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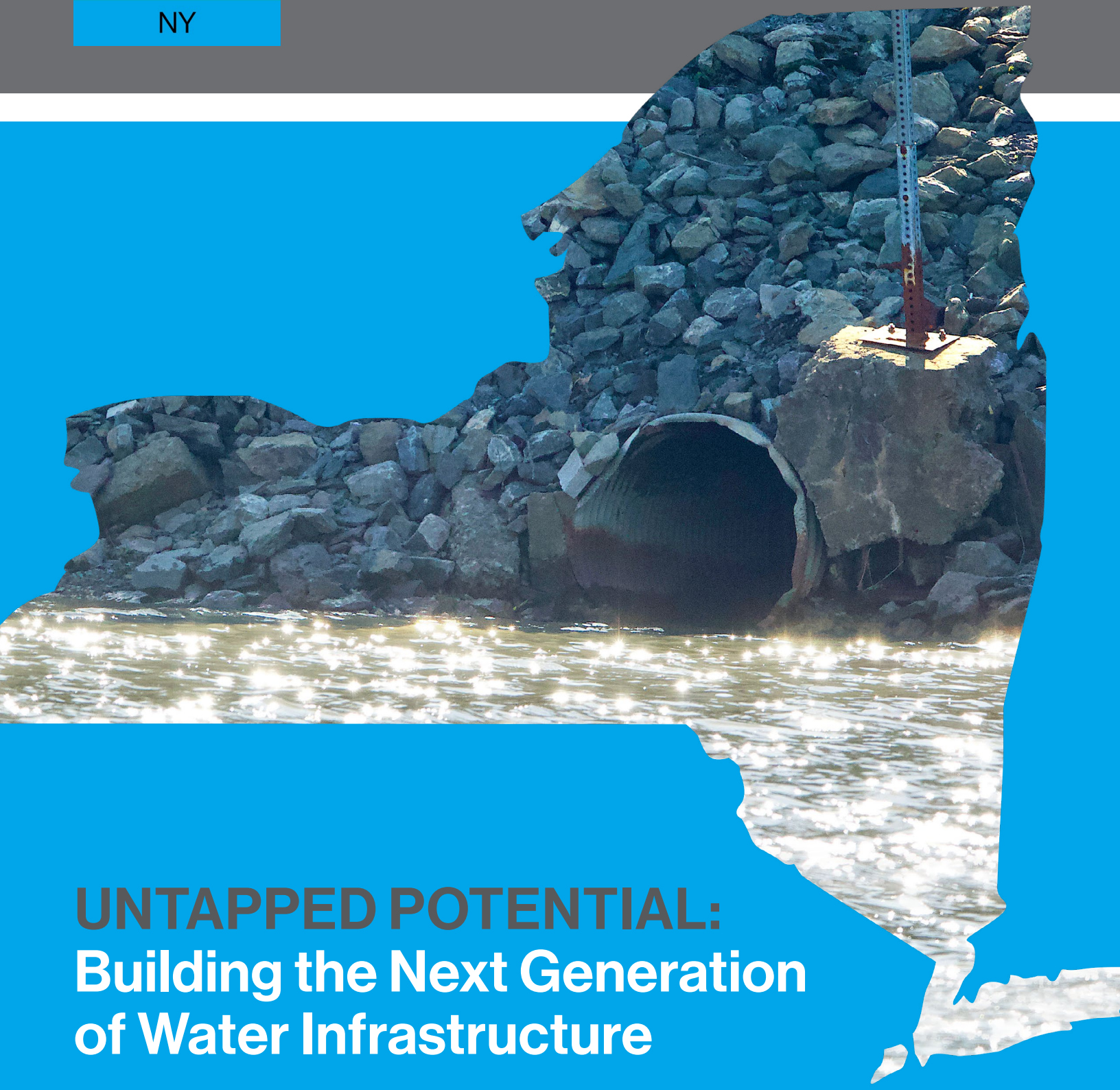

UNTAPPED POTENTIAL:
Building the Next Generation of Water Infrastructure

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$700 M
grant dollars requested in 2019

$400 M
grant dollars awarded in 2019

83
shovel-ready projects left unawarded in 2019

0
new projects awarded in 2020

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The scale of New York's water infrastructure crisis

New York's water infrastructure is aging and crumbling, and it is putting clean water at risk. Outdated wastewater pipes discharge billions of gallons of raw sewage into our lakes and rivers every year. Many treatment plants are operating beyond their intended lifespans or lack the most up-to-date technology to remove contaminants from our water. Frequent water main breaks can shut down streets, disrupt water service to homes and businesses, and cause harmful bacteria to enter drinking water.

