



**Testimony of**  
**Vincent Sapienza**  
**Chief Operating Officer**  
**New York City Department of Environmental Protection**  
**before the**  
**New York City Council**  
**Committee on Environmental Protection**

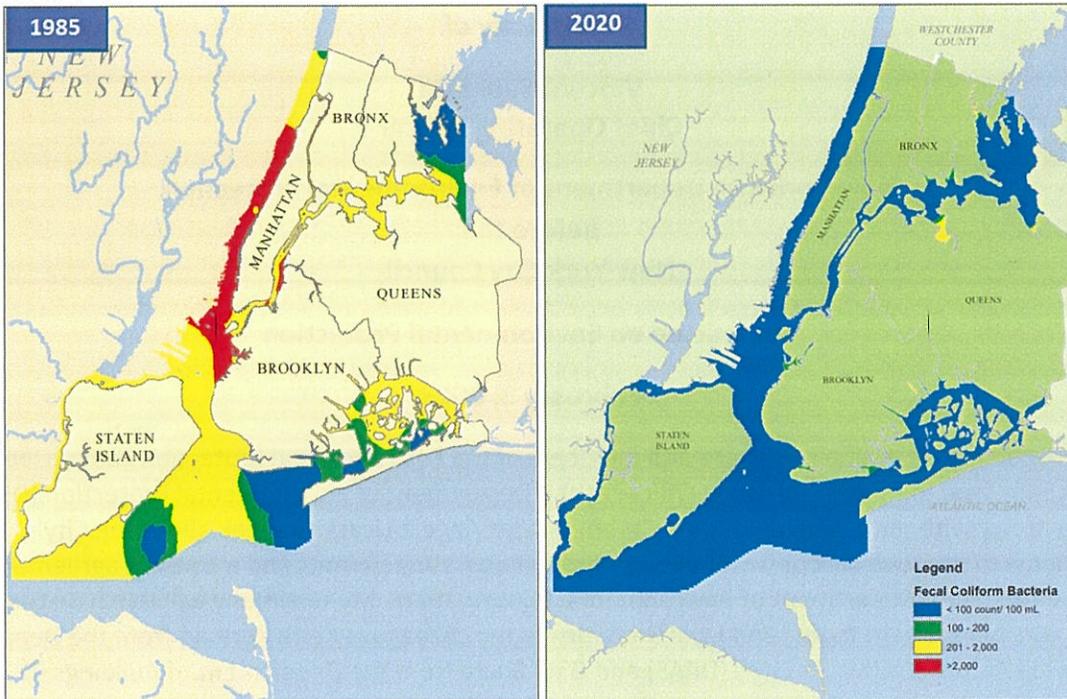
**February 3, 2023**

Good morning, Chair Gennaro and members of the Environmental Protection committee. I am Vincent Sapienza, the Chief Operating Officer at the Department of Environmental Protection (DEP). I am here today with my colleague Deputy Commissioner Angela Licata to speak about the City's investments to improve harbor water quality through operating permits and a consent agreement with the New York State Department of Environmental Conservation. My testimony will touch on the DEP-related bills being heard today, and I will then turn to my colleagues Keith Kerman from the Department of Citywide Administrative Services (DCAS) and Gina Bocra from the Department of Buildings (DOB) to speak on the other legislation.

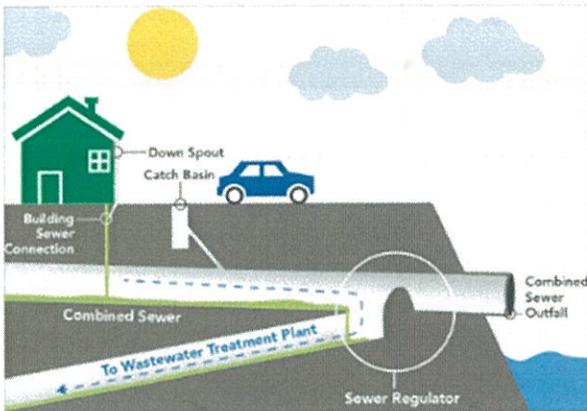
Four of the bills being heard today relate directly to DEP. Three of them propose new reporting requirements: Intro. 102, which would require a map of green roofs to be posted online; Intro. 533, which would require reporting on progress toward decreasing the presence of sewage and stormwater contaminants in the city waterways; and Intro. 531, which would require reporting on the condition of drainage infrastructure. DEP already reports extensively on these topics, so we would like to work with the Council to ensure these bills complement current reports. The fourth bill, Intro. 532, relates to pumpout infrastructure for boaters. Several agencies and private entities are involved in this area, so we would like to work with the Council and with our partner agencies to determine the best path to achieve the goals of this bill.

