The County Perspective

On

Water Quality and Implementing the State’s Clean Water Infrastructure Act

Testimony submitted
by the

New York State Association of Counties

To the

Assembly Standing Committee on Environmental Conservation,
Assembly Standing Committee on Health, and the
Assembly Subcommittee on Oversight of the Department of
Environmental Conservation

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Introduction
Local government is at the heart of New York State and plays a critical role in protecting New Yorkers from unsafe drinking water. The mission of the New York State Association of Counties (NYSAC) is to represent, educate, advocate for, and serve New York’s counties and the thousands of elected and appointed county officials who serve the public. As the voice of county leaders throughout state, NYSAC is steadfast in communicating the needs and recommendations of our county officials to State lawmakers.

Counties strongly supported the inclusion of $2.5 billion in multi-year funding for water infrastructure projects in the 2017-18 State Budget. New York State has some of the oldest water infrastructure in the nation. Aging water infrastructure, deteriorating pipes, struggling wastewater treatment plants, and water main breaks have become commonplace throughout the state. Without this vital funding, the cost of necessary improvements would be passed on to counties, other local governments, and local taxpayers.

The Clean Water Infrastructure Act provides much-needed support to municipalities. Unfortunately, county governments will struggle with its implementation without additional resources. Our county health departments, particularly environmental health programs, face ongoing pressure on limited local resources due to increases in workload necessitated by emerging public health threats and state regulatory and statutory changes. For example, regulations related to the protection against Legionella, statutory mandates for lead testing of school drinking water supplies, and new beach reopening procedures for areas impacted by harmful algal blooms (HABs).

As the State moves forward with the implementation of the Clean Water Infrastructure Act, local health departments will again see increased work related to monitoring and technical assistance to municipalities and individual homeowners that make the system improvements afforded by the new funding. Increased monitoring of public water supplies will also be necessary as currently unregulated contaminants may become regulated. In light of the increased responsibilities on local health departments, along with ongoing and emerging threats to public health, we respectfully request additional Article 6 funding in the 2018-19 State Budget, as detailed at the end of our written testimony.

County Concerns Regarding Water Quality in NYS
We are pleased to see renewed focus on the issue of drinking water safety and on research to better define the potential health risks and available analytical and treatment technologies associated with some emerging contaminants. Such research is imperative to provide a factual basis for determining whether regulation is justified by risk and, if so, at what regulatory Maximum Contaminant Level (MCL).

The process prescribed by the federal Safe Drinking Water Act for developing a MCL includes rigorous assessment of analytical methods, treatment technologies, risk-benefit analyses, and cost-benefit analyses. This assessment process is needed, regardless of whether it is conducted at the federal or state level, to ensure our actions do not result in unintended consequences (e.g. unwarranted diversion of resources away from programs that may be more important for protection of the public health, or worse yet, the creation of acute public health risks as a result of our efforts to address something that preliminary results suggest may represent a chronic risk).
Such assessment is, of course, also useful to ensure public funds are used for actions that are warranted for protection of public health.

We would like to raise awareness of some common contaminants that are already regulated. While they may not currently be in the news, the cost of treatment systems or preventative actions required to address existing regulated contaminants can, in some cases, represent a burden on taxpayers that might appropriately be considered for Act funding.

Chloride
Little attention has been focused on a quickly (and broadly) emerging problem with chloride contamination. Although chloride has no established direct health impacts, it does render water undrinkable due to aesthetic issues and can increase corrosivity. Thus, high chloride levels (i.e. above the 250 mg/L MCL) may be a factor in leaching of lead service lines and copper plumbing. Should a Public Water Supply (PWS) close as a result of chloride contamination, it can cause immediate, acute public health and sanitation risks if an alternate supply is unavailable.

There is a need to reduce salt use statewide and to acknowledge that salt application is dramatically contaminating our drinking water sources. Virtually every municipality in New York State (including the state itself) uses chloride salts for deicing roadways. Not surprisingly, chloride concentrations in groundwater have increased dramatically over the past several decades. The cost of treatment is prohibitive for many PWSs, large and small, since reverse osmosis is the only viable option. Some PWS sources have already been taken out of service, and some PWSs have had to resort to purchasing water from alternate suppliers. Some municipalities have adopted best-management deicing practices in an effort to reduce the amount of salt used.