The enormity of the need to fix our pipes can be seen in almost every municipality across the state. In New York's capital, the City of Albany, for example, 116 miles of water mains are over 100 years old *(Figure 1)*.[1] Many of these old mains are located in predominantly Black communities, exacerbating environmental injustices.

Unsurprisingly, water main breaks in Albany frequently threaten access to clean drinking water. In 2019 alone, emergency work crews responded to 101 water main breaks *(Figure 2)*. Most of these breaks occurred in the winter months, when frozen ground increases pressure on the pipes. For every 100 miles of pipe, Albany experienced 23 water main breaks in 2019, exceeding the water industry goal of less than 15 breaks per 100 miles.[2]

In 2008, state agencies estimated that it will take **$80 billion** to fix New York's drinking water and wastewater infrastructure.[3] Eighty billion dollars is, in fact, a conservative estimate and certainly now outdated. It does not take into account the resources that will be needed to remove key threats to clean water like lead service lines and emerging contaminants.

Figure 1: Red lines indicate water mains installed before 1920 in the City of Albany.

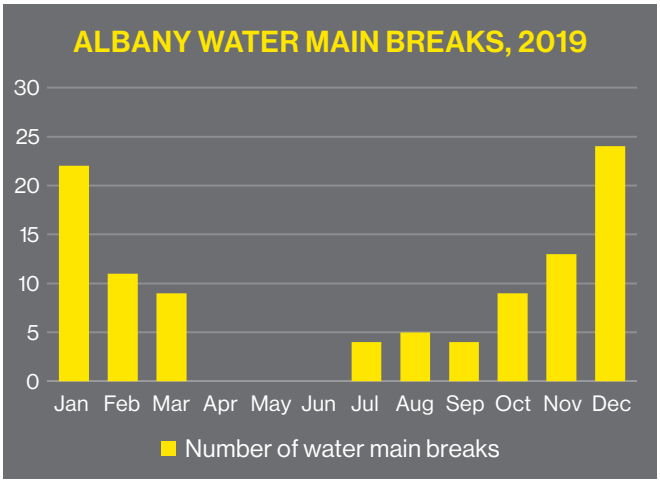

Figure 2

To protect clean water and public health, New York State must make significant investments to repair, replace, and upgrade our broken water infrastructure.

[1] Albany Water Department, Water Main Breaks, eany.org/wp-content/uploads/2021/11/Albany-Water-Main-Breaks.pdf

[2] Ibid

[3] NYS Department of Health, Drinking Water Infrastructure Needs of New York State, 2008, health.ny.gov/environmental/water/drinking/infrastructure_needs.htm
NYS Department of Environmental Conservation, Wastewater Infrastructure Needs of New York State Report, 2008, dec.ny.gov/chemical/42383.html

Analysis of the Water Infrastructure Improvement Act, 2015-2019

In 2015, New York State created the **Water Infrastructure Improvement Act (WIIA)**, which provides grants to local governments to help make water infrastructure upgrades affordable. Without this financial assistance, many drinking water and wastewater projects, most of which have high up-front costs, would not be able to get off the ground.

WIIA's funding has grown significantly since 2015 thanks to the popularity of the program. The following represents how much WIIA has received each year in the New York State Budget since its creation:

Timeline of WIIA funding	
2015	**$200 million** in new funding
2016	**$200 million** in new funding
2017	**$1.15 billion** in new funding, to be awarded over five years • In 2017, Governor Cuomo and the State Legislature created the **Clean Water Infrastructure Act (CWIA)**, which funds a number of clean water initiatives, including land acquisition and lead service line replacement. WIIA was the main beneficiary of CWIA funds, receiving $1 billion of the CWIA's $2 .5 billion. The Intermunicipal Grant Program (IMG), which funds water infrastructure projects that service multiple municipalities, received $150 million. For the purposes of this report, the use of "WIIA" signifies applications and awards for both the WIIA and IMG programs.
2018	**$0** in new funding
2019	**$500 million** in new funding for the CWIA, no line item breakdowns • This was the first installment of $2.5 billion in new CWIA funding promised by the Governor. It is unclear how much of this new $500 million WIIA will receive, due to a lack of line items in the finalized budget bill.
2020	**$500 million** in new funding for the CWIA, no line item breakdowns
2021	**$500 million** in new funding for the CWIA, no line item breakdowns

