Testimony of Emily Lloyd

Commissioner, New York City Department of Environmental Protection

before the

New York City Council Committee on Environmental Protection

concerning the

FY 2016 Preliminary Budget

Friday, March 13, 2015, 1:00 pm

Good afternoon Chairman Richards and Members. I am Emily Lloyd, Commissioner of the New York City Department of Environmental Protection (DEP). I am joined today by First Deputy Commissioner Steve Lawitts, Assistant Commissioner for Budget Joseph Murin, and other senior managers. Thank you for the opportunity to testify on DEP's Fiscal Year 2016 Preliminary Budget.

As you know, DEP has overall responsibility for the City's water supply and sewer system, including providing drinking water to all New Yorkers, maintaining pressure to fire hydrants, managing storm water, and treating wastewater. In addition, DEP also regulates air quality, hazardous waste, and critical quality of life issues, including noise.

All of our water related expenses—both operational and capital— are paid for with money collected from the water and sewer rate charge, billed to all New York City property owners and authorized annually by the New York City Water Board. The Water Board will be holding this year's public rate hearings the week of April 27th, and I look forward to working with members of the Council to publicize those hearings.

Before I get to the substance of my testimony today, I especially want to thank the Council for its support and advocacy of three major pieces of our legislative agenda this year.

Thanks to the significant work of the Council, Mayor de Blasio recently signed Intro. 612, the reauthorization of the lien sale authority, providing the Departments of Finance and Environmental Protection the ability to sell liens on delinquent property tax and water rate payers. This legislation is vital to DEP, ensuring that everyone who benefits from our water and wastewater systems pays their fair share, as well as helping us keep water rates as low as possible, particularly for our most vulnerable communities, including seniors and lower income customers. We look forward to working with the Council and other members of the newly established task force to ensure that the tax and water lien sale process is fair, efficient and effective.

We are very excited about Intro. 666, recently introduced by Council Members Reynoso, Richards, Constantinides, Espinal, Mendez, and Rodriguez, which prohibits the sale of non-woven disposable products—commonly known as wipes—marked as 'flushable.' When flushed,

these wipes cause significant problems at our wastewater treatment plants, and we estimate that they cost us an additional $3 million annually in cleaning of fouled screens, repair of seized pumps, as well as extra landfill costs. We are glad to work with this Committee as the bill progresses.

Third, we appreciate all the hard work the Council, stakeholders and the Administration have done in drafting an updated Air Pollution Control Code. We will continue to work with the Council in the coming weeks toward its passage. It will be another significant milestone on the way to improving air quality for all New Yorkers.

Key Accomplishments and Updates

To provide some additional context to our capital and expense budgets, I believe it would be helpful to share some of DEP's recent accomplishments, a brief overview of a number of performance metrics, and an update on key programs and projects. Following those will be highlights from our Fiscal Year (FY) 16 Preliminary Expense and Capital Budgets, as well as planned capital investments in each borough.

This past year, we:

- completed an $83 million upgrade to the Jamaica Wastewater Treatment Plant, significantly improving the health of local waterways
- developed a plan for a major expansion of our Green Infrastructure program to further improve the health of local waterways
- completed more than 50 percent of a $250 million water tunnel connecting Brooklyn and Staten Island
- developed plans to build a new hydroelectric facility at the City's Cannonsville Reservoir, located in Delaware County, advancing the City's goal of developing affordable, clean and renewable energy supplies that support economic growth while reducing the City's overall carbon footprint, and completed a $23 million expansion of sewer and Bluebelt drainage systems on Staten Island's South Shore.

Operational Status and Performance Metrics

Water and Sewer Operations

Over the last several years, DEP has increased its focus on proactive maintenance techniques, with the aim of improving efficiency and the operations of our vast infrastructure network. For example, we now proactively inspect and maintain key valves and pressure regulators in our water system to reduce the potential for water main breaks due to pressure changes.