**Combined Sewer Overflows and Long-Term Control Plans**

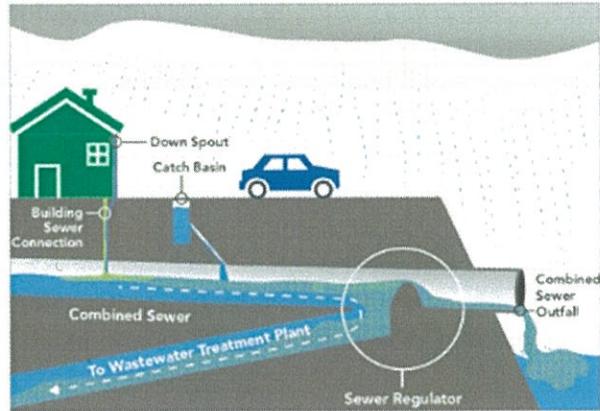
New York City residents who pay a water bill have invested \$4.3B in recent years to reduce the quantity of combined sewer overflows (CSOs) into local waterways. Those investments and improvements to treatment technology have been paying off, as we now regularly see dolphins chasing large quantities of smaller fish that are thriving in our rivers. The waters surrounding New York City are cleaner and healthier than they have been since the Civil War. Still, there is a lot of work to do, and we will ask water bill payers for many billions of dollars more in the coming years.



As background on CSOs, about 60% of the city's sewers are a combined sewer system, meaning that sanitary wastewater and stormwater both flow into the same sewer pipes. This combined wastewater is conveyed to and then treated at a Wastewater Resource Recovery Facility (WRRF). Our 14 WRRFs treat about 1.3 billion gallons of wastewater each dry weather day. Those plants have a combined capacity to treat up to 3.8 billion gallons per day, meaning they can accept more than 2 billion gallons per day of stormwater. When the intensity of a storm exceeds that capacity, the excess water is released directly into a waterway without treatment. This release is a CSO.



Dry Weather Conditions in the Combined Sewer System\*



Wet Weather Conditions in the Combined Sewer System

CSOs are not illegal. They are authorized by the US Environmental Protection Agency (EPA) and permitted by the NYS Department of Environmental Conservation (DEC), but our collective goal under the Clean Water Act (CWA) is to continue to reduce the quantity and frequency of CSOs by incrementally

adding more hard, grey infrastructure to handle water and more green infrastructure to reduce to the volume of water entering the sewer system.

To achieve that goal in a structured way, DEP has worked with DEC, environmental groups, and the public to develop and implement Long-Term Control Plans (LTCP). There are eleven LTCPs, each representing a discreet geographic area. The LTCPs incorporate a combination of gray and green infrastructure, and each plan is specifically tailored around the unique characteristics of each watershed and waterbody. The work is consistent with the Federal CSO Policy and EPA Guidelines, and with the water quality goals of the CWA.

The eleven LTCPs are dedicated to:

1. Alley Creek
2. Westchester Creek
3. Hutchinson River
4. Flushing Creek
5. Bronx River
6. Gowanus Canal
7. Coney Island Creek
8. Flushing Bay
9. Newtown Creek
10. Jamaica Bay and Tributaries
11. Citywide/ Open Waters





As indicated in the table below, the LTCPs were developed through extensive sampling and modeling, with hundreds of alternatives evaluated. After public comment and review, ten of the eleven LTCPs were approved by DEC, and more than \$6B in committed work is underway.

CSO Watershed	Alley Creek <sup>1</sup>	Westchester Creek <sup>2</sup>	Hutchinson River <sup>3</sup>	Flushing Creek <sup>4</sup>	Bronx River <sup>5</sup>	Gowanus Canal <sup>6</sup>	Coney Island <sup>7</sup>	Flushing Bay <sup>8</sup>	Newtown Creek <sup>9</sup>	Jamaica Bay <sup>10</sup>	Citiwide Open Waters
LTCP Due Date	June 2013	June 2014	Sept 2014	Dec 2014	Jun 2015	Jun 2015	Jun 2016	Dec 2016	Jun 2017	Jun 2018	May 2020
Waterbody Startup	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Sampling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Modeling	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Alternatives Developments	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LTCP Development	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Public Participation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Approval Date	Mar 2017	Aug 2017	Mar 2017	Mar 2017	Mar 2017	Mar 2017	Apr 2018	Mar 2017	Jun 2018	Jan 2023	Pending

LEGEND: = Completed = In Progress = Not Initiated

These CSO reduction efforts are reported in quarterly updates, each of which can be found on DEP’s website. Additionally, we have been publishing a comprehensive annual CSO BMP Report for more than a decade. Further, the City has, since 1909, been doing an annual Harbor Survey, to sample and analyze waters at dozens of locations around the City. Those reports are on our website, too. Water quality data from our Harbor Survey Monitoring Program are also available on NYC Open Data. Also, DEP publishes an annual Green Infrastructure Report. Additionally, DEP publishes an annual Stormwater Management Program Report. Moreover, DEP publishes an annual State of the Sewers Report about drainage. Virtually all of the information and data that are requested in Intro. 533 and Intro. 531 can be found in these resources.

### Municipal Separate Sewer System

Our water quality efforts are not limited to combined sewer areas. Other areas of the city are served by the Municipal Separate Sewer Systems (MS4). In MS4 areas, stormwater does not combine with sanitary sewage. Rather, stormwater from streets and rooftops flows through separate pipes directly into nearby waterways. Stormwater is cleaner than sanitary sewage, though it can pick up sediment, street trash, and other types of pollution along the way.