The NYS Division of Budget (DOB) plays a key role in determining how much of WIIA's total funding is awarded to local governments each year. DOB also has wide discretion to determine how much WIIA will ultimately receive out of the $1.5 billion in CWIA funds appropriated since 2019.

Environmental Advocates NY is committed to tracking and evaluating WIIA through its *Untapped Potential* reports. Each year, we submit a Freedom of Information Law request to the Environmental Facilities Corporation (EFC), which administers the program, to access data on the project applications submitted by local governments for WIIA funding. Our goal is to determine whether New York is succeeding at getting WIIA grants out the door and whether the program's funding is adequate to meet the demand from local governments eager to jump-start clean water initiatives.

This report analyzes WIIA application data from 2019. This is the most recent data on WIIA available because, as will be described later in this report, EFC did not award any new WIIA grants in 2020 due to the COVID-19 crisis. Importantly, the 2019 data contains trends and conclusions to help New York best address its water infrastructure crisis moving forward. The report's three main conclusions are as follows:

(continued on page 5)

1. WIIA was more successful than ever in 2019.

WIIA continued to prove its popularity with local governments in 2019. Local governments requested about $700 million in financial assistance, exceeding the total amount requested in 2017 and falling just short of the 2018 total *(Figure 3).* Importantly, the total grant dollars requested for "shovel-ready projects" (awarded and unawarded) continued to climb in 2019, breaking the $500 million mark for the first time in the program's history.

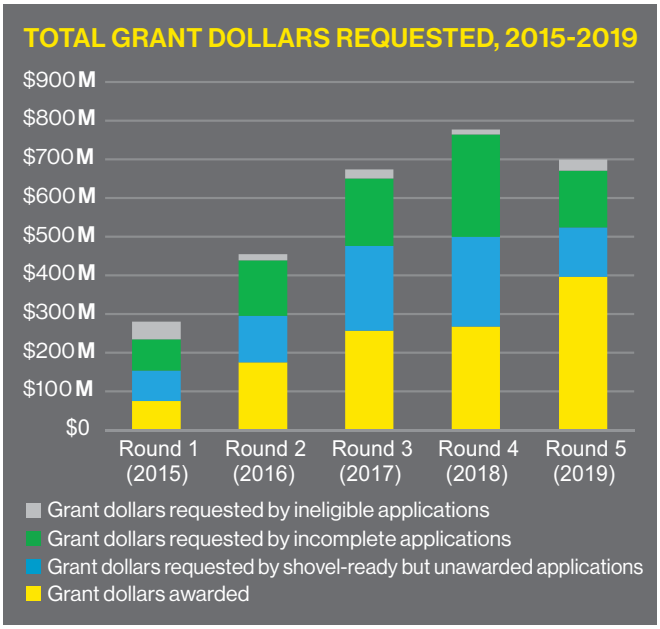

Figure 3

Notes on Figure 3 categories:

- **Ineligible applications** cannot receive a WIIA grant. An application is deemed ineligible if another application with the same scope was already awarded a grant, the applicant was already awarded the maximum grant, the proposed project has almost completed or completed construction, or the application is outside of WIIA's scope of funding.
- **Incomplete applications** are good fits for WIIA grants but are missing a comprehensive engineering report or other important paperwork. Incomplete applications can be resubmitted for funding in future years.
- **Shovel-ready applications** are fully eligible to receive a WIIA grant. These applications include all of the necessary paperwork, including information on a project's costs and timeline. Often, the only green light that shovel-ready projects need to begin accepting construction bids is a grant award."
- **Awarded applications** received grant funding.

