TESTIMONY OF THE MAYOR'S OFFICE OF CLIMATE RESILIENCY
BEFORE THE NEW YORK CITY COUNCIL
COMMITTEES ON ENVIRONMENTAL PROTECTION, RESILIENCY AND WATERFRONTS, AND PARKS AND RECREATION

October 20, 2021

Good morning. I am Jainey Bavishi, Director of the Mayor's Office of Climate Resiliency. I would like to thank Chairs Gennaro, Brannan, and Koo for the opportunity to testify today. I would also like to acknowledge my colleagues from the Departments of Environmental Protection and Parks and Recreation this morning who will join me in responding to your questions today.

As you know, the Mayor's Office of Climate Resiliency is responsible for ensuring that New York City is prepared to withstand and emerge stronger from the impacts of climate change. Our role is to lead the City's strategic direction and planning to prepare for extreme events and chronic impacts, and coordinate with agencies to implement this work.

Within our citywide resiliency portfolio, the City is preparing to adapt to a variety of climate hazards. Our climate adaptation strategy takes a multi-layered approach, focused on establishing multiple lines of defense at different scales across the city to respond to the multiple hazards. Thanks to Chair Brannan and Council's leadership on Intro 1620 this month, we also look forward to providing a climate adaptation plan in 2022 that evaluates the impacts of the various climate hazards that New York City faces, incorporates the latest findings in climate science, and articulates and builds consensus around a climate adaptation strategy. This is a significant step forward that will ensure continuous, strategic, and transparent leadership that helps the city become even more resilient to the threats caused by climate change.

In the immediate aftermath of Hurricane Ida, the Mayor launched the Extreme Weather Task Force, bringing together every Deputy Mayor and over a dozen City agencies and Mayor's offices to outline immediate and long-term actions that the City will take to protect New Yorkers from future intense precipitation events. The resulting report, *The New Normal: Combatting Storm-Related Extreme Weather in New York City*, lays out $2.1 billion in new funding at the Department of Environmental Protection for capital projects and an additional $238 million in accelerated funding for crucial DEP projects. Additionally, it outlines $400 million in new funding for other priority capital projects among key agencies including the Parks Department, Department of Transportation, NYCHA, and the School Construction Authority, as well as $25 million in expense funding for Fiscal Year 2022. These funds are critical for mitigating stormwater flooding and funding programs, science-based tools, and resilience capacity. We are

also actively advocating for additional funds from the State and Federal government to further strengthen this work.

The New Normal includes a holistic set of resiliency commitments to address extreme weather spanning multiple sectors, including infrastructure, residents and businesses, and science and data.

The infrastructure commitments in *The New Normal* are innovative and accelerate solutions that were outlined in the City's Stormwater Resiliency Plan that was released earlier this year. The commitments also reflect a focus on both grey and green solutions. The City is developing and will implement, where feasible, a new drainage standard informed by projected future rainfall data. We are also advancing innovative cloudburst solutions. These are projects, which are designed for heavy downpours, transform open space and streetscapes to absorb water where possible, and store excess water safely until the event passes to take pressure off the sewer system. The City has committed to developing a framework to transparently select priority neighborhoods for cloudburst projects considering both indicators of physical risk, such as topography, subsurface conditions, land use, and recent complaint and damages data, and socioeconomic factors, including income, demographics, and access to existing green space. Four cloudburst projects will begin work next year, while the City pursues State and Federal funding to implement additional projects. In addition, we are implementing the East Harlem Cloudburst Resiliency project, a project that was identified in the Vision Plan for a Resilient East Harlem in 2020. We are also expanding NYCHA's green infrastructure program to seven new sites, adding new green infrastructure in parks for stormwater management, and developing twenty new stormwater management playgrounds with the Trust for Public Land. Finally, we are implementing three priority projects in the NYC Wetlands Management Framework in the Bronx and Queens, and daylighting Tibbets Brook in the Bronx.

For residents and businesses, the City has committed to expanding FloodHelpNY to inland areas and restarting home resiliency audits and financial counseling for one-to-four family buildings and vulnerable multi-family buildings. These proven services were previously only available to certain Sandy-affected areas. We will also be investigating the impacts of extreme weather on the City's housing stock and social infrastructure; reviewing electrical, plumbing and zoning codes for the opportunity to address intense rain and coastal flooding; and expanding the SBS Business Preparedness and Resiliency Program to over 1,000 businesses. Additionally, the City was recently awarded funds by FEMA to conduct a backwater valve study to determine exactly where backwater valves will be effective. The results of this study, which we hope to complete next summer, will inform the scale of the City's installation program, areas of prioritization, and direct community outreach by clearly delineating what types of buildings and locations would most benefit from backwater valves. The study will also indicate where the City should immediately implement its new backwater valve program based on current high risks and needs and identify areas of lower risk where the program should expand.

For science and data collection, the City will expand the flood sensor network citywide, improve existing flood maps to account for combined flood risks, and develop a Coastal Flood Vulnerability Index. The City's flood sensor network, which currently operates in the pilot neighborhoods of Gowanus, Brooklyn and Hamilton Beach, Queens captures real-time data on flooding. Expanding these flood sensors will improve the City's real-time situational awareness, alerts, future forecasting, and long-term planning, and facilitate community emergency

preparedness and response during a storm. Additionally, updating and integrating flood maps will allow us to account for multiple hazards such as stormwater, groundwater, and coastal flooding to help the City design the most resilient interventions for these compounding challenges. Finally, developing a Coastal Flood Vulnerability Index that is similar to the City's Heat Vulnerability Index will make vulnerability to coastal flooding more transparent and help policymakers determine how to allocate limited resources equitably.

Finally, there are many avenues to improve public policy at all levels of government and we are committed to advocating on behalf of all New Yorkers for a more resilient City. At the City level, we believe there is an opportunity for Council to integrate sea level rise into building code as soon as FEMA finishes revising their Flood Insurance Rate Maps. Particularly in light of Hurricane Ida, we also see an opportunity to codify a permanent, City-funded Office of Climate Resiliency which will help define clear, transparent leadership for our already-significant portfolio of work and the new mandates outlined in Intro 1620. We also expect that the City's resiliency portfolio will grow tremendously over the next few years due to the proposed New York State Environmental Bond Act and funding bills that are being currently being considered in Washington, only furthering the need for a resiliency-focused office with a clear, transparent, and distinct charge.

At the State level, there are also tremendous policy opportunities. We hope to advance a Flood Risk Disclosure mandate for real estate transactions to increase market transparency and develop new financing tools such as PACE with Resiliency to support commercial building retrofits.

At the Federal level, we are continuing to advocate loudly to increase affordability and transparency for the National Flood Insurance Program in light of the recently implemented Risk Rating 2.0 changes. We are also advocating to reform existing programs through which Federal infrastructure dollars will likely flow, like FEMA's Building Resilient Infrastructure and Communities program, known as BRIC, so that we can make the most of future Federal funding.

In conclusion, I would like to thank the Committees on Resiliency and Waterfronts, Environmental Protection, and Parks and Recreation for allowing me to testify here today. I look forward to answering your questions about the critical commitments outlined in *The New Normal* report.

Testimony of

Vincent Sapienza
Commissioner

New York City Department of Environmental Protection
before the
New York City Council

Committee on Environmental Protection
Committee on Resiliency and Waterfronts
Committee on Parks and Recreation

October 20, 2021

Good afternoon, Chair Gennaro, Chair Brannan, Chair Koo, and members of the Committees on Environmental Protection, Resiliency and Waterfronts, and Parks and Recreation. My name is Vincent Sapienza; I am the Commissioner of the NYC Department of Environmental Protection (DEP). Thank you for the opportunity to speak today about the topics of combined sewer overflows, green infrastructure, and urban flooding. These issues are critical to the work of DEP and our mission to enrich the environment and protect public health for everyone who lives and works in New York City.

