

Testimony of Eric Landau
Deputy Commissioner, New York City Department of Environmental Protection
before the
New York City Council Committee on Environmental Protection
concerning
Mitigation of Flooding in Southeast Queens and Introduction 1198
250 Broadway
January 23, 2017

Good afternoon, Chairman Constantinides and Members of the Committee. I am Eric Landau, Deputy Commissioner of Public Affairs and Communications at the New York City Department of Environmental Protection (DEP). With me are Angela DeLillo, Director of Capital Program Management in the Bureau of Water and Sewer Operations, Deputy Commissioner Eric Macfarlane of the Department of Design and Construction (DDC), as well as other DEP and DDC staff.

Thank you for the opportunity to testify on mitigation of flooding in Southeast Queens and Introduction 1198.

As the Committee well knows, for many decades, the commercial and residential development of Southeast Queens outpaced the buildout of critical support infrastructure, including catch basins and storm sewers. As a result, many parts of the neighborhood suffer chronic roadway flooding and ponding during rain storms. In 2015, Mayor de Blasio announced the OneNYC plan, which among others, included the goal to reduce the risks of flooding in the most affected communities. As part of the FY 16 10-year capital budget, Mayor de Blasio allocated \$1.5 billion specifically to address flooding in Southeast Queens, which has been subsequently increased to a total of \$1.7 billion.

Last month, DEP Acting Commissioner Vincent Sapienza joined Council Member Richards to provide an update to local community residents and civic association leaders on our comprehensive plan, which includes a significant amount of green infrastructure, bluebelts, trunk sewers, and early-action sewer connections. In addition, the Department continues to engage the community on steps that members of the public can also take to mitigate flooding and better protect their property.

Green Infrastructure

As the Committee knows, Green Infrastructure (GI) uses natural techniques to detain, retain and absorb rainwater before it becomes a flooding problem in the street or on someone's property. The most notable type of GI is a curbside rain garden, also known as a bioswale, which looks like an enlarged and densely planted tree pit, but is designed with specific plant species known to soak up a significant amount of water, and engineered below-grade to retain and infiltrate stormwater. Rain gardens "intercept" storm water coming down the street, preventing it from going into the sewer system. In addition, they provide other hugely important environmental benefits, including improved air quality and greening of the street. DEP is partnering with the Department of Transportation, the Parks Department, the School Construction Authority, NYCHA, and DDC on GI in Southeast Queens. We estimate that this work will result in the

buildout of 200 curbside rain gardens, as well as other GI improvements at four City parks, two public schools, and two NYCHA developments. In addition, we are building Bluebelts to help manage stormwater at Springfield Lake, Baisley Pond, Twin Ponds and Brookville Triangle.

Trunk Sewers & Early-Action Sewer Connections

The bulk of the current funding, over \$900 million, will go toward the construction of large trunk sewer spines on 150th Street, Guy Brewer Boulevard, Farmers Boulevard and Springfield Boulevard. This work will take place through 18 separate projects, the first breaking ground as early as next year. These projects will install and replace over 16 miles of storm sewers, 5 miles of combined sewers, 7 miles of sanitary sewers, and 21 miles of water mains. In addition, over \$500 million of current funding is dedicated to early-action sewers. Early-action sewers comprise neighborhood sewer construction projects, as well as short sewer-extension projects, both of which will provide relief. We have broken ground on some of these projects already, with more to begin construction this year and next.

Public Engagement

In addition to the new infrastructure, DEP has been working closely with elected officials, community boards, civic associations, and local schools to discuss specific ways that homeowners can help alleviate flooding conditions. Attached to my testimony today is a copy of our *Homeowner's Guide to Rain Event Preparedness*, which includes six specific things that property owners can consider (e.g., check valves, softening their property, clearing catch basins). In addition, we have done extensive outreach and education both in public schools and door to door in over 50,000 homes in Southeast Queens about the proper disposal of grease, which is by far the leading cause of confirmed sewer back-ups across the city. We have provided you all with some examples of the grease materials we distribute broadly.

Intro. 1198

Turning now to the specifics of Intro. 1198, which requires DEP to publicly publish our plan to address chronic flooding conditions in Southeast Queens, what we commonly call the "Southeast Queens Plan," and to report on our progress annually. While we do not object to the requirements in the legislation as currently drafted, we have a couple of key comments for the Committee's awareness.