DEP has worked with DEC to develop and implement a Stormwater Management Program (SWMP) Plan that includes numerous initiatives designed to reduce pollution in stormwater runoff. The first plan was developed pursuant to a 2015 MS4 permit that DEC issued to the City. DEC issued a modified Citywide MS4 permit in August 2022.

A key component of the SWMP is the Construction and Post-Construction Program (C/PC Program). The C/PC program requires management of stormwater on construction sites so that eroded soil and other construction wastes do not become a source of stormwater pollution. Some projects also require construction of stormwater management practices (SMPs) on site to prevent stormwater from



entering the sewer system and reduce the pollutants being washed from the site. These are long-term management practices, which will continue to operate after construction is complete. The C/PC program is an enhanced regulatory program. It includes permits, inspections, and enforcement, based on the existing DEC Construction General Permit program.

DEP initially administered this permitting program only in the MS4 area, but Local Law 91 of 2020 extended the program to the combined sewer area as well, creating the Unified Stormwater Rule. Now, any construction project anywhere in the five boroughs that disturbs 20,000 square feet or more of soil or adds an additional 5,000 square feet of impervious surface must be permitted and may be required to install stormwater management practices. These requirements will create more pervious and resilient properties across the city. I thank the Council for their partnership in implementing this monumental program.

Through the MS4 Industrial and Commercial Stormwater Program (I/C Program), DEP is responsible for the inspection and enforcement portions of the State Pollution Discharge Elimination System (SPDES) Multi-Sector General Permit for Stormwater Discharge from Industrial Activities (MSGP) at privately owned facilities in the MS4 area. DEP also inspects an inventory of unpermitted facilities to assess their industrial activities' exposure to stormwater and to determine whether the facilities generate significant contributions of pollutants to impaired waters and may require SPDES permit coverage.

Other programs in the SWMP include: the Pollution Prevention Good Housekeeping (PP/GH) Program, which requires City agencies to perform regular assessments of their facilities and operations to determine sources of pollutants potentially generated by their facilities and operations and to evaluate the adequacy of the stormwater control measures (SCMs) they implement; the IDDE program, which requires City agencies to track down and eliminate any illicit discharges into the MS4; and a broad range of programs to prevent floatable and settleable trash and debris from reaching local waterbodies through the MS4.

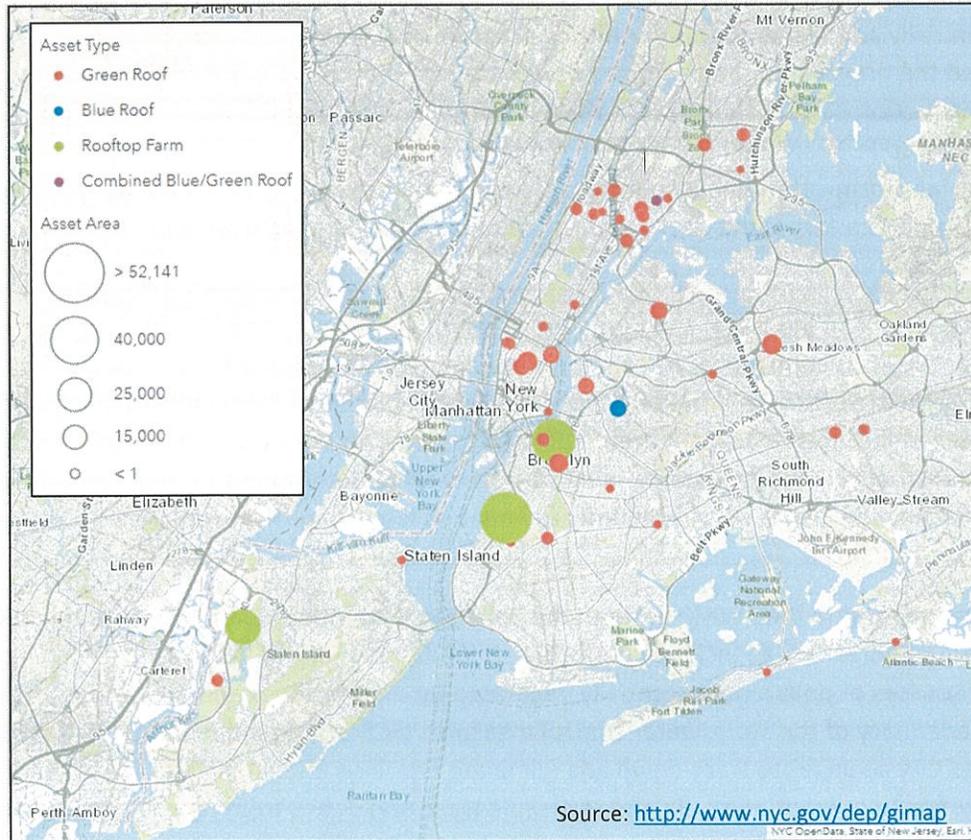
### **Green Infrastructure**

As I have touched on, a key component of our stormwater management programs is the use of green infrastructure (GI). New York's GI system is the most extensive in the country. In just the last decade, our GI program has:

- Constructed more than 11,000 assets,
- Managed more than 2,000 acres,
- Added more than 660,000 square feet of pervious surfaces to streets and sidewalks, and
- Created more than 14,000 acres of Bluebelts across the city.

