 and began distributing funds in January 2014, it has awarded over \$1.9 billion in loans and grants. The map in Appendix D shows the locations of the funded projects.

Focus Area 2 – Water Infrastructure Needs and Funding; Statewide Water & Wastewater Infrastructure Master Plan

“North Carolina’s Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability” was completed in 2017 and addresses all the Authority’s tasks in Focus Area 2:

- Define statewide water and wastewater infrastructure needs (\$17 billion to \$26 billion over the next 20 years)
- Examine funding sources and their adequacy to meet the identified needs
- Assess the role of the State to develop and fund water infrastructure




Focus Area 2 Accomplishments

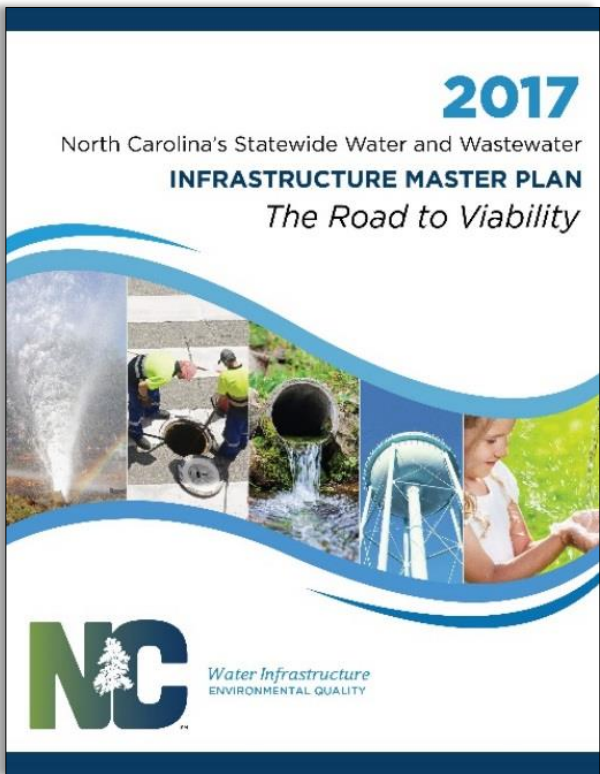
- Continued implementation of the Master Plan through focused workshops with individual Regional Council of Governments (COGs)
- Held in-depth workshops with nearly 60 utility managers and directors
- Master Plan article in statewide NC League of Municipalities publication
- Presentation at statewide conference

In FY 19-20, the Authority continued to focus on the implementation of the plan.

NC’s Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability

The Master Plan 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. The Authority’s vision is that 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. The state’s role is to foster long-term viability through three integrated best practice areas:

-  **Infrastructure Management** – Proactive approaches to enable the right investments to be made in the right projects at the right time, including life-cycle costs and risk management
-  **Organizational Management** – Governing boards understand the long-term nature of water/wastewater infrastructure and prioritize completion of the most critical projects
-  **Financial Management** – Generate sufficient revenue to fund construction, maintenance, operations and renewal/ replacement without long-term reliance on grants



Exposure for the Statewide Water and Wastewater Infrastructure Master Plan

In November 2019, Division staff presented “A Case Study in Utility Viability” which focused on the implementation of the Master Plan in small communities at the **statewide annual conference of the North Carolina American Water Works Association / Water Environment Association**

In December 2019, the **North Carolina League of Municipalities published an article** about the Master Plan in its statewide quarterly publication, Southern City

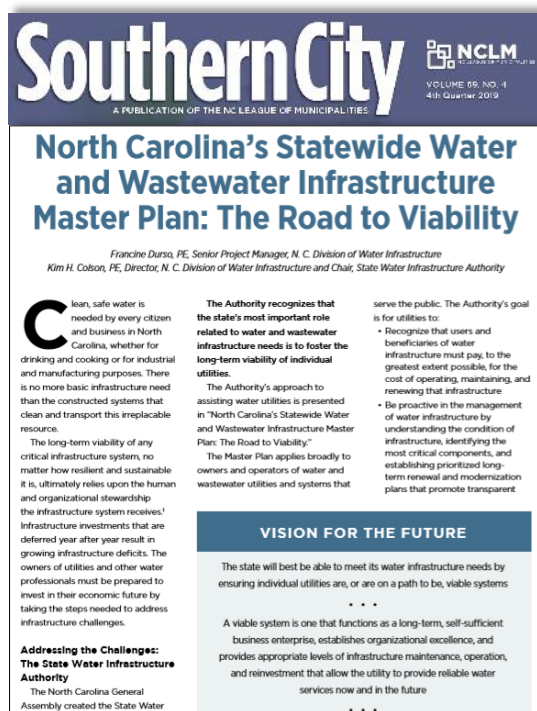
Met with nearly 70 elected officials and utility directors at five **Regional Councils of Governments** across the state to present the concepts of the Master Plan and held in-depth workshops with 60 participants