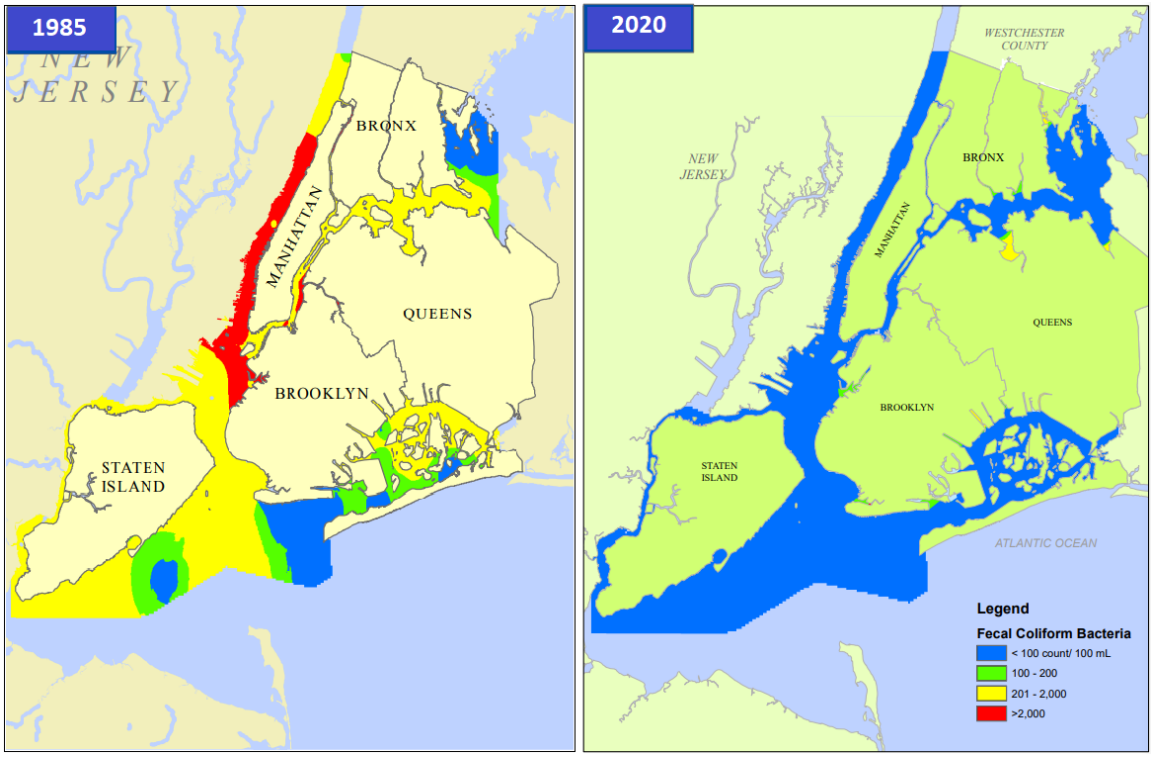
As many of you are aware, DEP delivers approximately 1 billion gallons of drinking water each day from a watershed that extends more than 125 miles from the City. In addition, we maintain over 7,000 miles of water mains, 7,500 miles of sewer mains, 96 pump stations and 14 in-City wastewater treatment plants. While the water and wastewater system was built as a marvel of engineering creativity and determination, this critical infrastructure was built for a vastly different climate reality. Our team continues to make systematic improvements, planning for a wetter future while balancing several different goals. We are simultaneously reducing combined sewer overflows to improve harbor water quality, mitigating flooding to reduce property damage and protect human life, and maintaining a state of good repair to ensure longevity of our infrastructure. I commend all our staff for what they have accomplished over the years and recognize that we still have much more to do.

A Changing Climate

There is a saying that "Climate Change is Water Change." A warmer climate impacts nearly every facet of the water cycle which impacts nearly every facet of our work. DEP has always designed our systems with built-in redundancy, flexibility, and design criteria for extremes. For instance, we know that an uninterrupted, clean drinking water supply is essential, and dating back over 100 years, planners and engineers considered the possibility of droughts and heavy rain events. As much as possible, our drainage systems are also sized for heavy rain—and while we know there are limits to engineered solutions for extreme events, we also recognize that there is an opportunity for innovation and progress.

Harbor Water Quality & Combined Sewer Overflows

I will begin with a discussion about harbor water quality improvements and combined sewer overflows, or CSOs. Much of the city's sewer infrastructure is a combined sewer system, which means the sewer collects stormwater and sanitary sewage in the same pipe. Many older municipalities have a similar system. This combination of stormwater and wastewater is carried to one of our 14 Wastewater Resource Recovery Facilities (WRRF) where it is treated, and clean water is released into the harbor. The City has invested billions in the design, construction and upgrade of critical wastewater infrastructure across all five boroughs. The results are astonishing, and we are proud to say that because of our investments, the waters surrounding New York City are cleaner and healthier than they have been in 150 years – since the Civil War. The improvements are apparent every time a seal, dolphin, or whale is sighted off our shores.



On a dry weather day, our WRRFs receive about 1.3 billion gallons of wastewater, and they have the capacity to treat up to 3.8 billion gallons a day. During some storm events, the volume or intensity of the rain can exceed the capacity of the local sewer network. When that happens, excess flow is diverted into a local open waterway, and that is known as a CSO. These releases are authorized by U.S. EPA and the NYS Department of Environmental Conservation (DEC). The City has over 400 CSO outfalls throughout the five boroughs and they function as critical infrastructure, protecting the treatment process at the WRRFs and ensuring they continue to treat sewage consistently after the rain ends. They also help prevent stormwater and wastewater from backing up into homes and neighborhoods. These CSO releases, however, can hamper our water quality improvement goals, especially in constrained tributaries like the Hutchinson River and Newtown Creek. We remain dedicated to building off our successes and further reducing CSOs to improve water quality in these waterbodies.

In recent years we have spent nearly $3B in grey infrastructure projects like the Alley Creek CSO Storage Facility and the Gowanus Canal Flushing Tunnel and Pump Station Reconstruction. In 2012 we kicked off the Long Term Control Plan (LTCP) process with the New York State Department of Environmental Conservation (DEC) and stakeholders to develop eleven Long Term Control Plans (LTCPs) for the waterbodies impacted by CSOs. The LTCP work is consistent with the Federal CSO Policy and the water quality goals of the Clean Water Act (CWA). Through this program we have committed more than $6B in projects that will further reduce the volume and frequency of CSOs for those waterbodies that do not achieve applicable water quality standards. Planning and design are already underway for many of these investments.

I want to emphasize that the capital costs for CSO reductions are not linear. While billions have been spent so far, it would take tens of billions to eliminate CSOs. As a result, we have embraced a hybrid approach to CSO reduction, strategically incorporating grey infrastructure which is energy intensive and expensive to maintain and balancing it with green infrastructure which makes our city more permeable and we absorb rain right where it falls. We believe this hybrid approach is a much more sustainable and cost-effective path forward.

Green Infrastructure

One important component of CSO reduction is Green Infrastructure (GI) with a goal of reducing CSOs by 1.67 BGY. GI is engineered to absorb or hold stormwater on site, preventing that water from entering the traditional sewer system. Keeping storm volume out of the sewers reduces stress on the WRRFs and cuts CSO into waterways.

New York City has implemented the most aggressive green infrastructure program in the country. In just the last decade, our GI program has:

- Constructed more than 11,000 assets,
- Managed more than 1,500 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.

Many of the projects have been done in partnership with other city agencies, including the Department of Transportation, Department of Parks and Recreation, NYCHA, and schools.

GI takes many forms. The suite of options allows us to use the best options for each geography. GI includes large projects like Tibbets Brooks daylighting, and small distributed projects like rain gardens, infiltration basins, stormwater green streets, green roofs, blue roofs, permeable pavement, subsurface detention systems, and rain barrels and cisterns. Work is not confined to combined sewer areas. We have built more than 70 Bluebelts across Staten Island and are expanding the program into Queens and the Bronx.

All of these projects are engineered to make land and buildings more efficient at managing stormwater runoff. Rain gardens in the sidewalks have been our most widely used tool and, in addition to carefully designed vegetative palettes at their surface, they involve specially engineered systems

installed below the surface. The subsurface structure is designed to store and then slowly percolate the captured runoff into the ground. This subsurface feature is the most critical part of a rain garden and what distinguishes them from standard street tree pits; it also makes them much more difficult to construct. Rain gardens are not feasible in locations with bedrock or a high water table or where other utilities or street and sidewalk infrastructure prevent us from using the space for stormwater management.

Where rain gardens are not feasible, DEP has been working with NYC DOT on the installation of permeable street pavement to absorb runoff. As noted in the Extreme Storms Management report that the Mayor released last month, we are now significantly accelerating the use of permeable pavement.

In addition to the work that DEP does directly, we encourage others to implement green infrastructure through financial incentives. The green infrastructure grant program funds the design and construction of green roofs on private property. Most recently, the Brooklyn Navy Yard added more than 23,000 square feet of green roof with funding from the grant program. To date, we've provided more than $13M to 33 private property owners for green infrastructure. We've also kicked off a $53M contract to retrofit privately owned large impervious properties with green infrastructure.

We are also developing a Unified Stormwater Rule (USWR), which will require more on-site stormwater management for new and redeveloped properties that connect to the city's sewer system. The unified rule will also require green infrastructure implementation on redeveloped lots that are 20,000 SF or larger or create 5,000 SF or more of new impervious area, leading to more pervious and resilient properties across the city. While the primary goal of the GI program is to reduce CSOs in a cost-effective way, the projects also provide community and environmental benefits. These "co-benefits" include increased urban greening, urban heat island reduction, and more habitat for birds and pollinators around the city.

Flooding

While the total amount of annual rainfall on the city has not changed much in the past two decades, it is apparent that climate change is causing more significant brief downpours or cloudbursts. Our sewers were designed to handle lots of runoff, but not all at once. Intensity is what causes flooding.

Simply replacing existing combined sewers with bigger, deeper ones is imprudent. We must take a holistic approach to reduce flooding. Our current four-year capital plan includes $2.3B for 278 projects to improve drainage that includes new tools like non-networked 'high-level' storm sewers and expanding our GI programs.

As Director Bavishi mentioned, we are collaborating with the Mayor's Office and our agency colleagues on innovative solutions to cloudburst flooding. We already have three cloudburst projects in Queens that are in the design phase, one with NYCHA in the South Jamaica Houses and two in St. Albans. We are supporting the effort to identify cloudburst neighborhoods by performing a physical and social vulnerability assessment which will be followed by engineering feasibility study for cloudburst neighborhood opportunities. We look forward to working with you all and external stakeholders across the City as this program develops.

