

A GATHERING STORM

New York's Wastewater Infrastructure in Crisis



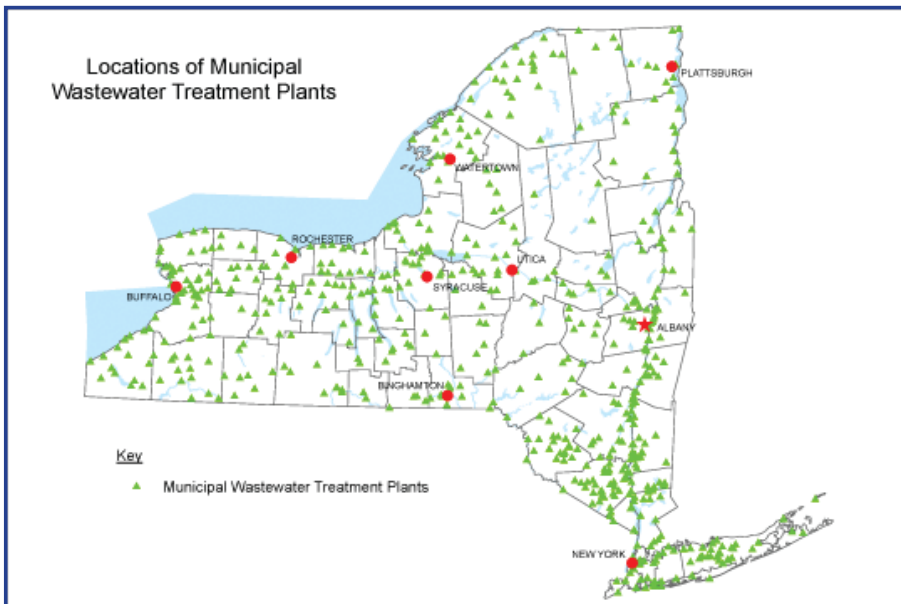
New York State Department of Environmental Conservation

David A. Paterson, Governor



Pete Grannis, Commissioner

Sewage and wastewater treatment facilities in New York State are deteriorating. Almost all of New York's residents rely on these facilities to treat sewage and wastewater from our homes and businesses before they return it to our waterbodies. However, one-quarter of the 610 facilities in New York are operating beyond their useful life expectancy and many others are using outmoded, inadequate technology, increasing their likelihood of tainting our waters. Moreover, NYSDEC's report on 30-year water quality trends found evidence that New York is retreating from the significant gains achieved when the current system was originally constructed and there is still more to do. Every year, old sewers flooded by stormwater release more than 27 billion gallons of untreated sewage into the New York Harbor alone.



New York Depends on Clean Water

New York's industries depend on our vast water resources. Clean water is vital for our food processing plants and our dairy and manufacturing industries across the state. The protection of our waters, the health of our communities and the prospects for future economic growth are linked to modern, reliable and efficient wastewater treatment systems. An inadequate sewage treatment infrastructure jeopardizes the viability of current and future businesses,

stymies economic growth and development, and threatens the quality of life for New York State residents.

Current funding estimates to meet New York's wastewater infrastructure needs are approximately \$36 billion over the next 20 years. However, we must also evolve beyond simply providing more funding to local governments. This effort must involve a comprehensive assessment of infrastructure needs to determine the most efficient, sustainable, and adaptive technologies. In addition, an added benefit to investing in New York's water infrastructure will be the creation of jobs at all skill levels. An estimated 47,500 jobs are created by each billion dollars of federal infrastructure funding spent.

New York has always been a leader in protecting its water resources. In 1965, the voters of New York endorsed what became the largest water pollution control program in the world at the time and have since repeatedly supported the need for wastewater infrastructure improvements through bond acts in 1972 and 1996. New York is once again taking the lead in water resource protection. The Department of Environmental Conservation has established a new Clean and Safe Water Infrastructure Funding Initiative. A complete report on the need for this initiative is available online at www.dec.ny.gov/chemical/42383.html.

For more information about New York State's needs for wastewater infrastructure, please contact **Sandra Allen, Director of the Clean and Safe Water Infrastructure Funding Initiative**, NYSDEC, 625 Broadway, Albany, NY 12233. (518) 402-8543 or email: H2OINFRA@gw.dec.state.ny.us.

Inadequate Wastewater Infrastructure Affects New Yorkers

If left unaddressed, the effects of aging sewage treatment plants will result in severe degradation of New York's waterbodies. In addition, important water resources are

impaired from under-treated and untreated sewage, street waste, and nutrient pollution. This is a statewide issue impacting municipalities and waterbodies in all areas of the state, as shown on the map on the facing page.

What is Wastewater Infrastructure?

Wastewater infrastructure is a term used to describe the network for collection, treatment, and disposal of sewage and stormwater in a community, i.e., pipes, sewage treatment plants, outfalls, etc.

New Challenges for Old Systems

New York's aging wastewater infrastructure faces many new challenges over the next several years, including the following:

- More stringent water quality requirements
- Newly created and larger numbers of industrial and household chemicals
- New requirements to address polluted stormwater runoff
- Stopping sanitary sewer overflows
- Controlling combined sewer overflows

What Can We Do to Address this Looming Problem?

More funding is critically needed. Over the last 20 years, federal funding has been reduced by 70%. Clean Water Act funding was reduced from \$2.4 billion in 1987 to \$687 million in 2008.

But we also need a new comprehensive, sustainable and adaptable approach.

Possible Funding Sources for a Sustainable Wastewater Infrastructure Program

- Federal loan funding and restored grant funding
- State grants
- Local user rates

Additional Considerations in Developing a Sustainable Infrastructure Program

- Asset Management — Municipalities need effective, local infrastructure management plans.
- Innovative Technologies — Cost-effective, green infrastructure technologies must be standardized and energy-efficient, promoting water conservation.
- Equity — Proactive communities should be rewarded for being good stewards.
- Future Infrastructure Challenges — Design of new infrastructure must address issues such as climate change and emerging contaminants that may require new, adaptive approaches.

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Many wastewater treatment facilities in New York are operating beyond their useful life expectancy.



A wastewater treatment facility outfall. Clean water is discharged to our streams, rivers and lakes.

...addressing New York's infrastructure needs is not only a financial challenge, but it is also a complex and difficult engineering, planning, and environmental undertaking.

- Smart Growth and Economic Development — The location of infrastructure can dictate regional economic development and sprawl. Smart growth principles and long-term economic strategies should be included in infrastructure plans, with a focus on urban revitalization and green space protection.
- Local Government Efficiency — Infrastructure planning should include consideration of regional consolidation and shared services.

It is clear that addressing New York's infrastructure needs is not only a financial challenge, but it is also a complex and difficult engineering, planning, and environmental undertaking. Yet this is exactly what must happen to protect New York's water and to build New York's future.

We Look Forward to Opening a Dialogue With You About a Sustainable Infrastructure Program



(above) State-of-the art technology in a new wastewater treatment facility in the New York City Watershed. Many small communities are facing the challenge of meeting more stringent water quality requirements.

Citizens and businesses depend on wastewater treatment facilities to protect New York's water resources, safeguard public health, and provide a strong foundation for economic growth and development.

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