



Testimony Regarding the Provisions Relating to Local Governments in Governor Cuomo's Executive Budget Proposal for SFY 2019-20

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Monday, February 11, 2019

Thank you for allowing us to submit testimony. Environmental Advocates of New York sees local governments as key partners in making our state a national leader on environmental issues. Local governments are engaged in the day-to-day, on-the-ground work to keep our drinking water clean, our public transportation running, and our communities free of toxics. From water infrastructure needs to solid waste issues, local governments face a number of challenges that require state support to adequately address. Here are our recommendations regarding support to local governments to protect public health and the environment in the SFY 2019-2020 budget:

Clean Water for All

Water Infrastructure:

Aging water infrastructure is increasingly putting the safety of our water at risk. Water main breaks are a regular occurrence in many municipalities, shutting down streets and businesses and at times prompting boil water orders. Sewer systems overflow during rain events leading to billions of gallons of raw sewage entering our water bodies every year. These sewage overflows can cause bacterial contamination and contribute to harmful algal blooms that make swimming dangerous. As our wastewater treatment plants struggle with outdated technology long past its intended lifespan, contaminants can slip through the cracks.

To fix our crumbling drinking water and wastewater infrastructure, it was estimated in 2008 that New York must invest close to \$80 billion over the next 20 years. These estimates are now over ten years old, and New York's needs have almost certainly grown since that time.

When the Legislature created the five-year, \$2.5 billion Clean Water Infrastructure Act of 2017 (CWIA), it took a bold step forward in addressing the threats to New York's clean water. Thanks to the grant funding provided by the CWIA, communities previously unable to undertake costly water quality improvements have been able to break ground on much-needed projects.

The Water Infrastructure Improvement Act (WIIA), created in 2015 and funded since 2017 through the Clean Water Infrastructure Act, has been a particularly successful program, awarding approximately \$767 million to communities since 2015. This funding has been an engine for economic development in addition to providing clean water protections, creating the up-to-date

long-term infrastructure to attract families and businesses, and generating at least 17,300 good-paying jobs across the state from the 2018 round of grant awards alone, according to the Governor's office.

In a new report released last week, titled *Untapped Potential: Water Infrastructure Spending in New York*, Environmental Advocates of New York took an in-depth look at how successful WIIA has been at addressing the state's growing water infrastructure crisis. The report is included as an appendix at the end of our testimony.

In the report, we examine the first three grant cycles of this funding, from 2015 to 2017, and we found that this program is hugely popular and remarkably effective. In particular, the findings show:

- Projects in 53 of New York's 62 counties received grant funding through WIIA. Communities in 57 of those 62 counties applied for funding.
- There was a 60% increase each year in the number of grant requests submitted by communities, demonstrating local governments' enthusiasm for this program.
- A greater number of projects are receiving grants each year, with almost four times the number of projects awarded in 2017 when compared to 2015.
- **Each year, roughly 50% of eligible project applications did not receive funding.**

This final statistic truly demonstrates the untapped potential of the program. Each year, a growing number of fully eligible and shovel-ready projects submitted by local governments did not receive grant awards, as seen in the following table drawn from the report. To be considered eligible, a project proposal must include the full suite of application materials, including a financial plan and an engineering report, and a project design that meets the grant criteria.

	Total projects eligible*	Total projects awarded	Total projects eligible but not awarded	% awarded out of total projects eligible
Round 1 (2015)	95	45	50	47%
Round 2 (2016)	189	102	87	54%
Round 3 (2017)	321	169	152	53%

**Total projects eligible = total projects awarded + total projects eligible but not awarded*

The persistence of shovel-ready projects unable to receive grant funding is not due to a delay in getting currently-allocated funding out the door. The Environmental Facilities Corporation (EFC), which administers WIIA, is on track to meet its funding allocation goals. Rather, the current level of funding for WIIA is not sufficient to meet the demonstrated need submitted by local governments each year.

Over the program's first three years, when local governments submitted an eligible project proposal, they had a 50/50 chance of receiving a WIIA grant. Those aren't the odds we need to protect New York's drinking water. These projects total over \$300 million in project costs that could get off the ground today with a grant award. Desperately-needed projects to improve local water quality are not receiving the money they need; at the moment, there simply isn't enough funding to go around. An allocation this year of \$300

million, along with another \$700 million to entice further applications and account for an expected yearly increase, should be a top funding priority for the Legislature.

The \$767 million WIIA has allocated so far barely makes a dent in the \$80 billion need identified by NYS DEC and DOH in 2008 to fix New York's water infrastructure. The need for clean water infrastructure and the demand from our local municipalities is evident.

The Governor's Executive Budget proposal, however, falls far short of what's needed to build on the success of the Water Infrastructure Improvement Act and the Clean Water Infrastructure Act. In his State of the State Address, the Governor promised to double the CWIA with another \$2.5 billion investment, yet this \$2.5 billion is nowhere to be found in his budget bills. Instead, the Governor included only \$500 million (S.1504/A.2004 page 109, line 32).

