

## APPENDIX

**Mr. Chairman, members of the Committee, first let me start by thanking you for the opportunity to testify today.**

My name is Emad Sidhom and I am the Director of Engineering of SUEZ in New Jersey. I have been with SUEZ for 22 years and I am a licensed professional engineer for over 25 years.

**We apologize that the SUEZ Team had to leave the last meeting early due to an emergency.**

The men and women of SUEZ NJ serve over 800,000 residents and businesses in Northern New Jersey.

I commend the New Jersey legislature for enacting this important law in 2017. The Water Quality Accountability Act is an example of good stewardship that other States should follow in leveling the playing field between public and private water purveyors. This will ensure that water systems are appropriately maintained and provide customers with water of the highest standards.

The program provides guidance and direction on system maintenance and operations of hydrants and valves, the necessity to develop a robust cyber security plan, communication about violations and corresponding mitigation methods, as well as the development of a system asset management plan.

However only consistent and uniformed enforcement of the act will guarantee that all systems are operating with the highest

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regard to public health and safety and compliance with the federal Safe Drinking Water Act.

Fortunately, for SUEZ, we have had numerous robust maintenance processes in place for many years prior to this act, in alignment with the American Water Works Association (AWWA) standards and procedures.

We believe that companies with the financial capability to support such robust maintenance and operating requirements, are better for the public good and the health of the vast number of aging and under maintained systems in New Jersey.

To give a little background on our assets under the WQAA, SUEZ NJ Division has:

- 2,200 +/- miles of water mains ranging from 4" to 96" in diameter
- 16,480 Hydrants that are tested annually.
- 29,600 Small Valves (Less than 12") each of which are tested once every four years.
- 4,020 Large Valves (12" and greater) that are tested every other year.

Additionally, SUEZ has replaced a total of 360 hydrants and 170 valves from January 2018 through August 2019. These assets are systematically updated in our GIS system as maintenance, repairs or replacements occur across our distribution system.

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But this is not the case everywhere. In December 2018, SUEZ acquired eight water systems and six sewer systems in West Milford. Unfortunately, these systems were dilapidated due to lack of infrastructure improvements, poor maintenance and inadequate staffing to operate the facilities. These systems had no usable maps, extremely poor maintenance and operations records and limited information on the locations of existing hydrants and valves. The failure to maintain these systems has led to water quality issues and challenges that we are currently addressing. For years, customers lived with discolored water, low water pressure and service outages.

For example, in one of the acquired systems with approximately 500 customers, a poor treatment process resulted in the tanks and pipes being filled with sediment. Since January 2019, we have identified and mapped the entire system, replaced or repaired close to one dozen hydrants and installed and operated numerous valves to ensure the system is operable. There is more work to be done as we strive to ensure all of these customers have safe, reliable water service.

The consolidation of public and private systems offers a solution to utilities that do not currently have the resources to maintain compliance. If there is enforcement, there is a solution for the consumers in NJ: several Investor Owned Utilities stand ready to meet the needs through consolidation in much the way we are doing in West Milford. It is our belief that enforcement often lacks when the DEP feel there is no alternative. We are here to help.

As it relates to the asset management plan, SUEZ is dedicated to delivering high quality water and services to our customers by developing and adhering to a comprehensive Asset Management Plan (AMP). SUEZ' AMP details the methodologies and strategies designed to ensure and safeguard asset integrity, water availability and water quality in the systems owned and operated by SUEZ for our customers within the State of New Jersey. The AMP defines physical assets life cycle activities, resources, responsibilities and timescales for implementing the asset management strategy and delivering the asset management objectives for both horizontal and vertical assets throughout its water distribution network. SUEZ' AMP has 5 main components with the following objectives:

- **Asset Inventory**
  - Defines asset qualification and frames asset register structure
- **Service Goals**
  - Defines goals, KPIs and benchmarks for water availability and water quality including NRW
- **Asset Condition & Criticality Analysis**
  - Defines means and methods for condition assessment and evaluating risk
- **Asset Life Cycle Cost**
  - Outlines asset life cycle cost strategy, methodology and justifications
- **Long-Term Funding Strategy**
  - Outlines SUEZ's long-term capital funding sources and priorities

**SUEZ also believes that the Act should continue to accept an engineering analysis in lieu of the 150 year replacement plan as a supplement to the work being performed in each system.** This is because as stewards of our system, we have a better understanding of how to prudently spend these dollars to support public health and system integrity, rather than an arbitrary requirement that forces the replacement of water mains that are in satisfactory working condition. A more pragmatic approach is beneficial to all stakeholders.

In order for SUEZ to comply with the 150 year replacement cycle of our water mains, we need to replace about 15 miles of mains each year. **Cost to replace a mile of 8" water main in Northern NJ is approximately \$2.65 Million, so the cost to replace 15 miles of 8" mains would be \$40 M per year.**

Depending on the town, location, diameter and depth of the water main, the cost can be drastically higher than \$2.65 M per mile.

For instance, if we are replacing a 42" diameter or larger deep concrete main, the cost per mile can be nearly eight times the cost to replace 8" main.

Based on the above, we respectfully recommend to you and the NJDEP that you should consider the complexity of the water system when determining the replacement frequency per year

given that different water systems can have a range of water main diameters and the investment required will vary significantly.

**We have to also be very sensitive to our ratepayers who have to pay for the Network improvements in addition to the expected massive cost to address the Lead issues, PFAS and emergent contaminant issues that face our state and the whole nation.**

In conclusion, Investor Owned Utilities are held to a stricter standard. Yet, Investor Owned Utilities are able to leverage resources much more efficiently, and quickly. We are in the field every day investing in our systems. The WQAA was enacted to ensure that all New Jersey residents and businesses are provided water of the highest quality and have reliable service. SUEZ believes that in order to ensure greater accountability, transparency and adherence to the WQAA, there needs to be parity in how both Investor Owned Utilities and public entities are treated.

**Again, thank you for the opportunity to testify here today and I look forward to see the work of the Committee in the future.**