Master Plan article published in North Carolina League of Municipalities Quarterly Publication

In December 2019, the North Carolina League of Municipalities included an article entitled “North Carolina’s Statewide Water and Wastewater Infrastructure Master Plan: The Road to Viability” in its quarterly publication, Southern City. The article highlights:

- The Authority’s vision for viable utilities
- Three integrated best practice areas: infrastructure, organizational and financial management
- Statewide utility infrastructure funding needs
- The importance of resource partnerships

The North Carolina League of Municipalities is a member-driven organization representing the interests of the state’s cities and towns. Through their collective efforts, the over 500 member cities and towns better serve their residents and improve quality of life. For more than 100 years, the League has been one voice for cities and towns working for a better North Carolina.



Focus Area 3 – Emerging Practices in Utility Planning and Funding

The Authority continued its discussions of best and emerging practices in utility planning and funding, and received presentations on key topics. The presentations provided insights into issues that utilities encounter.

The Authority made its fifth round of funding available for two grant programs that encourage proactive best management practices: Asset Inventory & Assessment (AIA) grants, and Merger/ Regionalization Feasibility (MRF) grants. These two grants assist utilities in taking the first steps toward developing permanent solutions for viable infrastructure, organizational and financial management.

Focus Area 3 Accomplishments

- Fifth round of funding awarded for AIA and MRF grants
- Learned about utility best practices:
 - Presentations by NC utility leaders
 - Utility affordability
 - Significant loss of revenue due to water loss
 - Local Government Commission’s work with distressed utilities

Asset Inventory & Assessment Grants

Asset Inventory & Assessment grants provide funds for a utility to inventory existing water and/or sewer system assets, document the condition of the inventoried infrastructure, determine asset criticality, define and prioritize critical projects, and other components of a comprehensive asset management program. The AIA grants can help a utility better explain and defend the need for infrastructure investment and associated rates to governing bodies, stakeholders and customers.

Merger/Regionalization Feasibility Grants

Merger/Regionalization Feasibility (MRF) grants are designed to help utilities evaluate alternatives for improved organizational, financial and infrastructure management. Utilities can investigate the feasibility of voluntary merger/regionalization or other partnership options that may include interlocal agreements or public-private partnerships.

Best Practices in Utility Planning from NC Utility Leaders: City of Shelby and City of Newton

City of Shelby, City Manager Rick Howell described his proactive approach to working with the Shelby City Council on water and wastewater utility issues, economic development and regionalization. Seeing real utility problems in the field is key to the Council recognizing the need for system repairs. On nights,



weekends, and even holidays he has taken the mayor or a council member to assess sewage spills or other emergencies. Having seen the problems firsthand, the Council better understands the work needed and associated costs, and how critical it is to have well-maintained systems that support economic development, quality of life, and environmental protection. Utility rate increases are based on

system condition assessments and are transparent about how the money will be used. The City works with smaller utilities to create service agreements that are best for all the parties because it is the right thing to do. He emphasized, however, the importance of trust between the parties and has seen that if no trust exists, it is almost impossible to reach an agreement.

City of Newton, Assistant Public Works & Utilities Director Dennis Falder described how the Asset Inventory and Assessment (AIA) grant awarded has significantly benefited the City. Through the



inventory work, a large source of inflow/infiltration from a sewer main located in a creek was discovered. With the grant, the City also identified all sewer main work that needs to be completed in the system and developed a prioritized capital improvement plan (CIP).

Understanding the level of needs allows the City to determine if the work can be completed by staff or if the work needs to be part of the CIP. After looking at the workload, the City determined that they needed – and then they hired – a full-time project manager to ensure projects are being completed properly. Mr. Falder added the AIA grant resulted in a direct water quality protection benefit by eliminating a major infiltration/inflow problem.

Utility Affordability

A presentation about the needed balance between utility affordability for the customer, and revenue and financial stability for the utility was given by **Raftelis Financial Consultants, Inc., Executive Vice President Jon Davis**. He presented a national perspective on affordability challenges, focusing on:

- A broad spectrum of chronic poverty issues that can exist within service areas
- Affordability-friendly rate structures

Many communities have chronic low-income populations in their service areas, many of whom cannot afford essential water and sewer services.



Nationally, incomes are moving away from the median and toward either the high or low extremes, and a significant problem is that customers often earn too much to obtain social services, but not enough to live on what they earn. Utility systems are impacted through lower collections rates, more shut-offs, and public health concerns. In other states, affordability solutions include income-based billing (billing based on customers' ability to afford), free or reduced cost units of service, and discount billing programs; these states establish a special class of customer that can access these programs. In North Carolina, however, special classes of customers are not allowed to be established, creating an obstacle for the state to implement these types of solutions.