Without substantially more funding, shovel-ready projects will continue to be held back. The applications described above do not comprise the whole of New York's water infrastructure needs. As we have seen, the number of projects submitted for funding continues to grow. ***To keep pace with this growing demand, we urge the Legislature to provide \$5 billion over five years for water infrastructure funding in their budget. The Legislature should also increase the percentage of project costs covered by a grant award, so that communities still unable to take part in the program due to financial constraints can benefit.***

Lead Service Lines:

Lead contamination in drinking water is a public health crisis, and state funding is critical to help local governments dig dangerous lead water pipes, known as lead service lines, out of the ground. Lead service lines connect the water mains under municipal streets to a home's internal plumbing, and are the greatest contributor to lead in residential drinking water. The threat of lead in drinking water is not limited to Flint, Michigan – lead service lines are contaminating tap water across New York State.

New York's Lead Service Line Replacement Program (LSLRP) was created through the Clean Water Infrastructure Act of 2017 and provided a \$20 million allocation. With the grant funding provided by the LSLRP, local governments can complete a substantial number of pipe replacements and dramatically reduce public health risks. Municipalities already have replacement crews on the streets thanks to this program, and the grant awards are key to keeping local governments and homeowners out of debt.

New York has an estimated 360,000 lead service lines due to our state's old housing stock. Many local governments, even after applying corrosion control, still find water samples that test above the EPA lead action level of 15 parts per billion. According to data compiled by the Natural Resources Defense Council, sixty-seven community water systems in New York, serving a total of 126,683 residents, were in violation of EPA's standard for lead in drinking water between 2015 and 2018. Recently, the Cities of Amsterdam and Newburgh both discovered dangerous levels of lead in their water. As many as 8% of sampled homes in certain neighborhoods in Brooklyn, Queens, and Staten Island found lead in their water that violated EPA's standard, according to a recent report from the city's Independent Budget Office. Lead levels are likely to rise as lead service lines, many reaching one hundred years old, continue to age.

The cost to replace all of New York's lead service line is large, with a conservative estimate of at least \$1 billion. With many of these pipes found in low-income communities or communities of color, the cost cannot be placed on homeowners. A family that is struggling to pay for groceries cannot be expected to pay several thousand dollars to replace a water line.

Scientists have long stated that there is no safe level of lead in drinking water. We cannot wait for children to get sick before we commit to replacing these dangerous pipes. As the water crisis in Flint, MI so tragically demonstrated, as long as lead pipes remain beneath our homes, lead poisoning is a constant threat. ***To make progress towards ensuring every New Yorker's tap water is lead-free, the Legislature must invest at least \$100 million in the LSLRP in this year's budget.***

Healthy and Vibrant Communities for All:

Local governments are also on the forefront of extremely challenging solid waste issues, only perpetuated by China's refusal to accept recyclables. Municipalities need comprehensive solutions to solve solid waste dilemmas, but the Legislature must also make progressive steps to reframe the trash problem – from trying to figure what to do with waste to considering what makes up the waste stream and how to do reduce it. Eliminating plastic bags, expanding deposited bottles, diverting staggering amounts of food waste from landfills, and establishing Extended Producer Responsibility schemes are all steps in the right direction.

Plastic bags:

While we are pleased to see a commitment from the Governor in the Executive Budget towards a statewide solution to ban single-use plastic bags, we do not support the proposal. There are serious flaws with the Executive's approach. Significantly, it does not include a mechanism for paper bags. We recommend a ban on plastic bags be accompanied by a fee on paper to avoid a mere switch from one disposable bag type to another. Thus, the fee on paper bags is a crucial incentive to get customers to use their own bags. Data collected from jurisdictions where plastic bag bans have been implemented without a fee on paper bags have clearly shown that customer behavior does not change - customers simply switch to another single-use product. In fact, many jurisdictions saw an increase in paper bag use. A ban accompanied by a fee is the most effective way to achieve the environmental goals of the proposal - reduced waste and litter.

We urge the Legislature to support S.95, New York State Bring Your Own Bag Act, as the gold standard of ban the bag legislation, incorporating a ban on plastic bags, plus a fee on paper bags, as well as providing for appropriate preemption language to ensure municipalities already taking more stringent steps in this space can lawfully continue their programs. We also encourage the Legislature to be more aggressive on the plastic problem and ban plastic straws.

Bottle bill:

It has been 10 years since the Bottle Bill was expanded and it is certainly time to modernize the legislation to account for the plethora of beverages that are on the market in 2019. We applaud the Governor's proposal to expand the Bottle Bill, but why stop there? ***We urge the Legislature***

to expand the Bottle Bill to include wine and liquor bottles. The Legislature should also consider increasing the deposit level to at least 10 cents with perhaps a greater deposit on wine and liquor bottles.

Food waste recovery:

In the context of the solid waste crisis that many New York communities are facing, we are disappointed the Executive Budget did not include the Food Recovery and Recycling Act, which had a place in past budget proposals. This legislation would target large producers of food waste like supermarkets, restaurants, hotels, higher education institutions, schools and hospitals. This proposal would help reduce the massive amounts of food entering the waste stream, which currently takes up dwindling space in our landfills and contributes to the production of methane, a potent greenhouse gas. ***We urge the Legislature to include this proposal as part of an overall commitment in the SFY 2019-2020 budget to help combat the solid waste crisis.***

Extended producer responsibility:

While the Executive Budget touches on some important aspects in respect to banning single-use plastic bags and expanding the Bottle Bill, it lacks other innovative solutions to address an ever-expanding waste stream and current recycling challenges. Part of the solution is to foster Extended Producer Responsibility (EPR) schemes. EPR schemes hold producers accountable for the products they put into the marketplace and are designed to ensure that producers take responsibility for the costs created by their products after consumers have finished using them. This includes the financial responsibility for post-consumer disposal and/or recycling, reducing the costs of managing bulky waste for local governments that are currently paid for by consumers through taxes and garbage collection rates.