Legislation

Finally, I want to speak to the bills being heard today. We appreciate the importance of the issues raised by these pieces of legislation and look forward to working with the Council to address critical needs across the City.

1. **Intro 1618** would require DEP to report on progress towards reducing pollution in City waterways that is caused by combined sewer overflows and stormwater runoff. We would like to work with the Council to ensure this bill aligns with current DEP reporting requirements. For example, DEP provides quarterly updates on LTCP implementation, reports on CSO discharges each year through an Annual CSO BMP Report, and submits yearly progress updates on water quality improvement strategies in the Green Infrastructure Annual Report and the Stormwater Management Program Annual Report. All of these reports are submitted to the NYS Department of Environmental Conservation and are available to the public on the DEP website. Water quality data from our Harbor Survey Monitoring Program is also available on NYC Open Data.
2. **Intro 383** would require DEP to submit an annual report on drainage infrastructure. As with 1618 we would work with the Council to ensure that this bill does not conflict with existing state and federal reporting. For example, DEP already complies with the State Pollution Discharge Elimination System, or SPDES, permits and applicable law, by reporting to the State and the Public, discharges of untreated or partially treated sewage using the State's approved electronic public notification system - NY-Alert.
3. **Intro 67** would place liability on the City for sewer service lines and require the City to develop a plan to mitigate and prevent sewer backups. DEP has done extensive work to reduce sewer backups and SBUs are down 70% over the past decade. We regularly report to the EPA on our progress and also release an Annual State of the Sewers Report, which is available on the DEP website. We have initial concerns about the fiscal and legal ramifications of shifting liability of sewer service lines to the City and we are still reviewing with the Law Department and OMB.
4. The unnumbered preconsidered intro would require DEP to establish a program to provide financial assistance for the purchase and installation of backwater valves. We agree with Council that backwater valves can be an important tool in the toolkit homeowners need to reduce flooding on their property. While DEP does have experience providing financial assistance for home upgrades through our Toilet Replacement and Rain Barrel Giveaway Programs, providing assistance for backwater valves is of a different nature. We will need to consider this proposal with the Law Department and the Office of Management and Budget before committing to a citywide backwater valve program. We look forward to engaging on this with Council and sharing the results of MOCR's backwater valve study, which will become available next year. This study will review where backwater valves will be most effective and consider equity and cost as it relates to prioritized implementation.
5. **Intro 2168** would require DEP to create a searchable database that would allow members of the public to access private customer information. Implementation of this bill would make customer data available to third-party entities without consent. This would result in a serious breach of customer privacy and does not align with industry best practices. Ensuring customer privacy is an important safety measure particularly for vulnerable homeowners whose presence at home could be tracked by these third-party entities. We are also concerned that customers with large

debts could be targeted by predatory actors who could access their account information. Protecting customer water and sewer data is a critical guiding principal in the development of our new billing system which launched last month. This system is not designed to be searchable by the public, however, customers can designate a third-party delegate to access their billing information. We will gladly sit with the council to discuss our concerns about this bill in more detail once the Law Department has thoroughly reviewed it.

6. Lastly, I recognize that **Intro 2425** and **Int. No 1845-A** were both recently added to today's agenda. These bills would require DEP to create Borough Commissioner positions and to inspect catch basins annually. We look forward to reviewing the language more closely and following up with you.

Thank you again for the opportunity to testify here today. Before I close, it's important to remind everyone that the City's drainage infrastructure is funded directly from water bills that all New Yorkers pay, whether directly or indirectly. Each spring, DEP consults with the City Council on our expense and capital needs for the coming fiscal year, and each year we hear public testimony about the impact of rising water rates on finances for families and small businesses. We must continue to make strategic investments while maintaining affordable rates, minimizing payment delinquencies, and supporting low-income New Yorkers, especially as we all continue to recover from the economic challenges of the pandemic. Without federal or state funding, we must prioritize and balance our long-term planning with public affordability. Again, we appreciate the Council's commitment to working with us on these complex issues. My colleagues and I are now happy to answer any questions you may have.

PUBLIC ADVOCATE FOR THE CITY OF NEW YORK

Jumaane D. Williams

TESTIMONY OF PUBLIC ADVOCATE JUMAANE D. WILLIAMS TO THE NEW YORK CITY COUNCIL COMMITTEE ON PARKS AND RECREATION, COMMITTEE ON RESILIENCY AND WATERFRONTS, AND COMMITTEE ON ENVIRONMENTAL PROTECTION - HEARING OCTOBER 20, 2021

Good Afternoon,

My name is Jumaane D. Williams, and I am the Public Advocate for the City of New York. I thank Chair Peter Koo, Chair James Gennaro, and Chair Justin Brannan for holding today's hearing.

Last month served as a reminder that the City is still not prepared for climate change. At least 13 people died as a result of intense and sudden floods from Hurricane Ida. That so many died because they lived in basement apartments highlights that there are multiple, intersecting issues, from housing to environmental justice, that require City action. As I previously said, what we used to call extreme, outlier events are now just storms that are a new normal. Preparation is key, and I welcome this hearing to begin that work.

That work can be found in my bill, Intro. No. 1845, which would renew Local Law 48 of 2015. That law required the New York City Department of Environmental Protection to submit semi-annual reports on the state of its catch basins. Catch basins act as a drain for water to flow through while blocking any large debris. There are thousands of catch basins around the City, sometimes clogged with trash. DEP is required to clean up these basins, but that requires New Yorkers to help notify the agency of catch basins that need to be cleaned and/or repaired.

DEP was previously required to report on its inspections of catch basins, including those identified as non-functioning and requiring repair. DEP was also required to note the number of catch basins that need to be repaired within nine days of inspection or receipt of a complaint. These reports were helpful, as the last report found 4,300 catch basins were non-functioning from July 2018 to June 2019. Unfortunately, DEP is no longer required to publish these reports. My bill would ensure the agency submits quarterly reports and fixes catch basins within five, not nine, days of inspection or receipt of a complaint. These basins are essential in the event of flash floods, for example, and we cannot take a risk with non-functioning basins. We need to pass this legislation to make sure DEP makes public data around the City's catch basins, an effort we need to make before the session ends.

Additionally, I appreciate the Council's focus on green infrastructure, which consists of providing green jobs and ensuring neighborhoods are resilient against the worst of climate change. I believe the City can both provide green jobs for neighborhoods still affected by the downturn from COVID-19 and make a more resilient City. As mentioned by the administration at a City Council committee hearing on September 14th, the City, in the past several years, "has built more than 11,000 curbside gardens" and "infiltration basins." However, there are still opportunities to identify neighborhoods at risk of flooding and installing green infrastructure. Certain neighborhoods not considered at risk of flooding may be decades from now. Our job does not start then, it begins now. What we saw with Ida may be minor for what comes next.

We also cannot forget or avoid the topic of housing. That so many New Yorkers lost their lives in basement apartments, particularly illegal apartments, should serve as a reminder that there are multiple issues the City needs to address. Housing intersects with homelessness and environmental justice. It is critical that government acts quickly to legalize, regulate, and protect tenants living within these units.

The City certainly should step up and provide suitable housing. However, it cannot do this alone. In the administration's report titled "The New Normal," it offered suggestions on the state level to assist New Yorkers. I agree that the state should revise and amend legislation to accommodate the City. One example is to amend state law to legalize basement apartments. I also join the administration in the potential of a basement conversion tax credit as a possible solution for the City's housing woes. The tragic loss of life last month cannot be forgotten.

Finally, we need additional assistance and leadership from the state. The videos of floods in our subway system are becoming too frequent. Worse, the MTA is not prepared for climate change. In August, the MTA Inspector General released a report saying it would take about 15 years for the MTA to clean its draining system. We cannot forget that Superstorm Sandy was only nine years ago. The state needs to mobilize and transform our subway system to manage storms. We did not see much movement under the last Governor, who preferred to feud with the Mayor than act. We need commitment with new leadership in Albany.

Overall, climate change will force our City to make a decision. Either we decide to constantly respond after extreme weather events or we start preparing to avoid the worst of it. Again, I call upon my colleagues in the City Council to support the bills being heard today, and move to ensure communities are better prepared during inclement weather and other environmental hazards by passing this legislation this session. I thank the chairs for holding today's hearing, and I anticipate the administration's testimony today.

Testimony of Michael Dulong, Senior Attorney, Riverkeeper, Inc.

before the Committees on Environmental Protection,

Resiliency and Waterfronts, and Parks and Recreation

on Intros 67, 383, 1618 and a Preconsidered Intro regarding backwater valves.

October 20, 2021

Thank you, Chairpersons and Members of the New York City Council Committees on Environmental Protection, Resiliency and Waterfronts, and Parks and Recreation, for your leadership to address flooding and stormwater issues and for the opportunity to testify today. I am especially grateful for your recent passage of Intro 1620 to develop a citywide climate adaptation plan by September 2022.

I'm Michael Dulong, a Senior Attorney for Riverkeeper. Riverkeeper is a member-supported watchdog organization dedicated to protecting and restoring the Hudson River from source to sea and safeguarding drinking water supplies, through advocacy rooted in community partnerships, science and law.

