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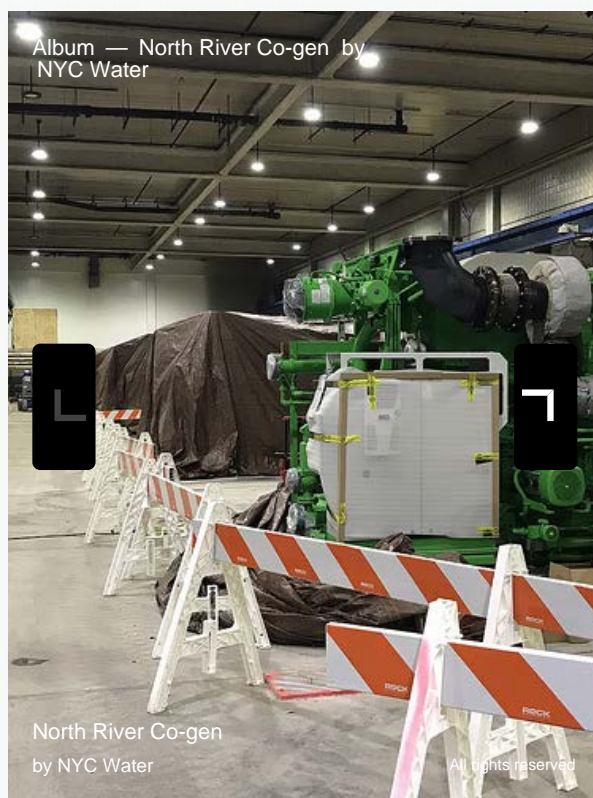
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\$300 Million Upgrade of West Harlem's North River Wastewater Resource Recovery Facility Will Reduce Greenhouse Gas Emissions by Nearly 50 Percent

More Information

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Installation of Five Cleaner-Burning Co-Generation Engines Will Significantly Reduce Greenhouse Gas Emissions; Comparable to Taking 5,500 Vehicles off the Road or Planting Nearly 700,000 Trees

Photos and a Map are Available on [DEP's Flickr Page](#)

The New York City Department of Environmental Protection (DEP) today announced that work is underway on a \$300 million project to install new, cleaner-burning co-generation engines at the North River Wastewater Resource Recovery Facility in west Harlem. Once that work is completed in 2022, there will be a nearly 50 percent reduction in greenhouse gas emissions. This is comparable to the air quality benefits achieved by removing 5,500 vehicles from the road or planting nearly 700,000 trees. By replacing the 10 existing engines that rely on traditional fuel oil with engines that primarily use green energy, the project will help contribute towards the [City's 80 x 50 goal \(PDF\)](#). In addition, over 6,500 lighting fixtures at the facility have been upgraded with energy-saving LED

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capability, and resiliency measures, such as floodgates and barriers, will be installed to help protect critical equipment from future storm surges and help to ensure uninterrupted service. Contrary to a stated plan, DEP will also continue a robust air monitoring program both inside and outside of the facility.

"This is another step towards achieving our city's 80 x 50 goal of reducing greenhouse gas emissions and building a fairer city for all," said **Mayor de Blasio**. "Communities across the city, as well as the environment, will benefit from more resilient and sustainable wastewater processing facilities."

"This \$300 million investment in west Harlem will not only ensure that we continue to protect the health of the Hudson River, it increases the sustainability of our essential operations and improves the quality of the air we all share," said **DEP Commissioner Vincent Sapienza**. "As we continue to transition our wastewater treatment plants into resource recovery facilities, we anticipate delivering additional benefits for the environment and our neighbors and customers."

"New York City needs bold investments that reduce carbon emissions and improve local air quality," said **Mark Chambers, Director of the Mayor's Office of Sustainability**. "These upgrades will minimize this facility's carbon footprint while bolstering it against the worsening impacts of climate change."