We urge the Legislature to rethink the status quo of make, use and dispose, and move forward with solutions that adopt EPR.

Thank you for the opportunity to provide this testimony. We look forward to working with the Legislature to advance a budget that is protective of New Yorkers' health and the environment.

Environmental Advocates' mission is to protect our air, land, water, wildlife, and the health of all New Yorkers. Based in Albany, we monitor state government, evaluate proposed laws, and champion policies and practices that will ensure the responsible stewardship of our shared environment. We support and strengthen the efforts of New York's environmental community and work collaboratively to make our state a national environmental leader.

Untapped Potential: Water Infrastructure Spending in New York



**ENVIRONMENTAL
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YOUR GOVERNMENT WATCHDOG

Untapped Potential: Water Infrastructure Spending in New York

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About Environmental Advocates

Since its formation in 1969, Environmental Advocates of New York has been championing environmental policies that have improved health, protected wildlife, enhanced the quality of New York’s natural resources, and saved lives. Based in Albany, we monitor state government, evaluate proposed laws, and champion policies and practices that will ensure the responsible stewardship of our shared environment.

Executive Summary

Clean water is essential for healthy communities. Every day, New Yorkers depend on a vast network of pipes to deliver water to their taps that is safe to drink and to transport waste from their homes and businesses. They rely on hundreds of drinking water treatment plants to filter water sources, and hundreds of wastewater treatment plants to prevent contamination of lakes and rivers, many of which serve as drinking water sources.

Yet aging water infrastructure is increasingly putting the safety of our water at risk. Water main breaks are a regular occurrence in many cities, shutting down streets and businesses and at times prompting boil water orders. Sewer systems overflow during rain events leading to billions of gallons of raw sewage entering our water bodies every year. These sewage overflows can cause bacterial contamination and contribute to harmful algal blooms that make swimming dangerous. As our wastewater treatment plants struggle with outdated technology long past its intended lifespan, contaminants can slip through the cracks.

To fix our crumbling drinking water and wastewater infrastructure, it was estimated in 2008 that New York must invest close to \$80 billion over the next 20 years.

To address this need for state investment, Governor Cuomo and the State Legislature created the Water Infrastructure Improvement Act (WIIA) in 2015. WIIA provides grant assistance to local governments to fund both drinking water and wastewater (also known as ‘clean water’) improvement projects. With an initial allocation of \$200 million in 2015, WIIA’s funding was doubled with another \$200 million in 2016. WIIA achieved its largest funding increase in 2017, when legislators allocated ‘at least’ \$1 billion to the program to be spread over five years, as part of the \$2.5 billion Clean Water Infrastructure Act.

This report examines how successful WIIA has been at channeling these much-needed resources to communities across New York. It presents data from the program’s first three grant cycles (2015, 2016, and 2017) obtained from the Environmental Facilities Corporation (EFC), which administers WIIA funds in conjunction with the New York State Department of Environmental Conservation (DEC) and Department of Health (DOH).

Our findings reveal a thriving program. Money is moving efficiently out the door as funding increases, and communities are taking notice and responding enthusiastically.

We found:

A 60% increase each year in the number of project applications submitted by local governments

A greater number of projects are receiving grants each year, with almost four times the number of projects awarded in 2017 when compared to 2015

Projects in 53 of New York’s 62 counties have received WIIA grant funding

Yet our findings also reveal a vast untapped potential for WIIA. **Each year, only 50% of eligible applicants received a grant award from EFC. Shovel-ready water quality improvement projects continue to wait in the wings, held back by a lack of available funding.** It will be crucial to address this untapped potential if additional progress is to be made in keeping New York’s waters clean and healthy.

The creation of a modern water infrastructure system was one of the great public works and public health achievements of the 20th Century. This legacy is at risk in the 21st Century, however, if adequate investments are not made to repair, replace, and rebuild our sewers, pipes, and treatment plants. As New York’s water infrastructure continues to crumble, the threats to clean water continue to multiply. WIIA has proven itself a successful vehicle to address this challenge in the years to come.

What is Water Infrastructure?

How is water delivered to your kitchen faucet? What happens to the waste when you flush the toilet? The answers to these questions provide good descriptions of the two components of our water infrastructure system: drinking water and wastewater infrastructure. The former transports water from source to tap, while the latter conveys waste from homes and businesses to treatment plants for cleaning and discharge back into waterways.

