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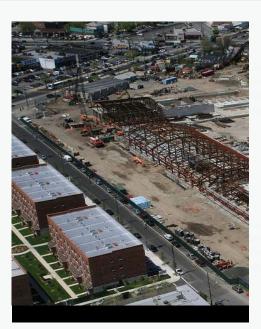
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Contact:

deppressoffice@dep.nyc.gov, (718) 595-6600

Department of Environmental Protection Completes \$455 Million Comprehensive Upgrade of Paerdegat Basin Area

Restoration of Over 50 Acres of Native Grasslands and Wetlands Along the Shores of the Basin are Last Component of Upgrade that Included the Construction of a 50-Million Gallon Sewer Retention Facility and Dredging of the Basin; Work Has Resulted in Significant Improvements to Water Quality and Aesthetics

Photos of the Work are Available on <u>DEP's Flickr Page</u> and a Short Video Can be Viewed <u>Here</u>

New York City Department of Environmental Protection (DEP) Commissioner Emily Lloyd today announced the completion of a comprehensive, \$455 million upgrade of the Paerdegat Basin area which has already led to significant improvements in water quality and aesthetics. The final component of the project, the restoration of over 50 acres of native grasslands and wetlands along the shores of the Basin and the construction of a 5-acre Ecology Park, was recently completed. Earlier, DEP built and activated a 50-million gallon Combined Sewer Overflow retention facility and dredged approximately 23,000 cubic yards of sediment from the bottom of the Basin. Significantly reducing the frequency and volume of sewer overflows into the Basin, removing built-up sediment that would become exposed during low-tide and create nuisance odors, and restoring the natural wetlands to help filter impurities from the water has resulted in a visibly healthier waterway for residents to enjoy and a more

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hospitable habitat for fish and wildlife.

"The investment of \$455 million for a holistic upgrade of Paerdegat Basin has resulted in dramatic improvements to the cleanliness of the waterway as well as the ecological health of the whole area, including Jamaica Bay," said **DEP**Commissioner Emily Lloyd. "In addition, the planting of 1,100 trees will improve air quality and the new Ecology Park will serve as an important educational resource that will help to ensure that the next generation of New Yorkers understand the importance of environmental stewardship."

"The completion of this major upgrade to Paerdegat Basin and Jamaica Bay as a whole is a major improvement to the bay's water quality and testament to DEP's commitment to helping restore one of New York City's important natural habitats," said **Don Riepe, Director of the American Littoral Society's Northeast Chapter**.

"This project will have a huge impact on the water quality of Jamaica Bay," said Dan Mundy, Jamaica Bay Ecowatchers. "The Combined Sewer Overflow retention system will address a decades old problem in which major rain events would affect the water quality of the bay. In addition, the shoreline has been transformed from a degraded dumping ground into a beautiful natural setting with wetlands, grasslands and forests. The DEP is to be commended for making these types of investments in Jamaica Bay so as to ensure that this great natural resource can be enjoyed by future generations."

"Combined sewer overflows pose a significant threat to public health and the environment," said **Debbie Mans, Executive Director, NY/NJ Baykeeper**. "We applaud NYC DEP for taking steps to not only reduce these types of discharges, but also in providing a model of urban restoration and public access."

"The transformation of Paerdegat Basin is important to the health of our borough's greater environment, an environment for which we are responsible and which impacts our daily quality of life," said **Brooklyn Borough President Eric L. Adams**. "The restored marshlands and wetlands will benefit the overall ecology of the greater Jamaica Bay area, which is a win for Brooklyn today, tomorrow, and well into our future."

"I am delighted that at long last the DEP has completed this highly anticipated project in the Paerdegat Basin area," said **Council Member Alan Maisel**. "For generations, Paerdegat Basin had been a dumping ground for toxic waste and garbage. It is extremely important for the health of our citizens and neighborhoods that we can say that the cleanup, restoration and upgrades are now complete."

The final portion of the project, the restoration of 52 acres of native grasslands and wetlands along the shores of Paerdegat Basin, was recently completed. Prior to this work, the shorelines were strewn with litter and the landscape was dominated by invasive species, including Phragmites, which is prone to brush fire. The southern shore, along Bergen Avenue, was also very steep due to fill placed there in the early twentieth century. Significant grading took place in order to construct 4.2 acres of salt marsh wetland along the southern shore and 1.9 acres along the northern shore. The restored salt marsh maximizes low marsh habitat that will be dominated by cordgrass, or Spartina alterniflora. The upland edge of the low marsh was planted with species typical of high salt marsh habitat, such as salt-meadow grass, or Spartina patens, and spikegrass, or Distichlis spicata. The wetlands will help to naturally filter the water in the Basin and provide a habitat for fish and wildlife.

Upland on the southern shore, further grading took place to create a gentle slope before 20.1 acres of native maritime grasslands were planted. The northern shore is now home to 21.2 acres of grassland. This coastal grassland community will help to promote the ecological improvement of the Paerdegat Basin area and is expected to be a popular place for both year-round and migratory birds.

