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## **DEP Completes Nitrogen Reduction Facility at 26<sup>th</sup> Ward Wastewater Treatment Plant**

*Facility Will Help Reduce Nitrogen Discharges Into Jamaica Bay As Part of City's  
Comprehensive Approach to Improve the Local Ecology*

Environmental Protection Commissioner Carter Strickland today announced that DEP completed construction of a carbon addition facility at the 26<sup>th</sup> Ward Wastewater Treatment Plant that will reduce the amount of nitrogen discharged into Jamaica Bay by more than 3,000 pounds per day, or nearly 10% of total nitrogen discharges to the bay. As part of a historic agreement announced by Mayor Bloomberg, the New York State Department of Environmental Conservation, the Natural Resources Defense Council and other environmental stakeholders in 2010, the nearly \$2 million facility is part of \$115 million in total new investments committed to reducing nitrogen discharges into Jamaica Bay by more than 50% over 10 years. In early 2010, approximately 40,000 pounds of nitrogen were being discharged into the bay every day. With the addition of the new facility, DEP will reduce that level by roughly 7,000 pounds. At high levels, nitrogen can degrade overall waterbody health. The facility was constructed on-site at the 26<sup>th</sup> Ward Wastewater Treatment Plant in Starrett City, Brooklyn.

“As part of our ongoing commitment to protect, preserve and improve the ecosystem of Jamaica Bay, nitrogen reduction is an important upgrade to the 26<sup>th</sup> Ward Wastewater Treatment Plant,” said Commissioner Strickland. “DEP has made it clear that the protection of this national treasure is among its top priorities and we have committed \$115 million to specifically remove nitrogen discharges into this waterbody. Along with \$8.9 billion in water quality investments by Mayor Bloomberg, this is yet another example of why New York’s waterways are cleaner than they have ever been in 100 years of testing.”

“This latest action completed by New York City to improve nitrogen removal at the 26<sup>th</sup> Ward Wastewater Treatment Plant is an important step in an overall plan to improve water quality and the environmental health of Jamaica Bay,” said New York State Department of Environmental Conservation Commissioner Martens. “This is the latest step under the terms of our 2010 agreement to reduce nitrogen discharges and provide funding for salt marsh rebuilding projects to restore the bay’s critical wildlife refuge habitat. DEC’s recent designation of Jamaica Bay as a boating ‘no discharge zone’ shows our continuing commitment to work with New York City to improve the recreational value of Jamaica Bay for all New Yorkers.”

“This is the first key milestone in putting last year’s groundbreaking agreement to rescue Jamaica Bay into action,” said Brad Sewell, senior attorney at the Natural Resources Defense Council. “It is welcome news for Jamaica Bay and its wildlife. We hope it’s the first of many steps on the road to reversing decades of degradation and providing New York’s crown jewel of open spaces an opportunity to heal.”

Since the announcement of the 2010 agreement, DEP has reduced nitrogen discharges into Jamaica Bay by more than 7,000 pounds per day. In 2010, the 26<sup>th</sup> Ward Wastewater Treatment Plant was discharging over 11,000 pounds of nitrogen per day, a total that has now been reduced to roughly 4,000 pounds. The carbon facility will remove nitrogen from wastewater effluent through the addition of glycerol, a high carbon biological byproduct of biodiesel production that is non-hazardous and non-flammable. Nitrogen, a naturally-occurring component of all wastewater that poses no human health risk, can diminish overall waterway ecology when present in high volumes. Nitrogen enters the wastewater system in the form of ammonia, which is broken down into nitrates and nitrites during the secondary treatment process. The new facility pumps glycerol into the wastewater aeration tanks, where the glycerol then separates nitrogen from the nitrate and nitrite molecules. During warm weather months, nitrogen can reduce dissolved oxygen levels in waterways, contributing to excessive algae growth. In addition to the upgrades to 26<sup>th</sup> Ward, improvements are progressing at the Jamaica Wastewater Treatment Plant and will begin at the Coney Island Wastewater Treatment Plant in Brooklyn and the Rockaway Wastewater Treatment Plant in Queens. The first of these will be operational in 2015, and all improvements will be completed by 2020. These investments, made in concert with \$95 million the City already has committed for nitrogen control upgrades, will reduce the nitrogen discharged into Jamaica Bay by nearly 50% over the next ten years. This is in addition to the \$770 million DEP has invested in nitrogen reduction measures at the four Upper East River wastewater treatment plants: Bowery Bay, Hunts Point, Tallman Island and Wards Island. These projects are scheduled to be completed this year, and will reduce total nitrogen discharges into the East River by more than 52%.

The 26<sup>th</sup> Ward Wastewater Treatment Plant went into operation in 1944 and serves more than 283,000 residents. Located in eastern Brooklyn, it treats up to 85 million gallons of wastewater a day and up to 170 gallons during wet weather events. New Yorkers produce, and DEP treats, an average of 1.3 billion gallons of wastewater every day. The wastewater is collected through 7,400 miles of lateral sewers that flow downhill by gravity or pumping into large interceptor sewers, which lead directly to the city's 14 wastewater treatment plants.

Jamaica Bay is a 31-square-mile water body with a broader watershed of approximately 142 square miles, which includes portions of Brooklyn, Queens, and Nassau County. The bay is a diverse ecological resource that supports multiple habitats, including open water, salt marshes, grasslands, coastal woodlands, maritime shrublands, and brackish and freshwater wetlands. These habitats support 91 fish species, 325 species of birds, and many reptile, amphibian, and small mammal species. Mayor Bloomberg has made investing in the City's infrastructure a top priority. Since 2002, the City has invested \$8.9 billion in upgrading its 14 wastewater treatment plants and reducing combined sewer overflows. That work has already yielded benefits for New York's waterways, which are the cleanest they have been in the 100 years that the City has collected water quality data in New York Harbor. Restoring the habitat in and around Jamaica Bay is one of the initiatives outlined in *Strategy 2011–2014*, a far-reaching strategic plan that lays out 100 distinct goals and initiatives to make DEP the safest, most efficient, cost-effective, and transparent water utility in the nation. The plan is available on DEP's website at [www.nyc.gov/dep](http://www.nyc.gov/dep).

DEP manages the city's water supply, providing more than one billion gallons of water each day to more than nine million residents, including eight 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. DEP employs nearly 6,000 employees, including almost 1,000 in the upstate watershed. DEP has a robust capital program, with a planned \$13.2 billion in investments over the next 10 years that creates up to 3,000 construction-related jobs per year. For more information, visit [www.nyc.gov/dep](http://www.nyc.gov/dep), like us on Facebook at [www.facebook.com/nycwater](https://www.facebook.com/nycwater), or follow us on Twitter at [www.twitter.com/nycwater](https://www.twitter.com/nycwater).

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