Rate structures also affect affordability. A rate structure with high fixed charges may be unaffordable for customers but assures the utility of predictable revenue. If only a volumetric rate structure is used, utility revenue becomes unpredictable but customer's bills may be more affordable. Utilities have real challenges balancing affordability-friendly rates with the stability of the utility's finances.

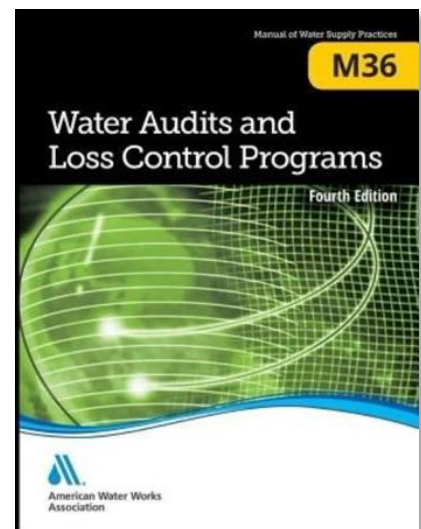
Water Loss / Non-Revenue Water

Systems in North Carolina lose an average of 11% of treated water annually which can be a significant loss of revenue for utilities. In addition to leaks, utilities sometimes treat and deliver water to customers but do not charge for the water for various reasons. The combination of these real and apparent water losses are termed "non-revenue water", indicating the amount of water that is treated and delivered but generates no revenue.

Staff presented an update of the Division's Water Loss Pilot Program which concluded in December 2019. Ten small water systems across the state participated in the Program. The systems learned how to evaluate data using the American Water Works Association's M36 Methodology, determine real and apparent losses, quantify unbilled authorized consumption, and ultimately determine the revenue not collected as a result of system losses.

At the conclusion of the Program, the participants stated that the time and effort of the program was appropriate and reasonable, they were more equipped to complete future water audits, they learned tools to communicate the importance of water loss and management strategies to their elected officials, and were interested in participating in further studies.

Based on the success of the pilot program, it may be beneficial to encourage water systems in North Carolina to use this methodology.



North Carolina Local Government Commission's Work

The State and Local Government Finance Division (SLGFD) within the NC Department of State Treasurer supports over 1,300 units of local government through monitoring and analyzing their fiscal health and accounting practices, in addition to other tasks.

Information is compiled from the annual audits submitted by a local government unit. The Director of the Fiscal Management Section of the Division presented information to the Authority regarding how the LGC identifies units that may have financial challenges and need coaching from SLGFD staff. The LGC has found that many units are often in financial difficulty because of their water and sewer enterprise funds. Some of these distressed systems may benefit from the Viable Utility Reserve, discussed in Focus Area 4 below.



Focus Area 4 – Process Framework for Viable Utilities

The Authority’s primary focus in FY 19-20 was the continuing issue of long-term viability of small water and wastewater utilities. North Carolina General Statute 159G-71 provides for the Authority to “assess the need for a ‘troubled system’ protocol.” The Authority believes that the term “viable utility” is more appropriate because it characterizes the outcome to be achieved and is better aligned with recent legislation.

Viable Utility Reserve Legislation

The North Carolina General Assembly Joint Conference Committee Report on the Current Operations Act of 2019 included \$9 million in recurring funds for a new Viable Utility Reserve, specifying that “The funds will be used to provide grants to distressed water infrastructure entities for assessments and inventories, merger or regionalization studies, or infrastructure projects.” This Reserve was also proposed in the Governor’s FY 19-20 budget. The budget was not enacted and funds were not available this fiscal year.

The Viable Utility Reserve legislation is included in ratified House Bill 966 as “Water/Wastewater Public Enterprise Reform”, effective July 1, 2019. The legislation is also in Senate Bill 810 and House Bill 1087, both introduced in the current session.

The legislation defines a distressed unit and requires the following to be completed if a unit is found to be distressed:

- Asset inventory and assessment
- Rate study
- Action plan for infrastructure repair, maintenance and management, addressing short- and long-term needs
- Initial and continuing training and educational programs for utility governing board and staff

Focus Area 4 Accomplishments

- The Authority’s primary focus was the continuing issue of long-term viability of small water and wastewater utilities
- The Authority and the Division are developing a process framework to implement the Viable Utility Reserve