First, it is worth mentioning that DEP reports out on this (and all capital work) regularly. Even prior to the announcement of the \$1.7 billion in funding, we have been meeting regularly with all Southeast Queens elected officials and Community Boards 12 and 13 to provide an update on the plan and our progress. In addition, we regularly provide community briefings, similar to the one Acting Commissioner Sapienza provided last month to community leaders. DEP (as well as DDC, which oversees the design and construction of this work) submits progress information through the Mayor's Management Report, and both report on projects at the Borough Budget Consultations, as well as at Borough Board and Community District Service Cabinet meetings. Finally, we report annually on the progress of all of our capital work in both our Preliminary Budget testimony in March and our Executive Budget testimony in May.

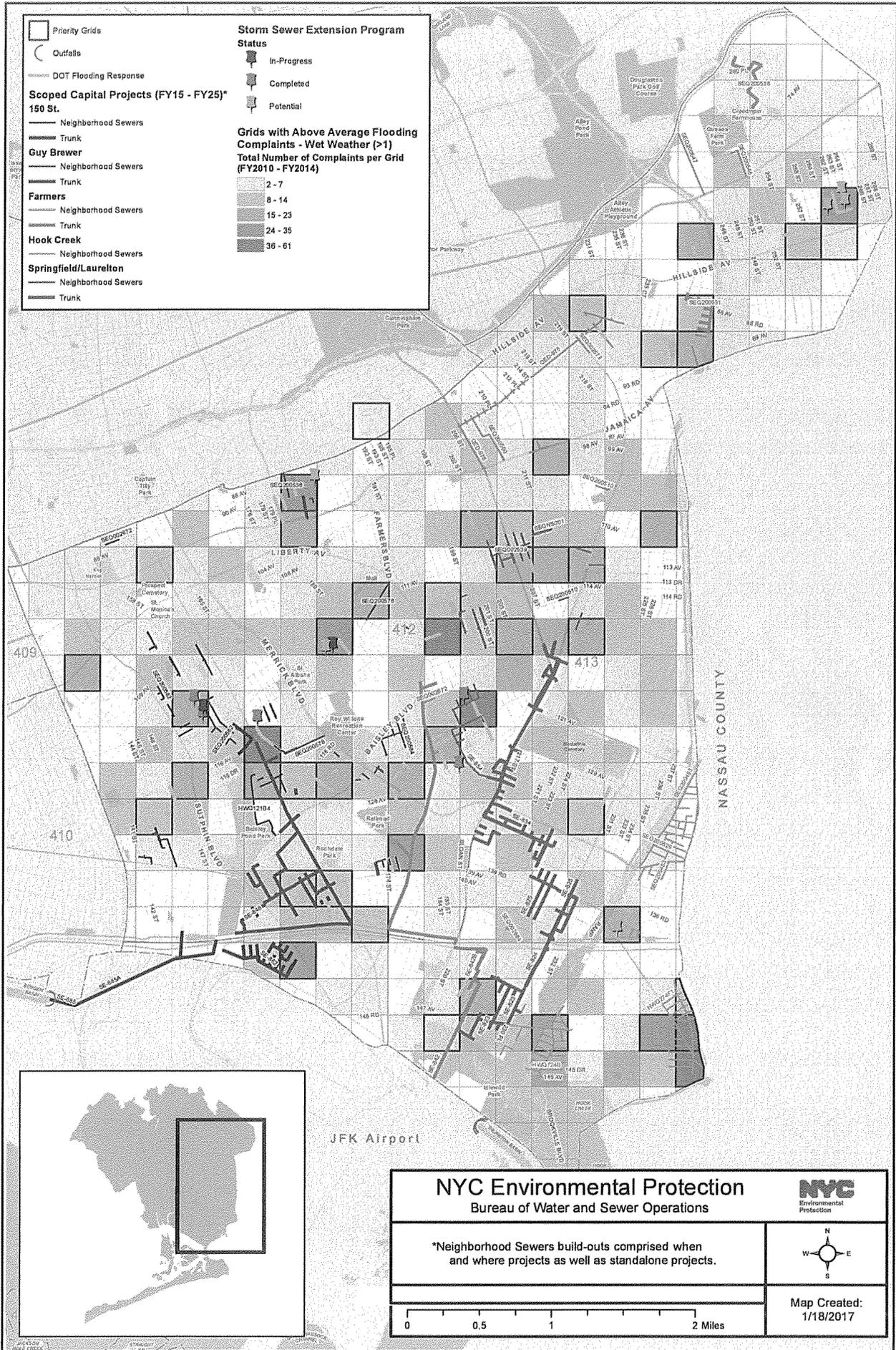
Second, the legislation currently includes Community District (CD) 14 in the reporting requirements. While we are very aware of flooding conditions in CD 14 – often made more

severe by the low-lying nature of the Rockaways and Broad Channel – the Southeast Queens Plan, and the \$1.7 billion in associated funding has been specific to CDs 12 and 13. All of this is not to say that CD 14 does not need capital infrastructure investment. Nor is it to say that DEP is not doing work there. In fact, included in our 10-year capital budget is another \$188 million for sewer projects in CD 14. We just want to continue to be clear that these projects are separate from what we refer to as the Southeast Queens Plan.