DEP utilizes a variety of assets, or types of infrastructure, to manage stormwater, including rain gardens, infiltration basins, permeable pavers, and green roofs. All GI is engineered to make land and buildings more efficient at managing stormwater on site, so that the water does not enter the sewer system. More information about the GI program is available in the Green Infrastructure Annual Report and the Stormwater Management Program Annual Report, both of which are available on the DEP website.

DEP manages a public, city-wide GI map that includes all the green roofs funded by DEP, as well as those for which DEP has completed a technical review. This map provides the locations and details about GI around the city, in line with what Int. 102 calls for. I should note, however, the private owners can green their roofs without City approval, and so those locations might not be reflected on the map.



We strongly encourage the use of green roofs and other GI wherever possible. We offer a grant program to make it easier to install these assets. Many green roofs have been funded through that grant program, including the two biggest rooftop assets: the green roof at the Brooklyn Navy Yard and the green roof at Liberty View Plaza in Sunset Park.

We encourage everyone to incorporate stormwater management practices on their properties. Even efforts that seem small, such as installing a rain barrel, can have an impact. We are always happy to work with Council Members to encourage these practices among their constituents.

Thank you for the opportunity to testify on this topic and on these bills. I will now turn to my colleagues to speak about the additional legislation being considered today and then will be happy to answer any questions that you have.

Testimony to the Environmental Protection Committee  
Department of Citywide Administration Services (DCAS)  
February 3, 2023

Hi. My name is Keith Kerman and I'm a Deputy Commissioner at DCAS and the City's Chief Fleet Officer. Thank you Chair Gennaro for inviting us to discuss Intro 0614 regarding low emission exhaust pipes and systems.

As you know, DCAS is currently working to electrify the City fleet through Executive Order 90. We recently testified regarding Intro 612 which would codify the fleet electrification into law. There are currently over 4,100 electric and plug in units in the City fleet with over 900 more on order. DCAS manages the state's largest plug-in fleet and also the largest EV charging network at over 1,400 ports and growing.

In addition, the City also operates 4,234 hybrid gas or diesel units, with over 800 more on order. Consistent with Local Law 73 of 2013, City trucks use biodiesel blends from 5 to 20% as do off-road equipment units. The current goal is to electrify the fleet by 2035 for most vehicle models and 2040 for emergency and specialized trucks. Full electrification provides the promise of zero emissions vehicles at the tailpipe. Electric vehicles and charging are also the focus for our current sustainability funding.

DCAS currently procures original equipment manufacturer (OEM) catalytic converters for cars and trucks. These reduce and convert 90% or more of emissions on vehicles including carbon monoxide, hydrocarbons, and nitrogen oxides. City fleet trucks utilize catalytic converters and diesel particulate filters (DPFs) consistent with Federal and City law.

DCAS is certainly willing to explore the availability, functioning, and potential for what the intro defines as low emission exhaust pipes. However, DCAS has not currently employed or verified this type of technology, and we are not aware of specific and proven products meeting this definition for cars or trucks.

Research will need to be conducted to determine the availability, costs, safety, warranty compliance, durability, maintenance requirements, and effectiveness of any such products. If a product or products were available for testing, this would need to happen at a very modest scale to establish the safety and effectiveness of the equipment.

We are continuing to research this area and available to discuss the proposal further with the Council. Thank you.



**NEW YORK CITY DEPARTMENT OF BUILDINGS  
TESTIMONY BEFORE THE NEW YORK CITY COUNCIL  
COMMITTEE ON ENVIRONMENTAL PROTECTION  
FEBRUARY 3, 2023**

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Good morning Chair Gennaro and members of the Committee on Environmental Protection. My name is Gina Bocra, and I am the Chief Sustainability Officer at the New York City Department of Buildings (“the Department”). I am pleased to be here to discuss Introductions 239 and 603, regarding rooftop solar systems and green roofs.

Introductions 239 and 603 come at a critical moment in the city’s – and truly, the world’s – fight against climate change. New York City is a leader. For years, the passage of federal climate legislation grew increasingly unlikely in Washington. Our city stepped up to the plate, and through the Council, passed the Climate Mobilization Act of 2019, which included Local Law 97 of 2019 regarding greenhouse gas emissions limits for the city’s largest buildings. The Department and its government partners are working steadfastly to promulgate rules, communicate obligations under the law to impacted building owners, and ensure the law is implemented equitably and fairly.

Last year, we saw the passage of the Inflation Reduction Act and the bipartisan Infrastructure Bill, which together amount to a once-in-a-generation investment in our country's clean energy future and fight against climate change. But our Federal Government rejoining this fight does not mean that we can ease up. In fact, now is the time to double down on our commitment to leaving a better New York City to future generations. As such, we applaud the Council’s continued leadership as it legislates an even stronger commitment to clean energy.