GENERAL ASSEMBLY OF NORTH CAROLINA		
SESSION 2019		
S		1
SENATE BILL 810		
Short Title:	Water/Wastewater Public Enterprise Reform.	(Public)
Sponsors:	Senators Brown, Harrington, and B. Jackson (Primary Sponsors).	
Referred to:	Rules and Operations of the Senate	
May 20, 2020		
1	A BILL TO BE ENTITLED	
2	AN ACT TO IMPROVE VIABILITY OF THE WATER AND WASTEWATER SYSTEMS OF	
3	CERTAIN UNITS OF LOCAL GOVERNMENT BY REQUIRING LOCAL	
4	GOVERNMENT COMMISSION APPROVAL OF GRANT APPLICATIONS; TO	
5	REQUIRE CERTAIN WATER AND WASTEWATER SYSTEMS TO UNDERGO A	
6	REVIEW OF INFRASTRUCTURE MANAGEMENT, ORGANIZATIONAL	
7	MANAGEMENT, AND FINANCIAL MANAGEMENT; TO CREATE THE VIABLE	
8	UTILITY RESERVE TO PROVIDE GRANT MONEY FOR LOCAL GOVERNMENT	

GENERAL ASSEMBLY OF NORTH CAROLINA		
SESSION 2019		
H		5
HOUSE BILL 1087		
Committee Substitute Favorable 6/3/20		
Committee Substitute #2 Favorable 6/9/20		
Fourth Edition Engrossed 6/11/20		
Senate Appropriations/Base Budget Committee Substitute Adopted 6/17/20		
Short Title:	Water/Wastewater Public Enterprise Reform.	(Public)
Sponsors:		
Referred to:		
May 14, 2020		
1	A BILL TO BE ENTITLED	
2	AN ACT TO IMPROVE VIABILITY OF THE WATER AND WASTEWATER SYSTEMS OF	
3	CERTAIN UNITS OF LOCAL GOVERNMENT BY REQUIRING LOCAL	
4	GOVERNMENT COMMISSION APPROVAL OF GRANT APPLICATIONS; TO	
5	REQUIRE CERTAIN WATER AND WASTEWATER SYSTEMS TO UNDERGO A	
6	REVIEW OF INFRASTRUCTURE MANAGEMENT, ORGANIZATIONAL	
7	MANAGEMENT, AND FINANCIAL MANAGEMENT; TO CREATE AND PROVIDE	
8	FUNDING FOR THE VIABLE UTILITY RESERVE TO PROVIDE GRANT MONEY	
9	FOR LOCAL GOVERNMENT UNITS; TO PROVIDE A STATUTORY PROCESS FOR	

- Long-term financial management plan to sustainably facilitate provision of reliable water or wastewater services by ensuring the generation of sufficient revenue to fund management and operations, personnel, maintenance, and reinvestment

Details of the process are to be developed jointly by the Authority and the LGC. The Authority discussed the legislation, requirements and related topics at several of its meetings. Key issues are discussed in detail in Part 2 of this report.

The Authority will continue its work on the process framework to implement the Viable Utility Reserve.

Legislative Definition of Distressed Unit

A public water or wastewater system operated by a local government unit exhibiting signs of failure to identify or address those financial or operating needs necessary to enable that system to become or to remain a local government unit generating sufficient revenues to adequately fund management and operations, personnel, appropriate levels of maintenance, and reinvestment that facilitate the provision of reliable water or wastewater services

Part 2 – Issues Identified by the Authority

In FY 19-20, the Authority focused on the issues described below.

1. Small Utility Viability

Utility viability issues are widespread in North Carolina and substantial funding resources will be needed to provide permanent solutions for many small water and wastewater systems. In addition, organizational and financial issues must also be permanently addressed to achieve system viability.

The Viable Utility Reserve will provide the Authority and the Local Government Commission with initial tools to begin to address permanent solutions for distressed water/wastewater utilities

Viable Utility Reserve Legislation

The Authority discussed the following related to implementing the Viable Utility Reserve legislation:

- With only \$9 million proposed for each of two years, it will be critical to prioritize the distressed units with which to work.
- The asset assessments and rate studies likely need to be prepared by an independent source to ensure consistency in level of detail and quality.
- It is essential to ensure that an action plan that leads to viability is implemented.
- Potential grant funding must be linked to a process that includes grant conditions and monitoring by the Authority and the LGC to ensure the conditions are met.
- A structured educational plan is needed for elected officials, since the understanding of their responsibilities related to providing safe water and wastewater services is vital, especially if the distressed unit needs to make significant changes. The Authority will closely monitor the situation in units that may struggle to change the way they operate at the local elected official level.
- Each situation will be unique and there is no “one-size-fits-all” solution. In some cases, an effective solution may not be obvious and it will take much more time and require additional effort on the part of the local government unit, the Authority and the LGC, to resolve.
- Working with units identified as distressed and implementing the requirements of the Viable Utility Reserve will likely require additional resources for both the Department of Environmental Quality and the Department of State Treasurer

Customer Density

Financial viability is often a concern of smaller utilities because they serve relatively few customers, and relatively few customers per mile of pipe compared to larger systems, as shown in Figure 4. In small systems, each customer is responsible for more infrastructure and therefore more cost than those in larger systems. The utility may not be able to generate enough revenue from its small number of customers to operate, maintain, rehabilitate and replace its infrastructure without having high, unaffordable water and sewer rates.

