



December 31, 2022

Honorable Eric L. Adams
Mayor of the City of New York
City Hall
New York, NY 10007

Honorable Adrienne Adams
Speaker of the New York City Council
165-90 Baisley Blvd
Jamaica, NY 11434

Rohit T. Aggarwala
*Commissioner &
NYC Chief Climate
Officer*

RE: City Council Reporting Requirements Pursuant to Local Law No. 56 of 2017,
Council Int. No. 1198-A of 2016

Dear Mayor Adams and Speaker Adams:

This letter is submitted to provide an update to the initial report on the Southeast Queens Flood Mitigation Plan submitted on March 20th, 2018, which was pursuant to the requirements of Local Law No. 56 of 2017, Council Int. No 1198-A of 2016.

The intent of this report is to provide an update of the specific information required by §24-530.b of the Administrative Code of the City of New York, entitled Southeast Queens Flood Mitigation Plan (enacted by Local Law 56 of 2017). This section states,

“By no later than six months after the end of each fiscal year, beginning with the first fiscal year that commences more than one year after the effective date of the local law that added this section, the department of environmental protection shall submit to the mayor and speaker of the council a report on progress in implementing the plan required by subdivision a of this section during the prior fiscal year. Each such report shall include, but not be limited to, a description of any changes to such plan, a description of any changes in funds committed by or on behalf of the city in furtherance of such plan and a description of all funds expended by or on behalf of the city in furtherance of such plan.”

This updated report, along with the attached table, summarizes DEP’s fulfillment of the requirements for a flood mitigation plan in Queens Community Districts 12 and 13. DEP has also developed an interactive online map that shows the completed and ongoing construction in Southeast Queens. This map can be accessed by visiting:

<http://www.nyc.gov/dep/seqprojects>

59-17 Junction Blvd.
Flushing, NY 11373

The Southeast Queens Mitigation Plan

As the City's water and wastewater utility, the New York City Department of Environmental Protection (DEP) is responsible for building and maintaining sewer infrastructure to manage sanitary waste and stormwater from homes and businesses. Southeast Queens (comprised of Queens Community Districts 412 and 413) experienced rapid residential and commercial growth from the 1920s through 1960s, and many of the natural watercourses that previously drained the area were paved over by developers, exacerbating flooding. The low-lying topography of the area and the enlargement of Idlewild/Kennedy Airport significantly complicated the installation of large storm sewers, making planned work extremely costly. In 2015, the City authorized \$1.5 billion over ten years for the Southeast Queens Flood Mitigation Plan, which has increased to \$2.5 billion through the approved 2023 September Plan.

Together with our partners at the Department of Design and Construction and the Department of Transportation, DEP has developed a four-pronged approach to improve conditions in the area:

1. Construct quick fixes, such as storm sewer extensions, targeted full size sewers, and green infrastructure to bring near term flooding relief.
2. Build neighborhood sewer projects where there is existing available capacity in the sewer system.
3. Create future capacity for further neighborhood sewer projects by investing in large spine sewers.
4. Evaluate opportunities to reduce groundwater flooding.

Together, these four approaches are delivering both immediate and long lasting relief for many residents of Southeast Queens.

1. Quick Fixes

DEP has conducted an extensive engineering analysis to identify areas throughout the two community boards that have had the most severe flooding complaints over the past several years. Based on this analysis, DEP will:

- a. Utilize "when and where" contracts to install 3-6 blocks of targeted full size sewers. Our partners at DOT may also make minor roadway improvements concurrent with the installation of the sewer improvements. To date, DEP has completed two "when and where" projects, one is in construction.
- b. Target opportunities to install green infrastructure. Green infrastructure, such as rain gardens, subsurface detention facilities, and green roofs, can naturally divert stormwater from the sewer system.
- c. Evaluate and install storm sewer extensions where feasible. Completed storm sewer extensions will be reported to the Council in the annual report each year.

DEP completed construction of 170 green infrastructure (GI) practices in the streets and sidewalks around the St. Albans and Cambria Heights neighborhoods. DEP also completed an additional 53 green infrastructure practices in the Idlewild area in partnership with the New York Rising initiative. These practices are managing stormwater runoff from roads and sidewalks and alleviating street flooding within Southeast Queens.

Through partnerships with other city agencies, DEP is designing and implementing green infrastructure retrofits on publicly owned lands like schools, parks, playgrounds, and housing sites. In partnership with NYC School Construction Authority (SCA) and Department of Education (DOE), DEP has completed the following projects:

- Three rain gardens within schoolyard at P.S. 40
- Two rain gardens and synthetic turf field storage at P.S. 50
- Three rain gardens at M.S. 72, in partnership with the Governor’s Office of Storm Recovery
- A blue and green roof at P.S. 118
- Synthetic turf field storage and permeable pavers at P.S. 223 in partnership with the Trust for Public Land

In partnership with NYC Parks, DEP has completed a new stormwater drain on Merrick Blvd to divert stormwater to bioretention within park, pond dredging and installation of an aeration fountain at Roy Wilkins Park. DEP and NYC Parks are nearing final design for green infrastructure upgrades at Detective Keith Williams Park and Cambria Playground.

