

# 'Out of sight': New York, New Jersey must look underground to prepare for climate change

BY DANIELLE MUOIO, RY RIVARD | 09/22/2021 05:01 AM EDT



General view of the 206 route partially flooded as a result of the remnants of Hurricane Ida in Somerville, N.J., on Sept. 2, 2021. | Eduardo Munoz Alvarez/AP Photo

In the aftermath of Superstorm Sandy, elected officials across New York and New Jersey said it was time to get serious in the fight against climate change — vowing to build back homes and infrastructure better than ever before.

But nine years later, the recent deluge of rain brought by the remnants of Hurricane Ida highlighted just how vulnerable the two states remain to extreme weather. Some of the projects announced in the wake of Sandy are far from complete. And many of them were

designed to handle wind-driven coastal flooding, not the kind of heavy rain and flash floods seen during Ida.

Now state and local officials must play catch-up to fortify subways, homes, businesses and roads from heavy storms that climate change is expected to make worse and more common.

Some efforts will require focus on the least sexy parts of American infrastructure — upgrading and replacing the underground labyrinth of sewer pipes and drains that are often overlooked when state and federal governments make heavy infrastructure investments. Agency heads will have to overcome bureaucratic hurdles to work together on upgrades that fall outside their typical purview and get only passing interest from most politicians or the public.

But experts warn even the best of efforts to upgrade the century-old sewer systems may not be enough to counteract severe storms like Ida, which dropped a record 3.15 inches in Central Park in just one hour. Buying out homes, overhauling building codes, creating new taxes just for flood control and major infrastructure investment in new dams and tunnels may all be part of the equation as the Northeast prepares for more frequent torrential rain.

Shawn LaTourette, the head of New Jersey's Department of Environmental Protection, said the climate scientists he works with have known this was coming for decades. To be ready for events like Ida, governments need to plan more.

"It sounds maybe empty, definitely not sexy," he said. "But without that we stay in the cycle of storm damage — loss of property — loss of life — recovery — repeat. We can't stay there."

## **'Out of sight, out of mind'**

Officials cast much of the blame for the flooding on the states' aging sewer systems, which were never designed to handle the kind of extreme rain seen during Ida.

Roughly 60 percent of New York City uses a combined sewer system, meaning a single pipe is responsible for disposing rainwater and the water that gets sent down toilets and showers. During heavy rain, the century-old system often gets overwhelmed — sending raw sewage directly into local waterways and flooding roadways with excess water. New Jersey cities like Newark, Camden and Trenton also use combined sewer systems.

Local lawmakers said warning signs of how unprepared the sewer system is have largely gone unaddressed. East Elmhurst in Queens was among the hardest areas hit by Ida and regularly experiences flooding during lighter rain events, said state Sen. Jessica Ramos, who represents the district.

“I definitely think it’s a case of out of sight out of mind,” she told POLITICO. “It’s one of those things we don’t fix until we’re in these pickles.”

Ida was unprecedented in the amount of rain it dropped in a short time span, completely overwhelming a system that was already under duress. It’s estimated at least 42 people were killed by the storm in New York and New Jersey.

“We’re talking about three plus inches an hour at some stations, that’s something you don’t see more than every two to every five hundred years,” said David Robinson, New Jersey’s state climatologist and a Rutgers University professor. “When you get that kind of rain in that amount, in that quantity and that rapidly, our infrastructure... isn’t capable of handling that.”

## **What’s been done**

There have been some efforts to fortify the regional sewer system, but not all have yielded tangible results.

In 2019, New Jersey Gov. Phil Murphy signed a law that gives local governments the ability to raise taxes on the owners of large impervious surfaces that contribute to flooding, such as parking lots, and use that money to upgrade flood control systems. Environmental advocates consider it a necessary step to ensure the private sector shoulders some of the burden for contributing to local flooding, and have fought for its passage for years.

But not a single New Jersey town has created a so-called “stormwater utility.” Stormwater is official jargon for water on the ground after it rains. New Jersey remains one of the few states in the country without such utilities, even though it has 535 municipal governments, many of which are increasingly desperate to protect their residents from future floods.