EANY's previous *Untapped Potential* reports had identified that more WIIA funds needed to go out the door each year to keep up with the strong demand from local governments.[4] In response to the popularity of previous grant cycles, the Governor and State Legislature included an additional $500 million for the CWIA in the 2019 state budget. This new appropriation created the opportunity to significantly increase the number of clean water grants to communities across the state in 2019.

State agencies stepped up to meet the moment; WIIA's funding capacity dramatically expanded in 2019. EFC awarded more WIIA funding in 2019 than ever before: $396 million to 186 projects, far surpassing the $267 million awarded in 2018. In WIIA's past four grant cycles, only about 35% of applications each year received a grant award. In 2019, 50% of all applications received a grant award.

Every region of the state continued to benefit from WIIA grants, with Long Island receiving an especially high amount of funding in 2019 *(Figure 4).*

Region	Grant dollars awarded 2019	Grant dollars awarded 2015-2019
Capital District	$24.6 million	$156.1 million
Central New York	$29.4 million	$85.6 million
Finger Lakes	$27.5 million	$96.9 million
Long Island	$158.4 million	$225 million
Mid-Hudson	$58.9 million	$177.6 million
Mohawk Valley	$17.3 million	$90.6 million
North Country	$24.4 million	$115.4 million
Southern Tier	$22.7 million	$111.6 million
Western New York	$25.4 million	$103.2 million

Figure 4

It will be critical to build on WIIA's success in 2019 and continue the trend of boosting the amount of grant dollars awarded.

[4] EANY, Untapped Potential: New York's Growing Water Infrastructure Need. February 2020, eany.org/eanypdfs/eany_2020_water_report_1.pdf

2. More funding is still needed.

Despite these successes, WIIA's level of funding in 2019 was still not enough to provide financial assistance to every shovel-ready project submitted by local governments. Even with a slight decrease in total applications, 83 shovel-ready applications did not receive a grant award in 2019, almost a third of the total shovel-ready applications submitted *(Figure 5).* These projects represent a missed opportunity to protect clean water. The lack of sufficient WIIA funding likely forced many local governments to put their projects on hold.

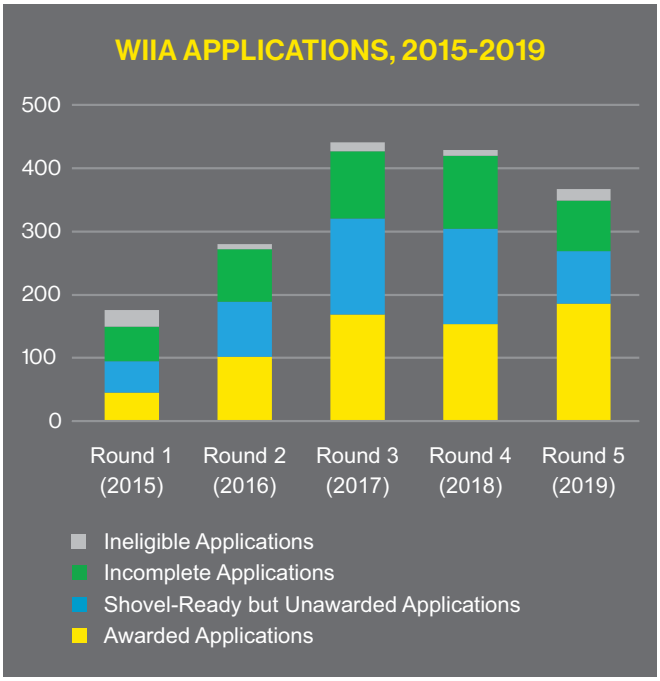

Figure 5

Interestingly, a significant boost in **grant dollars** awarded did not provide a correspondingly large boost in the number of **projects** awarded in 2019. The number of grant awards only modestly increased, from 153 awards in 2018 to 186 awards in 2019.

One reason is that WIIA is facing new needs from projects to remove the toxic chemicals Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonic acid (PFOS), and 1,4-dioxane from drinking water, which can be more expensive than traditional water infrastructure upgrades. During its 2018 grant cycle, EFC awarded $42 million to 13 emerging contaminant treatment projects on Long Island.[5] In 2019, EFC essentially tripled these numbers, awarding $120 million to 37 Long Island projects to remove PFOA, PFOS, and 1,4-dioxane from drinking water *(Figure 6).*

The average grant award for emerging contaminant projects in 2019 was $3.2 million, almost double the $1.8 million average for traditional water infrastructure projects that cycle. The result is that New York is spending more money on fewer projects.

