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NYS Assembly Committee on Health
NYS Assembly Committee on Environmental Conservation
Subcommittee on Oversight of the Dept. of Environmental Conservation

Implementation of the water quality investments in the 2017-18 budget

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Thank you, Chairman Englebright, Chairman Gottfried and Chairwoman Fahy, and members of each committee and subcommittee, for the opportunity to testify today.

Riverkeeper is a membership organization with nearly 55,000 members and constituents. Riverkeeper protects the environmental, recreational and commercial integrity of the Hudson River and its tributaries, and safeguards the drinking water of nine million New York City and Hudson Valley residents.

With my testimony today, I aim to demonstrate the impact of New York State’s historic investments in clean water, describe the ongoing need for continued investments, and identify how additional actions can complement the important steps already taken in order to assure effective watershed management, water efficiency and equitable pricing. I will use the example of the 100,000 people who rely on the Hudson River for drinking water to illustrate some of these challenges and opportunities.
To build on the historic advancements Governor Cuomo and the Legislature have made in water infrastructure and drinking water protection, Riverkeeper is calling for a new initiative, Reforming the Water Vision, to bring innovation and excellence to gaps that remain: the protection of water at its source, water conservation and equitable pricing.

Recent actions by Governor Andrew M. Cuomo and the Legislature have set the course for New York State to be a national clean water leader. These actions include the Sewage Pollution Right to Know Act in 2012; the Water Infrastructure Improvement Act in 2015, and the doubling of the state’s commitment to it in 2016; the establishment of the Governor’s Water Quality Rapid Response Team in 2016; and of course the historic actions associated with the FY2018 budget in 2017, including the Clean Water Infrastructure Act and establishment of the Drinking Water Council, as well as emerging contaminant monitoring requirements and Source Water Assessment funding in the Environmental Protection Fund.

These actions can be seen as the second or third wave of historic leadership on clean water from New York State. In 1965, voters approved Governor Rockefeller’s Pure Waters Bond Act, which preceded the modern Clean Water Act and provided funding for wastewater infrastructure. In today’s dollars, the Pure Waters Bond Act’s $1 billion investment would equal nearly $7.8 billion.

Even before the approval of the Pure Waters Bond Act, New York was a leader in clean water action. New York State is home to both the nation’s first drinking water treatment facility, in Poughkeepsie, and the nation’s first wastewater treatment facility utilizing secondary treatment, in Gloversville. Of course, our state is also home to the nation’s most celebrated source water protection program, for New York City’s drinking water supply.

Focus on drinking water contaminants - while necessary and timely - brings our attention to testing for contaminants that are already present, developing alternate drinking water supplies rapidly when necessary to protect public health, proactively identifying the sources of contaminants, and eliminating them. Investing in water infrastructure is a proactive strategy, though the recent investments can be seen as reactive to a crisis created by decades of under-investment. Our proposal for a “Reforming the Water Vision” initiative would bring more proactive strategies to the vital task of preventing crises, ensure efficient use of the water we use, and creating pricing structures that avoid burdening those who can’t afford it with the costs of essential water investments.
Critically, staff at the Department of Environmental Conservation - and particularly in the Division of Water - must be restored in order to implement any of these recommendations, and to fully implement provisions of the Clean Water Act and Environmental Conservation Law that they complement. The complexity and number of challenges faced by the Department of Environmental Conservation are ever greater, and yet the Division of Water has roughly 100 fewer staff than 25 years ago, and about one in three jobs devoted to clean water programs is Environmental Protection Agency-funded, and therefore at risk of President Trump’s assault on the agency’s budget. We simply must invest in those who do this work. Our public servants working on water lack nothing in professionalism, ability, intelligence, dedication or persistence. What they lack is colleagues.
REFORMING THE WATER VISION

