



Vincent Sapienza, P.E. Commissioner

59-17 Junction Blvd. Flushing, NY 11373

Honorable Bill de Blasio Mayor of the City of New York City Hall New York, NY 10007

Honorable Corey Johnson Speaker of the New York City Council 105 East 116<sup>th</sup> Street New York, NY 10029

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

Dear Mayor de Blasio and Speaker Johnson:

This letter is submitted to provide an update to the initial report on the Southeast Queens Flood Mitigation Plan submitted on March 20<sup>th</sup>, 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: <a href="http://www.nyc.gov/dep/seqprojects">http://www.nyc.gov/dep/seqprojects</a>

# 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 12 and 13) 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. Major projects had been deferred until Mayor de Blasio authorized \$1.5 billion over ten years for the Southeast Queens Flood Mitigation Plan. This has since been increased to \$1.9 billion.

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 trunk 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 can:

a. Install storm sewer extensions, which are short sewers that can connect previously unsewered areas to an existing sewer nearby. Since the first Local Law report was submitted on March 20, 2018, DEP has installed storm sewer extensions in ten locations in Southeast Queens, relieving the existing flooding conditions. These locations are:

- 1. 108 Dr. between 164 Pl and 167 St
- 2. 157 St between 145 Ave and 146 Ave
- 3. 148 Rd between Hook Creek Blvd and 259 St
- 4. 157 St between 145 Ave and 146 Ave
- 5. 112 Ave and West Colfax St
- 6. 109 Ave between 169 Pl and Merrick Blvd
- 7. 93rd Rd and Gettysburg St
- 8. 111 Ave between 216 St and Springfield Blvd
- 9. 178 Pl between 119 Rd and 120 Ave
- 10. Murdock Ave between 178 St and 177 St

Moving forward, DEP will continue to evaluate and install storm sewer extensions where feasible. Completed storm sewer extensions will be reported to the Council in the annual report each year.

- b. 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. This work can be seen in the attached table under "quick fixes."
- c. 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. In Southeast Queens, DEP will install 200 rain gardens to alleviate street flooding. This work is currently in construction, which is expected to be completed in 2021. Similarly, DEP will install nearly 100 additional rain gardens in the Idlewild area in partnership with New York Rising. That work is projected to begin in 2020.

In addition, DEP is collaborating with the Department of Parks and Recreation (DPR) and the School Construction Authority (SCA) to integrate green infrastructure wherever possible. To date, DEP has partnered with SCA to incorporate green infrastructure into two school construction projects at P.S. 40 and P.S. 50. Both of these projects have been completed. DEP also partnered with DPR on three projects at Detective Keith Williams Park, Railroad Park, and Roy Wilkins Park. Roy Wilkins Park is currently in construction; Detective Keith Williams Park and Railroad Park are expected to start construction in 2020.

## 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 eleven neighborhood sewer projects and has another seven neighborhood sewer projects in construction. 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. Trunk 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 12 and 13. In 2017, DDC completed design of SE823, the first trunk sewer project to be constructed under the Southeast Queens Plan. This project is currently in construction and is scheduled to be completed in 2021.

Over the next year, DEP will continue planning efforts on additional trunk sewer projects; until DEP finalizes the scope of work, the funds dedicated to the trunk 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

In July 2017, Mayor de Blasio announced that the City would conduct a feasibility study for a groundwater drainage project aimed at addressing basement flooding in southeast Queens. The groundwater table in southeast Queens has risen over the last two decades and there are a number of residential and commercial properties that report water rising up through their basement foundations. The initial feasibility study, now completed, measured the current groundwater elevation(s) and how much it must be lowered in order to mitigate the basement flooding. This study also provided some potential recommendations for mitigation. However, given constructability challenges, DEP is pursuing a more individualized approach to mitigating basement flooding, partnering with property owners to identify site specific solutions that can improve their conditions.

# **Annual Reports**

To satisfy §24-530.b, DEP will submit annual reports to the Council to demonstrate our progress in implementing the plan laid out above. These reports will update the attached table to show any changes to the plan and a description of all funds expended at the time of the future reports. The annual reports will be available no later than six months after the end of each fiscal year, with the first annual report to be submitted by December 31, 2019.

For your convenience, the following table has been included to summarize the total funding by project status. This table will be updated with each annual report as projects are completed.

SEQ Flood Mitigation Plan Summary		
Status	Baseline Funding (2/28/2018)	Project Total Funding (11/07/19)
Complete	\$23.1 M	\$115.3
Construction	\$144.6 M	\$327.0
Procurement	\$306.3 M	\$21.5
Design	\$187.7 M	\$361.7
Pre-Design	\$106.5 M	\$6.1
Funds in Holding Codes	\$509.0 M	\$213.9
Future Spine Sewer Funds	\$619.0 M	\$821.9
Future Green Infrastructure	\$0.0 M	\$21.9
Funds Total:	\$1,896.2 M	\$1,889.4 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,

Vincent Sapienza, P.E