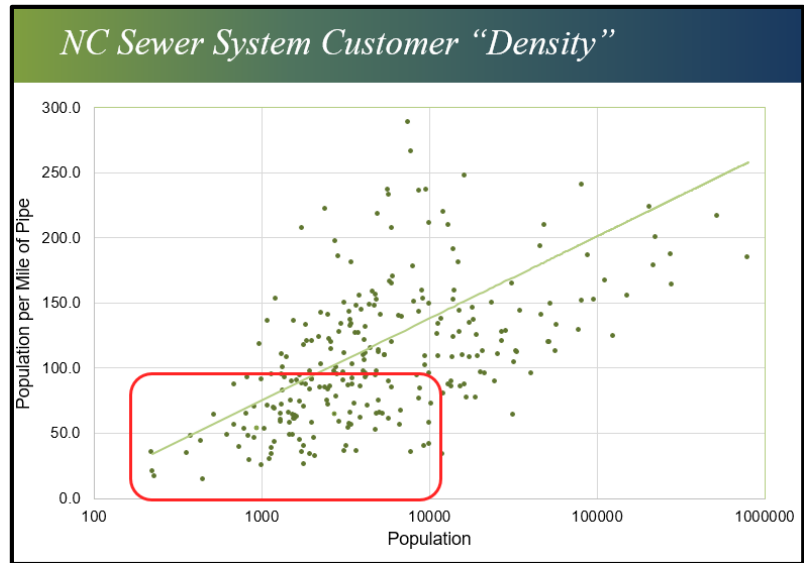


Figure 4. NC Sewer System Customer Density

2. Operating Deficits in Small Water and Wastewater Utilities

Another indicator of distressed systems, in addition to relatively few customers, may be a negative utility operating margin. For the purposes of Figure 5, the operating margin is calculated as total operating revenue minus total operating expenses, divided by total operating expenses which includes depreciation but does not include debt service or capital outlay. The data points that are negative (those below the break-even line at 0.00) indicate systems that do not generate enough revenue to cover operating expenses including depreciation. Most of these systems have populations of much less than 10,000. Many of these small systems experience declining population, customers that use less water, and fewer industrial and commercial connections, all of which lead to declines in revenue.

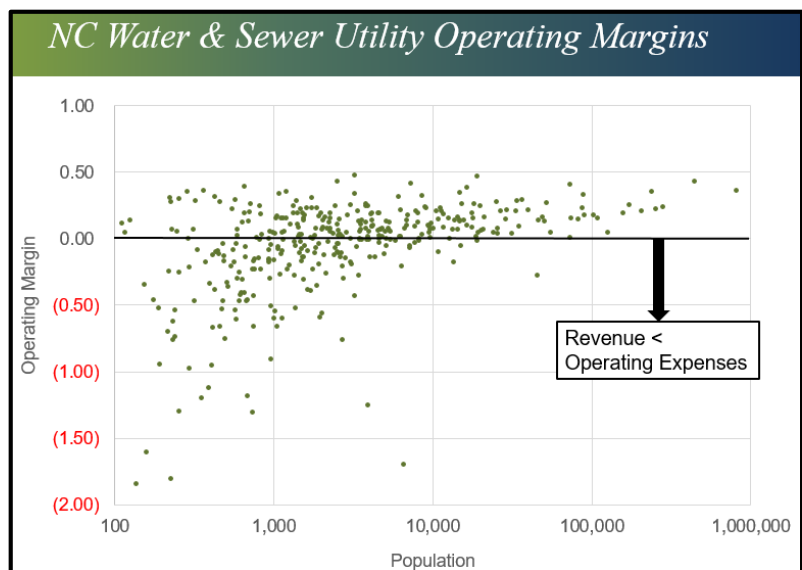


Figure 5. NC Water and Sewer Utility Operating Margins

New Use of State Reserve Funds for Grants to Cover Operating Deficits

Senate Bill 691, signed by the Governor in September 2019, allows a new use of funds from the State Wastewater Reserve and the State Drinking Water Reserve.

Prior to SL 2019-226, loan and grant funds from the Wastewater Reserve and the

GENERAL ASSEMBLY OF NORTH CAROLINA
SESSION 2019

SESSION LAW 2019-226
SENATE BILL 691

AN ACT TO ALLOW EMERGENCY FUNDING FROM THE WATER AND WASTEWATER RESERVES TO COVER OPERATING DEFICITS INCURRED BY CERTAIN PUBLIC WATER AND WASTEWATER SYSTEMS.

Drinking Water Reserve could only be used for construction of water and wastewater projects, specific emergency loans, grants for asset inventory and assessments, and grants for merger/regionalization feasibility studies.