We appreciate your Committees' attention to the dire need to evaluate and retrofit New York City's aging sewer infrastructure. Doing so will be critical to protecting human health and property, especially with the forthcoming increases in precipitation frequency and intensity predicted by the New York City Panel on Climate Change. In the wake of Hurricane Ida, it is clear that the city must take an aggressive, all-hands-on-deck approach to upgrading the system, installing green infrastructure, and creating storage capacity to capture significant precipitation events.

While the bills before the Committees are important, I want to mention two specific aspects of this crisis that will not be addressed today.

I. It is incumbent upon the City Council to regulate new development on our shorelines, in our floodplains, and in low-lying areas at high risk of exposure to sewer backups.

As you are well aware, Hurricanes Sandy and Ida have laid bare our city's unpreparedness for extreme weather events. It is not only the city's sewer infrastructure that is to blame, but also land use decisions to construct in flood prone areas.

Fourteen people died as the remnants of Hurricane Ida dumped more than three inches of rain on New York City in less than an hour. Many of these areas were in places that were once wetlands and flowing bodies of water. For instance, three people died on Peck Ave in an area where Kissena Creek used to run before it was filled in and developed. Similarly, Tibbetts Brook overflowed onto the Major Deegan in an area it once naturally traversed.

Other areas of the city where stormwater inundated homes were "bowls," or low-lying basins surrounded by higher land. Two New Yorkers died in Hollis, Queens, where the immediate area was mostly impervious, and the sewer system capacity was insufficient to drain the excess water. The roughly 7,400 miles of New York's sewer pipes were designed to drain a capacity of 1.75 inches of precipitation per hour, not 3.1 inches. The sewer capacity, impervious surfaces, and geography of the location were readily identifiable risk factors for localized flooding.

Similarly, during Sandy, "a staggering 51 square miles of New York City was flooded—17 percent of the city's total land mass."[1] Forty-three New Yorkers died. The flooding affected the homes of 443,000 people,[2] many of whom are low-income New Yorkers of color, not to mention the catastrophic impact it had on businesses and critical infrastructure, all totaling $19 billion in damages for the city.[3] Most of the flooding damage was in known tidal floodplain areas. We are likely to see similar or worse tidal flooding in the future as our seas are on pace to rise one foot by 2050.

Past development in wetlands and floodplains has put people, property, and infrastructure in harm's way. And the city is currently repeating that ill-fated practice by approving more construction in these areas. It is time for the City Council to rethink land use for the future and provide stricter oversight and guidelines for new development in wetlands, former wetlands, floodplains and areas that are at risk of localized flooding due to sewer backups.

For instance, construction of a BJ's shopping center in Staten Island's Graniteville wetlands is at heightened risk of future flooding. Moreover, it would deprive the surrounding properties of the flood mitigation benefit once provided by the wetlands. Similarly, the River Ring project seeks to construct two residential towers in the floodplain on Williamsburg waterfront. In order to protect the shoreline from storms, flooding and sea level rise, the developer seeks to construct breakwaters in the East River, a drastic measure that would protect only a small segment of New York's 520-mile shoreline. It is unclear whether this one-off storm barrier project will conform with forthcoming plans for broader city flood resiliency pursuant to the citywide climate adaptation plan.

Given the rush to construct luxury housing along our waterfronts, coupled with the guarantee of extensive tidal flooding in the near future, many more such applications can be expected to inundate the City Council. The Zoning Code for Coastal Resiliency pushes new development to

[1] N.Y. City, A Stronger, More Resilient New York, at 13 (2013), *available at* http://s-media.nyc.gov/agencies/sirr/SIRR_singles_Lo_res.pdf.
[2] *Id.*
[3] David W. Chen, In New York, Drawing Flood Maps Is a 'Game of Inches,' N.Y. Times (Jan 7, 2018), *available at* https://www.nytimes.com/2018/01/07/nyregion/new-york-city-flood-maps-fema.html.

be more flood resistant, but does not provide for community flood resilience. The Council cannot allow developers to initiate a land reclamation free-for-all and fill in surface waters on a parcel-by-parcel basis. Instead, we urge the New York City Council to take strong action to set detailed development guidelines (including prohibitions) for shorelines, tidal floodplains, wetlands, and areas at risk of local flooding and sewer backups.

Our request for stronger guidelines for development at the shoreline and in floodplains is aligned with the Natural Areas Conservancy's and Department of Parks and Recreation's "Wetlands Management Framework for New York City."[4] Released in 2021, the framework outlines the critical importance of restoring and protecting as many City wetlands as possible, both for the sake of the City's resilience as well as for the ecological communities who depend on them. We cannot rely on the whims of development, spot rezonings or case-by-case planning to restore and protect one of the City's most important natural resources for resilience. Instead, we urge the City to meet the challenge of its agency's own findings and holistically address one of the greatest threats to wetlands: shoreline development.

II. Green infrastructure development cannot be left solely to the Department of Environmental Protection. A multi-agency task force is necessary to procure state and federal funding and to develop best management practices for all relevant city agencies.

We are thankful for the efforts of New York City Department of Environmental Protection (DEP) staff to pursue its green infrastructure program throughout the COVID-19 pandemic even where the agency failed to meet other Clean Water Act requirements. Yet DEP is not on track to meet its green infrastructure mandates under its consent order with the state, which may result in financial penalties. The city simply is not directing enough resources to capture stormwater through green infrastructure.

We urge you to create a joint agency task force to procure federal and state funding for green infrastructure projects. One forthcoming opportunity is the New York State Environmental Bond Act, which will apportion a significant sum to environmental justice communities. Some of this funding should be directed to green infrastructure development and maintenance, which can also provide local, well-paying jobs. The task force should also be tasked with creating best management practices for all significant projects on city property. The task force must include the Department of Transportation and the Department of Parks and Recreation, each of which owns and/or operates a substantial portion of the city's impervious surfaces. The DOT alone is responsible for the majority of the Public Right of Way, which makes up roughly 30% of the City's impervious surfaces. All significant projects in the Right of Way and on City Property should be subject to green infrastructure and stormwater capture requirements.

[4] *See* Wetland Management Framework for New York City (2021), *available at* https://naturalareasnyc.org/wetlands.

III. Riverkeeper strongly supports Intro. No. 1618, which will provide information necessary to improve the city's sewer infrastructure, develop green infrastructure, reduce combined sewer overflows and improve water quality.

Intro. No. 1618 would provide the Council and the public a holistic roadmap to improving water quality in New York City. There are several important aspects of the bill. Under its provisions:

- DEP will develop integrated watershed management plans for each of the 11 waterbodies subject to a combined sewer overflow Long Term Control Plan (LTCP). The current LTCPs will not bring a single City's water body into compliance with the Clean Water Act, nor make it safe for human contact. This is partly due to the fact that they ignore climate change.[5] New York City's waters are impared by high levels of fecal bacteria, nutrients and floatable refuse and oils, and by low levels of dissolved oxygen. To cure these water quality impairments, a holistic approach to watershed management is necessary. As opposed to a Long Term Control Plan, which addresses only combined sewer overflows, the integrated watershed management plan would incorporate treated sewage discharges, direct discharges, and runoff from the separately sewered areas of the city. It would also allow for consideration of in-water pollutant mitigation methods, such as wetlands and shellfish habitat creation. The burden on DEP would be minimal as only one watershed plan would be required each year for 11 years. An advisory group would be convened for the development of each plan.

  Two of the sewersheds most impacted by the flooding of Hurricane Ida, the Tallman Island Sewershed and the Bowery Bay Sewershed,[6] exemplify the shortcomings of the LTCPs. Both sewersheds have overburdened sewer systems that can be overwhelmed with just one tenth of an inch of rain. Together, they receive 10% of the City's combined sewer overflow discharge. Despite the extent of the pollution problem, DEP has indefinitely paused any progress on the Flushing Bay LTCP (part of the Bowery Bay Sewershed) due to budget concerns. The Flushing Creek LTCP (Tallman Island Sewershed) would not reduce combined sewer overflows at all, but instead opts for chlorination treatment, which, as we discuss below, is ineffectual and dangerous.

- DEP will inventory all possible green infrastructure opportunities in the LTCP sewersheds. It is important to know where these opportunities are so that DEP can satisfy its requirements under its consent order with the state; maximize green infrastructure development and efficacy in the public right of way; and inform private landowners about potential incentive programs, tax rebates, and/or water

[5] *See* New York City Extreme Weather Response Task Force, The New Normal: Combatting Storm-Related Extreme Weather in New York City 53 (2021), *available at* https://www1.nyc.gov/assets/orr/pdf/publications/WeatherReport.pdf.

[6] *See* Open Sewer Atlas NYC: Flushing Bay and Creek Sewershed Map (2016), *available at* https://drive.google.com/file/d/0B4wX_nnTabwhUDFZVHE0YnBaRG8/view?resourcekey=0-LB46UChdripwadkG-Z0-8A

rate credits available for implementing projects on their properties. The burden on DEP would be minimal as only one green infrastructure opportunity inventory would be required each year for 11 years.