The cost of reverse osmosis plants to treat salt-contaminated source water will be staggering if we continue on the current trajectory. We recommend increased focus on this problem by the Drinking Water Quality Council. Potential use of non-chloride products in targeted “problem” areas should be evaluated, along with uniform use of best-management practices to reduce the total amount of salt used.

Additional research may also be warranted in areas where brines derived from natural gas wells have been used for deicing. Production brine is a naturally occurring byproduct of extracting gas and oil from the earth. More simply, it is very old groundwater present in the reservoir rock from which gas and/or oil is produced. Little research has been done to identify impacts that road spreading of such brine has on the environment and human health. More frequent and consistent chemical analysis of brine is needed to ensure we know what constituents are being introduced into drinking water sources.

Harmful Algal Blooms (HABs)
Harmful Algal Blooms (HABs) are caused by cyanobacteria, also known as blue-green algae, that release toxins into a water body, creating health risks to humans and animals. These toxins include both hepatotoxins and neurotoxins that can pose serious health threats, including skin or throat irritation, breathing difficulties, nausea, vomiting, diarrhea, neurological problems, and, in severe cases, organ failure and death.
Not all cyanobacteria release toxins, and not all algal blooms are harmful. The occurrence of HABs is not well understood, but they develop in a water body from some combination of variables that trigger its growth, which include just the right level of: nutrients (nitrogen and phosphorus), light, water temperature, calm winds, and an algal seed population. HABs are not new; they have been documented as causing human illness in the U.S. since the 1930s. However, they have become more prevalent in recent years across the country and in New York State, and, with that, the science of analyzing water for HAB toxins has greatly improved.

Problems caused by HABs in New York started with beach closures about ten years ago. Then, in 2016, the HAB toxin microcystin was found in treated drinking water. In 2017, microcystin toxins were detected in treated drinking water from six of the 20 PWSs sampled in upstate New York. So far, all these results have been less than EPA’s Health Advisory Level for microcystin toxins of 0.3 parts per billion (ppb) for children under six and 1.6 ppb for older children and adults. These 20 PWSs were sampled as a precaution because HABs were observed in the source water.

HABs are increasing in frequency and extent in New York State, and their toxins are one of the most worrisome emerging contaminants faced by drinking water utilities using surface water because the public health community does not know enough about them. The following are NYSAC’s recommended actions to address harmful algal blooms in New York’s drinking water supplies:

1. Provide funding at both the state and local levels to expand watershed management efforts that reduce nutrients and source water eutrophication. Two dormant state programs that can be resurrected to do this are the Source Water Assessment Program and the Watershed Rules and Regulations Program. Both of these will reduce risks from HABs and other point and NPS pollutants that directly or indirectly pose significant human health risks, and they will improve general water quality, which impacts tourism and recreation.

2. Provide funding to increase monitoring of raw and finished water at systems to fully evaluate the problem in New York State. The NYSDOH recommends that water systems monitor increases in pH, turbidity, color, and shorter filter runs if HABs are a potential hazard, and new EPA mandates require large systems to sample treated water for HAB toxins, but neither the NYSDOH nor the EPA require testing of raw water or testing at small systems. A raw water monitoring program triggered by the presence of HABs in source water and followed by monitoring of finished water when raw levels exceed an action point is needed. Additional resources to increase the NYSDOH’s Wadsworth Laboratory capacity is one way to address this need.

3. Push EPA to establish science- and health-based maximum contaminant levels for HAB toxins. It is inappropriate to simply treat Health Advisory Levels, which EPA is careful to qualify as preliminary and subject to change, as regulatory values without adequate assessment, such as prescribed by the Safe Drinking Water Act.

4. In the event MCLs for algal toxins are promulgated, funding should be provided to PWSs to assist with any new treatment that may be required to meet the new standards.

5. Provide funding directly to PWSs to troubleshoot and improve water treatment capabilities. This should include optimizing treatment to prevent toxins from reaching finished water, conducting pilot testing of new treatment processes, and funding full-scale projects shown to reduce/eliminate HAB toxins.
Note that while these actions focus on reducing HAB toxins in drinking water, they will also reduce other contaminants, such as carcinogenic disinfection byproducts with which many water supplies also struggle.