An example of our program to improve sewer service is our Sewer Operations and Analysis Program, which analyzes trends in data and investigates areas that have a high frequency and density of confirmed issues. Analysts create maps of reported sewer backups to better identify segments and neighborhoods that have recurring problems. Once DEP identifies the likely factors behind confirmed backups or other service issues, we develop a remediation plan that can include degreasing, regular cleaning, and repair or replacement of the infrastructure. Although we can't prevent sewers from surcharging during storms that exceed the design capacity of the sewer, we can deploy resources more efficiently to ensure that the existing system consistently meets the criteria for which it was designed. DEP's successes, achieved through a focus on

enhancing operational efficiency and targeting our resource deployments, have been supported by positive trends in our metrics for the last several years.

State of the Sewers

As the Committee may know, fat, oil, and grease buildup was the cause of 72% of confirmed sewer backups this past year. Over the past year, DEP has improved coordination among units that handle grease public outreach, grease trap inspection, and sewer maintenance. Because grease entry into sewers is preventable and relies on choices made by individuals, we have focused on public education as a way to reduce it. We have targeted education programs in schools and at professional organizations; we have also given out educational materials on a door-to-door basis in neighborhoods that we know have prevalent grease problems. Where field crews observe persistent or systematic grease buildup in a commercial area, especially where restaurants are concentrated, they refer the location to DEP's enforcement unit for targeted grease interceptor inspections.

Some key performance statistics showing changes from FY 10 to FY 14 include:

- Sewer backup resolution time: 33% decrease
- Catch basin resolution time: 55% decrease
- Number of catch basins with open work orders: 79% decrease from July 2010 to today
- Confirmed sewer backups: 45% decrease
- Sewer segments with recurring backups decreased by 45%
- Sewer segments with recurring backups in dry weather decreased by 53%
- Total sewer cleaning increased 158%

Air/Noise

A significant part of our mission is to reduce air, noise, and hazardous materials pollution. In addition to responding to air and noise complaints around the City, we also look for ways to improve New Yorkers' experience when working with DEP.

One such example is our Clean Air Tracking System (CATS), a web-based interface that allows for the electronic filing of boiler registrations, boiler work permits, and Certificates to Operate. Implementing CATS has resulted in improved compliance and enforcement, dramatic reductions in permit application turnaround time, and reductions in paper handling and storage.

In order to enhance our enforcement capability, we changed three administrative staff positions to air inspector positions in early November. The three additions came on board in January and are currently in training. And I am pleased to inform the Committee that DEP will be hiring eight new Environmental Compliance inspectors, which will give us the flexibility to deploy inspectors on weekends and evenings when many of the violations occur.

These additions will also increase the number of inspections in all five boroughs, enabling DEP to send inspectors to even more events and projects to ensure compliance with the Air and Noise Codes. We have already begun the hiring process and hope to have these new inspectors on board by the end of the fiscal year.

Customer Services

As the Committee knows, DEP operates a customer service office in each borough, in addition to a Call Center to collect water and sewer rate payments, enroll customers in payment agreements, and answer questions. To address peaks in call volume, our Bureau of Customer Services continued to use a virtual Call Center, initiated last year. Staff have been identified in all borough offices and other non-Call Center units to support the Call Center during peak periods. Our response time to calls has slightly increased this year to 46 seconds, as we have lost some staff to attrition. However, we are hiring additional staff to support the Call Center, which will enable us to maintain our stated goal of answering calls within 30 seconds.

Key Programs and Projects

Green Infrastructure Program

DEP continues to implement its Green Infrastructure program (GI), which incorporates different techniques to handle combined sewer overflows (CSOs) as an alternative to gray infrastructure (building massive tanks and tunnels).The GI program reflects the City's goal to improve water quality, as outlined in the NYC Green Infrastructure Plan, by reducing CSOs into waterways by 40 percent by 2030. In Fiscal Years 2016 to 2025, $786 million is planned for various GI projects on public property, including in the public right of way.

Some examples of GI projects include permeable paving and rain gardens at City schools, parks, and public housing, and most notably bioswales and stormwater greenstreets within City streets and sidewalks. Bioswales look like enlarged and densely planted tree pits, but are designed with specific plant species known to soak up a significant amount of water and below-grade engineering. Bioswales "intercept" storm water coming down the street, preventing it from going into the sewer system. In addition, they provide other hugely important environmental benefits, including improved air quality and greening of the street.