Again, thank you for the opportunity to testify. My colleagues and I would be happy to answer any questions.

Proposed Sewer Build-Out: Capital Projects FY2015 - FY2025

Community Districts 412 & 413, Queens



This tip guide provides ideas for how to protect your home from risks associated with rain events. Reducing risk from coastal flooding, which could be associated with major hurricanes, requires consideration of a wider set of preparedness actions. The New York City Building Code has requirements and the Office of Emergency Management has valuable guidance on how to prepare for and reduce risk from these events.

What causes sewer backups and flooding?

- **Heavy rain events that rapidly increase water flow into sewers**

Just as highways can become congested if too many drivers are on the road, the city's sewers can become congested if too much water is trying to enter. When this happens, the flow in the sewers can rise above the level of basement toilets and fixtures, which can result in a sewer backup into your home. Also, catch basins in the street can become blocked and unable to drain stormwater as fast as the rain is coming down, causing local street flooding.

- **Issues with your home's sewer connection**

Any blockage or break can impair your home's sewer connection or the city sewer's ability to convey stormwater. Pouring used grease or cooking oil down any household drain or flushing anything other than toilet paper and organic waste can cause blockages and increase the risk of a sewer backup.

- **Slope conditions may cause water to flood low points**

Localized flooding may occur where there are low points on the ground that prevent stormwater from draining properly. If there are low points around the foundation of your home or other pathways to unprotected garage and basement doors below street level, water may find its way into your home.

- **Sidewalks and streets that don't absorb stormwater**

New York City and other densely populated urban areas are mostly paved. These impervious (non-porous) surfaces do not allow rainfall to be absorbed into the ground. During heavy rains, huge amounts of water flow into sewers very quickly and can overwhelm the system, increasing the risk of localized flooding and sewer backups.

If you experience sewer backups or flooding not caused by conditions inside your home or property, call 311 to report the problem.

Other Tips

- **Consider homeowner's flood insurance**

Homeowner's insurance policies are all different, and some may not cover damages due to flooding. It is important to check with your insurance provider and consider purchasing a sewer backup or flood insurance policy or rider to your existing policy. This policy or rider could cover the damage and cleanup costs resulting from sewer backups and flooding caused by heavy rain.

- **Elevate or relocate high-value items**

Consider elevating valuable items in your basement. Put them on shelves or relocate them to a higher floor.

- **Avoid traveling through flooded roadways**

Streets are designed so that stormwater flows toward catch basins. Sometimes tree roots, construction, and other street defects can cause small pools of water to form. These small pools usually dissipate shortly after it rains; however, in more severe cases street flooding can occur. Never drive or walk through a flooded roadway.

To report roadway flooding, please call 311.

For more information, please visit nyc.gov/dep.



Homeowner's Guide to Rain Event Preparedness:

Tips to help you protect your home from sewer backups and flooding due to rainfall events



Bill de Blasio, Mayor
Emily Lloyd, Commissioner

This guide provides an overview of some of the causes of water flooding in your home that are associated with rain events. If you have experienced flooding or want to reduce the likelihood it will happen to you, a licensed professional engineer or architect should be consulted to help determine what measures might be most beneficial for your home's unique conditions. Many of the tips below would require permits and approvals and a licensed professional should be consulted to ensure they are properly secured and that appropriate installation techniques are followed.