DEP has also recently completed the construction of a diversely planted 5-acre

Ecology Park, including salt marsh and freshwater wetlands, along the southern shore of the Basin. The Park highlights many of the plant community types that exist, or once existed, in New York City. Pedestrian walkways and viewing platforms were built to accommodate school and community group access and informational signs have been installed to explain the plantings. The Ecology Park will be used as an educational resource to promote awareness of the various environments found throughout the City.

Overall, DEP planted nearly 100,000 plugs of maritime grassland and wildflowers, more than 5,300 shrubs and nearly 1,100 trees. An additional 1,300 pounds of maritime grassland was hydro-seeded. New fencing and sidewalks were installed along the perimeter of the Parks and stormwater from the adjacent streets will be conveyed to sites within the Parks and, in some instances, reused for irrigation. Keeping the stormwater out of the sewer system will help to protect the ecological health of the water in Paerdegat Basin. DEP invested approximately \$22 million, and an additional \$15 million was provided through the American Recovery and Reinvestment Act, to restore the natural area grasslands and salt water wetlands and to build the Ecology Park. Both will be turned over to NYC Parks for future operation and maintenance.

Combined Sewer Overflow Retention Facility and Dredging of the Basin

New York City, like other older urban communities, is largely serviced by a combined sewer system where stormwater that falls on roofs, streets, and sidewalks, and wastewater from homes and businesses are carried through a single sewer line to treatment plants. The city's 14 treatment plants can manage and treat to federal Clean Water Act standards all the wastewater created in New York City on a dry weather day, or about 1.3 billion gallons on average. On a rainy day they have the capacity to clean more than twice the dry weather flows. However, during intense precipitation events, the stormwater that falls on the city's impervious surfaces exceeds that capacity and overflows can be discharged into local waterways. If the overflows were not discharged, the City's treatment plants would be flooded and severely damaged and wastewater could backup into homes and businesses.

To significantly reduce Combined Sewer Overflows into Paerdegat Basin, DEP built the \$409 million Combined Sewer Overflow (CSO) retention facility, which went into operation in 2011. The facility prevents up to 50 million gallons of CSOs from being discharged into Paerdegat Basin during heavy rain storms. The facility stores the wastewater in four underground tanks until the wet weather subsides, when it is then pumped to the nearby Coney Island Wastewater Treatment Plant. Since the facility went into operation, CSOs into the basin have been reduced by approximately 70 percent.

The final component of the upgrade was the two-year, \$9 million dredging of the Basin. In addition to removing roughly 5,500 cubic yards of accumulated sand from the mouth of the Basin to ensure it is navigable, the work included the removal of approximately 18,000 cubic yards of CSO sediment and the placement of 15,000 cubic yards of sand as a cap at the head of the Basin. This work has helped to significantly reduce any nuisance odors and has improved the ecological health of the Basin.

Paerdegat Basin is located along the northwestern shore of Jamaica Bay in the borough of Brooklyn. It was once a meandering, natural stream known as Bedford Creek, a freshwater tributary to Jamaica Bay. The original waterbody drained the neighborhoods of Canarsie, Flatbush, Flatlands and Kensington. Explosive growth in the area during the 19th century led to a progressively more urban landscape and Paerdegat Basin was created in the 1930s as part of a large-scale effort to bring commercial shipping to Jamaica Bay. The work included dredging and bulk-heading Bedford Creek into the rectangular, deadend channel we see today. The Basin is approximately 7,000 feet in length and varies in width from roughly 500 feet at the head end, to roughly 200 feet at the mouth where it meets Jamaica Bay. It is bounded to the North by the intersection of Ralph Avenue and Flatlands Avenue, to the east by Canarsie and

to the west by the Flatlands neighborhood.

DEP manages New York City's water supply, providing more than one billion gallons of high quality water each day to more than 9 million New Yorkers. This includes more than 70 upstate communities and institutions in Ulster, Orange, Putnam and Westchester counties who consume an average of 110 million total gallons of drinking water daily from New York City's water supply system. This water comes from the Catskill, Delaware, and Croton watersheds that extend more than 125 miles from the City, and the system comprises 19 reservoirs, three controlled lakes, and numerous tunnels and aqueducts. DEP has nearly 6,000 employees, including almost 1,000 scientists, engineers, surveyors, watershed maintainers and other professionals in the upstate watershed. In addition to its \$70 million payroll and \$157 million in annual taxes paid in upstate counties, DEP has invested more than \$1.7 billion in watershed protection programs—including partnership organizations such as the Catskill Watershed Corporation and the Watershed Agricultural Council—that support sustainable farming practices, environmentally sensitive economic development, and local economic opportunity. In addition, DEP has a robust capital program with nearly \$14 billion in investments planned 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, or follow us on Twitter.



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