- DEP will report yearly to the Council and to the public the status of New York City's water quality and presence of pollutants from combined sewer overflows; the progress it is making in implementing its Long-Term Control Plans; and the contaminants responsible for water quality violations. This oversight would help inform New Yorkers about the problems caused by combined sewer overflows and where those problems are worst. Neighborhoods within a half-mile (0.8 km) of combined sewer overflow sites tend to have unusually high percentages of poor and non-white residents.[7] A greater understanding of sewer overflow problems and who is most affected by them would help determine where DEP should prioritize capital investments.

- DEP would study the effectiveness of regulations for reducing the volume and rate of stormwater discharges from developed land. We are awaiting DEP's promised Unified Stormwater Rule, which would drive stormwater management practices for new development in the city. Once the new rules are in place, this provision would compel the DEP to monitor implementation to determine whether they are successful or more stringent requirements are necessary.

- Finally, DEP would complete a preliminary study on chlorination treatments for combined sewer overflows and their impacts. It is likely that chlorination treatment for combined sewer overflows would be ultimately unsuccessful at resolving water quality issues and would cause ecological harm due to residual chlorine and chlorination byproducts entering aquatic habitats.

IV. Riverkeeper supports Intro. No. 383. Greater oversight over sewer infrastructure malfunctions would bring attention and resources to New York City's outdated sewer system.

Intro. No. 383 requires DEP to report yearly the status of its infrastructure and identify instances in which it malfunctioned. The yearly evaluation would help the Council and the public understand the extent of sewer infrastructure malfunctions in the city and highlight where immediate investment is necessary. DEP should have information about malfunctions readily available and need only compile it for the Council. Greater oversight of our sewer system will help shine a light on the problems that are causing sewage to back up onto city streets and into basements. Oversight may also help spread public awareness about what can and cannot be disposed of into the sewer system.

[7] Rebekah Breitzer, *Institutional Roadblocks to Achieving Environmental Justice Through Public Participation: The Case of CSO Control in US Cities*, Metropolitics (Jan. 24, 2018), *available at* https://metropolitics.org/Institutional-Roadblocks-to-Achieving-Environmental-Justice-Through-Public.html.

V. Riverkeeper supports the Preconsidered Intro. to provide financial assistance for backwater valve installation.

The City sewer system backs up due to equipment breakdowns and clogs caused by "fatbergs," or blockages of non-biodegradable solids, such as "flushable" wet wipes, and/or fats, oils and grease. Increasing the accessibility for building owners to install backwater valves would help prevent sewer backups into structures.

However, this program won't prevent sewers from backing up. Even if all buildings were fitted with backwater valves, the sewage will go somewhere. It is likely that sewage will overflow and flood low-lying areas in the event of a system malfunction or a capacity exceedance caused by a large storm. It is the system as a whole that needs updating and not only the connections into homes.

VI. If Intro. No. 67 moves forward, it should be amended to allocate liability for sewer backups in areas the city knows there is heightened risk to human health and property.

Intro. No. 67 would make the city liable to homeowners for sewer backups caused by lack of capacity in sewer infrastructure during extreme weather events, such as we saw during Hurricane Ida. As discussed above, many of the local flooding issues were caused by the constraints on the city's stormwater drainage system. The storm drainage infrastructure is combined with the sanitary sewer system in roughly 60% of the City, and that same 60% tends to overlap with the most densely populated areas. Most city infrastructure is designed to drain only 1.5 to 2 inches of rainfall per hour. While that design volume made sense when it was built, given the New York City Panel on Climate Change's predictions of increased frequency and intensity of precipitation, we can expect more and more sewer backups in the coming years.

It is clear that resources are needed to be directed to retrofit the city's roughly 7,400 miles of sewer pipes, and a "sewer backup mitigation plan" would detail the extent of that need. The provision that would require DEP to identify targeted reductions in portions of the sewer system most impacted by backups is prudent and important, but it does not specifically address the issues of loss of life and property damage. The law should also direct DEP to identify those areas at heightened risk of flooding caused by sewer system backups, where human health or property are jeopardized.

We also note that the law does not seem to cover backups caused by equipment malfunctions or clogs. The law could be amended to incorporate these in-system backups, and/or instances in which unserviced catch basins become clogged.

* * *

Thank you for your consideration of Riverkeeper's testimony. We look forward to continuing to work with the Council Members, DEP, the Office of Long-Term Planning and Sustainability, and our partner organizations to ensure New Yorkers and their waters are protected against climate change impacts.

Contact:

Michael Dulong, Riverkeeper, Inc., 914.478.4501, mdulong@riverkeeper.org

New York City Council
Joint Hearing on Green Infrastructure, Urban Flooding, and Combined Sewer Overflows
October 20, 2021

Testimony By: Aaron Sanders, Associate Director of Advocacy

My name is Aaron Sanders and I am the Associate Director of Advocacy & Policy at the Natural Areas Conservancy. Thank you, Councilmember Koo, Councilmember Jenaro, Councilmember Brannan, and the Committees for the opportunity to testify today. The Natural Areas Conservancy is a nonprofit organization that was formed in 2012 to increase the capacity of NYC Parks and its partners to restore and manage the 10,000 acres of forests and wetlands under the agency's jurisdiction. I am testifying today to highlight the critical importance of NYC's water infrastructure and the need for more robust oversight of these resources.

We commend the City Council for considering critical legislation that would aid in protecting and sustaining New York City Green Infrastructure. We also acknowledge the work of the Department of Environmental Protection to mitigate sewage overflow and monitor the city's green resources.
New York City's water infrastructure is facing serious threats. We have an opportunity to protect our green resources and make sure New York is a safer place for everyone. To do that, we must support a plan to address sewage backup and how the financial toll it takes on homeowners and water resources. One important resource that should guide NYC's approach to increasing its green infrastructure efforts, reduce localized flooding, and support social and environmental co-benefits, is the Wetland Management Framework for NYC (naturalareasnyc.org/wetlands). This plan was co-created by NYC Parks and the Natural Areas Conservancy and was released in 2021. This plan provides a 30 year roadmap for the restoration and protection of thousands of acres of freshwater and coastal wetlands in NYC.

We commend the DeBlasio administration recently released report *The New Normal: Combatting Storm-Related Extreme Weather in New York City*. This plan lays out nearly $2.5 billion in new funding at the Department of Environmental Protection. Additionally, it outlines $400 million in new funding for other priority capital projects among key agencies including the Parks Department, Department of Transportation, NYCHA, and the School Construction Authority, as well as $25 million in expense funding for Fiscal Year 2022. These commitments include multiple priority projects from the Wetland Management Framework.

We hope that the City Council and Department of Environmental Conservation will invest in the restoration and care of NYC natural areas, and will view these wetland areas are critical forms of green infrastructure, and provide funding for their care.
Thank you again for your leadership and for the opportunity to express our support for NYC's green infrastructure.

Testimony of Carlos Castell Croke
Associate for NYC Programs
New York League of Conservation Voters

City Council Joint Hearing
Committee on Environmental Protection, Resiliency and Waterfronts, and Parks and Recreation
October 20, 2021

Good afternoon, my name is Carlos Castell Croke and I am the Associate for New York City Programs at the New York League of Conservation Voters (NYLCV). NYLCV represents over 30,000 members in New York City and we are committed to advancing a sustainability agenda that will make our people, our neighborhoods, and our economy healthier and more resilient. I would like to thank Chairs Gennaro, Koo, and Brannan for the opportunity to testify today.

In the wake of Hurricane Ida and other recent storms New Yorkers have once again had to confront the extreme weather that climate change will continue to bring. The Council recently passed a critical piece of legislation, Introduction 1620, that will ensure we develop a plan to make our city resilient in the face of climate hazards. We hope that the development of this plan will work in tandem with other resiliency programs in the City, such as the Department of Environmental Protection's (DEP) Green Infrastructure Program,[1] to come up with a holistic approach the city can take to address these threats.

One resiliency issue that I would like to highlight at this hearing, and that I know the Council is focused on as well, is that of Combined Sewage Overflows (CSO). New York City's old and outdated sewage system can be overwhelmed by just a tenth of an inch of rain over one hour, resulting in sewage and dirty storm runoff being dumped into our

[1] NYC Green Infrastructure 2020 Annual Report, *NYC DEP,* https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/green-infrastructure/gi-annual-report-2020.pdf

local waterways. CSO's dump 27 billion gallons of raw sewage and polluted water into the New York Harbor each year.[2]

The city fully acknowledges the issue of CSO's. The DEP implemented the Green Infrastructure Program to directly target this issue in accordance with consent orders with the State. However, even when the plan is completed in 2030 it will not sufficiently prevent CSO's. There have also been numerous grey infrastructure constructed across the city, such as high level storm sewer systems and sewage detention tanks, but these too have been unable to completely prevent CSO's.

To protect our city and our waterways from increasing amounts of stormwater runoff and flooding we need to work across multiple agencies, not just DEP, to build out a robust system of resilient green and grey infrastructure..

One way we can drastically improve our infrastructure is to completely reimagine our streetscape. Right now, cars own our roads, polluting our air, creating gridlock, and requiring impermeable surfaces to drive on. We need to be reprioritizing streets away from cars and toward pedestrian plazas, micro mobility and public forms of transportation, safe recreational space for New Yorkers, and much more green infrastructure to absorb stormwater, purify our air, and mitigate the urban heat island effect. Putting green infrastructure at the forefront of a comprehensive plan that reclaims our streetspace from cars will help to effectively prevent CSO's at the source. Transportation Alternatives' 25x25 plan[3] lays out how we can reclaim 25% of our streetspace and repurpose it for all of these local benefits. As green infrastructure and streetscape plans already exist in OneNYC and through DEP's ongoing work, we should be building upon the work already underway to make sure we advance more ambitious goals in a coordinated and streamlined manner.