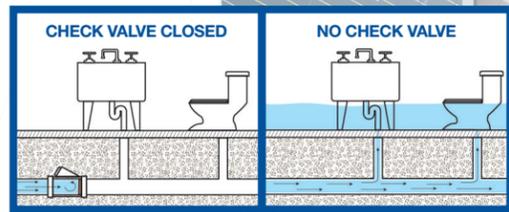
TIP 1 CONSIDER CHECK VALVES AND OTHER BACKWATER PROTECTION

Under heavy rain conditions where the flow in the sewer rises and meets or exceeds the sewer's capacity, basement plumbing fixtures such as toilets, sinks, and drains are vulnerable to sewer backups. A backwater valve, also known as a check valve, can prevent sewer water from rising up from the city sewer into your home through basement plumbing. During heavy rain, if water from the city sewer rises to the level of basement plumbing, the check valve closes and blocks sewer water from entering your home. It is important to note that any wastewater from your toilets, sinks, or showers will not be able to leave your home while the valve is closed. You should not use these fixtures while the valve is closed because you can risk flooding your own property. Drain plugs can be another option to prevent sewer backups into floor drains if they are present on the property.

TIP 2 REDUCE STORMWATER RUNOFF

Water runs off concrete and asphalt almost immediately and can reach and exceed the design limits of sewers quickly during heavy rains. Retaining and creating green and unpaved spaces around your home can help reduce flows into the sewer by reducing the amount of stormwater runoff your property sends to the sewers. There are alternatives to concrete, such as porous paving stones, which could allow for uses like patios while creating less stormwater runoff.

1 CONSIDER CHECK VALVES



2 REDUCE STORMWATER RUNOFF

4 KEEP GREASE OUT OF THE SEWERS

5 HELP KEEP CATCH BASIN GRATES CLEAR

3 PROTECT AREAS BELOW STREET LEVEL

6 INSTALL PROPER ROOF DRAINAGE
Consider a rain barrel!

TIP 3 PROTECT AREAS BELOW STREET LEVEL

Water will flow to and pool in low areas. Below street level spaces such as underground garages, basement doors, and other low lying areas are the most vulnerable to flooding. Direct stormwater from your roof and porch away from low-lying areas. Reduce the risk of flooding by sealing cracks in foundation walls and considering the use of appropriate barriers. Sandbags can be a cost effective option to block water from entering some of the spaces in your home. Other barrier options may include window wells, flood walls around doors, and flood gates at driveway entrances. Be sure that any barriers or modifications do not interfere with appropriate exits from your home.

TIP 4 KEEP GREASE OUT OF THE SEWERS

As a homeowner, you are responsible for the sewer connection from your home to the city sewer. A clogged or cracked sewer connection can prevent wastewater from flowing out of your home properly. Improper disposal of grease and cooking oil can clog your home's internal pipes as well as city sewers. This can cause sewer backups in your neighborhood and home.

TIP 5 HELP KEEP CATCH BASIN GRATES CLEAR

Keeping litter off the street helps stormwater drain and helps protect the city's water bodies. The City is constantly working to maintain our 7,500 miles of sewers and 148,000 catch basins. Street litter is captured in special catch basin collection areas which help keep it from entering into sewers and waterways. DEP cleans and maintains these collection areas on a regular cycle. When debris covers and mats the street level gratings, stormwater cannot enter the catch basin and can pool around the area causing street flooding, even before the sewer is full. You and your neighbors can help reduce this type of flooding by disposing of litter properly and by carefully removing leaves or trash from catch basin gratings before or during a rain event.

TIP 6 INSTALL PROPER ROOF DRAINAGE

Directing stormwater from your roof away from the foundation walls of your home is critical in keeping your basement dry. Clean your gutters regularly to prevent stormwater from overflowing onto walls, and connect downspouts to appropriate drains. Consider installing a rain barrel as an alternative method to capturing stormwater. You can then use this stored water for activities such as watering the lawn or washing your car. Please note that rain barrels alone are not sufficient to reduce flooding during a heavy rain event but when used as a tool in a comprehensive strategy can improve the overall performance of a property.



166A 22nd Street
Brooklyn, NY 11232 NYC-EJA.org

On the ground – and at the table.

New York City Environmental Justice Alliance testimony to the New York City Council Committee on Environmental Protection in support of Intro. 1198-2016 to amend the administrative code of the city of New York, in relation to flood mitigation in Southeast Queens.

Good afternoon Chairperson Constantinides and members of the City Council. I would like to thank Councilmember Richards for introducing this bill, and am here to testify in support of Intro. 1198-2016 on behalf of the New York City Environmental Justice Alliance (NYC-EJA). Founded in 1991, NYC-EJA is a non-profit citywide membership network linking grassroots organizations from low-income neighborhoods and communities of color in their struggle for environmental justice. NYC-EJA empowers its member organizations to advocate for improved environmental conditions and against inequitable environmental burdens. Through these efforts, our member organizations coalesce around specific common issues that threaten the ability of low-income communities of color to thrive, and coordinate campaigns designed to inform City and State environmental policies.