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# SUEZ WATER REGULATED COMPANIES IN NEW JERSEY

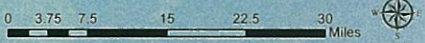
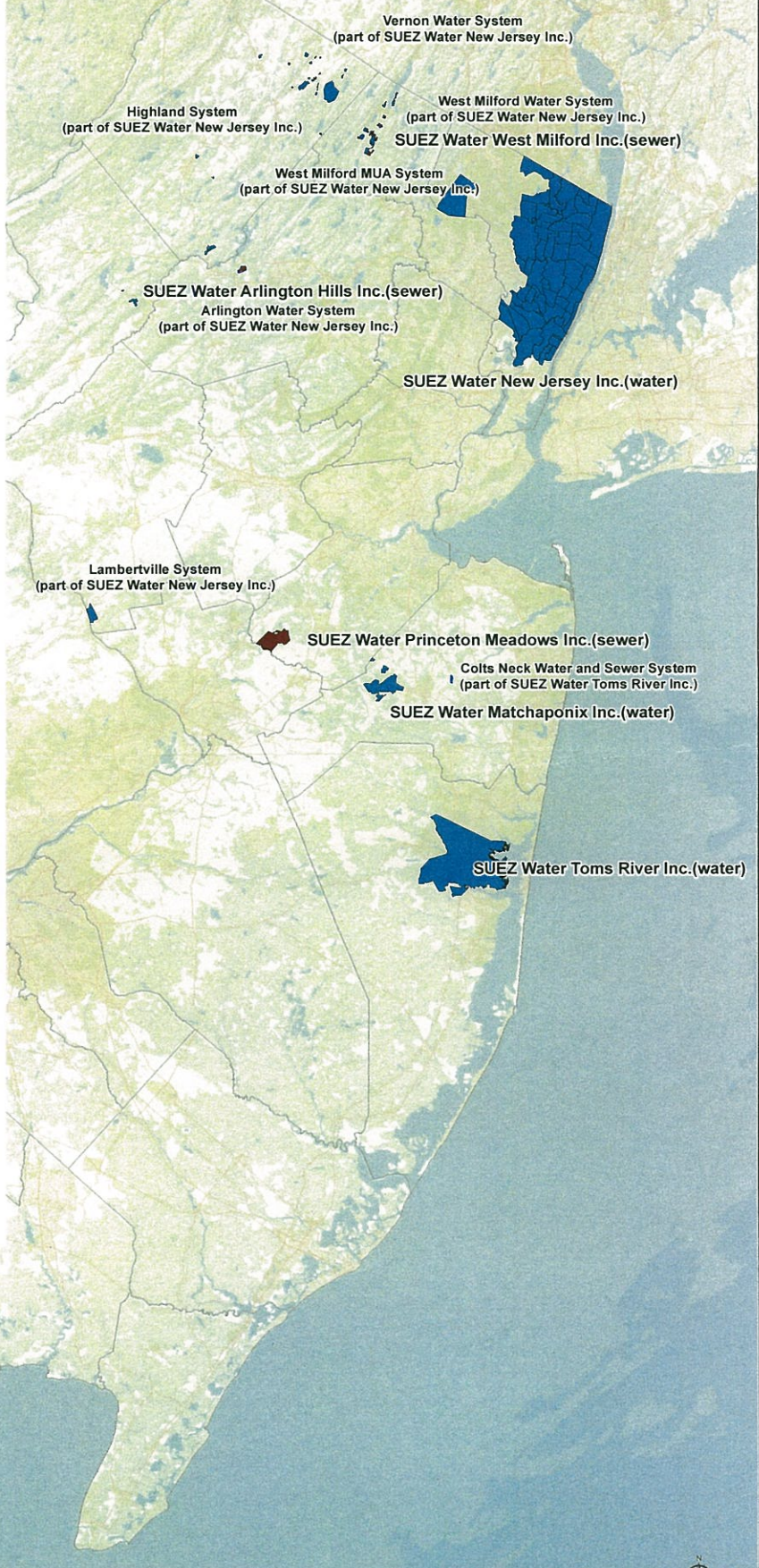


STATE OF NEW JERSEY - SUEZ REGULATED COMPANIES  
AS OF DECEMBER 31, 2018

## POPULATION OF TERRITORY SERVED

MUNICIPALITY	2018 ESTIMATE
ALBANY	1,847
BIRCHFIELD	26,764
BOKFELY	8,187
CAMDEN	8,127
CLIFFSIDE PARK	23,594
CLYBURN	8,373
CRANFORD	8,573
DE MARSH	4,881
DE MEUSE	17,479
EAST RUTHERFORD	8,913
EDGEWATER	11,513
EMERSON	5,981
ENGLEWOOD	27,147
ENGLEWOOD CLIFFS	5,281
FAIR LAWN	(B)
FARVIEW	13,835
FORT LEE	35,345
FRANKLIN LAKES	5,954 (A)
HICKENACK	40,810
HARRINGTON PARK	4,664
HENRIK CREEK	11,842
HANMOUTH	2,382
HILLSVILLE	18,219
LEONIA	8,937
LITTLE FERRY	18,626
LORD	184 (A)
MAHWAH	(B)
MAXWELL	9,555
MONTEALE	7,844
MOONACHE	2,788
NEW MILFORD	16,341
NORTH AVE	4,440
NOVEMBER	5,714
OLD FAPAN	5,750
ORADILL	9,778
PALMISTON PARK	19,822
PARAMUS	26,342
PARK RIDGE	(C)
RANNEY	(B)
RIDGEFIELD	11,882
RIDGEFIELD PARK	12,729
RIDGEWOOD	(B)
RIVER EDGE	11,140
RIVERVALE	9,659
ROSELLE PARK	5,538
ROSELLE	531
ST. HILDEROND	18,961 (B)
SANBORN	(B)
SOUTH BERGEN	2,378
SPRING LAKE	29,776
TENAFLEX	14,488
TETERBORO	67
TIPPERSVILLE RIVER	8,286
WALLINGTON	99 (A)
WASHINGTON TOWNSHIP	9,102
WESTWOOD	18,986
WOODCLIFF LAKE	225 (A)
WOODRIDGE	1,626
<b>TOTAL BERGEN COUNTY (WATER)</b>	<b>581,491</b>
GLITENBERG	11,176
HOBOKEN	0 (C)
SOUTH BERGEN	68,713
SECAUCUS	16,264
UNION CITY	66,455
WELLS RIVER	12,554
WEST NEW YORK	49,708
<b>TOTAL HOBOKEN COUNTY (WATER)</b>	<b>214,930</b>
WEST MILFORD	5,745 (B)
<b>TOTAL PASSAIC COUNTY (WATER AND SEWER)</b>	<b>5,745</b>
ANDOVER	82 (B)
IRVING	412
HAMPTON	758 (B)
Vernon Township	3,914 (B)
<b>TOTAL PASSAIC COUNTY (WATER)</b>	<b>5,258</b>
LAUREL SPRING	2,525 (B)
<b>TOTAL MORRIS COUNTY (WATER AND SEWER)</b>	<b>2,525</b>
Lambertville	3,396
West Amherst	288 (B)
<b>TOTAL HUNTERDON COUNTY (WATER)</b>	<b>4,262</b>
Independence	468 (B)
<b>TOTAL WARREN COUNTY</b>	<b>468</b>
Princeton Meadows (Sewer)	15,898
<b>TOTAL MIDDLESEX COUNTY (SEWER)</b>	<b>15,898</b>
TOWNSHIP OF TOMS RIVER (WATER)	98,717
TOWNSHIP OF BERKELEY (WATER)	26,626
MUNICIPALITY OF SOUTH TOWNSHIP (WATER)	3,727
<b>TOTAL OCEAN COUNTY (WATER)</b>	<b>121,124</b>
COLTS NECK (WATER AND SEWER)	842 (B)
<b>TOTAL MONMOUTH COUNTY (WATER AND SEWER)</b>	<b>842</b>
Matchaponix (Bulk Sales)	28,988 (B)
MANALAPAN (WATER)	8,888 (B)
FRIEDHOLM (SEWER)	37,900 (B)
<b>TOTAL MONMOUTH COUNTY (WATER)</b>	<b>37,900</b>
<b>GRAND TOTAL POPULATION SERVED BY SUEZ IN NJ</b>	<b>998,917</b>

- NOTES:  
 (A) COMMUNITIES PARTIALLY SERVED  
 (B) SUPPLIED THROUGH A MASTER METER  
 (C) NOT SERVED/SUPPLIED BY UNJ  
 (D) ESTIMATED POPULATION SERVED



**Prepared Testimony of John Hildabrant**

**President, Aqua New Jersey, Inc.**

**Before the New Jersey Senate Community and Urban Affairs Committee**

**Hearing on the Water Quality Accountability Act**

**Committee Room 4, State House Annex**

**September 25, 2019 at 10:00 AM**

On behalf of Aqua New Jersey, Inc. and our parent company, Aqua America, Inc., I would like to thank the Committee for the opportunity to appear today and provide you with my thoughts on the Water Quality Accountability Act. The Act is an important initiative in New Jersey, and I appreciate the opportunity to discuss it with you.