The main physical components of drinking water systems include:

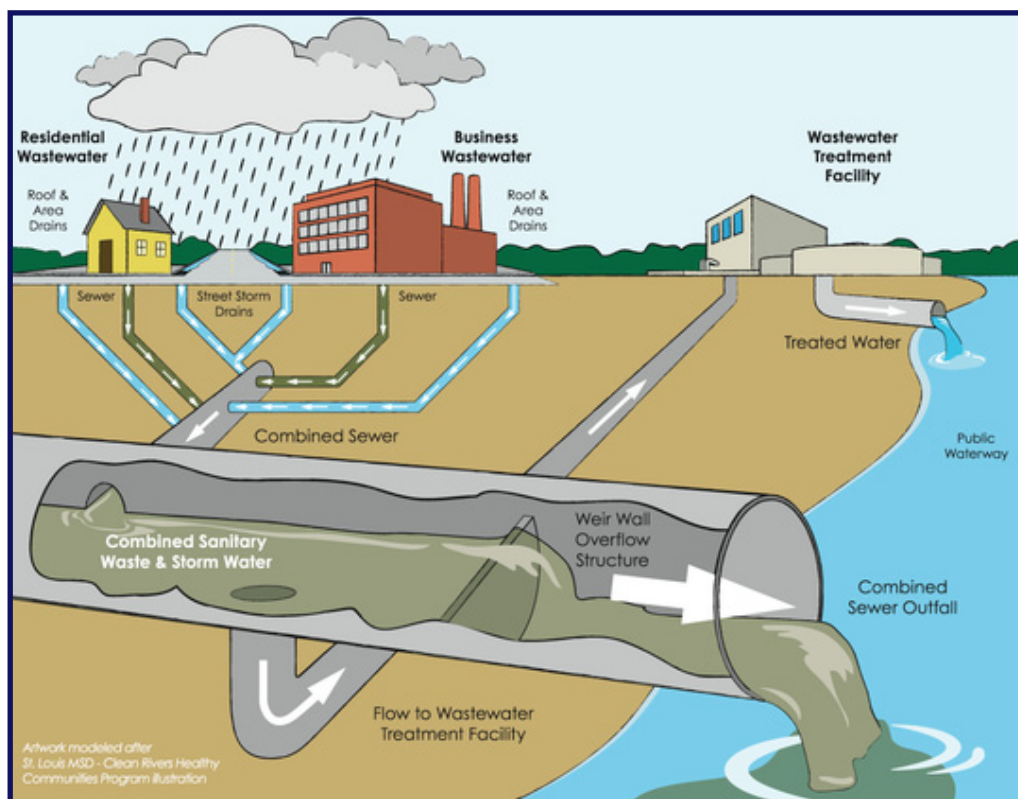
- Source: lakes, rivers, reservoirs, or groundwater wells
- Treatment: facility that filters and disinfects the water
- Storage: elevated or ground-level water storage tanks
- Distribution: water mains, service lines, and pumping stations[i]

The main physical components of wastewater systems include:

- Collection and conveyance: sewer systems and pumping stations move waste to the treatment facility intercepting, outfall, and outlet sewers
- Treatment: facility that neutralizes or stabilizes sewage[ii]

\$80 Billion
Estimated combined need to fix
New York's water infrastructure

WIIA funds the construction, replacement, or repair of physical infrastructure at municipally-owned sewage treatment works and municipally-owned public water systems.[iii] In other words, it funds improvements to the 'grey infrastructure' described in this section. 'Green infrastructure' improvements, such as the creation of riparian buffers and pervious pavement to lessen stormwater runoff, received a separate funding line in the Clean Water Infrastructure Act of 2017. Likewise, 'natural infrastructure' projects, including drinking water source protection, are separately funded.



New York's Water Infrastructure Crisis

The magnitude of New York's water infrastructure crisis is enormous. New York has one of the oldest water infrastructure systems in the nation, and one of the largest. It has the largest documented need for wastewater infrastructure investments in the nation.[iv]

In 2008, DEC and DOH released reports cataloging New York's wastewater and drinking water infrastructure needs. DEC found that New York needs to invest \$36.2 billion over 20 years in municipal wastewater improvements.[v] DOH found that \$38.7 billion in state investments would be needed over 20 years to fix New York's drinking water infrastructure.[vi] It is important to note that these estimates are now over 10 years old; New York's needs have almost certainly grown since that time.[vii]

The scale of this crisis has serious consequences for public health. The more frequently New York's water infrastructure fails, the greater the chance that people will get sick.

Water Main Breaks



179 – Number of water main breaks in the City of Syracuse in 2018[x]

When a water main break occurs, the negative pressure created can cause bacteria and other contaminants to enter the pipe and pollute drinking water. The U.S. Environmental Protection Agency (EPA) has linked major water main breaks to increases in hospital visits for gastrointestinal illnesses, with symptoms like vomiting, nausea, and diarrhea especially common among young children. [viii]

With many of New York's water mains surpassing 100 years of age, pipes have corroded, leading to more frequent water main breaks across the state. Since August 2018, water main breaks have occurred in Orangeburg, Montebello, Rotterdam Junction, Phoenix, and Albion, NY, with each town issuing boil water advisories to some of their residents - and this is by no means an exhaustive list.[ix] Boil water advisories typically last three to five days, disrupting residents' daily lives and putting public health at risk for an extended period of time.