"At a time when Washington is turning its back on climate change, the City of New York is investing in a low-carbon future," said **Lisette Camilo, Commissioner of the Department of Citywide Administrative Services**. "The upgrades announced today will reduce greenhouse gas emissions by nearly 50 percent and builds upon the City's other successful investments in energy efficiency."

"Poor air quality and extreme weather events due to climate change have the greatest impacts in New York City's poorest communities, exacerbating health inequities," said **Health Commissioner Dr. Oxiris Barbot**. "Bold infrastructure improvements, like those underway at North River, will provide lasting benefits to the health of all New Yorkers."

"Cities across the country must take bold action to reduce greenhouse gas emissions, improve air quality, and protect against storm surges," said **Manhattan Borough President Gale Brewer**. "Investments like this one put us on track to reduce our climate footprint. On behalf of the hundreds of thousands of West Side residents these new co-generation engines will serve, I applaud the Department of Environmental Protection for taking action."

"As our city continues to boldly address climate change, setting an example for cities across the country, investing in critical infrastructure upgrades is vital to meeting our ambitious climate and environmental justice goals," said **Council Member Mark Levine**. "Cutting emissions by 50 percent over the next four years at the North River Wastewater Resource Recovery Facility will significantly reduce our carbon footprint while improving air quality in our neighborhoods. I'm grateful to Commissioner Sapienza for his commitment to investing in this much-needed upgrade project, and look forward to working with him and the community to improve air quality in northern Manhattan and across the city."

"New York City needs to lead by example in the fight against climate change, which means significantly reducing the carbon footprint of facilities it operates," said **Council Member Costa Constantinides, Chair of the Committee on Environmental Protection**. "I am encouraged to see this work get underway and look forward to working with DEP and other agencies on incorporating cleaner, renewable energy in more New York City facilities."

Julie Tighe, President of the New York League of Conservation Voters, said, "This North River Wastewater Resource Recovery Facility upgrade project that will cut emissions 50 percent by 2022 is a key step towards the city meeting its ambitious climate and environmental justice goals. The cleaner-burning co-generation engines and storm surge floodgates will improve air quality, enhance resiliency, and reduce the City's carbon footprint in a neighborhood that has borne the brunt of pollution. We commend Commissioner Sapienza for leading the way with this much-needed upgrade project. We look forward to working with

stakeholders to ensure the air quality in the area continues to be monitored once construction is complete and that this project achieves the strongest possible air quality improvements.”

“As New York City transitions to a cleaner, more sustainable energy future, this effort by the Department of Environmental Protection to reduce local air pollution can significantly improve the health and well-being of New Yorkers, while limiting our dependence on fossil fuels for years to come,” said **Rory Christian, Director, New York Clean Energy at Environmental Defense Fund.**

“New York City’s investment in a shifting to greener technologies at the North River Wastewater Resource Recovery Facility will reduce greenhouse gas emissions by nearly 50 percent will improve the air quality for all New Yorkers, particularly those of us who live in Northern Manhattan,” said **Peggy Shepard, Co-Founder and Executive Director of WE ACT for Environmental Justice.** “And even with this significant upgrade, which notably includes energy efficiency and climate resiliency measures, the New York City Department of Environmental Protection will continue to monitor emissions from the facility to safeguard the air quality in adjacent communities.”

New Yorkers produce approximately 1.3 billion gallons of wastewater every day of the year. The wastewater travels through the City’s 7,500-mile sewer system to one of [14 wastewater resource recovery facilities](#) located across the five boroughs, where a tremendous amount of energy is required to properly treat the wastewater in order to protect public health and local waterways.

At the North River Wastewater Resource Recovery Facility (WRRF), the existing large engines burn a combination of traditional fuel oil, natural gas and recovered green energy, or digester gas, that is a byproduct of the wastewater treatment process. The engines power the primary energy consumers at the facility, the main sewage pumps and process air blowers. Those 10 engines are being replaced with five new dual-fuel cogeneration engines that primarily use digester gas, supplemented by natural gas, thus eliminating the use of traditional fuel oil at the facility.