DEP, along with the Economic Development Corporation and the Department of Design and Construction (DDC), is designing and constructing green infrastructure in priority watershed areas of the Bronx, Brooklyn, and Queens including:

- Hutchinson River, Westchester Creek, and Bronx River in the Bronx;
- Flushing Bay, Flushing Creek, parts of Newtown Creek, and parts of Jamaica Bay in Queens;
- Gowanus Canal, parts of Newtown Creek,
- and parts of Jamaica Bay; and
- DEP is working in select areas of the East River and Open Waters watershed in all three boroughs.

Repair of the Delaware Aqueduct

As many of you may know from previous testimony, a portion of the Delaware Aqueduct (the Rondout-West Branch Tunnel) is leaking and needs repair.

DEP has plans to build a new three-mile tunnel to bypass the leaking portion upstate. Currently, the Aqueduct carries approximately half of NYC's drinking water to more than eight million people daily—approximately 500 million gallons per day (MGD).

DEP has developed a comprehensive plan to supplement the water supply while the Aqueduct will be shut down in order to connect the new bypass, including:

- commissioning the Croton Water Filtration Plant to full capacity, which will allow the City to use water from reservoirs in Putnam and Westchester County;
- optimizing the Catskill Aqueduct to increase its capacity;
- conservation methods to reduce water usage in NYC; and
- reactivating the Queens Groundwater System.

Two shafts, one at each end of the planned three-mile bypass tunnel, are currently being drilled and blasted. Once the shafts are completed, the tunnel-boring machine can be lowered to begin the tunnel work. The FY16 Preliminary Capital Plan includes $606 million planned in Fiscal 2015 for the construction of the bypass tunnel.

The goal of our conservation program is to achieve a 5% reduction in current demand by 2022 by means of both passive and active water conservation, including replacing toilets in municipal buildings and working with other city agencies to reduce water consumption.

Regarding the reactivation of the Queens Groundwater System, we have identified 20 well stations to use during the shutdown, which are currently in the facility planning phase. We have developed an initial conceptual design for the rehabilitation of the well stations and are working closely with the Public Design Commission. We expect to develop the scope of a Draft Environmental Impact Statement this fall, and look forward to working with the local community and our elected officials on it.

Croton Filtration Plant

In December 2013, DEP began testing at the Croton Filtration Plant, a facility in the Bronx built to treat drinking water provided by the Croton system, the oldest of the three drinking water systems serving New York City. Once fully operational, as expected this May, the plant will ensure that the water from the Croton supply will meet all drinking water quality goals and provide up to 290 MGD.

A consistent and reliable Croton water supply is a key part of our planning to meet the City's drinking water needs in the 21st century, as well as a critical component of helping to ensure we meet New York City's daily drinking water demand during the repair of the Delaware Aqueduct.

In connection with the construction of the Croton Filtration Plant, DEP is also undertaking significant construction at the 108-year-old Jerome Park Reservoir, the only drinking water reservoir actually inside New York City. To date, we have constructed the new Croton Distribution Chamber, which is used to connect the plant with the City distribution system. In addition, we have decommissioned the Mosholu Pump Station and reconstructed a part of Shaft 3 to accommodate plant needs.

Newtown Creek

As you know, after a $5 billion upgrade, DEP began providing full secondary treatment—the federal standard for wastewater treatment—at the Newtown Creek Wastewater Treatment Plant in 2011. This year marked the completion of additional projects at Newtown, totaling $45.7

million—the construction of new sludge docking facilities, dredging of both Newtown Creek and Whale Creek navigational channels, and the demolition of the East River Sludge Storage Tank.

Finally, we have recently received approval from the Public Design Commission to begin construction on the Newtown Creek Nature Walk Phase II. This project, designed by George Trakas, will extend the existing Nature Walk from its current end point along Whale Creek Canal to Kingsland Avenue.