Outdated Wastewater Treatment Plants

Wastewater treatment plants are the main line of defense to keep contaminants found in sewage, including pathogens, bacteria, heavy metals, and other toxics, out of our waterways. Operators of wastewater treatment plants are frontline environmentalists, working constantly in the face of outdated infrastructure to provide drinking water and wastewater that is as clean as possible.

Excess nutrients from sewage can contribute to toxic algal blooms, which have the potential to devastate aquatic life and harm human health. Symptoms from exposure to a toxic algal bloom can range from skin rash, vomiting, diarrhea, and abdominal pain to memory loss, liver failure, respiratory paralysis, and coma.[xi] More than 170 waterbodies in New York State reported harmful algal blooms in 2018. [xii]

Many New York State wastewater treatment plants do not currently use technology that can remove the excess nutrients that lead to harmful algal blooms. In addition, these excess nutrients can contribute to the formation of disinfection byproducts at drinking water treatment plants, a health concern that has prompted many drinking water treatment systems to require upgrades.

There are 610 municipal wastewater treatment plants (WWTPs) in New York that serve 1,610 municipalities and 15 million New Yorkers.[xiii] As of 2015, 25% of the state's wastewater facilities are more than thirty years old, surpassing their expected useful life expectancy.[xiv] Common technological improvements include adding ultraviolet disinfection, replacing screens that remove grit and solid waste, and fixing faulty electrical equipment.

“Water treatment plants tend to get ignored by the general public, but it’s your most important infrastructure.”

- Kevin Pratt, wastewater treatment plant manager for Saranac Lake, NY[xv]

In Saranac Lake, an average of 1.7 million gallons flow through the Village’s treatment plant every day.[xvi] Saranac Lake has struggled to keep up with the costly, long-term capital-improvements needed to maintain the plant. After inspecting the facility in 2017, DEC wrote a letter to the Village stating:

“The department remains very concerned with the physical condition of some of the concrete tanks (aeration tanks, thickener, etc.) due to severe deterioration. Concrete is eroded down to rebar, foundations are undermined, and what appears to be leaks on the west side of the aeration tanks were evident during the June 2017 inspection.”[xvii]

The deficiencies to such essential aspects of wastewater treatment technology at Saranac Lake’s plant reflect the dire condition of wastewater infrastructure across New York.

Sewage Overflows

Approximately 7,000 of the 22,000 miles of New York’s sewer systems have exceeded their useful life expectancy of 60 years but have yet to be updated or replaced.[xviii] Many of these are combined sewer systems (CSSs), in which stormwater and wastewater are collected in the same pipes. During rain events, the total volume of water can overwhelm wastewater treatment plant capacities, leading to either partially treated or wholly untreated sewage released directly into lakes, rivers, and streams. There are 807 known combined sewage outfall points across the state.[xix]

Upgrading wastewater treatment plants to handle greater volumes of water and separating stormwater sewers from wastewater sewers will be crucial to reduce the large number of sewage overflows across the state.

In 2016, Environmental Advocates of New York released a report entitled Tapped Out: New York’s Clean Water in Peril, which examined the extent of combined sewage overflows (CSOs) and sanitary system overflows (SSOs) in New York.[xx] An addendum to that report revealed that 10,687 sewage overflows were reported by local governments from May 2013 to July 2017, with a total volume of 3.8 billion gallons of sewage discharged into New York’s water bodies.[xxi]

Yearly estimates of total sewage overflows have grown as more recent data has been collected. Today, the City of Buffalo alone estimates that it annually discharges around 1.7 billion gallons of sewage into waterways like the Buffalo River, Black Rock Canal, Scajaquada Creek and Cazenovia Creek.[xxii]

In July 2018, Buffalo saw 16,317,910 gallons of sewage discharged in a single night into local creeks, rivers, and lakes after heavy rains.[xxiii]



An Analysis of WIIA, 2015-2017



*Water main break in the Center Square neighborhood of Albany, NY.
Photo credit: EANY*

In 2014, there was a proposal to redirect \$500 million from the New York City portion of the clean water loan program to fund the construction of the Tappan Zee Bridge replacement. Though that effort was thwarted, it led Environmental Advocates and other organizations to question why such a large pot of money was not being spent. In early 2015, Governor Cuomo and the State Legislature responded by creating the Water Infrastructure Improvement Act to provide grants that, when coupled with loans, could address the financial hardship that many communities face when securing funding for water infrastructure projects.

Under the terms of this new program, a municipality in general may receive a WIIA grant for up to 25% of an eligible wastewater project cost, with an award cap of \$5 million per year.[xxiv] For a drinking water project, the state can cover up to 60% of municipalities' costs, with an award cap of \$3 million over five years.[xxv] Crucially, municipalities can combine this grant funding with other state and federal loans, ensuring that up-front costs are not prohibitive.

The following data was obtained from the Environmental Facilities Corporation (EFC) through Freedom of Information Law (FOIL) requests, and tracks the outcomes from the first three years of WIIA awards: 2015, 2016, 2017. It details the municipalities that applied for grants, the total costs of submitted projects and the requested grant awards, which projects received funding or were eligible for funding, and the reasons why some projects were not eligible.

A note on a data inconsistency: fewer awards were reported in the 2015 and 2016 data sheets provided by EFC than were announced publicly. For instance, data from EFC indicated that 95 grants were awarded in 2016. However, 102 awarded projects are listed on EFC's website.[xxvi] In light of this discrepancy, the number of grant awards listed publicly by EFC have been used for calculations.