New York State can accomplish this “Reforming the Water Vision” initiative through an update to its Water Resources Strategy, which is required under Environmental Conservation Law (Article 15, Title 29). This update can serve as a vehicle for advancing a Reforming the Water Vision akin to Governor Cuomo’s “REV: Reforming the Energy Vision” initiative, and build on the work of the Water Quality Rapid Response Team, the Clean Water Infrastructure Act, and the Drinking Water Quality Council. Connecticut recently completed a new State Water Plan\(^1\), aspects of which may serve as a model. Watershed protection in a home rule state poses particular challenges: watersheds do not follow municipal boundaries, and those suffering the consequences of upstream mis-management often have little power to protect or restore their water. The failure of meeting these challenges - particularly where public drinking water supplies are concerned - results in significant costs, both in remediation and public health. Water lost through waste, or failures of wastewater treatment represent real costs to communities and taxpayers. A new strategy should establish, through funding, staffing and coordination of existing programs and a set of new initiatives, a water resources management strategy to advance proactive programs for watershed management, source water protection, water conservation and equitable pricing.

Elements of a comprehensive strategy should include, but not necessarily be limited to:

- **Water Resources Planning Council**
  Like the Water Quality Rapid Response Team, and the Drinking Water Council, the Water Resources Planning Council was enacted (ECL Article 15, Title 29) as a body to coordinate the efforts of multiple state agencies, including not only the Departments of Environmental Conservation and Health, but also Agriculture and Markets, Transportation and others. It was also to have included appointees outside of any state agency. Its focus was to be on water quantity, but quality could and should be a focus of a reconstituted council, with a particular focus on Source Water Protection. While some of the functions of this Council are today fulfilled by the Water Management Advisory Committee of the DEC Division of Water, a fully funded and staffed Council should be empowered and directed to implement new proactive strategies for watershed protection, conservation and equitable pricing. The Hudson River Estuary Management Advisory Committee in our state, and Jersey Water Works, in New Jersey, are models to consider for developing and implementing a water resources strategy with multiple stakeholders, both in and out of government. Our colleagues at Citizens Campaign for the Environment have taken an early step in this direction by convening a group of stakeholders to discuss water policy and seek consensus.

• **Source Water Assessments**
  In its 1996 amendments to the Safe Drinking Water Act, Congress required the creation of Source Water Assessments that were meant to describe risks to public drinking water supplies, and strategies for reducing or eliminating them. In many if not most communities in New York, these assessments have not been used to develop protection programs, and are neither up-to-date nor in active use. The Environmental Protection Fund included $5 million for Source Water Assessments, a new investment in the FY2018 budget, and the most significant investment since the original assessments were completed by the Department of Health. The Department of Environmental Conservation and Department of Health are prioritizing updates of existing Source Water Assessments for public water supplies, with the goal of making these plans actionable. This work should continue indefinitely.

• **Source Water Protection Programs**
  The Clean Water Infrastructure Act committed $110 million to land conservation as part of Source Water Protection programs. This investment catalyzed long-overdue conversations between land trusts and communities, highlighting gaps in knowledge that have inhibited effective source water protection. This funding should continue and be expanded to include a range of activities that may be needed to protect or restore source waters, as source water protection programs are developed for more public drinking water supplies. Protecting “natural infrastructure” via traditional gray infrastructure financing programs, such as California is doing with AB2480, establishing that “source watersheds are recognized and defined as integral components” of water infrastructure,\(^2\) should also be explored.

• **Watershed Rules and Regulations**
  Watershed Rules and Regulations (Public Health Law § 1100) form the basis for New York City’s world-renowned source water protection program, in part by giving the city some jurisdiction to enforce protections far outside its municipal boundaries. Most public water supplies in the state, however, lack updated Watershed Rules and Regulations.\(^3\) As a result, communities responsible for delivering clean water via public drinking water systems are virtually powerless to protect the source of their water, which in most cases includes watersheds in other municipalities, which, under Home Rule, may or may not enact protections to ensure the quality of water downstream. While Clean Water Act protections, which came after the adoption of Watershed Rules and Regulations, can fill the gap to a degree, those responsible for public water supplies - including those convened by the Hudson River Estuary Program this Fall - express a clear and urgent desire for more robust tools they can use themselves to protect public water supplies.