**County Concerns Regarding the Clean Water Infrastructure Act of 2017**

While counties strongly support the $2.5 billion investment in water infrastructure included in the Clean Water Infrastructure Act, we have a number of concerns with the Act’s implementation. We believe the Septic System Replacement Fund would be most effectively used if local health departments were directly involved in identifying areas eligible for reimbursement. We urge the State to provide greater assistance to small systems that are struggling but not yet non-compliant or in a state of emergency. We support more public input and planning for land acquisition projects and believe there is not enough being done to identify risk and control sources of contamination to existing or new public drinking water supplies. Finally, we are concerned that the Act precludes use of its public funds to regulated, privately-owned PWSs because this disadvantages thousands of New York State residents whose tax payments have funded the Act.

**Selection of Priority Geographic Areas for the Septic System Replacement Fund**

The purpose of State Septic System Replacement Fund is to replace existing cesspools and septic systems that are having environmental and/or public health impacts to groundwater used for drinking water or to a threatened or impaired waterbody. Funds may be used to reimburse property owners for up to 50 percent of the cost, up to ten thousand dollars, for systems that treat up to 1000 gallons of waste per day. These septic systems are overseen directly by local health departments in over 25 counties in New York State; however, neither NYSDEC nor NYSDOH consulted with local health departments in identifying priority geographic areas or participating counties for this program.

Local health departments typically have expertise in these septic systems and understand what areas in their county may have systems that are old or with poor routine maintenance that could lead to onsite system failure and water quality impacts. They are often aware of situations such as lake-front residential developments where overused, aging systems exist on undersized lots or where residents could be using water sources, such as shore wells, that are particularly susceptible to contamination. They know their communities and where limited financial resources for septic system replacement may be one of the biggest challenges in protecting water quality. Their permitting programs ensure that septic systems are designed and constructed to protect neighborhood and county water resources.

We believe that the State Septic System Replacement Fund is a valuable resource for New York State residents, and the funds would be most effectively used if local health departments were directly involved in identifying areas eligible for reimbursement.

**Relief Needed for Small Systems**

In implementing the Act, infrastructure improvement funding should be used to provide relief to small systems. The current funding options often are out of reach of these small and often financially-restricted supplies, as they benefit only larger systems or those systems which have gone into non-compliance. Greater assistance should be provided to the small systems that are struggling but not yet non-compliant or in a state of emergency.
In Chautauqua County, for example, the 18 municipal PWSs that serve less than 14,000 people have invested over $70 million to address failing infrastructure over the past 10 years, including new mains, storage tanks, treatment plants and wells. Of these, five systems serve over 1,000 people and have invested an average of $5 million each to upgrade, forcing them to raise water rates to high levels because they do not have a large customer base to spread out the costs. It is important to provide funding to small systems to protect taxpayers from these rate increases. This could be done by easing up on hardship requirements, offering more grants, or increasing the length of loans to provide for lower payments.

Arsenic poses another problem for small systems. One of the last MCLs promulgated at the federal level was the reduction of the arsenic MCL from 50 ug/L to 10 ug/L. This change resulted from substantial toxicological and epidemiological evidence of human health risks associated with chronic arsenic exposure. It is interesting to note that the final MCL is higher than initially considered based solely upon health risks, primarily as a result of an assessment of the untenable cost associated with meeting a lower MCL nationally. Nonetheless, some PWSs are still struggling to fund the installation and operation of arsenic treatment systems required by the reduced MCL. In many cases, the arsenic is naturally occurring, thus there is no “responsible party” that can be expected to cover the costs. In Tompkins County, small systems and mobile home parks, in particular, have had difficulty addressing MCL violations because of funding limitations. The Clean Water Infrastructure Act fails to address operating and maintenance costs that can become prohibitive for small systems.

More Public Input and Planning Needed for Land Acquisition Projects
Land acquisition projects should be required to follow a well-defined process. As a minimum, this process should include: (1) A source water assessment report following EPA or NYSDOH accepted guidelines; (2) land use planning following accepted guidelines, such as Land Based Classification Standards (LBCS) or other standard designated by NYS; and (3) public input following accepted federal or state guidelines.

More Source Water Protection Initiatives Needed
While counties support the formation of a new Drinking Water Quality Council, the creation of a new Water Quality Rapid Response Team, and the enactment of a new Emerging Contaminant Monitoring Program, not enough is being done to identify risk and control sources of contamination to existing or new public drinking water supplies. Source water protection should be at the heart of efforts to provide New Yorkers with clean drinking water.