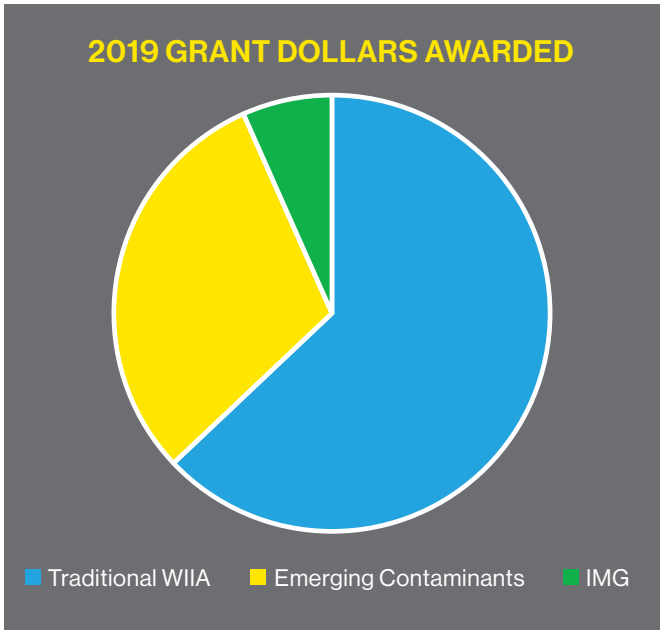

Figure 6

Funding emerging contaminant treatment is essential to ensure safe drinking water for all New Yorkers. But given the greater costs of these projects, a greater annual level funding for WIIA is required. Critical water infrastructure upgrades should not be left waiting in the wings.

[5] Environmental Facilities Corporation, NYS Water Grants 2018 Awards, nysefc.app.box.com/s/1roammg7faml4knui4iy8fagojb0kjxa

3. COVID-19 brought WIIA to a halt. The program has a lot of ground to make up.

With $500 million in new funding for the CWIA in the 2020 state budget, WIIA was primed to build on its 2019 success. But disappointingly, EFC did not release its usual Request for Proposals for WIIA applications in 2020, nor did EFC award any new WIIA grants that year. DOB froze new spending, including from the CWIA, during the COVID-19 pandemic. As a result, none of the 83 shovel-ready but unawarded applications, or the 80 incomplete applications, from 2019 had a chance to reapply for grant funding and get off the ground in 2020 *(Figure 7).* The Hudson Valley and Long Island had an especially large number of projects they were unable to resubmit for funding.

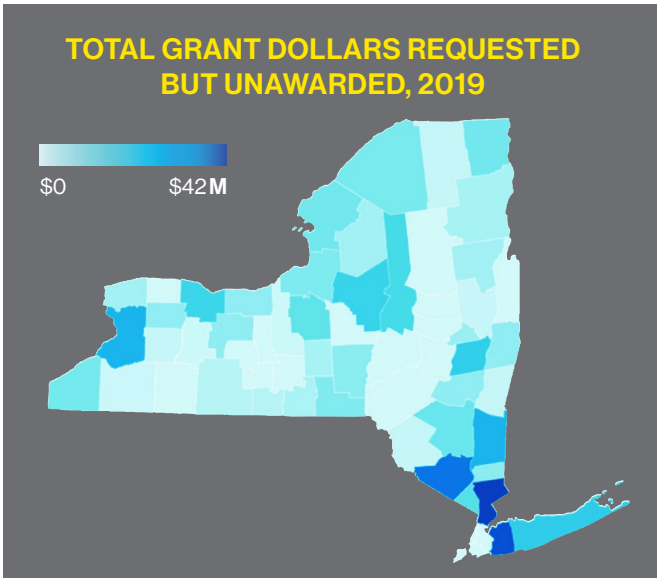

Figure 7 (ineligible projects excluded)

There is enormous pent-up demand for WIIA grants. Local governments had an additional year to prepare engineering reports and other documents for submission, and they need financial assistance more than ever as local revenues have plummeted during the pandemic.