Introduction 239 would require that the Department conduct education and outreach to building owners on rooftop solar system and green roof requirements. While new buildings are now required by Local Laws 92 and 94 of 2019 to install either rooftop solar systems or green roofs, the Department is certainly supportive of educating existing building owners about the

environmental benefits of these rooftop systems. We support the goals of this legislation and look forward to working with the Council to ensure that the bill facilitates the most effective and targeted outreach possible.

Introduction 603 would require that the Department study the feasibility of implementing solar-ready measures for commercial buildings. We support the goals of this legislation. We would like to work with the Council to ensure that this bill complements existing requirements for new buildings to install rooftop solar systems and green roofs as part of Local Laws 92 and 94 of 2019. We are also interested in ensuring that this legislation complements and is not duplicative of Local Law 24 of 2016, which requires the City to study the feasibility of solar PV installation on rooftops of City-owned buildings larger than 10,000 square feet.

Thank you again for your time today. I look forward to answering your questions.



PUBLIC ADVOCATE FOR THE CITY OF NEW YORK

**Jumaane D. Williams**

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**TESTIMONY OF PUBLIC ADVOCATE JUMAANE D. WILLIAMS  
TO THE NEW YORK CITY COUNCIL COMMITTEE HEARING FOR THE  
COMMITTEE ON ENVIRONMENTAL PROTECTION  
FEBRUARY 3RD, 2023**

Good afternoon,

My name is Jumaane D. Williams, and I am the Public Advocate for the City of New York. I would like to thank Chair Gennaro, and the Committee Members for holding this hearing.

The bills heard today will help city agencies manage its water infrastructure, and phase out aging infrastructure in favor of green technologies. Additionally, the legislation discussed today will bring us closer to having every possible building roof with a solar panel, and every non-electric city vehicle utilizing a low emission exhaust pipe. It is imperative that New York City lead the country on building green infrastructure, to decrease the use of greenhouse gases. The effects of climate change are too costly to ignore. While updating our aging infrastructure may seem daunting, the legislation before us gives New York City the tools to be a leader.

Furthermore, it is important that we do everything possible to reduce pollution in our waterways as well as in our air. No Discharge Zones should be expanded to protect our waterways, and Int 0532 is a key step in setting the groundwork to expand the zones. In addition, Int 0533 will gather and share the necessary information on the types of pollutants in our waterways, and will assist the DEP in waterway management through green infrastructure.

Int 0531 is a great addition to monitor the infrastructure that supports clean waters, the municipal drainage infrastructure. The legislation will mandate "A description of the current operational condition of all treatment locations, wastewater pump stations, sewer regulators and other critical drainage infrastructure". Publishing a yearly report is important for the public's knowledge and for government partners to assess the state of New York City's drainage infrastructure. Since 2020, I have been working with my City Council partners on a Catch Basin bill that will submit quarterly reports to the mayor, the speaker of the council and the public advocate regarding the inspection, cleanup, maintenance and repair of catch basins, disaggregated by community district. Catch basins are an essential part of our drainage system, and are often neglected. In some neighborhoods catch basins are regularly clogged, which leads to stormwater runoff and flooding. I hope to work with Councilmembers on the Committee on Environmental Protection to include catch basins in further water infrastructure discussions.

New York City relies on aging water infrastructure, and we must do everything possible to monitor decline and build new infrastructure. The legislation before us today takes great strides to actively review our water infrastructure for improvements, as well as implement infrastructure repairs that will make our waterways cleaner and decrease our greenhouse gas use. Thank You.

Testimony Before the Committee on Environmental Protection  
New York City Council  
3 Feb 2022

Mayor Adams has laid out an appropriately ambitious goal of 500,000 units of new housing over the next decade, and a sizable proportion of that will likely be 100% affordable or mixed-income housing. However, some parts of the city simply do not have the sewerage capacity to support this new housing development without upgrades, and the burden of upgrading an entire neighborhood's sewer system is being unfairly placed on the first developer who attempts to build in the area. Additionally, the approval process for DEP approvals is long and burdensome and there is a huge risk and uncertainty inherent to working below grade in the public right-of-way.

**Burden placed on first developer.** In recently rezoned areas, such as Southeast Queens and East New York, the existing infrastructure cannot support new development, placing the burden on the first developer in the area. Though the area has zoning that allows affordable or mixed-income housing, DEP requires the first developer in the area to finance and build sewerage in the public right-of-way to support the development. Such privately-built sewers in public streets can range up to 2400' in length, or approximately three long blocks - such infrastructure cost can be cost-prohibitive.

**Long and painful process for DEP approvals.** Delays in the DEP approval process add time, expense, and uncertainty to projects. While DEP has 30 days for initial comments on an application, the department typically exceeds this allowance. Additionally, there are multiple rounds of comments, so a 30-day process becomes 60+ days. The approval process takes so long that a developer often needs to stop construction. Prior to development, it is challenging to determine available infrastructure because access to the maps was discontinued after 9/11.