Before I move on to the Act, it might be helpful to tell you a little bit about Aqua New Jersey. Aqua New Jersey has been providing water service in portions of New Jersey for over one hundred years. The Company was created through the merger of several smaller water companies, and the acquisition of small privately-owned and municipal systems remains a significant source of growth for us. In 1999, our then-parent, Consumers Water Company, merged with Philadelphia Suburban Corporation, with the new company eventually operating under the Aqua America name. As a result of that merger, Aqua New Jersey is now part of the Aqua America corporate family serving eight states, and providing drinking water to three million people and wastewater service to 250,000. Aqua America is publicly traded and employees approximately 1,700 people. Aqua America is headquartered in Bryn Mawr, Pennsylvania, which provides Aqua New Jersey with ready access to all of the Aqua America personnel and resources.

Today, at Aqua New Jersey we collect, treat and distribute water to approximately 53,000 water customers. In addition, we collect and treat wastewater for approximately 6,000 wastewater

customers. We provide service to over two dozen municipalities located in portions of Warren, Hunterdon, Mercer, Burlington, Monmouth, Camden, Ocean, Sussex, Gloucester and Atlantic Counties, and serve a population of nearly 200,000. We are headquartered in Hamilton, New Jersey, and have a New Jersey workforce of 50 people. We are extremely proud of the work we do each and every day to make sure our customers and the communities we serve receive quality service at reasonable rates.

At Aqua New Jersey, we think the Water Quality Accountability Act is an important first step in making certain that public and privately-owned water suppliers are held to a consistent, enforceable set of standards and best practices. It may seem obvious, but customers of both public and private water systems are entitled to comparable quality service—yet as others have testified—that is not always the case. To my mind, the solution to this lies in enforcement of the Act, as well as other water quality standards. Without adequate, consistent enforcement, there will continue to be problems with poorly run and under-capitalized water systems. That said, I don't think appropriate enforcement is simply a matter of large fines. In fact, I think that is frequently counterproductive. Instead, when a system is struggling, it typically needs more resources, both technical and financial. Given this, I would encourage the Committee to consider how it can help struggling systems.

There are a few specific elements of the Act that I think are particularly important. The first is the Asset Management Plan requirement. At Aqua New Jersey, we have been doing asset management plans for a number of years as a way to identify and prioritize our capital investments. Just like everyone else, we have a limited budget and we want to be sure we are investing in our system in a way that gets the most value for those dollars. A comprehensive plan helps us to do that.

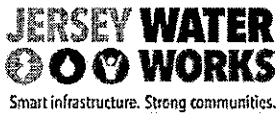
In addition, we are required to prepare a Foundational Filing in connection with implementing the Distribution System Improvement Charge or “DSIC.” The Foundational Filing is another tool for the Company to use in planning its capital investments. I know President Fiordaliso and Commissioner Holden of the Board of Public Utilities previously testified about the DSIC, but I think the DSIC is an excellent example of how thoughtful and fair regulatory policy can help to achieve significant public policy goals. At Aqua New Jersey, we have invested \$72 million in DSIC-eligible investments since 2012. Over the term of the DSIC, the average monthly customer charge was \$2.52. As a result of these investments, we are experiencing fewer main breaks and lower lost and unaccounted-for water. These results improve service to customers, save money, and save valuable resources. Moreover, our system replacement cycle went from 400 years in 2011 to 150 years in 2018. Improvements in unaccounted-for water and the system replacement cycle are a focus of the Act, and the investor-owned utilities are already seeing some of those improvements as a result of smart regulatory policies like the DSIC and legislative initiatives like the Act.

Similarly, the investor-owned utilities have been working on hardening their control and other systems against cybersecurity threats for many years. Here, too, the Board of Public Utilities has provided significant leadership, and Aqua New Jersey has complied with the Board’s directives. Given the very real threat that cybersecurity vulnerabilities represent, it is important that all water suppliers subject to the ACT comply with this requirement.

I would also like to comment on the certification requirement. As others have testified, I think the certification requirement will help to focus the attention of individuals responsible for operating systems on identifying and planning for system needs. As the executive responsible for

making Aqua New Jersey's certification, I am definitely aware of the Act's requirements and making certain the Company is fully compliant.

I want to keep my remarks brief today, but I would like to again thank the Committee for the opportunity to appear today. I would be happy to answer any questions. Thank you.



## TESTIMONY

### Testimony on Water Quality Accountability Act Senate Community and Urban Affairs Committee

September 25, 2019

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**Contact:** Ed DiFiglia, Program Manager  
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Thank you Senator Singleton and the rest of the committee for this opportunity to share with you some thoughts and comments from the Jersey Water Works collaborative. Jersey Water Works is a collaborative of over 530 members made up of public utilities, investor owned utilities, state regulators, environmental groups, community groups, engineers, consultants, and nonprofits. I have the pleasure of serving as the backbone staff to the collaborative, a role which is similar to the committee staff who assist this committee.

I am here today to share Jersey Water Works priorities as they relate to the Water Quality accountability Act.

**The Water Quality Accountability Act is an important tool that, if regulated and enforced appropriately, can help break the cycle of costly emergency repairs and underinvestment and instead lead to sustainable, planned investments, maintenance and upgrades in our drinking water systems.**

The members of Jersey Water Works have a common objective: transforming New Jersey's inadequate water infrastructure through sustainable, cost-effective solutions that provide communities with clean water and waterways; healthier, safer neighborhoods; local jobs; flood and climate resilience; and economic growth. We work to achieve this by focusing on a number of shared goals. I have included a list of all our goals, but the ones that most impact drinking water systems are:

- **Maintaining Systems:** Utilities and departments maintain drinking water, wastewater and stormwater pipes and other water infrastructure assets to efficiently and effectively reduce leakage, emergency repairs and other impacts.
- **Wise Management and Spending:** State requirements, metrics and incentives along with utility policies ensure that utilities and departments implement water infrastructure asset management programs fully, with sufficient operating budgets and capital investments to deliver required and desired levels of service while minimizing life-cycle costs.
- **Adequate and Fair Revenue:** Utilities and local governments raise the funds required to make appropriate capital investments and ensure proper operation and maintenance in a cost-effective, equitable manner that treats ratepayers fairly. Programs are authorized and established to ensure affordability. Stormwater utilities and stormwater fees are authorized statewide and widely implemented.