The Reserve funds may now be used to provide grants to the LGC on behalf of certain local governments to fund operating deficits of a public water or wastewater system. Units of local government are eligible for these emergency grants only if:

- The General Assembly has suspended their charter or
- The LGC has assumed control of their financial affairs

During FY 19-20, two units were eligible for the new operating deficit grants because:

- North Carolina Session Law 2019-29 suspended the charter of the Town of Eureka in Wayne County and placed all monies and assets of the town under the control of the State Treasurer.
- The LGC assumed control of the financial affairs of the Cliffside Sanitary District in Rutherford County in September 2019 under North Carolina General Statute 159-181(c).

The Authority approved \$200,000 in grant funding related to Eureka and \$150,000 in grant funding related to the Cliffside Sanitary District. Both grants were made to the LGC and effective only for FY 19-20. The Authority stated that any additional grant funding to cover operating deficits beyond this fiscal year would be considered separately and would require future Authority actions.

The Authority notes that no additional funds were provided by the General Assembly to fund emergency operating deficit grants; the funds come out of the regular appropriation to the Division. The Authority is concerned that funds used for this purpose:

- Are only a temporary measure and do not create a permanent solution for the unit of local government, and
- Decrease the amount of funds available for AIA, MRF and project grants that can move entities toward viability

The Authority is concerned about providing grants to cover operating deficits because the funding does not create a permanent solution for these entities

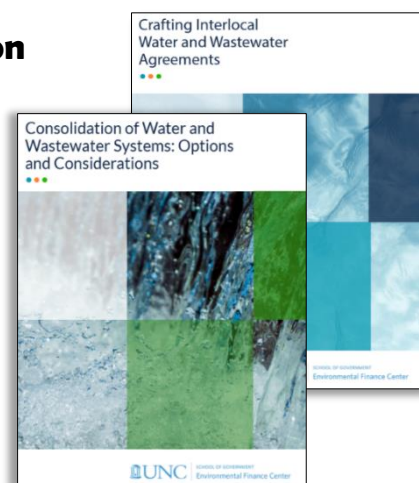
Using the very limited appropriated funds for short-term operations reduces the funds available for long-term solutions for systems that are distressed

The financial situation of systems receiving the emergency grant funds will likely not improve, making it all the more important for a program to be put in place to leverage long-term funding for permanent solutions, such as through the Viable Utility Reserve.

3. Utility Partnerships, Mergers and Regionalization

The Authority continues to encourage a range of partnership options including interlocal agreements for formal arrangements to share water or wastewater treatment capacity and assets, management sharing, contracted services, consolidation and mergers.

The University of North Carolina Environmental Finance Center (UNC EFC) developed two guidance documents that address many issues to be discussed by all parties before pursuing any such arrangements. These guides are valuable resources for regionalization and partnership efforts that may provide a path to viability.



Part 3 – Next Steps

The Authority will focus on the areas addressed below in the coming year. Recommendations developed by the Authority will be provided to the General Assembly to help improve the state’s decision-making processes for funding infrastructure and fostering organizational and financial management.

1. Continue Work on the Process Framework for Viable Utilities

As described in Parts 1 and 2 of this report, the Authority supports the Viable Utility Reserve legislation as a sound method to create permanent solutions for distressed utilities and to administer the substantial funding required to implement the solutions. The Authority will continue to work on the process framework which includes refining distressed criteria and developing the training and educational programs that will be needed for utility governing board members and staff.

2. Continue Regionalization Conversations

To promote the Authority’s vision of achieving viability through integrated infrastructure, organizational and financial management, the Division and its partners will continue to hold workshops and discussions, working through the Association of Regional Councils of Governments as well as individual COGs and other entities. This approach has proven to be an effective way to talk with many elected officials and utility managers in small group settings. A growing number of COGs have expressed interest in sponsoring roundtable discussions with their communities about utility partnerships and regionalization, covering:

- The range of partnerships and regionalization efforts across the state
- Efficiencies and cost reductions when sharing treatment capacity or services
- Managing the financial risks that can accompany regionalization efforts
- Issues to be considered by elected officials when making decisions about potential partnerships

The Division will partner with the North Carolina League of Municipalities, the Southeast Rural Community Assistance Project, the LGC and the UNC EFC to present workshops on topics ranging from information for elected officials to financial and organizational management.