**Enormous uncertainty.** The uncertainty regarding work in the public right of way puts unsustainable burdens on project budgets. It is challenging for private developers to raise the funds to cover the costs of work in the public right of way, including the necessary contingency. The enormous uncertainty of working below grade in the public right of way presents an unacceptable risk for many developers. Additionally, the buying power of an individual developer is limited compared to what DOT can bring to the market.

**Need for City investment in upzoned areas.** DEP should design and building appropriate systems to serve whole neighborhoods after a City-sponsored upzoning. Upgrading the sewers a few blocks at a time is inefficient and cost-prohibitive. Instead, DEP should be designing and constructing neighborhood-wide upgrades in communities where there has been a City-led upzoning. An individual developer should not be shouldering the full cost of developing appropriate infrastructure in the public street in previously underserved areas.

The bottom is that if the City wants more housing developed, be it all affordable, mixed-income, or both, then it should invest in infrastructure accordingly. Neighborhood-wide infrastructure projects are the appropriate way to design and build this infrastructure.



**Testimony of Alia Soomro, Deputy Director for New York City Policy  
New York League of Conservation Voters  
City Council Committee on Environmental Protection  
Oversight Hearing on New York City’s Water Quality Obligations Under the DEC CSO  
Consent Order and the City’s Municipal Separate Storm Sewer System  
February 3, 2023**

Good afternoon, my name is Alia Soomro and I am the Deputy Director for New York City Policy at the New York League of Conservation Voters (NYLCV). NYLCV is a statewide environmental advocacy organization representing over 30,000 members in New York City. Thank you, Chair Gennaro and members of the Committee on Environmental Protection for the opportunity to testify today.

NYLCV supports the passage of Intros 102, 531, 533, and 603 because they will prioritize updating our City’s water drainage infrastructure and encourage more green infrastructure investments and sustainability measures as we continue to improve water quality in the City’s waterways, work to reduce CSOs, and mitigate the worst impacts of climate change. We are also encouraged that Intros 102 and 533 are being heard today as they were included in our 2022 City Council Environmental Scorecard.

Intro 102

Intro 102, sponsored by Council Member Justin Brannan, would require the New York City Department of Environmental Protection (DEP), in collaboration with the Department of Buildings (DOB), to post on its website a map of all the green roofs in New York City, including information about each green roof such as the type of building, the area of the roof and the area covered by the green roof system, the capacity of the green roof to absorb water, and the function or functions of the green roof. NYLCV supports this bill because green roofs mitigate the urban heat island effect by reducing temperatures of the roof surface and surrounding air, especially in warmer months when heat-related illnesses are most common. Green roofs also provide insulation that cuts indoor heating and cooling costs, helps absorb stormwater, and improves air quality by filtering out harmful pollutants.

In addition to providing basic information about the state of green roofs in the City, this bill will also help advocates track the distribution of green roofs throughout the City—especially in identifying areas that are lacking. As of November 2022, [green roofs cover less than 0.1% of New York City’s 1 million buildings](#), a vast majority of which are located in wealthier areas of Manhattan. While this bill is an important step in creating more awareness of and transparency about green roofs, to ensure there is an equitable allocation of green roofs throughout the City, DEP should also consider producing an annual report that identifies incentives and areas where

more green roofs should be installed, prioritizing environmental justice communities and public buildings.

#### Intro 531

Intro 531, sponsored by Council Member Gennaro, would require DEP to issue an annual report on the condition of critical water drainage infrastructure within the City, including the current operational condition of all treatment locations, wastewater pump stations, and sewer regulators. It would also require a description and causes of all outages that occurred in the previous year, detailing the length and severity of the outage, as well as the steps taken to resolve it. NYLCV supports this bill and recommends that the bill include language that requires the report to consider not only the current operational condition, but also future conditions due to climate change impacts, including (but not limited to) sea level rise and extreme rainfall, and solutions for how the City's water drainage infrastructure should adapt.

#### Intro 533

Intro 533, sponsored by Council Member Gennaro, would require DEP to study and report on the presence of contaminants from combined sewage overflows (CSOs) in New York City's waterways and the Department's progress toward milestones noted in the sewer overflow long term control plan. The Department would then develop a watershed management plan and a green infrastructure plan with the assistance of an advisory group. NYLCV supports this bill because our City's sewer system is not up to modern best standards for managing stormwater and sewage overflows. On top of this, climate change will make our infrastructure even more vulnerable, overwhelming our sewer system with heavy rains and storms, resulting in frequent overflows into our waterways, worsening pollution. Studying and reporting on CSO contaminants, especially on the proportional impact of discharges in environmental justice communities, as well as studying the effectiveness of its current regulations and treatments for sewage will result in DEP better addressing CSOs' negative impacts. Additionally, the development of a watershed management and green infrastructure plan would add a layer of accountability, ensuring the task is accomplished.