Environmentalists suggest that Covid-19 caused some of the delay, but there has been conservative opposition in some municipalities. And, as in almost every infrastructure effort, money has proven a stumbling block.

“There were many folks when this law was put forward that decried a stormwater utility as a ‘rain tax,’ as though it is a luxury,” LaTourette of the New Jersey DEP said. “I venture that two weeks ago was one hell of a rain tax.”

Sen. Bob Smith, the head of the New Jersey State Senate’s environment committee, said he expects more towns will form stormwater utilities in the wake of Ida.

“Every time it rains, a town learns something from it,” Smith said. “Everybody learns, but I think we’re going to be learning a lot faster.”

In New York City, even less has been done to try and hold private actors accountable for their contribution to localized flooding. The city Department of Environmental Protection told POLITICO it simply encourages “private property owners to manage the stormwater that falls on their site,” including by providing grants for green roofs.

That could soon change.

The DEP has proposed an amendment to its rules that would require public and private properties to retain more stormwater on-site, rather than allowing it to runoff on streets and sidewalks as was seen during Ida. While the rule would only apply to new developments or redevelopments, it would serve as a first step toward placing more of the onus on private developers for their role in contributing to flash floods.

“We anticipate this new unified stormwater rule becoming effective next year,” said Ted Timbers, a spokesperson for the city DEP.

In the meantime, the city has a few projects in the works to upgrade its aging system. The biggest is a \$1.9 billion initiative to install box sewers in Southeast Queens to alleviate roadway flooding. The bulk of that project is finished, but its completion date has been delayed until July 2022 due to a change in design, according to the city’s DEP.

The city is also currently working on separating stormwater and wastewater lines in the neighborhoods of Gowanus, College Point and Canarsie — an effort that is widely considered critical to prevent flooding during heavy rain.

But officials acknowledge more must be done to respond to future storms like Ida.

“As extreme weather events become more frequent due to climate change, we need to continue making improvements to the city’s drainage infrastructure,” Vincent Sapienza, commissioner of the city Department of Environmental Protection, said during a recent city council hearing on Ida.

Sapienza said the sewer system as whole is only designed to hold half of the rain Ida dropped, and that supplementing the system with infrastructure to absorb or obtain stormwater runoff will be necessary. The city is hopeful, he said, that the federal government will pass a new infrastructure package to fund major sewer upgrades.

One way the city can help alleviate pressure on the sewer system is by exploring more natural methods for absorbing rainwater. The city has so far built more than 11,000 curbside rain gardens and infiltration basins to help capture rain, but more will be necessary to better prepare for flash floods like Ida — particularly in low-income neighborhoods and communities of color where green space is often hard to come by.

Such work is currently underway in the New Jersey city of Hoboken, which is spending \$230 million in Sandy relief money to separate its combined sewer lines and add new greenery to better absorb water.

## **A piecemeal approach**

While local officials agree on the root of the problem, addressing the source will require overcoming the bureaucratic red tape typical of local government agencies.

In New York City, much of the flooding from Ida was directed to the city's underground subway system. The Metropolitan Transportation Authority had to pump 75 million gallons of water out of its tunnels after Ida, and said it will cost up to \$100 million to repair damage from the storm. Some straphangers had to be evacuated when water came gushing into stations.

The MTA plans to update its Subway Action Plan to identify the stations that are most vulnerable to flash flooding and propose capital fixes. But some of the issues extend outside the agency's purview, and officials across state organizations will have to collaborate to create comprehensive rain management plans, said Janno Lieber, the interim president and CEO of the MTA.

Lieber referenced how a video of flooding in the 28th Street Subway station was caused by a geyser flowing out of a utility manhole on the above street.

"We've got to figure out a way with our partners in the city," Lieber said in an interview. "We have to work with them so they have the capacity to manage the water more effectively at the street level."