3. Continue Strengthening Resource Partnerships

The Master Plan identified the benefit of strong partnerships among state and federal agencies and key resource organizations. The goal of these partnerships is to work in a coordinated manner to support utilities through the many existing resources and programs that are already available. Partner agencies and organizations include the LGC, North Carolina League of Municipalities, North Carolina Association of County Commissioners, North Carolina Association of Regional Councils of Governments, North Carolina Rural Water Association, Southeast Rural Community Assistance Project, North Carolina Rural Economic Development Center, USDA Rural Development, DEQ Division of Water Resources, and the UNC EFC. Topics and issues that are being discussed among the partners include:

- Educating elected officials about their responsibilities for water and wastewater utilities
- Organizational and financial management
- Asset management
- Affordability
- Water and sewer rates
- Building the capacity of utility governing boards
- Developing communication resources to help increase understanding of and support for infrastructure funding by utility governing boards, utility staff, customers and stakeholders



4. Longer-Term Subjects

There are several longer-term subjects that the Authority will continue to evaluate which may include:

- Stormwater management: the UNC EFC will be invited to present more details about its recent draft report entitled “The Stormwater Finance Landscape”
- Best practices for basinwide water resources management such as interbasin transfers and related utility planning and management issues
- Improved procurement policies including laws and regulatory frameworks
- Project monitoring practices to ensure projects achieve their stated objectives, such as reducing inflow/infiltration, reducing water loss, or providing treatment levels required to meet permit limits

Part 4 – Recommendations

NCGS 159G-72 provides that the State Water Infrastructure Authority’s annual report is to include recommendations or legislative proposals. The Authority presents four recommendations.

Recommendation 1 – Fund the Viable Utility Reserve

The Authority recommends that the Viable Utility Reserve be funded, which will start a process for the Authority and the Local Government Commission to address permanent, long-term solutions for distressed water/wastewater utilities, including organizational and financial issues.

Recommendation 2 – Provide the Authority Flexibility in Establishing Grant Conditions

The Viable Utility Reserve legislation authorizes the Authority and the LGC to include performance measures and requirements for Viable Utility Reserve grant recipients. The ability to add conditions to any grant made by the Authority will better ensure that grant funds are helping systems achieve long-term viability. The Authority recommends that the General Assembly provide the Authority flexibility in establishing grant conditions for any grant made by the Authority.

Recommendation 3 – Limit or Eliminate the Pre-Allocation of Project Funding

The Authority notes that this recommendation was included in its FY 2018-19 Annual Report and the issue continues to be of concern.

The Authority is tasked with developing guidelines and establishing priorities for making loans and grants, and then applying the priorities to rank and select projects eligible for funding from the Water Infrastructure Fund. Since its inception in 2013, the Authority has continually worked to:

- Develop and refine the project prioritization and award process
- Maximize the use of funding resources and ensure that funds are used in a coordinated manner
- Prioritize projects that increase the viability of recipient water and wastewater systems

State Water Infrastructure Authority Recommendations

1. **Fund the Viable Utility Reserve** to begin to address utility viability
2. Provide the Authority **flexibility in establishing grant conditions** for any grant it awards
3. **Limit or eliminate the pre-allocation of project funding**, support the Authority’s prioritization and award process, increase transparency in water infrastructure funding, maximize the use of limited state funds, and further the state’s goal of utility viability
4. **Recognize need for additional resources** to administer the Viable Utility Reserve

In past fiscal years, the General Assembly has pre-allocated a significant amount of state funds to specific projects that are not subject to the Authority’s prioritization and award process. This practice raises several concerns for the Authority:

- The Authority uses a documented process based on prioritization criteria to build public trust and confidence in its funding decisions.
- Transparent decision-making is of high priority to the Authority but the pre-allocation of funds by the General Assembly greatly weakens its efforts to keep the funding process equitable.
- It is uncertain if projects receiving pre-allocated funds represent best practices to meet the goal of achieving utility viability, because they are not evaluated using the established process.
- The Authority uses affordability criteria to maximize the use of scarce grant funds. Since the affordability criteria are not applied to entities receiving pre-allocated funds, it is possible that the recipients could afford some amount of debt or to obligate some funds and need less grant funds. This would increase the number of projects that could be funded through the state’s grant process.
- Pre-allocated grant funds significantly reduce the funds available to the Authority to award through its competitive, transparent application and review process. These state funds are the only source of funding for the Asset Inventory & Assessment grants, Merger/Regionalization Feasibility grants, and, as of this fiscal year, to fund operating deficits of a public water or wastewater system as described in Part 1 of this report.

Authority’s Concerns about Pre-Allocation of Project Funds

Without the use of the Authority’s prioritization and affordability criteria for project funding:

- The Authority’s transparent funding process is weakened
- The funded projects may not help utilities move toward viability
- Recipients may be able to complete projects with smaller grant amounts
- Grant funds available for projects selected through the Authority’s prioritization process are greatly reduced

The Authority recommends that the General Assembly limit or eliminate the pre-allocation of project funding, and by doing so, enhance transparency in the state’s water infrastructure funding, maximize the use of limited state funding resources, and further the goal of increasing utility viability.

Recommendation 4 – Recognize Need for Additional Resources to Administer the Viable Utility Reserve

The Viable Utility Reserve will require that the Department of Environmental Quality, through the Division, administer the grants made from the Reserve. In addition, the Local Government Commission of the Department of State Treasurer has a key role in the grant administration process. The Authority recognizes that working with units that are distressed and need substantial assistance will likely require additional resources to develop and implement solutions for both Departments.