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- **Transparent Water Systems:** Utilities provide, and state agencies publish, simple metrics of system condition and utility finances that aid in public understanding of utility management and status.

Those goals can be distilled down further. We want to see systems invest wisely, maintain those investments, and make sure that the people they serve know what's going on.

Jersey Water Works issued a report in 2017 titled "Our Water Transformed" that identified three priority areas for addressing our water infrastructure needs:

- Robust asset management to enable water utilities to deliver the optimum level of service with the most community benefits at the lowest lifecycle cost.
- Educated stakeholders so that ratepayers and rate setters, consumers, and policymakers can understand the value of investing in water infrastructure and the peril of deferring maintenance.
- Government funding initiatives to provide loans and grants to help implement asset management and upgrade systems.

In these areas, New Jersey not only has the most need, but also the most capacity for improvement. The Water Quality Accountability Act could help advance all of them.

Many drinking water systems run well. You can turn on the tap, pour a glass of water, and be confident in what you're drinking. But that's not the case in every town. We know that Newark is dealing with a lead crisis right now. So is Bordentown, Bergen and Hudson counties and over one hundred other water systems across the state. And that's just lead. Hoboken has been struggling with water main breaks for years. South River's entire system failed. Not a week goes by in New Jersey without another town's water system requiring some form of emergency repair that disrupts the daily lives of residents.

The first step is having a firm grasp on just where our water systems are in terms of investment and maintenance. The Asset Management and Finance Committee of the Jersey Water Works collaborative has a list of suggested metrics that they believe will adequately measure the health of a given system while not overburdening the staff at the utility that has to report on it or the staff at DEP that has to review it. Regulations benefit no one if they are not enforceable. Some of those suggested common sense metrics are:

- **Water loss audits.** How much treated water is lost due to old, leaking pipes? Estimates range up to 130 million gallons per day. Understanding how much treated water is lost each day will help provide a better view of how much it costs not to maintain and upgrade systems, as well as identifying areas of greatest need for repairs and replacement.
- **The number of leaks and breaks per mile (or 100 miles).** Similarly to the amount of water being lost, establishing a baseline of just how many places it is being lost from can help identify the areas in need of replacement, as well as giving an overall picture of the health of the pipes in the ground.
- **Capital expenditures.** Under the WQAA, three years of capital projects must be reported. A rolling multi-year average (three to five years) may be appropriate here, given that a slight delay may shift a project into the next fiscal year. The state should require reporting on capital budget

and capital expenditures (on planned and unscheduled or unplanned) projects for the past five years.

- Water system value. Related to capital expenditures is an ongoing assessment of net capital value of the system, which would serve as an indicator of the balance between investment and structural decline. While many individual assets may render proper service well beyond the average service life used to develop financial depreciation rates, the Original Cost Less Depreciation (OCLD) value of the system should be tracked. Assets will be recorded to the utility asset register at original cost and depreciated using acceptable depreciation methods. At least annually, retirements and additions to the asset register will be made to reflect changes in the net value of the system.
- Spending on emergency vs. planned capital projects. Costs and cost trends for implemented emergency repairs relative to implemented planned capital projects, which could initially be reported from work orders as a proxy for costs. This would define, and require consistent use of those defined terms, how costs are identified as emergency repairs (unplanned capital projects) and planned capital projects. This KPI differs from the Capital Expenditures KPI in that it allows tracking both types of costs with the expectation that well-managed systems will either have or progress toward a low rate of emergency relative to planned capital project costs.

Jersey Water Works is committed to improving our state's water infrastructure, and we thank this committee for taking the time to investigate how we can better use the Water Quality Accountability Act to do just that.

## **New Jersey Sierra Club Testimony Synopsis**

*Senate Community and Urban Affairs Committee hearing on "Water Quality Accountability Act."*

The law is important to address the state's crumbling water infrastructure. Under this law, if there is a series of violations exceeding the safe drinking water standards, then they have to come up with a plan to mitigate for the problems and start to fix them. The law also calls for water companies to assess the systems and then develop plans for replacing mains. What we need to do with it. It is critical for these assessments because it allows us to learn from them, where to fix certain programs, or what new laws or policies need to be implemented. We thank Chairman Singleton for holding these hearings to take a look at our water system throughout the state.

We have a crisis in New Jersey when it comes to drinking water and crumbling infrastructure. It is not just about New Jersey's water quality, its water quantity and infrastructure. During drought years, New Jersey could run out of water because we don't have enough capacity in our reservoirs to hold enough water to meet our demands in the state and our streams and rivers are too dirty to drink from. For example, the Passaic River is 90% sewage water.

We need the DEP to hold people accountable to fix our water systems. Newark is an example of the ongoing lead crisis we have in New Jersey. This is a public health emergency putting people at high risk. This is not just happening in Newark, we have incidences of lead happening across the state in areas like Paterson, Camden, Morristown, and in 30 towns in Bergen County. Children are particularly vulnerable to brain damage and permanent developmental problems from even small amounts of lead. We need a minimum of \$2.3 to 8 billion statewide to fix our lead problem. We cannot settle for smaller Poland Spring measures that do not do enough to reduce these dangerously high lead levels. We need to protect our most precious resource, which is our children.

DEP needs to have more and stricter oversight on our water system. Currently, oversight is extremely lax where water companies do not adequately send test results and if they don't, there is no enforcement. A lot of things get overlooked. For example, rat poison was dumped into the

Wanaque Reservoir. DEP tested the reservoir to make sure none of it leaked, however a wells in the town in Ringwood that was part of the reservoir was not tested for 6 months. We need more enforcement by the DEP to make sure our water is protected.

The legislature need to come up with funding for water plants, sewer treatment plants, and to fix our storm water system. Fixing water system will cost over \$46 billion dollars. We need to come up with other sources of long-term funding for our water supply, such as water fees or impact fees from development. The legislature also need to use their oversight role to make sure the law is being followed, assessments are made, and people are held accountable to clean up our drinking water. DEP need to replace Christie's rules, they need to adopt the strongest standards that protect our drinking water from harmful chemicals. Our environment is changing, therefore we need to adjust, adapt, and be prepared. It is too important for too many people. Our water is not only essential for us but the vital source of our keeping New Jersey's industries going.

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Taylor McFarland  
*Community Outreach Coordinator*  
New Jersey Sierra Club

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Senate Community and Urban Affairs Committee Hearing - 9/25/19

*Drinking Water Coalition of New Jersey*

Outline of Comments by Richard Calbi, Chair and Michael Drulis, Coalition Member/Director

**Biographical Information:**

**Richard Calbi** is a founding member and Chair of the Drinking Water Coalition of New Jersey. He is also the Director of Ridgewood Water. He is a licensed professional engineer and professional planner in the State of New Jersey.

**Michael Drulis** works to advance public policy in the area infrastructure particularly in the area of clean drinking water for public water systems. He is also a leader for NJ's premier business and labor coalition, NJ SEED.