Watershed and Wellhead Protection
In the early part of the Twentieth Century, NYS had a robust Watershed Rules and Regulations (WR&R) program pursuant to PHL § 1100. The vast majority of those enforceable regulations are now archaic and obsolete. In the latter half of the century, fewer and fewer communities adopted any form of WR&R or Wellhead Protection Plans. Consequently, a majority of existing public water supplies have no legally enforceable protections for their drinking water supply watersheds and well recharge areas beyond the land they physically own.

In the late 1970s and early 1980s, there was a study and proposal to develop statewide WR&R and a set model local codes, but this initiative was dropped. Consequently, since very few communities have the expertise or capacity to develop and enact local laws and zoning to protect
their sources of drinking water, most remain susceptible to microbiological and chemical contamination from commercial, industrial, and agricultural activities and land uses.

New York State must look to revitalize and restructure universal and effective drinking water supply Watershed R&R and Wellhead Protection Programs.

**Contaminant Risk Evaluations**

In conformance with the federal Safe Drinking Water Act amendments of 1996, the NYSDOH implemented a Source Water Assessment Program (SWAP). Thus, between 2000 and 2003, local and state health department offices collected detailed well and watershed information for the more than 8,500 public water systems in NYS. The NYSDOH hired an engineering consulting firm to complete individual SWAP reports for over 12,300 well sources, and health department staff were then used to review the reports and assist the preparation of SWAP summaries, which were then made available to the municipalities and public.

Performing a source water assessment involves three steps:

1. Delineating where the water used for a public drinking water system comes from (i.e. define wellhead recharge areas and surface watershed boundaries);
2. Inventory all land uses and potential sources of contamination within those areas that may impact drinking water quality; and
3. Perform a susceptibility analysis to determine each source’s level of risk to microbiological, chemical, or radiological contamination.

SWAP program reports and data were then supposed to be used to direct local and state efforts to protect public drinking water sources by:

1. Maximizing access to up-to-date information;
2. Developing and emphasizing use of a statewide geographic information system (GIS); and
3. Developing and emphasizing state-local partnerships and work groups to discuss technical issues and solicit source water protection ideas and measures.

Unfortunately, all these thousands of SWAP reports are now nearly 15 years old and have never been re-evaluated or updated. Furthermore, the follow-up program goals of developing a statewide GIS system and having a Source Water Protection Coordinating Committee oversee program development and implementation never materialized. Consequently, no new modern strategies have been developed or pursued for bringing stakeholders together to legally protect the critical watershed and aquifer recharge areas that are vital to ensure the future quality of drinking water all across NYS.

Without an active and ongoing Source Water Assessment Program, how can state lawmakers and program managers identify and address priority water and natural resource needs, or focus funding and support to those programs and mandates that will have the greatest impact for future generations of New Yorkers?

**Exclusion of Regulated Privately-Owned Public Water Supplies (PWSs)**

The current wording within the Clean Water Infrastructure Act of 2017 would make funding available only to municipal water systems. This precludes use of these public funds to support improvements to some PWSs regulated by the New York State Public Service Commission (PSC).
These regulated PWSs supply water to large numbers of New York residents whose tax payments have funded the Act.

For example, approximately 90% of Rockland County’s 330,000 residents is served by Suez Water New York, a regulated, privately-owned PWS. Any needed infrastructure improvements must currently be funded wholly by their customers through PSC-approved water rates. Since these Suez Water New York customers are also state and federal taxpayers, Act funding should be available for consideration to offset the cost of necessary infrastructure improvement. The NYSPSC could be called upon to ensure the funds go directly to offset customer rates and not to company profits.

**Relevant County Budget Asks**

In light of the increased responsibilities on local health departments, along with ongoing and emerging threats to public health, we respectfully request additional Article 6 public health funding in the 2018-19 State Budget as follows:

1. Increase the base grants that ensure 100% reimbursement of local expenditures:
   a. Increase the base grant to Full Service LHDs (i.e. those with environmental health units) from $650,000 to $750,000.
   b. Increase the base grant to Partial Service LHDs (i.e. those smaller counties with no environmental health unit) from $500,000 to $550,000.
   c. Increase the per capita rate for the largest counties from 65 cents per resident to $1.30 per resident to address structural inequities in per capita support for public health.

2. Increase the beyond-base-grant state aid reimbursement rate from 36% to 38%.

3. Provide 100% reimbursement for the first full year of any new and/or significantly expanded mandates emerging from law, rule, or regulation.

Additional funding for local health departments is necessary to fulfill our shared mission to protect public health and ensure the quality of our water.