A key metric by which to evaluate the success of the Water Infrastructure Improvement Act is EFC's ability to handle increasing funding for the first three of the program's years. Allocated \$200 million in 2015, WIIA was initially created as a three-year program with \$200 million to be distributed over the course of that time period. It proved so popular, however, that its funding was doubled with another \$200 million in 2016. WIIA achieved its largest funding increase in 2017, when legislators allocated \$1 billion to the program to be spread over five years, as part of the \$2.5 billion Clean Water Infrastructure Act.

Findings: A Thriving Program

More applications, and more projects awarded

As seen in Table 1, both the total number of applications and the total number of projects awarded WIIA grants increased each year in response to increased available funding. The percent increases over each year can be seen in Table 2, and show resounding growth. Almost four times the number of projects were awarded in 2017 when compared to 2015.

The data reveals that EFC has been successful at processing an increasing number of applications, moving WIIA funds out the door and into communities. Local governments have also been responsive to the program; as more funding became available and as awareness of the program grew, a greater number of projects to improve local water quality were submitted. There is clearly no shortage of water infrastructure projects in need of funding across New York.

Table 1

	Total applications	Total projects awarded	% awarded
Round 1 (2015)	170	45	26%
Round 2 (2016)	273	102	37%
Round 3 (2017)*	441	169	38%
Totals	884	316	36%

**All Round 3 data includes intermunicipal grants, in which the applicants are joint municipalities.*

Table 2

	% increase total applications	% increase total projects awarded
Round 1 to Round 2	61%	111%
Round 2 to Round 3	62%	78%
Round 1 to Round 3	159%	276%

Statewide Impact

Projects in 53 of New York's 62 counties received at least one grant during the first three years of the program. Communities in 57 of those 62 counties applied for funding. Every county outside of New York City has applied for funding. The four counties that applied but did not receive any funding were Washington, Livingston, Chemung, and Hamilton County. A breakdown of the percentage of projects awarded by region can be seen in Table 3.

Table 3

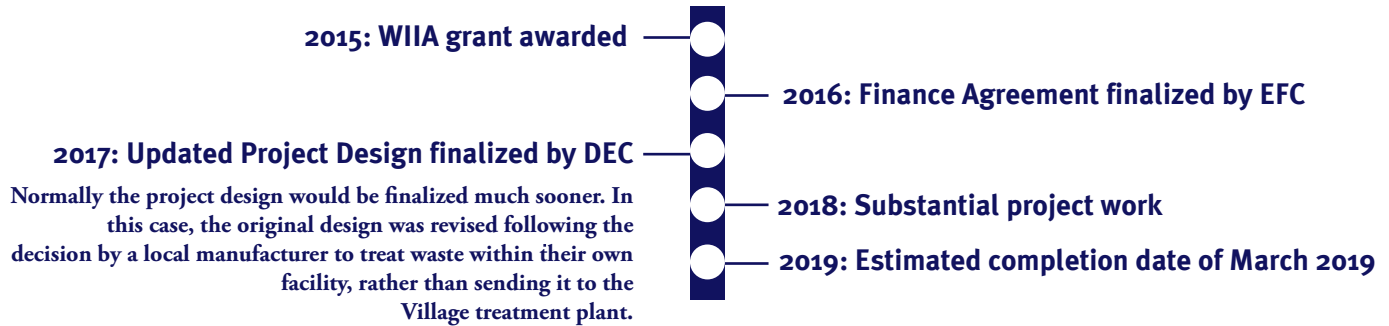
	Total applications	Total projects awarded	% awarded
Capital District	117	50	43%
Hudson Valley	208	59	28%
Central NY	86	33	38%
Finger Lakes	86	23	27%
Southern Tier	64	29	45%
Western NY	92	33	36%
North Country	99	42	42%
Mohawk Valley	77	25	32%
New York City	0	0	0.00%
Long Island	55	22	40%

Case Study - Success Story from Waverly, NY

Located in the Southern Tier on the border with Pennsylvania, the Village of Waverly has struggled with managing sewage overflows. With a population of only 4,400 people, the Village on its own could not afford the wastewater treatment plant upgrades necessary to prevent contaminants from being discharged into nearby Cayuta Creek, which falls within the important Chesapeake Bay Watershed.

In 2015, the Village received a \$4.6 million WIIA grant to complete an overhaul of its treatment plant and protect the area's clean water. The grant covers \$4.6 million out of a total project cost of \$18.3 million.[xxvii]

Timeline of a Successful WIIA Grant



The main improvements to the plant are intended to better catch pollutants before they can enter Cayuta Creek. Work included refinishing the surfaces of the four aeration basins, which were peeling with age.[xxviii] Aeration basins are one of the primary treatment mechanisms of a facility, using oxygen and microbial action to remove pollutants from wastewater. In addition, the plant's membrane bioreactor (MBR) was upgraded. MBR tanks work in conjunction with the aeration basins to filter out an even greater number of contaminants from the wastewater. Work on the MBR tanks was completed in June 2018.