For too long, Southeast Queens has had to deal with inadequate stormwater and sewer infrastructure. As documented in *OneNYC*, the City's sustainability plan, this area of the city has had more 311 flooding and confirmed sewer backup complaints than any other, and experiences recurring flooding during rain events. We commend DEP for committing \$1.5 billion to accelerate relief in Southeast Queens by building out the sewer system to support population growth, as well as implementing site-specific solutions such as green infrastructure and bluebelts.

We support this bill, which would bring greater transparency and accountability to DEP's plan by making it publicly available online and requiring annual progress reports, ensuring that the plan is implemented in a timely fashion and allowing the community to stay updated on progress. This proposal is not dissimilar from the existing NYC Green Infrastructure Plan and the corresponding Annual Reports, but because Southeast Queens is not one of the priority watersheds designated by DEP, this flood mitigation plan is not included in those reports.

NYC-EJA has long advocated for sustainable and resilient stormwater management in environmental justice communities. In 2010, NYC-EJA launched the Waterfront Justice Project, New York City's first citywide community resiliency campaign. NYC-EJA discovered that the Significant Maritime and Industrial Areas (SMIAs) are all in hurricane storm surge zones, and that the City of New York had not analyzed the cumulative contamination exposure risks associated with clusters of heavy industrial uses in such vulnerable locations. Through the Waterfront Justice Project, NYC-EJA has worked to mitigate the threat of potential toxic exposure faced by low income communities and communities of color in and around the SMIA's.

Our NYC Climate Justice Agenda is a multi-year research and advocacy campaign to address the need for a comprehensive community-based approach to climate adaptation and community resiliency. In 2016, we released a report which analyzed Mayor de Blasio's OneNYC plan and made several concrete recommendations to strengthen the City's climate adaptation and resiliency policies in environmental justice communities. We cited this flood mitigation plan for Southeast Queens as a good model for other flood-prone neighborhoods of the city, specifically recommending that similar steps be taken for the city's Significant Maritime and Industrial Areas. Green infrastructure in particular provides many co-benefits that help alleviate some of the disproportionate burdens faced by environmental justice communities by improving water and air quality, providing more green space, building climate resiliency, and mitigating the urban heat island effect.

NYC-EJA would like to thank the NY City Council Committee on Environmental Protection for holding a hearing on this bill, creating an opportunity for public comment on this important measure for greater accountability. We urge the passage of Intro. 1198, and look forward to continued collaboration with the City in this regard.

Pamela Soto

Pamela Soto
Research Analyst
NYC Environmental Justice Alliance

January 22, 2017

New York City Council - Committee on Environmental Protection

January 23, 2017 Hearing:

Int. No. 1198 – In relation to flood mitigation in Southeast Queens.

Good morning committee Council members. I am Andrea Scarborough, President of Addisleigh Park Civic Organization (APCO). Our civic serves the Addisleigh Park residents of Southeast Queens. We are committed to improving the quality of life for all of our neighbors, and ensuring that our community receives its fair share of city services.

Thank you for giving me the opportunity to testify regarding Intro No. 1198 – In relation to flood mitigation in Southeast Queens. Addisleigh Park Civic Organization supports the New York City Council's legislation Int. No. 1198 Law, which calls for the Department of Environmental Protection to submit to the mayor and the speaker of the council, and make publicly available online, a plan for mitigating flooding in the Queens districts of 12, 13, and 14. Surface water and groundwater flooding has been a long standing issue in those districts and while there has been tremendous gains by the City Council and the Mayoral administration to address this chronic condition that exists in Southeast Queens (SEQ), a comprehensive proposal is required with a timeline to resolve those long standing issues.

I applaud and acknowledge the 1.52 billion dollars awarded to our community to deal with improving our infrastructure which will provide storm sewers in areas where they are sorely needed. However finding a solution to groundwater flooding, and a high water table is of equal importance in these districts. The closing of Station 24 well which resides in my neighborhood has resulted in some of my neighbors pumping water out of their basement 24 hours a day, 7 days a week. There are residents in Southeast Queens (SEQ) who cannot sell their homes because their homes has lost resale value due to ground water flooding. Therefore it is our view that groundwater flooding, created by a high water table must be included as part of the SEQ flood mitigation plan. A plan separate from surface water flooding and one that outlines a timeline for implementation, annual performance milestones and appropriated funds.