Summary of Recommendations

The Authority recommends that the legislature implement these four recommendations, enabling the Authority to better carry out its assigned duties and coordinate the use of the monetary resources entrusted to it by the General Assembly to improve public health and the environment for all North Carolinians.

The four recommendations are summarized below:

Recommendation 1 – Fund the Viable Utility Reserve

The Authority recommends that the Viable Utility Reserve be funded to provide the Authority and the Local Government Commission with initial tools to begin to address permanent, long-term solutions for distressed water/wastewater utilities.

Recommendation 2 – Provide the Authority Flexibility in Establishing Grant Conditions

The Authority recommends that the General Assembly provide the Authority flexibility in establishing grant conditions for any grant made by the Authority which will help better ensure that grant funds are used to help systems achieve long-term viability.

Recommendation 3 – Limit or Eliminate the Pre-Allocation of Project Funding

The Authority recommends that the General Assembly limit or eliminate the pre-allocation of project funding for the following reasons:

- Transparency in the Authority’s funding process is weakened
- Projects that receive pre-allocated funding may not help entities move toward utility viability
- Many entities can afford some amount of debt or to obligate some funding towards a project and it is possible that the recipients could complete the projects with smaller grant amounts
- Grant funds available for projects selected through the Authority’s prioritization process is significantly reduced

Recommendation 4 – Recognize Need for Additional Resources to Administer the Viable Utility Reserve

The Authority recommends that the General Assembly recognize that working with units that are identified as distressed under the Viable Utility Reserve will likely require additional resources for both the Department of Environmental Quality and the Department of State Treasurer to develop and implement solutions.

APPENDIX A

State Water Infrastructure Authority Members

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. The current members of the Authority are listed in Table 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.

Table A. Current State Water Infrastructure Authority Members

Cite § 159G-70.(b)	Position Requirements	Name	Title	Appointing Authority
(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	Melody Adams	Director, Rural Grants/Programs; Rural Development Division; Dept. of Commerce	Ex-Officio
(3)	Director of Local Government Commission* (Dept. of State Treasurer)	Greg Gaskins	Deputy Treasurer, State and Local Finance Division; Secretary of the Local Government Commission	Ex-Officio
(4)	Professional Engineer in Private Sector Familiar with Wastewater Systems	Juhann Waller, PE	President, JC Waller & Associates	Governor
(5)	Knowledgeable about Federal Funding for Wastewater and Water Systems	Dr. Bernadette Pelissier		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 – Vice Chair	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)

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
 1. Determine the rank of applications
 2. 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

FY 2019-2020 Loan and Grant Program Applications Received and Funding Awarded

Table C provides a summary of the applications received by the Division and funded by the Authority in FY 2019-2020.

Table C. Loan and Grant Program Applications Received and Funded in FY 2019-2020

Funding Program Application Round – FY 2019-2020	Number of Complete, Eligible Applications Received	Number Applications Funded	Dollar Amount Requested in Complete, Eligible Applications	Dollar Amount Funded
Federal Community Development Block Grant – Infrastructure (CDBG-I) <i>Awarded Spring 2020</i>	23	18	\$36.8 million	\$26.7 million
Asset Inventory & Assessment (AIA) Grants (funded from State Reserve Program) <i>Awarded Spring 2020</i>	129	31	\$17.4 million	\$4.4 million
Merger/Regionalization Feasibility (MRF) Grants (funded from State Reserve Program) <i>Awarded Spring 2020</i>	10	10	\$500,000	\$500,000
Wastewater Projects				
Federal-State Clean Water State Revolving Fund (CWSRF) <i>Awarded Fall 2019 and Spring 2020</i>	51	31	\$398.8 million	\$145.5 million
State Wastewater Reserve (grants and loans) <i>Awarded Spring 2020</i>		4		\$5.2 million
Drinking Water Projects				
Federal-State Drinking Water State Revolving Fund (DWSRF) <i>Awarded Fall 2019 and Spring 2020</i>	30	20	\$372.0 million	\$95.7 million
State Drinking Water Reserve (grants and loans) <i>Awarded Spring 2020</i>		0		\$0
Totals:	243	87 (*)	\$825.5	\$278 million

(*) The Spring 2020 approvals included one wastewater project that was fully funded through a combination of funds from two funding programs. These two projects are included in the total for each funding program but are not double counted in the overall total number of projects funded.

APPENDIX D

Water and Wastewater Infrastructure Projects Funded from January 2014 – February 2020

The figure displays the locations of over \$1.9 billion in loan and grant funds awarded by the Authority since the Authority began awarding funding in January 2014.

(MAP TO BE ADDED LATER)