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• **Statewide Report on Source Water Protection Needs**
  The Department of Environmental Conservation’s 2008 report, “A Gathering Storm: New York’s Wastewater Infrastructure in Crisis” defined the challenge that recent investments are meeting. The cost of protecting the Source Waters for our public drinking water supplies statewide is wholly unassessed. Through the agencies’ work on Source Water Assessments, the costs of next steps should over time become clearer. These costs should be structured in a report that is regularly updated, in order to define the ongoing need for source water protection in New York State.

• **Water Quality Coordination Committees**
  At the county level, Water Quality Coordination Committees once sought to coordinate agencies at every level of government. As funding dissipated, these committees largely ceased to function. Ulster County, to its credit, has proposed funding a new county initiative using this model. These committees should be re-imagined and empowered to coordinate at a watershed scale.

• **Water Conservation**
  Rockland County’s Task Force on Water Resources Management, with $250,000 from the Environmental Protection Fund, is developing a comprehensive strategy to ensure “a safe, long-term water supply ... that incorporates sustainability, demand-side principles and conservation.” Newburgh recently reduced its water consumption by half through a new leak detection program. Programs to ensure the widespread adoption statewide of lessons learned from these and other successful conservation and leak detection programs should be developed.

• **Equitable Pricing**
  The cost of needed investments in water infrastructure and source water protection should be borne by those who can afford it, without burdening those who cannot. In 2017, Philadelphia enacted the nation’s first water rate based on household income, with a monthly payment plan for families at or near the poverty line. Riverkeeper and our partners are researching alternatives that could be employed in New York City. Ithaca may be the first municipality in New York State to enact a user fee for stormwater management. These and other strategies should be considered to ensure the burden of our needed investments are shared equitably.

• **Asset Management**
  The Department of Environmental Conservation has launched a pilot program to promote “asset management” for wastewater treatment facilities. Asset management utilizes inventories of system components, and enacts planning and budgeting to ensure timely upgrade and

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replacement. Jersey Water Works, a multi-stakeholder collaboration, is promoting mandated asset management for both wastewater and drinking water systems statewide in New Jersey. New York should consider more and stronger strategies for promoting or requiring asset management for all water infrastructure, in part to ensure that this generation’s investments won’t go to waste.

- **Clean Water Communities program**
  A Clean Water Communities program would encourage local implementation of best management and progressive strategies, modeled on NYSERDA’s Clean Energy Communities Program. This program would, like the NYSERDA program, identify “high-impact” local actions that support watershed management, water conservation and equitable pricing that would qualify municipalities for grant opportunities or other incentives.

- **Statewide Community Preservation Fund**
  A Community Preservation Fund with water protection as a primary goal could enable voluntary open space preservation at the local level, funded by one-time 2% real estate transfer tax fees on homes that exceed local median housing costs.

- **Novel water protection strategies**
  The drinking water crisis in Newburgh has inspired a number of novel ideas for better protecting source waters. These include enacting statewide uniform zoning overlays to preserve source waters, enhancing SEQRAs protections for surface water supplies, new state authorities for source water protection, developing green infrastructure banks, and enacting insurance requirements to de-incentivize risky land uses and activities that might put public drinking water supplies at risk, even from unregulated contaminants. These and other strategies should be studied, and those with the best chance of achieving the goal of source water protection should be enacted.

To reiterate, much of the task of developing and implementing a new Water Resource Strategy would fall on the Department of Environmental Conservation. Agency staff must be increased, particularly in the Division of Water, and the Hudson River Estuary Program must be funded at $8 million as part of the Environmental Protection Fund, in order to achieve the development, coordination and implementation of these kinds of proactive strategies. These vitally important proactive strategies can’t be the task of an overburdened state workforce without the addition of more staff and resources.
WATER INFRASTRUCTURE

The infrastructure investments made through the Water Infrastructure Improvement Act and Clean Water Infrastructure Act are the biggest New York State investment in this critical priority in a generation. In the Hudson River Watershed, the Water Infrastructure Improvement Act and Clean Water Infrastructure Act have resulted in at least $500 million in investments\(^7\) in our wastewater infrastructure. Much of the investment has gone to projects to reduce combined sewer overflows in the Capital District, in Utica and in river cities like Newburgh and Poughkeepsie; while other projects are upgrading treatment to include modern disinfection, or replacing failing components of systems built decades ago.