We can also be implementing green infrastructure on our buildings with green roofs. The Parks Department already maintains over 200 thousand square feets of green roofs across NYC which provide insulation and absorb rainwater. However this only covers a fraction of the 40 thousand acres of rooftop space available in our city. We must be utilizing as many buildings as possible for green roofs to absorb rainwater and reduce sewer overload.

---

[2] Combined Sewage Overflows (CSO's), *Riverkeeper*, https://www.riverkeeper.org/campaigns/stop-polluters/sewage-contamination/cso/

[3] NYC 25x25, *Transportation Alternatives*, https://nyc25x25.org/

Building upon our green infrastructure plans, we must be giving special attention to our trees and urban forest. The trees on our streets and in our parks are some of our most valuable green assets, keeping us cool, cleaning our air, and fighting flooding. Expanding our urban forest is a top priority for the Forest for All NYC Coalition, of which NYLCV is a member, and with them we will fight to increase NYC's canopy cover to 30% by 2035.

We must also be expanding the green infrastructure that we already have in our city's parks and green spaces. Our parks absorb almost 2 billion gallons of stormwater runoff each year, meaning that they are already a major asset to our city resilience. Properly funding and maintaining our parks, expanding porous and permeable infrastructure in playgrounds, and equitably building more parks in environmental justice areas that severely lack green spaces should all be priorities for the city as we progress towards a resilient future.

NYLCV looks forward to working with the Council and the administration towards a streetscape plans like 25x25 and funding and expanding the green roofs, parks, and urban forest. These initiatives will make our city more resilient, fight oppressive car culture, and prevent CSO's. Thank you for the opportunity to testify today.

SWIM Coalition

Stormwater Infrastructure Matters

October 20, 2021
Testimony of Amy Motzny
On behalf of Stormwater Infrastructure Matters (SWIM) Coalition

before the New York City Council Committee on Environmental Protection, Committee on Resiliency and Waterfronts, and Committee on Parks and Recreation
Public Hearing on: Oversight - Green Infrastructure, Urban Flooding and Combined Sewer Overflows
Intro 1618/2425

Thank you, Chairpersons and Members of the New York City Council Committees on Environmental Protection, Resiliency and Waterfronts, and Parks and Recreation, for your leadership in convening this hearing and providing the opportunity to deliver public testimony on the need for City Council oversight of urban flooding, combined sewer overflows, and green infrastructure in New York City.

Stormwater Infrastructure Matters (SWIM) Coalition is a group of 70 organizations dedicated to ensuring swimmable and fishable waters around New York City through sustainable stormwater management practices — both green and grey infrastructure. SWIM Coalition member organizations endorse a truly sustainable view of watershed management, one that restores ecological systems, creates local economic opportunities and equitably distributes the benefits of green infrastructure (GI).

Since our founding in 2007, SWIM Coalition members across every borough have closely monitored and provided vital public input for the City's eleven Combined Sewer Overflow Long Term Control Plans (CSO LTCP), the NYC Green Infrastructure Plan (GI Plan), and the Storm Water Management for the City's Municipal Separate Storm Sewer System (MS4) , as well as the many policies that have informed these programs.

Please accept the following comments on behalf of the SWIM Coalition Steering Committee:

We support the testimony delivered today by SWIM Coalition member, Riverkeeper.

SWIM Coalition wishes to acknowledge the ongoing efforts of the NYC DEP staff to adapt to the myriad challenges and conditions they face on a daily basis as they implement the City's multi-pronged approach to address the negative impacts on our infrastructure from stormwater runoff. The dedicated staff at DEP have made a commendable effort to sustain an ongoing and productive dialogue with stakeholders as they've implemented the various phases of the city's long term plans to reduce the negative impacts of polluted stormwater runoff and combined sewer system overflows in NYC.

Members of the SWIM Coalition steering committee provided input for Intro 1618 when it was originally introduced by City Council Members Costa Constantinides and Peter Koo in 2019. **We strongly**

support Intro 1618 in its entirety. Passage of this legislation would allow the much needed studies, annual reports and watershed plans to be shared with the public, both to inform them of the status of efforts underway, and to provide them with an opportunity to give input to city officials regarding real time conditions on the ground in their communities and on the waterways they steward and use for recreational, cultural, and educational activities.

SWIM also supports Intro 2425, which would require a DEP Commissioner for each borough. We wish to note that the appointed DEP Borough Commissioners recommended in Intro 2425 should participate in the review and delivery of the reports, plans and studies, and public meetings that are required by the legislation in Intro 1618. SWIM Coalition recommends that the DEP Borough Commissioners, called for in Intro 2425, hold quarterly public meetings to update stakeholders on the status of the various projects underway in their Borough. This is important because, to date, NYC DEP has only held public updates on all of the CSO LTCP's one time per year. The lack of more frequent updates to stakeholders has left much of the public in the dark as to what these programs will accomplish. Quarterly public meetings would aid in developing a deeper understanding of the importance of rain gardens, permeable pavement and other stormwater management solutions the city is installing in the public right of way.

The recent extreme rain events provided a stark reminder of just how vulnerable our citizens and vital infrastructure are in the face of such storms. The devastating loss of life and the impacts of the city's sewer system backing up into people's homes, flooding our streets, surrounding highways and transportation hubs from just the remnants of the storms were alarming to say the least.

According to the NYC Panel on Climate Change, our region can expect to see a 1 – 8% increase in precipitation from the 2020s - 2030's, and a 4 – 11% increase by the 2050s. Sea level for our region is projected to rise 11 – 21 inches by the 2050's and 18 – 39 inches by the 2080's. The time to adapt is now.

We must build the city's CSO Long Term Control Plans, Stormwater Management Plans and Green Infrastructure Plan; all slated to be completed by 2030 - 2042 based on future projections for our region. These plans are not currently based on future rainfall and sea level rise projections, and that must immediately be changed.

The capacity of NYC's storm sewer and combined sewer infrastructure has frequently been surpassed on a regular basis in recent years (nearly every three days in 2018). Although the city has plans underway to reduce polluted discharges from these systems, the plans are not based on current or future rainfall projections for our region; they are based on rainfall data from 2008. These discharges can occur with as little as 0.10 inches of precipitation.

The current capacity for the City's combined sewer system is maxed out when it rains 1.75 inches per hour, with some portions of the system overwhelmed by as little as one tenth of an inch of rain per hour. Rainfall data from Ida indicated that we had 3.15 inches of rain per hour.

Based on recent events and future projections, the current system capacity will be overburdened far more often in the years ahead. We know that higher than normal levels of Enterococcus bacteria (these bacteria pose health risks to humans) are found in our waterways after rain events, indicating sewage overflow. Yet the CSO notification system to warn recreational water users of poor water quality is sorely lacking. Throughout 2021, we saw several instances of rain gauges failing and certain water bodies that clearly had CSO events were not listed as such via the alert system. The City's CSO alert system is in need of more attention and should be based on real time data at the outfall points along our shorelines.

The NYC Stormwater Resiliency Plan, published in May 2021, by the Mayor's Office of Resiliency, calls for sensors to be placed at the City's CSO outfalls. SWIM supports this action item and recommends that funds be allocated immediately to deploy the necessary sensors across the system. New Jersey municipalities have been able to deploy real time sensors in many CSO outfalls discharging into our shared waterway. NYC should have the same system in place by July 2022 at the latest. We must have real time data available in order to know how much more capacity we need to build into our wastewater and stormwater infrastructure systems. You cannot effectively manage what you do not measure.

In addition to the studies, annual reports and watershed plans called for in Intro 1618, the legislation must ensure that all of the studies and plans are based on future rainfall and sea level rise projections. The city's own Climate Resiliency Design Guidelines state that sea level rise is of equal importance to future rainfall, as there are certain CSO outfalls that are currently inundated by seawater entering the combined sewer system during certain tide cycles, and this problem is expected to worsen.

Matters of Note regarding the Green Infrastructure Plan, CSO Long Term Control Plans and the MS 4 Stormwater Management Plan:

- The NYC Green Infrastructure Plan is behind schedule on the stormwater management milestones set forth in the plan, the contingency plans to meet the milestones present a series of questions, SWIM has signed onto a stakeholder letter to NYC DEP regarding our concerns about the City's plans to meet the milestones in the plan by 2030. You can see the letter here.

- GI assets in the public right of way are nearly complete. Maintenance of the City's assets in the public right of way is critical. To date, the City has struggled to maintain the rain gardens that are installed in the priority areas where they are most needed. Adequate funding must be allocated to ensure that this vital green infrastructure is properly maintained over the course of its full life span. GI maintenance presents an opportunity for workforce development. As such, allocation of funding is a sound investment that has benefits beyond the environment.