Service Line Protection Program

As the Committee knows, the water and sewer service lines that connect homes to the City-owned water and sewer mains are the responsibility of the homeowner. Repairs to broken service lines can cost between $3,000 and $15,000, and can be financially devastating to a homeowner.

Therefore, in January 2013 we announced the availability of an optional Service Line Protection Program (SLPP). Under the SLPP, American Water Resources (AWR) will repair an enrolled customer's leaking water service line or a broken or clogged sewer service line for a small monthly fee – currently $4.49 per month for the water service line and $8.47 for the sewer service line. Homeowners who choose to enroll in the program sign a contract with AWR and have the convenience of paying the enrollment fees through their water bills. In a little over two years, over 176,000 customers have enrolled in the Plan, with 97% of subscribers having enrolled in both the water and sewer plans. Based on historical repair rates, these enrolled customers are likely to generate over 5,800 repair calls per year. Coverage under the SLPP will save these enrolled customers collectively more than $8.7 million per year.

Automated Meter Reading

As of March 3, 2015, Automated Meter Reading (AMR) transmitters have been installed in nearly 817,000 meters, representing almost 97% of meters citywide (based on a citywide total of approximately 845,000 meters). With an increasing percentage of our accounts moving onto AMR, we are seeing a corresponding decrease in the percentage of monthly bills that are estimated. In January 2009, 17.4% of bills were estimated, while in February 2015, only 3.1% of bills were estimated. Additionally, as a part of this effort, DEP has replaced over 431,000 water meters citywide.

Land Acquisition

DEP is in the eighth year of the 10-year Filtration Avoidance Determination (FAD) secured in 2007. Land acquisition continues to be an important part of our source water protection program, and DEP remains on track to meet the land solicitation goals established in the FAD. We continue to prioritize solicitation, taking into account the high levels of protection we've attained in many parts of the watershed.

The Preliminary FY 2016 Budget

Turning now to some specific highlights from our Preliminary FY 2016 Expense and Capital Budget:

Expense Budget
The projected Expense Budget for the current fiscal year, FY15, is $1.7 billion, including approximately $492 million in Community Development Block Grant funds for the "Build it Back" program, for which DEP serves as the contracting entity for the City. For FY16 we expect DEP's Expense Budget to be $1.2 billion.

The Preliminary FY 16 Expense Budget breaks down into the following large categories:

- $483 million (40%), in personal services to pay the salaries for our nearly 6,000 funded positions
- $750 million (60%), for other than personal service costs (OTPS), which includes:

  - Taxes on upstate watershed lands, which make up the next-largest category of spending in the agency, accounting for $162 million or nearly 14% of the expense budget. As you know, the ownership of watershed lands represents a critical investment in maintaining the high quality of NYC's drinking water by protecting it at the source and ensuring that it does not require more expensive treatment, such as filtration. I am pleased to report that we have successfully negotiated agreements with upstate jurisdictions to make our tax obligations more stable and predictable and, in some cases, to reduce them.

  - Heat, light and power, or DEP's energy costs, account for $101 million or 8% of the FY16 Expense Budget. DEP is the third-largest municipal consumer of electric power in New York City after the Department of Education and the Health and Hospitals Corporation, and our consumption will grow as we bring online new treatment facilities for both drinking water and wastewater. To control energy costs and meet Mayor de Blasio's major commitment to greenhouse gas reduction, DEP is investing in projects to reduce energy needs, including a cogeneration plant at North River.

  - Chemicals are estimated to cost $53 million in FY16 or about 4% of the Expense Budget. For drinking water, DEP continues to add chlorine and fluoride to Cat/Del water in order to meet federal and state treatment requirements. Also for drinking water, the treatment processes at the new Croton Water Filtration Plant will require chemical additions. Our wastewater plants rely on the addition of polymers and other chemicals to improve removal rates and continue to disinfect their effluent with chlorine.

  - Sludge management of 1,200 tons per day is projected to cost about $37 million in FY16, or about 3% of the Expense Budget.

FY2016-FY2025 Ten-Year Capital Plan

DEP's FY16 Preliminary Capital Budget is $12.8 billion for
FY16-25, as presented by Mayor de Blasio on February 9, 2015.