In addition, the NYS Department of Health (DOH) finalized new drinking water standards for PFOA, PFOS, and 1,4-dioxane in August 2020. Over 3,000 water utilities are currently testing for these chemicals, many for the first time. Over 150 water utilities have exceeded the new standards for PFOA, PFOS, and 1,4-dioxane so far.[6] WIIA will soon face a wave of new requests from these communities and others who need help removing these toxic chemicals from their drinking water. This demand will continue to grow as testing identifies other emerging contaminants that need to be eliminated.

CASE STUDY: The City of Auburn is one example of a community counting on WIIA funding to jump-start clean water projects. In an interview, water department staff detailed several projects in the final design stage, including a planned $7-8 million upgrade of two drinking water treatment plants, one of which is over 100 years old and has never received a major renovation. The city also has plans for $20 million worth of wastewater infrastructure improvements to reduce sewage overflows. Auburn hopes to apply for grant funding this year; if financial assistance is secured, construction bids could be quickly released. However, water department staff stated that the city cannot afford to embark on these projects without grant funding.

WIIA remains essential to jump-starting projects and protecting clean water across the state. Clearing the backlog of shovel-ready applications must be a top priority in 2021.

[6] NYS Drinking Water Quality Council meeting, October 2021, totalwebcasting.com/view/?func=VIEW&id=nysdoh&date=2021-10-05&seq=1

Conclusion

Each time we see a wooden pipe pulled out of a city street in New York, we are reminded of how outdated our infrastructure is. Now it is time to build the next generation of water infrastructure, centering environmental justice and ensuring investments reach communities that have been harmed the most by water pollution and loss of access to water.

New York has the grant program in place to put this vision into action. WIIA was more successful than ever in 2019, demonstrating the program's capacity to significantly increase the number of clean water grants it awards. The demand for water infrastructure funding has remained strong, with communities eager to embark on projects and stimulate local economic development.

But there is still more work to do. WIIA needs to get back on track after falling behind in 2020. The program will need to address a backlog of shovel-ready projects, new emerging contaminant treatment needs, and increasing strains on our infrastructure from the climate crisis.

Fortunately, Governor Hochul's administration has started to get money out the door. In September, the Governor announced that EFC is accepting new WIIA applications for the first time since the pandemic began, and that $400 million will be awarded to local governments.[7] Restarting the WIIA program is a critical step, but much more funding still needs to be released. $2 billion of Clean Water Infrastructure Act funds were held back during the pandemic, of which WIIA should receive close to half. Additional major funding announcements are needed soon to put these grants to work across the state.

More research is also needed to ensure that WIIA grants are directly benefiting environmental justice communities and that disadvantaged populations are not being left behind. The data we received from EFC unfortunately did not include granular information on the locations of proposed projects within each community; to ensure equity in funding of clean water projects, EFC must provide more demographic details.

Finally, this report identifies a critical conclusion for the upcoming 2021-2022 New York State Budget. This year marks the end of the five-year, $2.5 billion investment in the CWIA begun in 2017; there is no guarantee of additional CWIA funding in 2022. Our analysis provides a guide to how much annual investment is needed to fully fund WIIA moving forward. Between 2017 and 2019, local governments requested approximately $500 million in WIIA funding each year for shovel-ready projects. This demand has likely been maintained or even grown in the last two years, and will continue to do so.

Should WIIA continue to comprise about half of CWIA funding, New York will need to invest at least $1 billion annually in the CWIA. A line-item allocation for WIIA in future budgets is critical to ensure this program continues to receive an adequate amount of total funding.

COVID-19 made clear how essential clean water is. As the economic crisis caused by the pandemic continues to reverberate across the state, investing in water infrastructure upgrades will help water utilities put people to work in good-paying jobs and decrease the pressure to increase water rates. In 2019 alone, New York's water infrastructure grants created 20,000 jobs across the state. By building the next generation of water infrastructure, New York can achieve a win-win for public health and the economy and ensure every New Yorker has safe, affordable water.

[7] Office of the Governor, Governor Hochul Announces $600 Million In Grants Available for Water Infrastructure and Resiliency Projects Statewide, Outlines New Resilient New York Agenda, September 2021, governor.ny.gov/news/governor-hochul-announces-600-million-grants-available-water-infrastructure-and-resiliency

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