- The City's eleven CSO Long Term Control plans are based on rainfall data from 2008, the plans, which are slated to be completed in 2030, must be revised to account for future projections. The EPA recently sent a letter to NYC DEP advising them to do so, as does a recent document published in September 2021 by the Mayor's Office (*The New Normal: Combatting Storm-Related Extreme Weather in New York City.*

- The NYC Stormwater Management Plan for the City's municipal separate storm sewer system relies heavily on property owners to manage stormwater more effectively on site. The proposed 2021 stormwater rule will require specific actions of existing properties as well as new development. s In addition to regulatory requirements for private property owners, the City should develop a suite of incentives and technical assistance programs so that property owners are able to comply with new regulations.

- We wish to note that the Dept. of Transportation has been hesitant to embrace a wide scale use of permeable pavement options to better absorb the billions of gallons of stormwater volume generated by our roads, streets and sidewalks. DEP has piloted a few small scale permeable pavement projects but will need the cooperation of DOT to deploy this type of stormwater management solution at scale.

Lastly, the recent publication of two reports: the NYC Stormwater Resiliency Plan and the Storm Related Extreme Weather provide a blueprint for a series of immediate adaptations and accelerated timelines for many of the plans the City already has underway. We support the recommendations in these documents and are monitoring the next steps by City Hall on the implementation of the recommended next steps. We advise the City Council to ensure that the public has an opportunity to weigh in on the recommended actions proposed in these reports through public meetings in every borough and through a public hearing process before the end of this year.

****

Thank you for your consideration of the SWIM Coalition's testimony. We look forward to continuing to work with the Council Members, DEP, the Office of Long-Term Planning and Sustainability, and our partner organizations to ensure New Yorkers and their waters are protected against climate change impacts.

Contact:

Julie A. Welch, Stormwater Infrastructure Matters Coalition, swimmablenyc@gmail.com

TESTIMONY
Waterfront Alliance
October 20, 2021
Oversight Hearing: Green Infrastructure, Urban Flooding, and Combined Sewer Overflows

My name is Tyler Taba, Fellow at Waterfront Alliance, the leader in waterfront revitalization, climate resilience, and advocacy for the New York-New Jersey Harbor region.

The Waterfront Alliance is committed to sustainability and to mitigating the effects of climate change across the region's hundreds of miles of waterfront. We've spearheaded the Rise to Resilience coalition of 100+ groups advocating for policy related to climate resilience and we run the Waterfront Edge Design Guidelines (WEDG) program for promoting innovation in climate design.

This oversight hearing is very timely, and we would like to express support for the full package of bills being reviewed today.

Recent storms, in 2021 alone, have claimed lives, wrought damage to infrastructure, flooded homes and apartments, and shut down mass transit. Waterfront Alliance and the Rise to Resilience coalition recently shared a "How-to Guide" for the next Mayor, which proposed immediate actions for the first 100 days of the incoming administration. In this guide, we detail recommendations for all three overarching topics of this hearing: green infrastructure, urban flooding, and sewer infrastructure. For example, we call on the next Mayor to prioritize funding for a comprehensive citywide initiative to expand drain capacity throughout the city to prevent flooding, starting with building out stormwater sewers or retention tanks in vulnerable areas with limited drainage systems. We also call for a commitment to adopt the Wetlands Management Framework for NYC to transfer 93-acres of publicly owned property to the jurisdiction of NYC Parks and acquire 50 additional acres of privately-owned land to be managed as wetlands.

We would like to give special attention to two of the bills from today's hearing: **Intro 1618 and T-2021 8002**. These two bills highlight lessons learned over 5 years of implementing the Waterfront Edge Design Guidelines (WEDG) for coastal projects.

The Waterfront Edge Design Guidelines, developed by Waterfront Alliance, are a powerful tool for communities and landowners to build resilience into projects. While designed for the waterfront, many of the guidelines adapt easily to properties across the city. Several WEDG credits, used for scoring projects, are relevant to green infrastructure, urban flooding, and sewer overflows. Credits 4.9, 4.10, and 4.11, for example, are focused on reducing stormwater quantity; improving stormwater discharge quality; and reducing combined sewer overflows, respectively. Credits in WEDG also reward designs that use green infrastructure to manage additional stormwater runoff expected with increased and more intense precipitation events. These guidelines offer a blueprint for resilience solutions that can be easily applied to all areas of New York City, and we recommend they be integrated into the Intro 1618 study.

Moreover, from the Harlem River to Flushing Creek, New York City is experiencing an influx of waterfront development projects around former industrial waterways. Increasingly in public workshops and forums, we hear the public's desire to access local waterfronts and to marry green infrastructure with public access opportunities - especially in underserved environmental justice communities (e.g., Far Rockaway, Lower East Side, Hunts Point, Red Hook, Coney Island, etc.). This can take the form of get-downs and beaches, walkways along marshes and wetlands, marine infrastructure to support human powered boating, and even swimming. We need to set the bar higher in terms watershed planning, which is why we support Intro 1618.

Intro 1618 also opens the door to important co-benefits for New Yorkers. This bill aims to decrease the presence of sewage and stormwater contaminants in the city waterways, which can improve water quality, access to the waterfront and open space, environmental justice, and recreation. These elements are key to building upon the goal of creating an equitable and resilient city.

We also support T2021-8002. It is imperative for homeowners to be equipped with tools that assist with retrofits. Financial assistance for backwater valves is an excellent

start. We would like to emphasize the need to properly fund and support widespread communications regarding this bill. The financial assistance for purchase and installation of backwater valves should be communicated extensively so that individuals are able to take advantage of such incentives.

There is much more we can do to help homeowners to do things like elevate mechanicals, floodproof basements and install more green landscaping. Last year, the city adopted Zoning for Coastal Flood Resiliency which allows for major changes in construction and retrofits in the flood plain. The Zoning for Coastal Flood Resiliency is expected to help buildings withstand climate disasters, better recovery, and could lower insurance costs, but would benefit from increased uptake through incentive or technical assistance programs.

The vulnerability in our city's infrastructure has been on full display over the past several years. The development of policies, like the ones we have heard about today, are a testament to the actions we must take to protect our residents and infrastructure. We are grateful to the Council for continuing to act on climate change and resilience. It's time to put these values into policy.

Donovan Finn, Testimony For New York City Council

Committee on Environmental Protection; Jointly with the Committee on Resiliency and Waterfronts and the Committee on Parks and Recreation
2pm, October 20, 2021

<452 words>

My name is Donovan Finn. I am an Assistant Professor of Environmental Design, Policy, and Planning in the School of Marine and Atmospheric Sciences at Stony Brook University, and a proud resident of Jackson Heights, Queens.

I study societal risks from climate change and analyze how cities are adapting. So, let me first applaud the Council for its resiliency efforts, which are both progressive and enormously important. But the takeaway from our research is simple: As events like Sandy and Ida illustrate, the effects of human-caused climate change are not imminent. They arrived yesterday. Only aggressive action can protect us from a grim future of our own making.

Stormwater flooding is a textbook example.

The most sophisticated climate science, like that produced by my Stony Brook colleagues, tells us that our future will be wetter,[1] and more extreme[2]. But we cannot build resilience with just concrete and pipes. We must also remake our entire urban system, reinventing this concrete jungle as a green sponge that absorbs stormwater and harnesses natural systems to solve environmental, economic, and social equity challenges.

This will require rethinking our entire system of planning and governance, from parks and transportation to education, economic development, and environmental justice.

Other cities are showing us the way. The underground parking garage in Rotterdam that holds 3 million gallons of stormwater. The three "resilience parks" in Hoboken that have turned toxic brownfields into recreational space and storage for 2 million gallons of stormwater.[3]

But solutions must be locally tailored. In this city, our most abundant resource is 6,000 miles of streets, comprising 27%[4] of the city's land. Rethinking our streets as the kidneys of the city would sequester dangerous stormwater, make walking and bicycling safer, and improve public health, mental health, and social equity. The interconnected benefits are limitless.

These are also the kinds of transformative environmental, economic and social solutions that the city and universities, including Stony Brook, are envisioning for a new center for climate solutions on Governors Island. Leveraging the city's expertise and workforce we can develop

[1] New York City Stormwater Resiliency Plan (2021)
[2] Intergovernmental Panel on Climate Change Sixth Assessment Report, Working Group (2021)
[3] https://nwpark-cityofhoboken.opendata.arcgis.com/
[4] https://www.nycdotplan.nyc/public-realm

and help implement such solutions throughout the region and become a global leader for climate solutions.

These challenges are daunting and effective solutions will be expensive and sometimes politically volatile. The council and city agencies have made laudable progress, but we must continue to use the best scientifically informed policies and technologies to accelerate these efforts. History will judge us harshly if we choose not to seize the opportunity to address the clear warning signs the Earth is sending us.

Thank you for your time and attention to this important topic.

Jonathan Mantell

We like many community advocates strongly urge the city council to reinstate our DEP access.

From a transparency and oversight standpoint, having access to the DEP system is essential. We are called upon daily to assist clients with matters pertaining to their DEP water bills.

Because our access has been stripped, we aren't able to assist our clients with essential questions they have to rectify any open balance and to ensure they are properly billed.

Furthermore, with regards to setting up a payment agreements on any open DEP charges, clients are forced to waive all rights by agreeing to, "accept the validity of all charges" This is required in order to setup the agreement. The problem again is, advocates aren't able to review the validity because our DEP access has been stripped.