According to the local Morning-Times, these upgrades "give the village essentially a brand new sewage treatment facility that would have the capacity to treat approximately 800,000 gallons of wastewater a day." [xxix] These upgrades will substantially reduce the threat of contamination in Waverly's waterways.

Findings: Untapped Potential

Increasing number of eligible, but unawarded, projects

As successful as the program has been in funding projects across the state, there remains a large untapped potential. Each year, many fully eligible projects do not receive a grant award due to a lack of sufficient state funding for WIIA. To be considered eligible, a project proposal must include the full suite of application materials, including a financial plan and an engineering report, and meet the grant criteria.

The following data from each funding cycle is a snapshot in time - for example, eligible but unawarded projects listed in one round may have received funding in a subsequent round. Each category reflects the data compiled by EFC for that year.

EFC has successfully kept pace with increased WIIA funding by increasing its grant awards to communities. But as seen in Table 4, the number of eligible but unawarded projects each funding cycle is not shrinking but growing. Current levels of WIIA funding are not sufficient to meet the demonstrated need each year. The large number of eligible applications each year also indicates that local governments' enthusiasm to submit greater numbers of projects has not led to any decrease in the overall quality of applications. A breakdown of eligible but unawarded projects by region can be seen in Table 5.

Table 4

	Total applications	Total projects awarded	Total projects eligible but not awarded	% eligible but not awarded
Round 1 (2015)	170	45	50	29%
Round 2 (2016)	273	102	87	32%
Round 3 (2017)	441	169	152	34%

Table 5: Projects Eligible but Not Awarded by Region

	Round 1 (2015)	Round 2 (2016)	Round 3 (2017)
Capital District	9	15	18
Hudson Valley	10	27	40
Central NY	6	8	20
Finger Lakes	6	7	11
Southern Tier	3	5	8
Western NY	8	8	10
North Country	6	12	12
Mohawk Valley	1	2	13
New York City	0	0	0
Long Island	1	3	20

Projects were considered ineligible if: the project had an incomplete application; the project was located in a community with Median Household Income or family poverty rates outside acceptable ranges; the project was outside the scope of EFC guidelines; or the project was submitted by a local government that had already received the maximum grant award.

Ineligible projects can become eligible in the future. If more funding is available and there is a greater rate of award acceptance, municipalities that submitted incomplete applications may be incentivized to finish those proposals. EFC has also pledged to support communities seeking to improve their applications. In addition, projects submitted by municipalities that had already reached their grant limit could become eligible if more funding is available and those caps are lifted. By excluding these cases from consideration, the data may underestimate the need for water infrastructure grant funding in New York.

Only half of eligible projects received funding each year

As seen in Table 6, WIIA has been able to fund only half of eligible applications submitted each year given its current funding. With greater levels of funding, WIIA has the potential to do much more to improve New York's water quality.

Table 6

	Total projects eligible*	Total projects awarded	Total projects eligible but not awarded	% awarded out of total projects eligible
Round 1 (2015)	95	45	50	47%
Round 2 (2016)	189	102	87	54%
Round 3 (2017)	321	169	152	53%

*Total projects eligible = total projects awarded + total projects eligible but not awarded

Examining the total amount of money awarded over the program's first three years in Table 7 confirms that WIIA is currently able to meet only a fraction of demonstrated need. As exciting as it is that \$500 million has already been allocated to launch water infrastructure projects across the state, there remains hundreds of millions of dollars in submitted, unmet needs.

These submitted projects of course do not comprise the entire universe of New York's water infrastructure needs. As we have seen, the number of projects submitted for funding continues to grow. The 'Grant Dollars Requested' total signifies a reserve of projects that local governments have already identified as a top-priority to improve their local water quality. The main 'green light' these projects need to break ground is a grant award.

Table 7

	Total Submitted Project Costs*	Total Grant Dollars Requested	Grant Dollars Requested for Projects Eligible but Not Awarded	Grant Dollars Awarded
Round 1 (2015)	\$1,242,819,752	\$300,836,237	\$81,058,878	\$74,883,463
Round 2 (2016)	\$1,596,481,865	\$454,696,562	\$120,260,267	\$174,609,719
Round 3 (2017)	\$1,956,737,124	\$673,863,742	\$219,679,147	\$256,413,140

*Total Submitted Projects Costs excludes awarded co-funding and ineligible project costs.

Table 8

	Total Submitted Project Costs (2015, 2016, 2017)	Total Grant Dollars Requested (2015, 2016, 2017)	Grant Dollars Awarded
Capital District	\$694,592,966	\$207,010,920	\$90,023,801
Hudson Valley	\$1,051,207,499	\$314,842,013	\$69,318,603
Central NY	\$388,863,950	\$115,413,867	\$43,803,278
Finger Lakes	\$334,426,719	\$123,347,332	\$34,863,336
Southern Tier	\$494,323,668	\$110,664,893	\$66,017,245
Western NY	\$553,199,944	\$157,347,568	\$54,548,598
North Country	\$547,204,783	\$170,923,766	\$66,751,358
Mohawk Valley	\$451,224,563	\$115,766,891	\$47,608,625
New York City	0	0	0
Long Island	\$280,994,649	\$114,079,284	\$32,971,480

Case Study - Shovel-Ready Project in Glens Falls, NY



An elevated water storage tank in Tannersville, NY. Photo credit: EANY

With a shortage of WIIA grant funds, projects to prevent contamination of drinking water have been kept on hold. As we'll see in this case study of Glens Falls, work as fundamental as ensuring that feces do not pollute drinking water has been unable to move forward due to a lack of state assistance.