#### Intro 603

Intro 603, sponsored by Council Member Abreu, would direct DOB, with assistance from DEP, FDNY, and any other relevant agencies, to conduct a year-long study to determine the feasibility of implementing solar-ready measures for commercial buildings, including any barriers and cost estimates. NYLCV supports this bill because it will provide more information on what would be required to implement a fair, cost-effective mandate for new commercial buildings to be built solar-ready, ensuring that new commercial construction helps [the City meet its goal of 250 megawatts \(MW\) for private sector solar capacity and 100 MW for solar capacity on public buildings by 2025](#). We also encourage the study to identify potential incentives and funding streams from the City, State, or Federal levels.

These bills are vital to making our City more resilient, healthy, and equitable. NYLCV looks forward to working with the Council and the administration on the bills being heard today. Thank you for the opportunity to speak.



February 3, 2023

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**Testimony of Caleb Smith, Cecil-Corbin Mark Fellow at WE ACT for Environmental Justice**

**To the New York City Council Committee on Environmental Protection**

**Regarding Int 0239-2022, Int 0603-2022, and Int 0531-2022**

Dear Committee Chair James Gennaro and the Committee on Environmental Protection:

WE ACT for Environmental Justice, an organization based in Harlem, has been fighting environmental racism at the city, state, and federal levels for more than 30 years. We recognize and fight to remedy the negative cumulative impacts of unjust policies that have plagued communities of color for decades.

As New York City continues to strengthen its response to climate change and fortify the reliability of its energy grid, New Yorkers deserve an equitable, data-informed implementation of renewable energy and climate resilience programs. Without lowering the barrier to entry to participate in green roof and solar programs, neighborhoods in Northern Manhattan and the South Bronx will continue to face disproportionate energy burdens. A 2020 study by the [American Center for an Energy Efficient Economy](#) showed that Black households were 43% more energy burdened than their white counterparts. Similarly, Hispanic/Latinx households were 20% more energy burdened than white households. In order to correct these inequities, we need robust community education and an acute understanding of root causes that stand in the way of adoption for communities who need these technologies most.

**We urge the council to refine the City's strategy toward energy justice in the deployment of green and solar roofs and climate resilience in disadvantaged communities.**

While all of New York City experiences the Urban Heat Island Effect caused by the density of impermeable surfaces that absorb heat, neighborhoods like East Harlem are subject to a hyper-local urban heat island effect, exposing these residents to [temperatures as much as 10](#)



[degrees hotter than the City average](#). It is also well documented and known to many city agencies that East Harlem is vulnerable to flooding from extreme rain, sea level rise, and storm surge. Residents have been consistently vocal about flooded streets during strong rain. Large areas of the neighborhood sit directly in a high-risk flood zone, according to [flood maps](#) from the Federal Emergency Management Agency.

The most at-risk areas have residents that are majority Black and Latinx and represent some of the poorest in New York City. This is just one of the ways communities of color tangibly feel the legacy of racist policies like redlining. Such policies that have discouraged investment in communities of color have resulted in a lack of tree coverage, disparities in generational wealth, and poor building maintenance; all of which render both the inhabitants and the built environment ill-equipped to withstand extreme weather events that will only become more severe and frequent as climate change persists.

Comprehensively bolstering vulnerable communities against flooding, soaring energy costs, and extreme heat requires that the appropriate resources are poured into solar, and green roof installations. An equitable, fiscally responsible, and resilient New York cannot exist without ensuring frontline communities receive these investments that are long since overdue.

**Green roofs** offer similar benefits, except their cooling effect is aimed directly at the buildings on which they are installed. By shading the roof and deflecting radiation from the sun that would otherwise heat the building, green roofs reduce the amount of energy needed to cool it. Both street trees and green roofs expand the surface area of permeable surfaces which allow for better drainage and mitigation of flooding events.

**Solar roofs** support energy efficiency since photovoltaic panels absorb the radiation instead of the building while generating electricity, helping to reduce the energy load during times of high demand. Extreme heat events will become more frequent and severe, and to prevent blackouts and brownouts when people are trying to cool down in their homes, renewable energy generation must be more accessible in heat vulnerable neighborhoods.

The following bills, supported by WE ACT that lay the groundwork for the growth of these strategies:

- Int 0239-2022 - Education and outreach regarding solar and green roof requirements.



- Int 0603-2022- Studying the feasibility of implementing solar-ready measures for commercial buildings
- Int 0531-2022 - Annual report on drainage infrastructure.

With regard to Introduction 239, the Council should consider revisions that enhance education efforts areas that face compounding flood and heat vulnerability. A study on [the distribution of green roofs in New York City](#) demonstrated neighborhoods with the highest concentrations of green roofs were served by combined sewage overflow systems. This indicates interest in green roofs is associated with flood prevention. Additionally, the study found heat vulnerable neighborhoods, especially those outside of Manhattan were severely underserved.

Likewise, in implementing Introductions 603 and Introduction 531, we recommend the studies investigate how marginalized people are impacted by inadequate stormwater management. The study mandated by Introduction 603 should analyze how the frequency and/or type of solar make-ready barriers might relate to Census tract income and racial demographic data. The annual report on drainage infrastructure should evaluate how length of service disruptions, extent of disruption, and cause of disruption vary in relation to social vulnerability of the populations affected by disruptions (e.g. age, race, income, educational attainment, etc). A recent study highlights that current trends of flood risk are currently borne predominantly by white households living below the poverty line in the United States. However, flood risk projections in Black neighborhoods are expected to increase most rapidly, [by at least 20% in the next 30 years](#).