**Abstract:**

The Drinking Water Coalition of New Jersey will share the perspective of publicly owned utilities and authorities and their varied experiences and progress as it relates to the WQAA. The coalition will discuss how these utilities fall on a spectrum of ultra-modern and efficient to dire need of upgrades and all points in the middle.

The Coalition will provide an example of a successful public utility that was positively impacted by the WQAA and where the Act may also be improved. We will also provide, for committee consideration, new funding mechanisms and concepts to bring all utilities up to a minimum standard and produce exceptional drinking water state-wide.

**COMMENT OUTLINE**

- Greeting and Introduction
  - Who is the Drinking Water Coalition of New Jersey (Coalition)
  - What the Coalition does
  - Difference between publicly and privately-owned utilities
- How the Coalition has advanced the WQAA to its members
- How the WQAA can be accomplished in a public utility
  - Success story of Ridgewood Water
- WQAA - What works and what needs refinement
- New funding for drinking water infrastructure
  - Dedicated Water Allocation Fees
  - Implementation through the NJIB
  - Qualifying factors
- Investment – Grants for higher education treatment innovation and workforce development
- Plan to move forward

Submitted by Michael Drulis, Drinking Water Coalition of New Jersey

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Senate Community and Urban Affairs Committee Hearing on 9/25/19

*Drinking Water Coalition of New Jersey*

DRAFT Comments by Richard Calbi, Chair and Michael Drulis, Coalition Member/Director

**Biographical Information:**

**Richard Calbi** is a founding member and Chair of the Drinking Water Coalition of New Jersey. He is also the Director of Ridgewood Water. He is a licensed professional engineer and professional planner in the State of New Jersey.

**Michael Drulis** works to advance public policy in the area infrastructure particularly in the area of clean drinking water for public water systems. He is also a leader for NJ's premier business and labor coalition, NJ SEED.

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Good morning Chairman Singleton and members of the Senate Community and Urban Affairs Committee. My name is Michael Drulis and I am here today as a member of the Drinking Water Coalition of New Jersey along with its Chair, Richard Calbi, also the Director of Ridgewood Water.

The Drinking Water Coalition of New Jersey is a group of municipally-owned water utilities and authorities, along with organized labor, business associations, and environmental groups that have come together to create the Coalition. The coalition works in concert to educate policy leaders on the specific needs and services provided by its members. As an active member in the clean drinking water community along with partners like the American Water Works Association and Association of Environmental Authorities, the coalition fills the gap created between for-profit water providers and governmental entities.

As you have heard from many before us, an aging water infrastructure, growing list of emerging contaminants, and lack of funding not only threaten the viability of municipally-owned water utilities, but the health of New Jersey's residents. To that end, the Coalition has convened state, county, and local policymakers as well as the Administration and legislative staff for evidence-based forums to advocate for sustainable solutions.

The coalition works in support of all private and public water utilities, but is most interested in matters that effect publicly owned utilities. These public utilities can be placed on a spectrum with some of the most modern state of the art water systems on one end, systems in dire need of modernization on the other and most others somewhere in the middle. The biggest difference between public and private systems is that private systems have the ability to raise capital for modernization through a state wide rate/tax. Publicly owned utilities are often confined to only the geography and the socio-economics of said geography in which they service.

The Coalition has been working with all of our public water systems to advance compliance on the WQAA. We believe that only through the implementation of the WQAA will all water systems reach a basic and acceptable level of operation and advancement. This knowledge and assistance comes mostly from Richard Calbi's experience of reforming Ridgewood Water- a water system that within a three year time period went from numerous EPA/DEP citations to being a model water system providing guidance

and leadership in the clean drinking water space for other utilities and regulating entities. In other words, it can be done and with the right amount of time, knowledge, capital and leadership, almost any NJ publicly owned utility can modernize and flourish.

At this point I'd like to turn it over to Richard Calbi.

My name is Richard Calbi and I am Director of Ridgewood Water. I am also licensed professional engineer and professional planner in the State of New Jersey.

Ridgewood Water (RW) services over 62,000 consumers, including large users like Valley Hospital. To provide clean drinking water to such a large population, RW utilizes over 50 fresh water wells in Ridgewood, Glen Rock, Midland Park and Wyckoff from the Brunswick Water Aquifer. Well water is treated at thirty-one different points of entry in our decentralized system. This is quite different than treating surface water (reservoirs) where there is generally a single point of treatment in the treatment facility. RW is a publicly owned utility by the Village of Ridgewood in Bergen County.

I'd like to share with you how Ridgewood Water has gone through a modernization while achieving compliance with the WQAA.

#### Administration of WQAA

- Compliance with any new act/rule requires time and money. The WQAA came at us promptly in the fall of 2017 and we had to increase funding requests in the 2018 budget to cover the immediate and future needs. We had to deal with WQAA compliance, while balancing Safe Drinking Water compliance, an expeditious capital investment plan to meet EPA sanitary survey requirements, a Ground Water Under the Direct Influence of Surface Water Study, and remediation of a 2012 lead and copper exceedance.
- During all of this RW found the best method to achieve success was to maintain transparency with the public and governing bodies of the municipalities we serve. Additionally, RW sought to develop a relationship with NJDEP and other water community stakeholders to give public utilities a place in the discussion on regulation and compliance. Thus we created the Drinking Water Coalition of NJ.
- RW has expended rate payer funds to hire additional staff, consultants, contractors and equipment, required for compliance.
- Water priorities were shifted to give priority to the act requirements, specifically valve turning and asset management.
- Although the best laid plans have been made for compliance, they have unfortunately been overshadowed by the utilities need to be ahead of emerging contaminant rules and treatment requirement that will far more exceed the costs of WQAA.
- With this in mind, asset management plans need to be holistic and consider not only pipes, hydrants and valves, but future treatment needs. A clear picture on emerging contamination regulation would help utilities to map this out and avoid investment on technology that may not work for tomorrows contaminant.

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- Fortunately, RW was positioned to jump into the WQAA requirements quickly. Since, RW has an obligation to fire protection and provide a paid for service, we had already been inspecting hydrants on a yearly basis. We had a valve turning machine, but discovered its limitations and hired a contractor to handle all valves 12” and larger. RW has a mapping division maintain the distribution system assets, but needed to expand the staff to make the data survey accurate, include the source and treatment asset details and maintain our records. RW has an IT department, but needed to hire an independent auditor to verify the security of our network.
- RW will be taking the engineering analysis approach to preparing our pipe replacement plan. We feel it is important to not only consider pipe age, but the number of breaks in the area, criticality, soil conditions, system pressure, and the time frame the pipe was manufactured during. We are finding some of the older pipes are in better condition than the younger ones.