Glens Falls, NY was incorporated as a village in 1839, and as a city in 1908. Much of the city's water infrastructure dates back more than 100 years. The strain is showing in some components of its drinking water system, which serves approximately 14,000 people. Steve Gurzler, City Engineer and Water and Sewer Superintendent, provided information about a project to upgrade Glens Falls' water storage tanks that the city proposed for a WIIA grant in 2016. The 30-year old water storage tanks hold the city's treated drinking water before the water is distributed to residents' homes.

Glens Falls submitted an application requesting \$1.3 million in grant funding to put towards the \$3.5 million project. Though eligible under WIIA criteria, the project was not chosen for an award by EFC.

WIIA funding would have enabled three water quality improvements:

Replacing the tanks' ventilation screening components. Vents stabilize the air pressure inside the water tanks, which is constantly in flux as water levels rise and fall.[xxx] Without functioning mesh screens covering the vents, dust and dried feces could contaminate the drinking water, and insects, birds, and rodents could enter the tank.

Replacing six twenty-inch valves that are not fully water tight. These valves control the flow of water between the treatment plant and the tanks.[xxxi] Due to the constant leakage, Mr. Gurzler described difficulty in shutting down the tanks for cleaning.

Thickening of the tanks' metal interior and exterior walls. If the metal becomes too thin, holes can cause leaks and impair the structural stability of the tank.[xxxii]

All three of these improvements would have contributed substantial protections against sources of contamination for Glens Falls' drinking water. However, Mr. Gurzler and his department have been unable to undertake this project given the lack of state grant support.

A Lack of Federal Leadership

In the 1990s, the federal government created two funding mechanisms to assist states in tackling their wastewater and drinking water infrastructure needs. These programs, the Drinking Water State Revolving Fund (DWSRF) and the Clean Water State Revolving Fund (CWSRF), provide federal dollars to New York that, with a 20% match, distributes the money to local governments in the form of low- or no-cost loans to finance projects.[xxxiii] When communities repay these loans, plus interest, the money is circulated back into the program, helping to fund future improvements.

However, these programs have suffered from a chronic lack of federal investment.[xxxiv],[xxv] The CWSRF and DWSRF are able to provide loan assistance to only a small fraction of the projects submitted to them by local governments. The millions of dollars provided each year by the federal government is drastically insufficient to address a statewide need in the tens of billions.

DWSRF: According to DOH and EFC, New York expects to receive a \$45 million allocation from the DWSRF in 2019.[xxxvi] This allocation will contribute to a total of \$250 million in total financing available in 2019. Yet even this total investment still pales in comparison to the over 2,000 drinking water projects submitted by local governments to EFC’s multi-year priority list, totaling over \$7.8 billion in project costs.[xxxvii] DOH estimates that 95% of the projects submitted for inclusion in the DWSRF program remain unfunded due to a lack of available funds. [xxxviii]

CWSRF: According to DEC and EFC, New York expects to receive a \$120 million allocation from the federal government in 2019.[xxxix] EFC anticipates that it will be able to provide \$1.07 billion in financing in 2019. This covers only 9% of the \$11.4 billion in project costs submitted by local governments and included on EFC’s multi-year priority list.[xl]

Federal funding alone will not sufficiently tackle New York’s water infrastructure crisis.

In addition, the projects submitted to these revolving loan funds may only scratch the surface of local governments’ actual needs. A 2018 report from the state Comptroller’s Office, for example, recognized that many municipalities with combined sewer systems often find the cost of updating those systems to be prohibitive.[xli] Many municipalities may be unable to afford to take on large loans, which they must eventually raise the funds to repay. Local governments may not submit projects for loan funding in the first place, obscuring the true scale of New York’s water infrastructure demands.

Conclusion

As New York's water infrastructure continues to age, the challenge of ensuring universal access to clean and healthy drinking water continues to grow. Sewage pollution, outdated wastewater treatment plants, and water main breaks threaten to contaminate our most precious resource.

This report shows a way forward. Current investments in water infrastructure are paying off. Thanks to the Water Infrastructure Improvement Act, communities are completing projects like sewer separations and protecting their drinking water. EFC is moving greater numbers of grant awards out the door as funding increases, and communities are taking notice and responding enthusiastically with a greater number of applications.

Yet our findings also revealed a vast untapped potential for WIIA. EFC has awarded grants to only 50% of eligible applications each year. Shovel-ready water quality improvement projects continue to wait in the wings, held back by a lack of available funding.

A substantial and sustained investment will be needed to build on WIIA's success and protect our state's rivers, lakes, and drinking water. With an estimated need for state investment of \$80 billion over 20 years, New York would need to invest \$4 billion each year to tackle our water infrastructure crisis.

New York is currently far from the level of annual funding needed to fix our pipes. Addressing this gap, and realizing the potential of WIIA, will be crucial to protecting human health and ensuring a strong economic foundation for communities to build on for generations to come.

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