The Sewage Pollution Right to Know Law has exposed the shocking frequency of sewage overflows and leaks. The first wastewater treatment plant to develop “secondary treatment” (accomplish more than separating solids from liquids) was built in the City of Gloversville, in 1907.\(^8\) Gloversville discharges treated effluent to the Cayadutta Creek, which flows to the Mohawk River, the Hudson’s largest tributary. A sewer leak from the city’s collection system, which is more than a century old, prompted the mayor in April 2017 to warn the public not to “fish or step into the Cayadutta Creek until further notice.”\(^9\) We shouldn’t be shocked that infrastructure that is older than 100 years old fails. Most sewage treatment infrastructure is built assuming a useful life of 30-40 years. The lack of ongoing investment at adequate levels produced our current crisis. Robust investment paired with asset management, water conservation and equitable pricing will best alleviate today’s crisis and prevent its recurrence.

The challenges related to water infrastructure, however, remain great, as we documented in our new report, “How’s the Water? Hudson River Water Quality and Water Infrastructure.”

- While most of the Hudson River is safe for swimming most of the time, more than one in five (21%) of the samples we’ve taken in the Hudson River Estuary have failed to meet federal guidelines for safe swimming. Creeks and smaller rivers that flow into the Hudson are often sources of contamination.

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\(^9\) “City officials say sewage is leaking into Cayadutta Creek,” Fulton County Express, April 27, 2017, available at https://www.fultoncountyexpress.com/city-officials-say-sewage-is-leaking-into-cayadutta-creek/
• In the Hudson River Watershed, communities have identified $4.8 billion in needed investments in wastewater infrastructure alone, based on projects listed in the Intended Use Plans for the Clean Water State Revolving Loan Fund. These include:
  - $3.4 billion in New York City
  - $715 million in the Hudson River Estuary Watershed
  - $573 million in the Mohawk River Watershed
  - $100 million in the Upper Hudson River Watershed

• Sixteen communities in our watershed rely at least in part on combined sewer systems that overflow at more than 210 discharge points in the Hudson River and its tributaries; and another 440 or more combined sewer overflows (CSOs) are located in New York City.

• Of the tributaries that flow into the Hudson, those with watersheds containing the most sewer pipes and the oldest pipes tend to also have indicators of worse water quality.

• More than half the inventoried sewer pipes in one 10-county region of our watershed are 60-years-old, on average, or older.

• About 10% of treatment plants that discharge directly to the Hudson River Estuary are at or above 75% capacity.

• Roughly four in 10 of the wastewater treatment plants that discharge directly to the Hudson River Estuary are at risk from sea-level rise or flooding from extreme storms that we already see becoming common as the climate changes.\(^\text{10}\)

The lion’s share of these investments are needed in and around New York Harbor and the city’s near suburbs. But we need nearly $1.4 billion in our watershed upstream of New York City. This is the same region that has benefited from the $500 million investment commitment that I cited earlier, showing that the grant programs established by the Governor and the Legislature are making a difference on a meaningful scale.

\(^\text{10}\) Riverkeeper, “How’s the Water?” 2017
Our understanding of the age and extent of our wastewater infrastructure comes largely from the work of the Hudson River Estuary Program. It is one of many examples of the critical work - from climate resiliency to source water protection - that this non-regulatory arm of the Department of Environmental Conservation accomplishes in our region, by providing technical assistance and community grants. Its budget, funded by the Environmental Protection Fund, requires $8 million in FY2019 (including $1 million for the Mohawk Basin Program) to ensure its current capacity is sustained.