Highlights of the preliminary Ten-Year Plan are as follows:

Wastewater Treatment

The Preliminary Ten-Year Plan projects a $5.4 billion investment in wastewater treatment projects, $3.1 billion of which is for the reconstruction or replacement of components of the wastewater treatment plants and pumping stations.

The remaining $2.2 billion investment will be used to mitigate combined sewer overflows, with $786 million for green infrastructure such as green roofs and bioswales, and the remainder for gray infrastructure, such as tanks and tunnels to store wastewater.

In addition, $168 million is budgeted for the construction of a new cogeneration plant at the North River Wastewater Treatment Plant. The new cogeneration plant will use renewable digester gas produced by the wastewater treatment process to both power equipment and heat the facility. It will help us reduce our energy use and help the City meet the Mayor's major commitment to reduce greenhouse gas emission.

Reservoirs, Dams, Treatment Facilities and Water Mains

Over the next ten years, the Administration is proposing to invest an additional $3.6 billion in protecting the quality of our reservoirs and the integrity of our dams, providing for treatment where necessary, and maintaining and repairing the water main system conveying potable water to all New Yorkers.

We have budgeted $184 million for the reconstruction of dams in our three watersheds and $511 million for pressurization of a 2.5 mile segment of the Catskill Aqueduct, which will increase the volume of water available to the City and re-establish DEP's ability to bypass the Kensico Reservoir when necessary to access the highest quality water.

For the continuation of our current FAD programs, the Preliminary FY16-25 Capital Plan includes $185 million, covering all our capital needs for the current FAD, including $128 million for land acquisition.

The Rondout-West Branch Tunnel and Water for the Future

Although this project extends even beyond the Ten-Year Plan, in the FY16-25 period the Preliminary Budget provides over $244 million for projects related to providing supplemental sources of water during the Delaware Aqueduct shutdown.

Increasing the capacity of the Catskill Aqueduct—a project distinct from pressurization—accounts for an additional $130 million.

Long-Term Control Plans

There is $1.3 billion of funding to cover planned consent order work related to the Long Term Control Plans (LTCPs) for combined sewer overflows (CSO) and stormwater control. This is a portion of a larger commitment being negotiated with DEC to invest $3 billion over 30 years to improve water quality in designated water bodies. The most significant element of this commitment is $300 million for improvements to reduce CSO discharges into the Gowanus Canal. In addition, DEP will undertake projects such as disinfection in Alley Creek, Hutchinson River, and Flushing Creek and measures in other waterbodies yet to be agreed upon.

City Water Tunnel No. 3 and Related Work

The Preliminary FY16-25 Capital Plan allots $340 million for City Tunnel No. 3 and related work, with a total of $416 million in fund, including modifying the chambers built during Stage I at the Hillview Reservoir. We have also allocated $76 million for Stage II of City Water Tunnel No. 3, including a section running through lower Manhattan as well as a section running from Astoria, Queens to Red Hook, Brooklyn. DDC has completed those water mains critical to activating the Manhattan leg and, on October 16 of 2013, we marked the activation of that section of Tunnel No. 3, enabling us to provide much-needed redundancy to City Water Tunnel No. 1.

Sewers

The Preliminary FY16-25 Capital Plan projects $2.6 billion of spending on sewers including:

- $786 million for replacement of sewers (storm, sanitary or combined), including the Mayor's initiative for accelerated replacement;
- $1.2 billion for new sewers (of all types) of which;
  - Storm sewers as a category by itself (either new or reconstructed) accounts for $966 million of projected spending, of which $277 million is for high-level storm sewers, including Third Avenue in Brooklyn; and
  - $449 million of the total is for both the conventional sewers and the lands necessary to create Bluebelt systems, which are being extended beyond Staten Island to Springfield Lake in Queens, Van Cortlandt Park, the Bronx Botanical Garden, and other locations.