#### Implementing the WQAA

- The Drinking Water Coalition views the WQAA as the “basics” for a utility
- Larger public utilities have more options to raise or borrow money in order to become complaint with the WQAA quicker
- Those who can, have already made strides particularly in valve exercising and asset inventories.
- More has been done in the last year than may have been done in the previous 15 years in these areas for some utilities
- Smaller utilities may lack the necessary rate base and will need guidance and assistance from a plethora of government agencies from all levels in order to bring themselves up to a standard. The driving factor in all cases being time and money.
- The Coalition has been advancing the WQAA among its members while at the same time tackling the problem of emerging contaminants – an issue that will make the costs associated with the WQAA very small in comparison
- My testimony thus far covered what has worked with the WQAA
- Here is what needs consideration for possible refinement
  - Compliance documents and guidance coming from the authorities are slow to be produced but deadlines in the law haven’t change
    - These documents are important because they are the documents that we need in order to make plans in order to be compliant
    - Keeping in mind that any capital project can take up to four years from conception to operation in a water system.
  - Now that the WQAA program has been in place, time lines should be reconsidered based on practicality and field operation of these requirements. For example, once RW completes its valve turn program, it now needs to go back and start again, even though it may not be necessary to do so yet.

I will now ask Michael to talk a little bit about our proposed funding solution-

Many have spoken before the committee about a Water Trust fund or the value of the NJIB. And the NJSLOM has done a great job at the last hearing discussing the power of municipal bonds. The coalition would like to recommend a stable and dedicated funding source that could be an immediate funding solution for NJ’s water infrastructure.

Water utilities and developers in New Jersey pay allocation permit fees to the New Jersey Department of Environmental Protection based on their approved monthly allocation/diversion of raw water from groundwater and surface water for the purpose of treating and delivering drinking water to local consumers.

These fees are a cost before all other costs that are distributed among the consumers by being reflected in their base water rate. This permit process governs the raw water allocation of both publicly and privately-owned utilities. Allocation fees are set by the volume of water permitted for diversion per month.

For example, Ridgewood Water paid allocation fees to tap into the Brunswick Aquifer, from which it is permitted to withdraw up to a maximum of 449 million gallons per month to treat and then distribute to its customers. The allocation fee for Ridgewood Water therefore amounts to \$.112 per thousand gallons or \$50,265 in total per year. The utility then sells the water to their customers at \$4.83 for the same thousand gallons.

If the water allocation permit fees were modestly raised to an adequate level, they could provide enough capital to the NJIB for a special fund to subsidize loans and grants for utility modernization and contaminant mitigation. These funds should be provided to those who can demonstrate financial need based on the condition of their utility, the ability of their rate base to recoup costs and the impact of dangerous contaminants present in their raw water source or legacy distribution network.

The NJIB should be empowered to use their financial background and expertise in the utility space to provide some type of score card or rating for utilities based on their WQAA readiness and other priority factors.

These factors may include:

- Demonstration of a compliant water asset inventory
- Demonstration of an adequate 5-year utility master plan showing solvency with an accompanying revenue/rate plan
- Utility has a qualified consulting or in-house engineer co-signing on major capital decisions and can provide direction for operational planning.
- Smaller, distressed, utilities should be considered candidates for regional consolidation rather than sale and be provided tools to assist
- In some cases, proof of contamination from DEP/EPA's list of regulated and unregulated contaminants

In addition to cashing up the NJIB, money from this water allocation fee should also be invested in NJ's higher education in the form of grants to expand research in innovation for water treatment and distribution technology and accelerate the much-needed workforce development for water utilities.

Grants and subsidized loans received from NJIB would not be considered "collateral sources" under New Jersey law. To the extent a water provider has relied on the NJIB to add treatment to its system, damages recovered in litigation against polluters could be used to reimburse the grant fund.

The Coalition has brought this idea to numerous stakeholders in multiple levels of government and in the business and labor communities, all of which find it of great interest and willing to work to advance it.

The Coalition would gladly work with this committee to bring this idea to reality and immediately provide the necessary cash to the NJIB to fund much needed water infrastructure projects, jobs to the NJ Business and Labor community, long term stability to our publicly owned water systems and most importantly, predictability for safe drinking water for today and years to come.



**Testimony to the Senate Committee on Community and Urban Affairs  
Water Quality Accountability Act and Related Issue**

**Daniel J. Van Abs, PhD, PP/AICP**

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Chairman Singleton and members of the Committee, I thank you for the opportunity to discuss the ongoing implementation of the Water Quality Accountability Act (WQAA) and linked issues of drinking water infrastructure. These issues also apply in many ways to wastewater and stormwater infrastructure, and all are fundamental to the functioning of our economy, protection of our environment, and support of our urbanized society. As others have mentioned, expanding the law to address wastewater and stormwater would benefit our society.

Please note that I am speaking in my personal capacity as a water management expert and am not representing Rutgers University or any other entity. My career in the water resources management field includes more than 38 years in the non-profit sector, state government and now Rutgers. During my state service, I supervised both water supply and wastewater management planning, among other programs. I serve as a Governor's appointee and past chair of the New Jersey Clean Water Council, and am a Steering Committee member for the Jersey Water Works collaborative. In addition, I am pleased to note that Governor Murphy has nominated me to the Highlands Water Planning and Protection Council.

The WQAA is a major step forward toward cost-effective management of our drinking water utilities. Well-run systems have had no significant problem complying with the act, while others are clearly a work in progress, at best.

Even so, we should be clear that **the WQAA goal is to bring our drinking water infrastructure to where it should have been anyway**. In other words, the act should not have been needed, but responded to inadequate management practices. This limited goal is not sufficient in a time when we are rebuilding our urban areas, facing climate change impacts and trying to create a more equitable society. I will return to this point later.

The WQAA promotes cost-effective maintenance of utilities that, in all too many cases, did not adequately invest in maintenance and replacement. One result will be significant near-term increases in costs, especially for many of our smaller utilities. Most of these small systems are government-owned, often as municipal departments but sometimes as utility authorities. We should expect that some local governments will decide to exit the drinking water business, because the costs and management complexity are too great. They may seek to merge, sell or lease their systems.

I am agnostic when it comes to water utility ownership – public, private or investor-owned – as long as customers are being provided with quality service from well-maintained utilities using cost-effective asset management supported by fair and equitable rates. Top executives in investor-owned utilities tell

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me that middle to large government-owned utilities *should be* able to achieve the same quality of results as investor-owned utilities. Whether they do so is a separate issue.<sup>1</sup> The larger problem is with the small systems, as emphasized by my colleague Dr. Emanuel Teodoro, who spoke on September 10 of the correlation between small utility size and poor Safe Drinking Water Act compliance.

New Jersey is heading for a period of consolidation as small private companies and governments with small systems give up. Consolidation of publicly-owned utilities makes great sense, such as a county utility authority that manages multiple small systems. However, we should all recognize that our laws are biased toward the sale of small systems to investor-owned utilities. Mergers bring no money to municipalities, but selling the utility does. Which would you choose, as an elected official? One result is that the sale of and upgrades to purchased systems are **subsidized by the other customers** of these investor-owned utilities, a point rarely mentioned. Rates also go up for customers of the purchased system, but perhaps not as much as if they paid for all improvements themselves. That kind of rate comparison is rarely part of the discussion, by the way.

Further, the sale often benefits property taxpayers, even though nearly all value of water systems was created by its ratepayers. In many municipalities, property taxpayers and ratepayers are overlapping but very different populations. For example, schools and religious institutions pay utility costs but not property taxes. Rural landowners pay property taxes but not utility costs. As a result of utility sales under the current system, those who benefit are not always those who pay, and vice versa. There is no equity in this process.