Property owners who aren't of means could certainly become desperate, borrow money -- potentially at a premium -- to pay off their obligation to avoid winding up on the lien sale --- or worse lose a multi-generational asset. We certainly hope you will take this into account and restore our access.

Jonathan I Mantell, MSW
Chief Operating Officer
Water Waste Prevention
82 Nassau St., # 613
New York, NY 10038
T: (212) 962-2587
C: (917) 692-3919

****Water Waste Prevention client portal now available *****

10/20/2021

Testimony in Support of DEP creating Online database.

Hershel Weiss

Hweiss@ashokansaves.com

718-499-4008 ext. 220

Good afternoon, and thank you for allowing me to present testimony today. My name is Hershel Weiss. I am a mechanical engineer and NYC Master Licensed plumber. For the past 20 years, I have been employed by Ashokan Water Services. Ashokan specializes in water conservation, installation of water meters and backflow devices, meter reading and backflow testing. Our clients include Columbia University, the Freedom Tower, Hudson Yards, Memorial Sloan Kettering, Related Management, Cushman Wakefield, JLL, Google, Lefrak, the DEP and over 8,700 apartment buildings. In order to perform our work we must know what meters are registered with the DEP at a site and the associated meter reads.

In the 1980's Mayor Ed Koch agreed to provide this information to the public via a public access terminal in each borough or a computer hookup. The Mayor's transparency was way ahead of his time. With this data, we could find the number of meters at each site, serial numbers, size, location and status. Under Mike Bloomberg the information was expanded to include daily meter reads, and copies of bills

Over the past year, under the cover of COVID, the DEP has curtailed this information, and provides a minimal of information requiring a customer password. As a result when a taxpayer calls to replace a meter or backflow, I must get their private password (which they usually don't know or don't want to share), then research though piles of bills to get them a proposal to remove a minor DEP violation. In most cases, I spend hours on the phone with a DEP representative who may not know what to look for. As members of the City Council, you receive many endless complaints from your constituents regarding DEP violations. We are hard at work to remove those violations, but need the tools to make it happen.

I urge you to mandate that the information be available in an API format. Transparency is a prerequisite to good government. NYC was the first to make consumption data available, and in era of "Open Data", NYC should lead the world not hide its mistakes.

Thank you for your time.

Thank you honorable Councilmembers and City agency officials for your hard work on behalf of all New Yorkers and hope everyone continues to remain safe and healthy. I serve as the Deputy Mayor of my township in New Jersey and realize how hard these times are to govern.

What we are hoping to be approved by City Council is simply a continuation of 50 years of open access to the DEP billing system. This open access ended in May 2020 under the alleged guise of security as just mentioned by the Commissioner. The claim that we can see homeowners water bills and know when they are on vacation is preposterous. All info is in the past. If no water was used yesterday , that doesn't mean you aren't home from vacation today. Furthermore, has there ever been one known issue of this actually happening?

DOF, DOB and HPD all have open system for decades as well. The NY Attorney General recently required DOB to block access to owners email and phones numbers on permits. That took an order from the AG! Not a mid level DEP manager to make a decisions to shut off ALL access. NYC Water Board held no hearings on this matter either.

The Commissioner made two specific comments- one that this bill isn't in following with best industry practices. Please note the governance of the City of New York is NOT an industry. It is a government that like all governments requires a checks and balance system that has been lacking the last 18 months

Secondly – as to outside parties seeing water data and predatory lenders due to balances? As mentioned above DOF has ALL tax data open to the public. And they also began using a new system in 2019. DOF bills 18 times as much, almost 60 billion dollars more in charges to the property owners. There has never been accusations of this , let alone any actual criminal activity, since inception. Trillions of dollars billed over decades. No issue. DEPs need to end that song. DOB- we can see anything about each building and home form CofO to even what boiler you have installed. HPD- who owns what and even what apartment called in a violation. ACRIS shows every deed, mortgage and transfer document and even the signatures of whom signed.

Mr Chair- you were intimately familiar with the old days at DEP- the errors, the media, the widows threatened with losing homes. Now with the DEP denying ALL access, we can and should expect a return to those days. Welcome back to City Council!

OPEN UP ACCESS TO ALL, as has been the case for decades.

NEW YORK WATER MANAGEMENT INC.

Mark J. Schwartz
New York Water Management
Real Estate Management Consultants
P.O. Box 190727
Brooklyn, NY 11219

Phone: 718-686-0040 ext. 15
Fax: 718-972-1006
Cell: 917-902-9303
markjschwartz@waterbills.com

Testimony of Ezra Schwartz

Thank you Council Members for the opportunity to testify today regarding the bill to create a water bill database. I work for a firm representing homeowners, management companies, and landlords, specifically with regard to the Water Bills.

It should be noted that the bill in question to create a searchable water bill database, is really just reinstating what was status quo in New York City until DEP unilaterally shut down access in May 2020. DEP water bill access was consistent with all other public agencies in NY, including DOF, DOB, HPD and ACRIS. DEP, without notification to the public, and without any hearings, effectively shut down all access to water bills. What DEP effectively did, was take a public utility and public information, and turn it private overnight, without any input from the public

We were advised that all the information that was previously viewable via public access, was now available via FOIL. We have filed 415 FOIL request since the DEP shutdown access and received less than 100 back. Numerous requests are well over a year old. There are now one hour wait calls on the DEP customer service, with customers and representatives calling to obtain information that was previously accessible by the public. Taxpayer resources are being spent to provide information to taxpayers that was readily available online. Information that was available within minutes, can now take weeks, months, and years to obtain.

In 2021, information flow, when available, should be instant. Instead, in NYC, we have gone backwards 40 years. There is no logical reason, and likely no legal reason, that pubic water bills should not be viewable by the public

GREEN-WOOD

500 25th Street
Brooklyn, New York
11232-1755
green-wood.com

The Green-Wood Cemetery
(718) 768-7300

The Green-Wood Historic Fund
(718) 210-3080

Testimony

20 October 2021

Good afternoon Chair Koo, Chair Brannan, and members of the Committees. My name is Joseph Charap, and I am the Director of Horticulture at Green-Wood Cemetery. We are a National Historic Landmark and a 478-acre greenspace in the heart of Brooklyn. We first would like to acknowledge the recent capital support from the Administration for Green-Wood's new LEED Gold building: our future Education and Welcome Center. The center will have a green roof and conform to sustainable building principles. We look forward to welcoming you to this new Center when it opens in a few years.

As Hurricane Ida made tragically clear, New York City's sewer infrastructure is not prepared to handle the rainfall caused by extreme rain events. Unfortunately, such events can no longer be considered rare—the New York City Panel on Climate Change's 2015 report stated that during the next decade days with rainfall of at least four inches will increase by as much as 67% compared to the period of 1971 to 2000. These events will increase the already billions of gallons of wastewater discharged annually into NYC waterways as a result of an overwhelmed combined sewer system. Ida was not an anomaly but an example of things to come. And such storms, combined with the increase in annual rainfall and the city's aging infrastructure, will have the greatest impact on the most vulnerable.

We at Green-Wood applaud the proposed local law from our neighbor Councilmember Brannan, which would require that the city finally take ownership over its crumbling combined sewer infrastructure and create a coherent plan to remedy the situation. The public sector must take the lead in protecting the city, but private institutions also must play a role. As stewards of a 478-acre greenspace in the heart of Brooklyn, we at Green-Wood believe that as the largest private landowner in New York City, we recognize the responsibility to leverage our landscape to lessen the impacts of climate change on our surrounding South Brooklyn community. I'd like to briefly share an outline of a storm water project to which we have applied for funding with New York State's Green Innovation Grant Program that aligns with the goals of Councilmember Brannan's proposed law.

Green-Wood has requested funds to support the design and implementation of 22,750 sf of bioretention basins or rain gardens on our grounds as part of an integrated stormwater management system. This project will be one of the largest bioretention projects in New York City. The primary goal here to reduce our impact on combined sewer overflow events by reducing the volume of stormwater runoff by a whopping 6.8 million gallons annually.

By reducing Green-Wood's burden on the city's sewer system, we are seeking to make an important investment in South Brooklyn to add to the

GREEN-WOOD

500 25th Street
Brooklyn, New York
11232-1755
green-wood.com

The Green-Wood Cemetery
(718) 768-7300

The Green-Wood Historic Fund
(718) 210-3080

area's climate resilience, support quality of life for current residents, and help attract new ones. In turn, local residents support neighborhood businesses, jobs, and the local economy. And because Green-Wood is located within a mile and a half of eight federal Opportunity Zones, investment in this program would help the State achieve its goal of improving the quality of life for those New Yorkers who live in areas of greatest need.

The climate crisis is now, and it demands that private institutions join their public counterparts, along with city and state governments to take immediate action to care for the greater good. No green space in NYC, public or private, big or small, is an island. We recognize that what happens at Green-Wood does not just affect us, but all those who live around us. We hope that our work sets a model for the city's largest greenspaces, which include cemeteries, parks, and even golf courses.

I'd like to personally invite members of this committee to visit Green-Wood and see the forward-looking work we're doing to benefit Brooklynites and all of us as we battle the effects of climate change. My contact information is in the printed testimony and I look forward to welcoming you all to Green-Wood soon.

Joseph Charap

Director of Horticulture

jcharap@green-wood.com