Through an in-house design team, DEP is identifying opportunities for large scale green infrastructure practices within publicly owned medians. So far, DEP has three locations identified within Southeast Queens for median improvements: Hillside Ave, Martin Van Buren High School, and Winchester Blvd.

Finally, DEP has also identified locations in Southeast Queens to implement “cloudburst projects.” Cloudburst projects use a combination of green and grey infrastructure strategies to slow, delay, and divert stormwater to minimize nuisance flooding and damage to property and infrastructure and typically manage more stormwater than traditional green infrastructure.

DEP is currently pursuing four cloudburst projects:

- In the St. Albans neighborhood, DEP is designing a stormwater management system in the right-of-way using green infrastructure and cloudburst streets to mitigate flooding.
- At the South Jamaica Houses, a NYCHA campus including eight city blocks in South Jamaica home to approximately 2,600 residents, DEP anticipates NYCHA to begin construction in late 2023 on a variety of practices including a reimagined basketball court and bioretention areas to absorb stormwater.
- DEP is also evaluating cloudburst projects at Rufus King Park and Archie Signer Park working with Department of Parks.

2. Neighborhood Sewer Projects

In some cases, DEP determined that the most effective solution to address flooding is to construct neighborhood storm sewers that take advantage of existing downstream capacity in the system. To date, DEP has completed 18 neighborhood sewer projects, has one in construction, six in design, and one in pre-design. The current status of all neighborhood sewer projects, including the projected registration year and funding level, can be seen in the attached table under “neighborhood sewers.”

3. Spine Sewers

Trunk sewers build stormwater capacity for the future by creating new large conduits to move stormwater out of upland Southeast Queens into Jamaica Bay. In Southeast Queens, DEP must build additional trunk sewers to provide enough capacity to drain all of Community Districts 412 and 413. In 2022, DDC will complete construction of SE823, the first trunk sewer project to be constructed under the Southeast Queens Plan. Construction of project SE885AVWE started in 2022. This project is phase 2 of the 150th Street trunk, and it will be built by New York State DOT as part of the Van Wyck Expressway expansion project.

Over the next year, DEP will continue planning efforts on additional spine sewer projects; until DEP finalizes the scope of work, the funds dedicated to the spine sewers appear in the attached table in line 46. DEP will update the Council each year as we complete planning and move funds out of this holding code into project specific budget codes.

4. Groundwater

DEP has been conducting a feasibility study to lower the groundwater aimed at addressing basement flooding in Southeast Queens. In June 2022, DEP completed a pilot project at 166th Street and Foch Boulevard to passively convey groundwater into the storm sewer system. The pilot outperformed the predicted performance by approximately 30,000 gallons per day.

DEP has also initiated a Cooperative Agreement with the United States Geological Survey to recondition and reactivate programmatic monitoring of their existing groundwater monitoring network city-wide. This agreement will remain in effect for five years and is expected to cost \$5 million dollars. In addition to providing groundwater monitoring information on an aquifer wide basis, which will provide an updated groundwater model, it will allow DEP to design larger scale solutions address groundwater flooding. This effort will also create groundwater maps to inform Bluebelt planning on a citywide basis and provide data on salt-water intrusion inland caused by sea level rise.

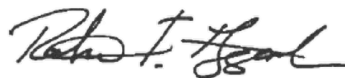
Conclusion

To satisfy §24-530.b, DEP submits annual reports to the Council to demonstrate our progress in implementing the plan laid out above. For your convenience, the following table summarizes the total funding by project status.

SEQ Flood Mitigation Plan Summary		
Status	Baseline Funding (2/28/2018)	Project Total Funding (11/01/22)
Complete	\$23.1	\$279.6
Construction	\$144.6	\$298.8
Procurement	\$306.3	\$5.9
Design	\$187.7	\$254.6
Pre-Design	\$106.5	\$42.3
Funds in Holding Codes	\$509.0	\$789.5
Future Spine Sewer Funds	\$619.0	\$847.5
Future Green Infrastructure Funds	\$0.0	\$0.0
Cancelled Projects	\$0.0	\$0.0
Total:	\$1,896.2 M	\$2,518.2 M

I trust you will find this information useful. If you have any questions or comments concerning any of the information provided in this initial report, please do not hesitate to contact me.

Sincerely,



Rohit T. Aggarwala
Commissioner