The Legislature should evaluate why such an uneven playing field exists, and consider statutory changes that will place publicly and privately owned utilities on a competitive level for consolidation in a way that is fair to ratepayers.

One potential problem with the WQAA is that it lacks sufficient metrics for determining whether utilities have developed and are implementing good asset management programs. I was closely involved with drafting the recommendations to NJDEP endorsed by Jersey Water Works and the NJ Chapter of the American Water Works Association. Chris Sturm of New Jersey Future mentioned this on September 10. NJDEP is in the process of developing regulations for WQAA implementation. We may see metrics in those rules, but the act itself is relatively silent other than provisions for exercising valves and establishing a 150-year pipeline replacement schedule.

The 150-year replacement cycle, by the way, is not clear enough. If a utility has 50 percent of their pipelines currently in need of repair or replacement, replacing them on a 150-year schedule is entirely inadequate. More appropriate would be a requirement to bring the entire pipeline system up to a point where future rehabilitation and replacement is based on a time period appropriate to the types of pipeline materials used (not necessarily 150 years). Catch up first, then move into a routine cycle.

The critical question we face is whether the WQAA achieves any measurable changes in asset management, or becomes a paper exercise where systems do nothing different. The law requires that the highest priority projects be funded and implemented, but it provides no certainty that utilities won't game the system simply by defining few capital projects as high priority. Recent efforts through Jersey Water Works to identify and track capital expenditures by municipal water departments encountered

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<sup>1</sup> See also the NJ Spotlight op-ed piece on Monday by Dennis Doll, CEO of Middlesex Water Company.

major difficulties in accessing budgets and audits, and in determining from available information the extent to which capital project budgets were actually expended. The Department of Community Affairs testified on September 18 regarding their Financial Automation Submission Tracking ("FAST") System. This is a step in the right direction, but standardization in how budget and expenditure information is provided will be critical. New Jersey should be able to track annual information and trends in utility net worth, capital budgets, capital expenditures and future capital needs based on asset management plans. Being able to look back in time, for trend analysis, is also important.

The WQAA exempts the smallest systems, those with less than 500 service connections. These systems serve a very small percentage of New Jersey residents, and including these systems would increase NJDEP's administrative burdens for NJDEP. Still, the law exempts the systems most likely to have problems achieving SDWA compliance and proper asset management, as discussed by Dr. Teodoro. New Jersey has a large number of very small public community water systems, nearly half of the total (260 of 547). Once the results of the current WQAA are clearer, perhaps in two years, the Legislature may want to consider extending the law to these smallest systems.

New Jersey needs to better address the issue of affordability. Water and sewer rates in New Jersey and nationally have been growing faster than the rate of inflation (the Consumer Price Index) since 1980. These costs now can be a major fraction of household budgets for low and moderate income households. Further increases are likely as New Jersey replaces much of its water infrastructure in the next 20 years. New Jersey needs to develop a consensus method for assessing household affordability, put laws in place that allow utility affordability programs, and determine whether a statewide approach is needed, similar to the Low Income Household Energy Assistance Program (LIHEAP).

Finally, let me return to an earlier point. New Jersey was developed mostly in a time of low energy prices, good prosperity and no awareness of climate change. Now we are among the oldest states, from a development perspective, and must rebuild in a new era. Getting our infrastructure in shape is useful, but not sufficient. We must rethink how we get, manage, use and reuse water resources, and that thinking must be within the context of New Jersey's revitalization and redevelopment. The state planning process is more critical than ever, to make best use of limited resources for a better society that can address the major issues it faces.

Thank you again for this opportunity to speak before you. Please feel free to call upon me if you have any questions.

#### **Summary of Recommendations (In Order Presented)**

- Consider expansion of the WQAA approach to sewer and stormwater utility systems.
- Determine and implement methods for ensuring that consolidation of water systems is equally feasible through public to public, public to private and private to private mergers and acquisitions.
- Ensure that ratepayers are fairly treated during any mergers or acquisitions, so that the benefits accrue to ratepayers rather than others who did not financially support the utility.
- Revise the 150-year pipeline replacement cycle to emphasize the need to upgrade first, and then establish a replacement cycle based on pipeline materials and construction methods.

- Provide clarity and transparency in financial reporting, allowing trend and status analysis.
- After three to four years of WQAA implementation, consider expansion to the smallest systems.
- Develop and implement household affordability assessments and programs.
- Restart and refocus the State Development and Redevelopment Plan process to address long-term revitalization and redevelopment needs that recognize the fundamental need to revitalize New Jersey's developed areas, including infrastructure, climate change, demographic, social equity, economic and environmental issues.

*JLax*



# AWWA New Jersey

American Water Works Association

**Re: Public Hearing by the Senate Community and Urban Affairs Committee on the Efficacy of the "Water Quality Accountability Act"**

**Date: Wednesday, September 25, 2019**

**Location: Trenton, NJ – Committee Room 4 of the State House Annex**

**Testimony by: Stephen Blankenship and G. Christian Andreasen on behalf of the New Jersey Section of the American Water Works Association**

Dear Chairman Singleton and members of the committee, thank you for inviting the New Jersey Section of the American Water Works Association (AWWA NJ) to speak on the efficacy of the Water Quality Accountability Act (WQAA) today. My name is Stephen Blankenship, Executive Director of the Hamilton Township MUA (Atlantic County) and current Chair of AWWA-NJ's Infrastructure Management Committee, and with me is G. Christian Andreasen, Vice President of Engineering for Middlesex Water Company and current Director of AWWA NJ.

AWWA NJ is an association consisting of more than 1,200 New Jersey based members representing utilities (both public and investor owned), licensed water operators, engineers, academics, and other allied water and wastewater professionals. We are a leading authority in drinking water issues throughout the State of New Jersey.

Most New Jersey residents are fortunate that the level of service provided by their utility allows consumers to be able to get safe water service from their tap, 24 hours a day/365 days per year, with minimal outages and at a reasonable cost, especially when associated compared to bottled water, or monthly costs for cell phone, internet service, cable TV, or other services.

Recent developments have once again heightened awareness of the value of safe drinking water, the extent of operations and assets that are necessary to provide this level of service to customers, and importance of capable professionals and regulatory agencies to deliver this service and assure protection of public health. Reinforcing these needs that are required for the proper operation and sustainability of water utilities through diligence, proper regulatory oversight, and transparency is necessary and welcomed by our industry. The Water Quality Accountability Act (WQAA) helps with these objectives and is a step in the right direction. Many requirements reinforce and require best practices for the operation of water utilities regardless of ownership, and are supported by AWWA NJ.

Many of the State's water utilities are providing high quality drinking water to their customers and are complying with monitoring and treatment requirements for currently regulated

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contaminants, and are routinely reporting this information to the public. These utilities, consisting of both investor and publicly owned utilities are also complying with the WQAA, or are taking steps to come into compliance with it. Utilities complying with WQAA will continue to take the necessary steps to address New Jersey's aging infrastructure now and into the future. By complying with the WQAA, utilities and responsible officials can and will increase the public's awareness of issues facing water systems, and increase public confidence in our State's water supply infrastructure.