These needs estimates are, unfortunately, an underestimate. We know that roughly four in 10 communities in the 10-county Hudson River Estuary Watershed region have not identified a project in need of CWSRF support.\textsuperscript{11} The costs associated with needed projects in these communities is uncounted, as is the cost of treating contaminants that are today unregulated. With so many facilities beyond or near their useful life, and the challenges of treating a broader suite of contaminants upon us, New York State should invest in developing the treatment plant of the future. The water industry already considers its business “reclamation” rather than treatment. We are working on refining our estimates of need in some priority areas, including the Rondout Creek and Wallkill watersheds, which form the largest tributary to the tidal Hudson river; and in the mid-Hudson region, where the Hudson is a source of drinking water for more than 100,000 people. The costs of needed drinking water infrastructure investments are not included in these tallies, and the costs of needed source water protection initiatives are totally un-assessed.

The context for these numbers is well known but bears repeating. The need for investment in clean water and drinking water infrastructure in New York State is estimated to exceed $80 billion over the next 20 years. New York has the greatest need of any state in the nation, and the federal government’s once-robust funding for water infrastructure is a memory. Riverkeeper has lobbied in support of a federal doubling of the State Revolving Loan Fund, to $4.6 billion annually, a proposal that has bipartisan support, but uncertain prospects, given the hostility of the Trump Administration and Congress to federal spending generally, and spending on the Environmental Protection Agency budget particularly. As with so much else, New York State can and must provide a backstop against federal backsliding, until we can succeed in boosting federal investments in water infrastructure.

In conclusion, the commitments made for water infrastructure investments are making a difference, and should be accelerated to the greatest possible degree. The Legislature must understand that, based on the

\textsuperscript{11} ibid.
need, that the most recent commitments must be viewed as a welcome down payment and first step, but not the last step.

**SPOTLIGHT: HUDSON RIVER DRINKING WATER**

The “Class A” portion of the Hudson River - the portion that is designated for use as drinking water - includes Greene and Columbia counties, and the northern two-thirds of Ulster and Dutchess counties. Five treatment plants serve a combined population of 100,000 people in seven shoreline communities - The City and Town of Poughkeepsie, the Village and portions of the Town of Rhinebeck, and portions of the Towns of Hyde Park, Lloyd and Esopus. In addition, a pipeline carries water from Poughkeepsie to the Town of East Fishkill, where it serves one neighborhood and the industrial and commercial complex formerly occupied by IBM, which remains a cornerstone of economic activity in the region.

Clearly, water infrastructure is one important issue for these communities. At least 18 communities have treatment plants that discharge wastewater to the Hudson River Estuary in this “Class A” stretch, including most of the communities that also rely on the river for drinking water. The water infrastructure investment needs identified by these communities in the Intended Use Plans for Clean Water and Drinking Water State Revolving Funds totals $121 million. This figure doesn’t account for wastewater upgrades needed by facilities that discharge to tributaries of the Hudson in this region, nor does it account for the costs of source water protection.

The nation’s first drinking water treatment plant was built in Poughkeepsie, in 1872 to improve the quality of water drawn from the Hudson River. At that time, nearly 150 years ago, the treatment was needed to reduce significant and immediate risks of human illness associated with microbial contamination: typhoid, dysentery and cholera. The City and Town of Poughkeepsie, which jointly own and operate the plant, in recent years have invested about $18 million to improve treatment at this facility, in large part to reduce levels of disinfection byproducts. Poughkeepsie also received one of the recent state grants for reducing reliance on lead pipes, and has made other upgrades associated with running a system with components that are, in some cases, more than a century old.

The disinfection byproducts that were the target of the Poughkeepsie plant upgrades are emblematic of our drinking water treatment needs today: They are found at low levels but may cause cancer and other
illnesses if ingested over the course of a lifetime. They are found in our water because the presence of organic material in source waters is too high, a sign that source waters are inadequately protected.