In conclusion Intro. No. 1198 is a step in the right direction towards resolving the chronic condition of flooding in our community. However without addressing the high water table a flood mitigation plan remains incomplete and puts at risk the opportunity to have a high functioning sewer system in our community. In the words of former Commissioner Emily Lloyd in a testimony hearing before the City Council in 2007 stated, "as the ground water table rises, it infiltrates our sewers, reducing capacity and flooding some basements of buildings in the area". Council members APCO thanks you for the introduction of this legislation and I urge you to include groundwater flooding in your mitigation plan.

Andrea Scarborough
President - APCO
Addisleigh Park Civic Organization

Testimony to N.Y. City Council Committee on Environmental Protection re: Intro 1198, Flooding in Southeast Queens-Jan. 23, 2017- William Scarborough

Good afternoon, Chairman and Council members- my name is William Scarborough, and I am the former Assemblyman for the 29th Assembly District, Queens, which includes Jamaica, St. Albans and other parts of Southeast Queens. For many years, I have seen first hand evidence of the damage done by the flooding in SE Queens, both to homes and businesses in our community.

I want to begin by commending the Dept. Of Environmental Protection, and especially our councilmembers who represent SEQ for the progress they have made in recent years in combatting flooding in our community. Through the efforts of Councilmembers Richards, Miller and Wills, DEP has committed \$1.5 billion over a number of years to build the storm sewer infrastructure that is sorely needed in parts of SEQ. This is the largest infusion of flood mitigation funds to our community in my memory, and is long overdue. The significance of this commitment cannot be overstated, and will be a tremendous benefit in relieving the storm water flooding on our streets.

However, as many SEQ residents know, flood damage in our area is a result of two basic issues: one is the street flooding that is being addressed by this new infrastructure, and the second is the high water table that exists underground. This simply means that the standing water level is so close to the surface that water is constantly seeping into basements and lower level offices through floors and walls whether it is raining or not. This new infrastructure does not address this issue, which has damaged countless homes, businesses and institutions in SEQ. Private homes, as well as York College, Allen Senior Houses, the Carter Houses, I.S 8, and the Parsons-Archer subway station are forced to run electric pumps 24 hours a day due to this problem.

As DEP admitted in a recent meeting, we understand that the issue of groundwater flooding is a difficult one. I would like to ask this body to consider supporting a proposal called Radial Collection, which has been proposed by Douglas Greeley, a former DEP Deputy Commissioner. This would re-create the system of underground streams that existed in our area prior to overdevelopment. These streams ran into larger bodies of water such as Baisley Lake, and perhaps Springfield Lake that have outlets into Jamaica Bay, and if restored they could carry excess ground water into the bay.

Commissioner Greeley's plan has the potential for mitigating this persistent problem, and he has proposed a study to test the feasibility of the plan. This would be a joint city-state project, and the representative from the 29th A.D has requested \$300,000 from the governor to fund the study. DEP representatives have also seen Commissioner Greeley's presentation, and have expressed support and pledged \$100,000 toward the completion of the study. There are many issues that need to be addressed in this study, but it offers promise and does not require pumping of Jamaica Water Supply wells, which has become a political problem. If this study proves fruitful, we will need this body and especially our SEQ reps to put forth the same dynamic effort that has yielded such progress, to develop a truly comprehensive plan to cover all aspects of the SEQ flooding problem. The projected cost of a build-out of this project is \$20 million. Thank you for your consideration and your continued efforts on behalf of our community.

William Scarborough

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in favor in opposition

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I represent: Senator Leroy Comrie

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Name: LOUISE TORBERT
145-34 159th Street Spring Gardens

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I represent: S J B A

Address: _____

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Date: 11/23/7

Name: ANDREA S...
LOUISE TORBERT CIVIC ORG.

Address: 145-52 159th Street Spring Gardens

I represent: _____

Address: _____

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(PLEASE PRINT)

Name: ANDREA SCARBOROUGH

Address: 115-05 179 STREET JAMMCA, NY

I represent: ADDISLEIGH PARK CIVIC ORG.

Address: _____

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Name: WILLIAM SCARBOROUGH

Address: 115-05 179 STREET, JAMMCA, NY

I represent: ADDISLEIGH PARK CIVIC ORG.

Address: _____

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Name: Pamela Soto

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Name: E. Kim Lawton

Address: 145-42 159th St

I represent: Spring Jam Block Association

Address: 156, 157, 158, 159 streets

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Name: Angela Deade

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I represent: DEFP

Address: _____

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Name: Eric Landau

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I represent: DEP

Address: _____

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