In alignment with the Climate Leadership and Community Protection Act Draft Disadvantage Community (DACs) definition and the wealth of research that confirms race is the most dominant predictor of environmental inequality, these studies should consider how cumulative environmental impacts are related to DACs' ability to access renewable energy technology and recover from shocks to the stormwater management system.

Supporting data collection and community outreach programs that make these technologies accessible to low income neighborhoods first and foremost is not only the most equitable option, but also the most cost-effective. Research conducted by the [Smart Surfaces Coalition](#) demonstrated the cost-to-benefit ratio for implementing these technologies in low income neighborhoods was consistently favorable across five cities, accounting for energy, financial incentive, stormwater, health, climate resilience, and employment benefits



It is in your hands to reduce the exacerbating climate risks and energy insecurity afflicting frontline communities. The path forward must include green infrastructure and renewable energy. Thank you for your time and consideration.

Sincerely,

**Caleb Smith**

Cecil-Corbin Mark Fellow

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REBNY Testimony | February 3, 2023

## The Real Estate Board of New York to REBNY Testimony to The Committee on Environmental Protection of the New York City Council Regarding a Study of the Feasibility to Build Commercial Buildings Solar Ready

The Real Estate Board of New York (REBNY) is the City's leading real estate trade association. Founded in 1896, REBNY represents commercial, residential, and institutional property owners, builders, managers, investors, brokers, salespeople and other organizations and individuals active in New York City real estate. REBNY strongly supports data-driven policies that will spur housing construction, create good jobs, and house New Yorkers. REBNY thanks Chair Gennaro and the members of the Committee for this opportunity to submit testimony on Int 603-2022, which requires the City to create a feasibility study looking at the possibility of constructing commercial buildings as solar-ready.

**BILL:** Intro 603-2022

**SUBJECT:** This bill would require DOB to work with several other City agencies to develop a study on the feasibility of building commercial buildings so that they are ready to install solar electricity generation equipment in the future (i.e., be solar-ready). The City would have one year to complete the study. The study would look at the utility of having commercial buildings be solar-ready, barriers to doing so, which commercial building types and occupancies are most suited to being solar-ready, and costs associated with building solar-ready buildings. The report that results from the study would be submitted to the Mayor and the Speaker of the City Council 12 months after this bill becomes law.

**SPONSORS:** Abreu, Brewer, Restler, Nurse, Gutiérrez, and Sanchez (by request of the Manhattan Borough President)

REBNY supports the intent of this bill, which wisely starts with a feasibility study to investigate a very complicated issue, as the commercial building stock in New York City is diverse in building sizes, configurations, and uses, and so will pose a myriad of technical and cost problems related to construction as solar-ready. Therefore, understanding those issues in a thorough and careful manner is a critical first step.

While we agree that the study should be undertaken by a range of City agencies, as the bill calls for, we also think that there should be a robust stakeholder element to this effort. In particular, a stakeholder advisory board should be established that has the expertise and experience to properly assist the City in developing this report. As things stand now, there are many important resources competing for the very little unused space on commercial building rooftops, such as mechanical systems, heat pumps, batteries for storage, and already mandated solar and or green roofs. In addition, the FDNY has strict regulations to allow access to all parts of a rooftop, further restricting other uses. Building owners would be a vital resource for issues such as this. REBNY would be willing and able to assist the City in determining who should be on the Advisory Board.

REBNY thanks you once again for allowing us to submit testimony on this bill today.

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**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: 2/3/23

(PLEASE PRINT)

Name: Nate Grove

Address: NYC Parks

I represent: \_\_\_\_\_

Address: \_\_\_\_\_

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_

in favor  in opposition

Date: Feb 3, 2023

(PLEASE PRINT)

Name: Kevin Herman, Chief Area Officer

Address: DCAS Street

I represent: 1 Municipal Building

Address: Administration

**THE COUNCIL  
THE CITY OF NEW YORK**

Appearance Card

I intend to appear and speak on Int. No. 239 Res. No. 603

in favor  in opposition

Date: FEB 3, '23

(PLEASE PRINT)

Name: GINA BOGRA

Address: 280 BROADWAY, NY, NY 10007

I represent: DEPT OF BUILDINGS

Address: same

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THE CITY OF NEW YORK**

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I intend to appear and speak on Int. No. \_\_\_\_\_ Res. No. \_\_\_\_\_  
 in favor     in opposition

Date: \_\_\_\_\_

**(PLEASE PRINT)**

Name: Angela Licata

Address: Deputy Commissioner, Sustainability

I represent: NYC DEP

Address: \_\_\_\_\_

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 in favor     in opposition

Date: \_\_\_\_\_

**(PLEASE PRINT)**

Name: Vincent Sapienza

Address: NYC DEP Chief oper officer

I represent: DEP

Address: \_\_\_\_\_

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