Investment in the State's water infrastructure has been and will continue to be a challenge. The public is very sensitive to the increase of water rates, which has resulted in generally underfunding necessary improvements for long term operation of utilities. The WQAA is a step in addressing that challenge as it requires utilities to determine and project the costs of rehabilitating and/or replacing their water infrastructure for continued sustainability of the systems into the future for next generations.

AWWA NJ supports the WQAA and its use of asset management principles and planning for infrastructure rehabilitation/replacement, operations, and maintenance. For present and future customers, the utilization of asset management principals is aimed at providing an agreed upon level of service in the most cost effective manner. It should also be noted that customers and regulators are requesting increasing levels of service. Examples of this include newly identified contaminants that require additional treatment systems for their removal; added work related to the replacement of pipes and assets; increasing construction requirements pertaining to traffic control and disruption, road restoration, and measures to reduce the overall inconvenience to customers. All of these activities add to a utility's overall cost of providing water service.

In order to address the required infrastructure investment, a significant amount of funding will be required. A study by American Water Works Association (AWWA) determined that restoring existing water systems as they reach the end of their useful lives and expanding them to serve a growing population will require a capital investment of at least \$1 trillion over the next 25 years if the just current levels of service are to be maintained. The needed capital investments, along with prudent operating and maintenance expenses needed for the effective operation of a water system are typically recovered (and should be recovered) through a customer's water utility bill that adequately reflects the full cost of providing the water service to the customer (also known as full cost pricing). This means that water rates should be sufficient to recover the O&M expenses and costs associated with capital investment, AND not be used to subsidize other uses beyond the utility.

In New Jersey, there are generally three (3) types of water utilities that are represented by the AWWA NJ with different processes for approving water rates. They are:

- Public Utility Department as part of, governed, and owned by the local municipality government, where rates are typically set by the local municipal governing body.
- Public Utility Authority or Commission that is owned and governed by a specific Authority or Commission governing board (that may be affiliated with a local municipal or regional government entity), where rates are typically set by this governing board.

- Investor Owned Water Utilities (also referred to as Private) where rates regulated and approved by the New Jersey Board of Public Utilities.

All water utilities, whether public or investor, are subject to the same federal and state regulations with regards to water quality and standards described earlier in this testimony. AWWA NJ supports equal treatment of all public community water systems under the WQAA, regardless of public or private ownership.

The following recommendations are made by AWWA NJ to improve upon the WQAA and to ensure adequate funding mechanisms to meet the capital demands required from the Act.

1. **Sources of Revenues / Funding**: Funding sources and acceptable strategies remain a significant challenge for all utilities. How utilities fund these costs will be key and will require educating consumers on the need to make these investments. On the public owned side, it is important that the funds they collect from ratepayers are used to operate, maintain and reinvest in the system.
  - Utility charges (i.e., billing), a primary source of funds, should reflect the full and true cost of service, including appropriate operations, maintenance debt service expenses, not more and not less. Utility charges should not be utilized to subsidize programs outside of the utility. With larger reinvestment as a result of WQAA,
    - Utilities should utilize rate studies, or cost of service studies, as part of their best practices to support a financial plan and to explain the need for rate increases to consumers. It is one thing to identify the total costs of operation and reinvestment, but it is another to extend this and identify how those costs will be paid.
    - Rate design studies can assist utilities in meeting both their short and long term needs by investigating the timing of repairs, upgrades and replacement projects while maintaining levels of service, current operations, developing a professional workforce, while protecting public health and acting to support economic activity.
  - Address the shortage in available State Revolving Fund (SRF) funding for drinking water projects. An adequate source of funds needs to be available to the water sector in order to help fund the projects for rehabilitation, replacement and future needs infrastructure. The ability of the SRF to make low cost revolving funding available for capital projects is and was highly successful. Recently the SRF does not have enough funds to fully fund the requests from many utilities. If funds are not available through this program, it will result in higher funding costs for both public and investor owned utilities.
  - The State may have the NJ Infrastructure Bank work with utilities to provide assistance in requesting funding through the Water Infrastructure Finance and Innovation Act (WIFIA) by assisting utilities in seeking large loans or aggregating smaller funding requests from various utilities.
  - The State legislature should work with their federal counterparts to make sure that drinking water funds are a high priority and that funding levels are increased to meet existing and future demands.
  - Department of Community Affairs: DCA will play a vital role in making sure public/municipal utilities fully fund their operations and infrastructure reinvestments responsibly during the annual budget review process and its oversight of same.

- Identify rate increases necessary to meet a utility's obligations, including those under the WQAA.

## 2. **Asset Management Best Practices**

- As determined by NJDEP or NJ DCA, require five-year financial plans to address the operating and capital needs indicated by the asset management plans(s). This might include a cost of service study, a water demand study, a staffing plan and/or a proof of revenue study.
- Water Loss Audits: As directed by NJDEP, require the submission of an annual water loss audit per AWWA's M36 WATER AUDITS AND LOSS CONTROL PROGRAMS, which includes free water loss audit software, for utilizing experiencing water loss greater than a set percentage (i.e., >10%).
- Meter Replacement program for both residential and commercial/industrial meters.
- Hydraulic Models: As determined by NJDEP, depending upon size and demand, a utility should develop a hydraulic model to assist in performing risk and resiliency evaluations, operational improvements, capital investments and water age optimization.
- Source Water Assessments to determine the ability to meet current/future needs and to address current/future treatment issues.
- Key Performance Indicators as developed collaboratively by NJDEP and the water industry groups.
- Address succession planning and workforce development issues. This is an issue that impacts both public and investor-owned systems.

## 3. **Cyber Security** – The WQAA required utilities to look at their SCADA systems and to take appropriate steps to protect them. The State should consider expanding the cyber security provision to all of the utilities IT operations, which would include its business and finance systems.

- The State should play a larger role in assisting utilities and other government agencies in fighting and protecting against ransomware and cyber-attacks.
- The State should consider providing additional resources and funding to the NJCICC in proportion to the cyber threats utilities and local governments are facing.

## 4. **Hydrant Labeling** – The State should allow greater flexibility in the labeling of fire hydrants. Current or existing technology may allow for less expensive ways to perform the labeling.

## 5. **Transparency**: Have water utilities post their WQAA certifications on their websites.

AWWA NJ and its members respectfully offer their expertise and a willingness to continue its work with the legislature and its leaders, regulators and stakeholders towards developing successful programs and processes to address the issues facing water utilities. This includes identifying and developing adequate funding sources for the required infrastructure investment; supporting appropriate resources for the regulatory agencies implementing this program including the NJ DEP, the NJ DCA, and NJ BPU; and to act proactively and work collaboratively to address the requirements of the WQAA and the challenges at hand.

The New Jersey Section of AWWA appreciates the opportunity to present our testimony and again reiterates our offer of assistance and to act as a resource for both this Committee and the State.

Respectfully submitted,  
Stephen Blankenship, PE, AWWA-NJ Chair, Infrastructure Management Committee  
G. Christian Andreasen, PE, AWWA-NJ Director and Section Trustee