The new cogeneration system will maximize the use of digester gas to produce up to 12 megawatts of electricity and will have the ability to take the facility off the electrical grid to ease pressure during times of high demand. The new system is expected to reduce greenhouse gas emissions by 26,000 metric tons of carbon dioxide equivalent per year, which is comparable to taking more than 5,500 cars off the road or planting nearly 700,000 trees. The City’s Department of Citywide Administrative Services (DCAS) contributed funding towards the new cogeneration system. Additional supporting work includes the installation of electric motors for the main sewage pumps, replacement of the five engine driven process air blowers with nine energy efficient high-speed turbo blowers, an upgraded HVAC system, upgrades to the in-plant electrical power distribution system and an on-site electric substation to increase reliability of power distribution to Denny Farrell Riverbank State Park. In addition, the project includes upgrades to the existing fire alarm, sprinkler, and standpipe systems. The work, which is being staggered in order to ensure uninterrupted service, represents the first major upgrade to the North River facility since it went into operation in 1986.

DEP is also completing a multi-million dollar project to upgrade over 6,500 lights at the North River facility to be compatible with LED fixtures. This work reduces greenhouse gas emissions associated with the operation of the facility by over 1,000 metric tons of carbon dioxide equivalent annually, which is comparable to removing over 230 vehicles from the road or planting nearly 29,000 trees. In addition, the upgrade reduces annual operating costs by more than \$300,000. DCAS also contributed funding towards the LED upgrade.

The North River WRRF experienced significant flooding during Hurricane Sandy and this project will include resiliency upgrades to harden the plant against a changing climate and future storms. This includes raising facility openings to the Hudson River and installing floodgates and barriers to protect critical equipment. This work is a part of the [NYC Wastewater Resiliency Plan](#) that calls for more

than \$300 million in capital protective measures for the City's wastewater pumping stations and WRRF to harden them against future storms, reduce damage and enable rapid recovery back to full service in the event of a flooding event.

The North River WRRF is built on a 28-acre reinforced concrete platform over the Hudson River and went into operation in 1986. It rests on 2,300 caissons pinned into bedrock up to 230 feet beneath the river. The roof of the building is the home of Denny Farrell Riverbank State Park, a popular recreational facility with three swimming pools, an amphitheater, an athletic center, a skating rink, a restaurant, and sports fields. The plant provides wastewater treatment for the hundreds of thousands of people who live and work in, or visit, the west side of Manhattan, from Bank Street in Greenwich Village to Inwood Hill at the island's northern tip.

DEP manages New York City's water supply, providing approximately 1 billion gallons of high quality drinking water each day to more than 9 million residents, including 8.5 million in New York City. The water is delivered from a watershed that extends more than 125 miles from the city, comprising 19 reservoirs and three controlled lakes. Approximately 7,000 miles of water mains, tunnels and aqueducts bring water to homes and businesses throughout the five boroughs, and 7,500 miles of sewer lines and 96 pump stations take wastewater to 14 in-city treatment plants. DEP has nearly 6,000 employees, including almost 1,000 in the upstate watershed. In addition, DEP has a robust capital program, with a planned \$19.4 billion in investments over the next 10 years that will create up to 3,000 construction-related jobs per year. For more information, visit nyc.gov/dep, like us on [Facebook](#) at, or follow us on [Twitter](#).

DCAS is responsible for purchasing all the energy required to run New York City's government, and for managing its energy use. Through managing the City's energy portfolio, DCAS is at the heart of New York City's efforts to reduce its carbon footprint 80 percent by 2050 and to eventually convert 100 percent of its energy use for government operations to renewable electricity. DCAS provided funding for both of these projects to help the City meet these ambitious goals.

 [All Press Releases](#)