The FY 16-25 Capital Plan Highlights by Borough

In the Bronx, the Preliminary Budget projects $658 million of capital spending from FY 16-25. Approximately $172 million is budgeted for the Hunts Point Wastewater Treatment Plant, including $30 million for new centrifuges and $66 million for new digesters. Restoration of the Mosholu driving range, clubhouse and related work is budgeted for $46 million in FY 2016. To reduce CSOs into Pugsley Creek and Long Island Sound, DEP has budgeted $72 million in FY 2016 for construction of a parallel sewer that will help divert flow away from the creek.

In Brooklyn, the Preliminary Budget includes $1.5 billion of planned commitments.

The 26th Ward Wastewater Treatment Plant and associated sewer work to reduce CSOs into Fresh Creek account for $261 million. Coney Island sewer improvements are funded at $17 million in FY 16. An additional $137 million is projected in FY17-25 for Coney Island sewers.

In Manhattan, the Preliminary Budget shows $1 billion over the ten years between FY16 and FY25. The largest single project is the $168 million cogeneration project at the North River Wastewater Treatment Plant. The cogeneration project will replace existing equipment for recycling digester gas with a more efficient system that will allow more of the plant's energy needs to be generated by the plant itself, thereby reducing energy costs and air emissions.

Another $252 million is for several projects at the Wards Island Wastewater Treatment Plant: reconstruction of final tanks; reconstruction of the boiler complex; and installation of emergency

generators. The construction of water mains connecting two of the City Water Tunnel No. 3 shafts with the local water distribution system is funded at $73 million.

In Queens, the Preliminary Ten-Year Plan shows a total of $1.8 billion allocated for projects of all types. Sewers account for $567 million. We project $143 million to evaluate, assess and restore groundwater wells in Southeast Queens for the purpose of providing additional water during the Rondout bypass construction, and during any droughts or other instances where the City's surface water supplies are not adequate.

In Staten Island, the Preliminary Ten-Year Plan projects a total of $1.1 billion, of which $606 million is for sewers. The Snug Harbor sewer project is budgeted for $24 million. Repairs to the Oakwood Beach Wastewater Treatment Plant and to the Hannah Street pumping station are projected to cost $146 million.

I will note that the Preliminary Ten-Year Plan does not include the cost of repairing damage to the Staten Island siphon project caused by Sandy. The costs of the damage to that project, which will replace the two existing, underwater water siphons that supply drinking water to Staten Island, are under discussion. Some of the costs may be covered by the contractor's insurer. We are hopeful that the federal government will cover any uninsured costs.

As a guiding principle, DEP is committed to employing scientific analysis in all decision-making, with a keen awareness of preserving public health.

As the Committee is well aware, all of DEP's water activities are entirely funded by the water and sewer rates, paid by all NYC property owners, and we prioritize our activities in an effort to maintain acceptable levels of service while remaining ever conscious of our consumers. Unfunded mandates can place a significant strain on that effort and greatly affect rates in ways we would not choose independently.

Resiliency

Finally, a quick word on resiliency: DEP is implementing a suite of measures to enhance climate resiliency. First, moving forward, we are applying resiliency design standards to all new wastewater projects to incorporate flood protection from storm surge and sea level rise.

Where feasible, we are incorporating these resiliency measures and standards into projects that are already in the planning or design phase; we have also been identifying and securing funding to implement the remaining recommendations of the Wastewater Resiliency Plan.

Since the signing of the Sandy Recovery Improvement Act, we have been actively identifying and pursuing potential federal funding sources to aid in this undertaking. The most viable identified were various FEMA sources, including the Hazard Mitigation Grant Program and a special loan program—the Storm Mitigation Loan Program—set up specifically for these types of projects. Currently, $156 million has been allocated to DEP through the Storm Mitigation Loan Program and will be administered through the EPA Clean Water State Revolving Fund.

While the exact amount and timing of additional funding will be determined by many factors, we expect that the remaining gap between our needs and outside sources will be filled by our own capital investment.

On behalf of the almost 6,000 employees of the Department, I want to express our appreciation for the Chairman Richards's strong leadership, and our continued commitment to work closely with the members of this committee and the Council as a whole.

This concludes my prepared statement. I thank you for the opportunity to present testimony today and look forward to answering any questions you have.