Our sampling in collaboration with Cornell University has also identified more than 80 unregulated contaminants in the Hudson River Estuary, each at very low levels. These include pesticides, pharmaceuticals, personal care products and industrial compounds. Other surveys, including a pilot project Riverkeeper conducted this summer with Lamont-Doherty Earth Observatory, identified microplastics and the toxic chemicals that often adhere to them. The presence of these unregulated contaminants should prompt investigation, but shouldn’t come as a surprise: The U.S. Environmental Protection Agency hasn’t set a limit for a new drinking water contaminant in 30 years, and the Hudson River’s watershed has every imaginable use, including dozens if not hundreds of wastewater treatment plant discharges, vast farming regions and both active industries and the legacy contaminants left by defunct industries.

While treatment can be expected to remove or reduce some of these compounds, neither our wastewater nor our drinking water treatment facilities are designed to remove most of them, and our regulations require the testing of very few of them. Of more than 80,000 chemicals in use, we routinely test for fewer than 100 at most drinking water facilities.

The solution to the presence of these low-level contaminants is some combination of more testing and treatment - often at great cost - and better source water protection. Clearly, the best solution is keeping as many risky chemicals out of the waters we rely on for public drinking water supplies.

The communities that rely on the Hudson River for drinking water have no source water protection program. Protections such as land use regulations and stormwater management vary from municipality to municipality. Possibly with one exception, communities were unaware that Source Water Assessments produced by the Department of Health in the early 2000s existed for their water supplies. The assessments themselves rely on old data and don’t account for emerging threats, including the transportation of crude oil, and associated risk of spills. In the case of an oil spill, communities have reserves to last as few as 12 hours before they will have to truck in water not only to serve the region’s homes and businesses, but to maintain operations in three hospitals, four college campuses and multiple fire departments.

12 Source Water Protection Scorecard report, unpublished draft, Center for Watershed Protection, 2017
These communities in the mid-Hudson are emerging as leaders in focusing on Source Water Protection. With Riverkeeper’s assistance, these communities are discussing organizing as a collaborative to begin a source water protection program. We contracted the Center for Watershed Protection, with funding from the Park Foundation, in order to produce a report based on the results of Riverkeeper’s Source Water Protection Scorecard. The report, which is expected this winter, will define priority next steps for source water protection for these communities’ and their shared water supply.

State assistance will be critical to implementation. Existing potential sources of funding include: the new Source Water Protection land conservation program, and the Environmental Protection Fund - including programs for Source Water Assessment, Water Quality Improvement, Hudson River Estuary Estuary Management and Waterfront Revitalization (which includes funding for watershed management planning and implementation). Funding for Soil and Water Conservation Districts and other regional and statewide programs are also important, and are likely to be more important as these communities seek partnerships.

OTHER OPPORTUNITIES

The state budget provides the opportunity to advance a number of policies, and I want to identify several others that Riverkeeper is championing in this year’s budget that I haven’t mentioned elsewhere in today’s testimony. They include:

- **Single-use plastic bag ban**
  Riverkeeper supports statewide policy disincentivizing use of plastic bags, up to and including a ban on single-use plastic bags. The most effective policy to reduce plastic bag pollution involves a ban on single-use plastic bags and a fee on single-use paper bags.

- **Pharmaceutical extended producer responsibility law**
  Riverkeeper supports adoption of a manufacturer-funded safe pharmaceutical disposal program, both to reduce incidence of addiction from misuse of pharmaceuticals, and to reduce the impacts of water pollution caused by the flushing of unused medications.

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13 Riverkeeper’s Source Water Protection Scorecard, available at https://www.riverkeeper.org/water-quality/drinking-source-water-protection/
• New York Electric Efficiency Jobs Act
  Riverkeeper supports the New York Electric Efficiency Jobs Act as part of a statewide strategy to support adoption of electricity efficiency, meet energy goals and close the Indian Point nuclear power plant with affordable and clean electricity.

CONCLUSION

Thank you for the opportunity to testify today. New York has made historic strides that are setting the example for the nation. Our suggestions can build on that progress, and ensure a legacy that future generations of New Yorkers will recognize and appreciate.