New York City Mayor Bill de Blasio has since launched a task force to examine how the city as a whole can better respond to flooding. His likely successor, Brooklyn Borough President Eric Adams, has called for an overhaul of the city's sewer infrastructure and said he's planning a

trip to the Netherlands to see how they handle flooding and storm water.

Still, large scale efforts to overhaul the system are unlikely to materialize overnight.

Since at least the 1930s, the U.S. Army Corps of Engineers has been taking a serious look at flood control projects around the Passaic River, which cuts through much of North Jersey. In the past 50 years, there have been about a dozen federally-declared flood disasters in the river's watershed. Yet, the proposals — including a massive tunnel to move flood water away from homes — have run into all kinds of controversy and there is still no real plan.

Similarly in New York, the city only recently broke ground on its marquee project after Sandy to better protect the Lower East Side from coastal storm surges. That project includes upgrades to improve sewer capacity, but it's years behind schedule.

Daniel Van Abs, a Rutgers professor who studies and is involved in New Jersey water policy, said people need to stop counting on mega projects, like new flood tunnels and dams, to solve problems.

“The answer is not going to be easy because there is no 'one size fits all,' there is no megaproject that is going to solve everything,” he said. “We tend to just constantly be waiting for the big project that is going to solve everything for everybody. We need to be doing things at the local level, at the small level, that reduce the risks.”

## **When to retreat**

Former Cranford Mayor Dan Aschenbach sees things another way. He's been working for years to get the Army Corps to do something about flooding in the Rahway River, another flood-prone North Jersey river. A dispute about the best flood control projects prompted the Army Corps to end a study it was working on, upsetting community members.

Aschenbach talks about projects to lower the Rahway by freeing up capacity in a reservoir that would hold water and decrease pressure on the river.

“If there is no room for the river, it's a problem, and many of the communities have very weak stormwater management,” he said.

Late last year, members of New Jersey's congressional delegation, including Rep. [Tom Malinowski](#) (D) used the reauthorization of the Water Resources Development Act to force the Army Corps to restart the study. But the Army Corps [hadn't gotten underway](#) when Ida struck.

The years of planning mean that as the climate changes, some solutions may be too late.

After an Army Corps tunnel plan for the Raritan fell apart, officials turned their attention to buying up homes.

There appears to be a growing sense that it's too late to save some communities. In early September, New Jersey Gov. Phil Murphy said it might be too late to construct barriers, levees or other forms of storm protection in some of the state's most flood-prone communities. Instead, he said, the future “[may include buying people out.](#)”

New Jersey is ahead of the curve when it comes to buying land that has become vulnerable to the effects of climate change, said Rob Freudenberg, the vice president of Energy and Environment at the Regional Plan Association. The state has been buying up property through its Blue Acres Buyout Program since the 1990s, which is funded through federal resources and a portion of the state's corporate business tax.

New York created a similar program after Sandy, which was most notably used to [buy out homes in the neighborhood of Oakwood Beach](#) on Staten Island to return the vulnerable area to nature. But the program relies entirely on funding provided by the federal government after Sandy, Freudenberg said, and a steady revenue stream will be necessary to emulate it in other areas. A \$3 billion Restore Mother Nature bond act that residents will vote on this fall could provide more money for the program.

Such programs are usually considered a last resort, given the psychological and political challenges involved in convincing people to leave their homes.

“This is a tough thing,” he said. “The life in some ways of New York City is development and redevelopment, so to take any place out of that equation is a challenge.”

If that's where New Jersey is heading, the state is going to need to find more money — something state officials have acknowledged as it's seeing an influx in interest for buyouts.

“[It] has got to be an option on the table that you don't say with any amount of glee because people bought those homes, they raised their families there, they've got memories,” Murphy said at a September press briefing. “But I've spoken to a fair number of people, including mayors, who say ‘enough is enough.’”

*Deanna Garcia contributed to this report.*



## **YOUR ACCOUNT MANAGEMENT TEAM**

**Thomas Zhang**

Senior Account Manager

[tzhang@politico.com](mailto:tzhang@politico.com)

(703) 236-7925