NYC Stormwater Management Program

2018 MS4 Annual Report

Reporting Period: August 1, 2018–December 31, 2018

NYC Environmental Protection

Bill de Blasio
Mayor

Vincent Sapienza, P.E.
Commissioner

Municipal Separate Storm Sewer Systems of New York City

SPDES Number: NY-0287890

Contents

Dear Friends of the Environment,

New York City's iconic waterfront and beloved waterbodies are cleaner and healthier than they have been since the 1800s. Whales and seals are returning to the harbor, wetland and mussel restoration projects are thriving, and New Yorkers are able to enjoy recreational activities in their local waterways. This is in no small part a testament to the City's substantial investments in upgrading our water and wastewater infrastructure over the last four decades.

The Department of Environmental Protection's mission centers on enriching the environment and protecting public health for all New Yorkers. Since 2002, the Department of Environmental Protection (DEP) has invested nearly $10 billion in new infrastructure projects that reduce pollution and enhance water quality. Additionally, DEP is investing $1.5 billion in our Green Infrastructure Program to manage and treat stormwater runoff.

Building upon these investments and programs, DEP and 13 City agencies developed the City's first comprehensive stormwater management program (SWMP) for the areas served by the municipal separate storm sewer system (MS4), which carries stormwater directly to nearby waterbodies instead of to DEP's wastewater resource recovery facilities. The MS4 serves about 30% of NYC, including much of Staten Island, south Brooklyn, and southeast Queens. As most waterbodies in NYC receive stormwater from both the combined and separate sewer systems, the SWMP is an important component of the City's holistic approach to protecting and improving our waterways.

This annual report is the City's first update since submitting the SWMP to the New York State Department of Environmental Conservation in August 2018. It details the City's efforts, during the period from August 2018 to the end of 2018, to manage stormwater pollutants in the MS4 area and achieve the goals in the SWMP. These efforts included engaging over 25,000 New Yorkers in stormwater related education and outreach activities, and assessing 78 municipal facilities to identify and reduce their potential to pollute stormwater runoff.

I am confident that with continued coordination among the City's agencies and input from the public, the SWMP will help address stormwater challenges faced in MS4 areas and will build upon the decades of work to help New York Harbor and our waterfront be a clean and accessible resource for all New Yorkers.

Sincerely,
Angela Licata, Deputy Commissioner
NYC Department of Environmental Protection

Introduction

On August 1, 2015, the City of New York (City) received a State Pollutant Discharge Elimination System (SPDES) Municipal Separate Storm Sewer System Permit (MS4 Permit) (No. NY-0287890) from the New York State Department of Environmental Conservation (NYSDEC). This permit required the City to develop a Stormwater Management Program (SWMP), which includes numerous programs designed to reduce pollution potential in stormwater runoff. The SWMP Plan[1] (Plan) describes the ways in which the City satisfies the requirements of the MS4 Permit by managing stormwater discharges into and from the City's separate storm sewers. The City submitted the Plan to NYSDEC on August 1, 2018, and NYSDEC approved the Plan on March 14, 2019.

The Plan includes measurable goals and measures for each best management practice (BMP) at the end of each chapter, which the City reports on annually. The City will periodically refine the measurable goals based on lessons learned from implementation of the programs, interagency working groups, and public input. Continuing to refine and update the measurable goals will allow the City to better quantify and more accurately represent the effectiveness of the SWMP. The City will base its Annual Effectiveness Assessment on the achievement of the stated measurable goals for each program.

[1] https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/ms4/nyc-swmp-plan-full.pdf

This 2018 MS4 Annual Report (Annual Report) on the period from August 1 to December 31, 2018 contains information on activities related to compliance with the MS4 Permit, by way of status updates on the measureable goals. The main sections of the Annual Report are as follows:

1. **Public Education and Outreach**
2. **Public Involvement and Participation**
3. **Mapping**
4. **Illicit Discharge Detection and Elimination (IDDE)**
5. **Construction and Post-Construction (C/PC)**
6. **Pollution Prevention/Good Housekeeping for Municipal Operations and Facilities (PP/GH)**
7. **Industrial and Commercial Stormwater Sources (I/C)**
8. **Control of Floatable and Settleable Trash and Debris**
9. **Monitoring and Assessment of Controls**
10. **Special Conditions for Impaired Waters**
11. **Recordkeeping and Reporting**

NYC Stormwater Management Program Plan, 2018

Administration of the SWMP

The individual designated to act as the liaison between the City and NYSDEC for the implementation of this permit is:

Pinar Balci, PhD

Assistant Commissioner,
Bureau of Environmental Planning and Analysis

59-17 Junction Blvd
Flushing, NY 11373

pbalci@dep.nyc.gov

The New York City Department of Environmental Protection (DEP) coordinated the development and will continue coordinating the implementation of the SWMP with the assistance of and contributions from the Stormwater Controls Working Group. The Stormwater Controls Working Group is a team of representatives from the following New York City agencies that collaborate on MS4 programs (a subset of these agencies has obligations under the MS4 Permit):

Agencies with MS4 Permit Obligations

- **Department of Citywide Administrative Services (DCAS)**
- **Department of City Planning (DCP)**
- **Department of Design and Construction (DDC)**
- **Department of Environmental Protection (DEP)**
- **Department of Buildings (DOB)**
- **Department of Correction (DOC)**
- **Department of Education (DOE)**
- **Department of Health and Mental Hygiene (DOHMH)**
- **Department of Transportation (DOT)**
- **Department of Parks and Recreation (DPR)**
- **Department of Sanitation (DSNY)**
- **Fire Department (FDNY)**
- **Police Department (NYPD)**
- **Small Business Services (SBS)**

Collaborators

- **NYC Law Department (LAW)**
- **Economic Development Corporation (EDC)**
- **Mayor's Office of Management and Budget (OMB)**
- **Mayor's Office of Recovery and Resiliency (ORR)**

Public Education and Outreach

The City has many education and outreach initiatives that inform a broad range of stakeholders and the general public about stormwater, the sources of pollutants associated with stormwater, and stormwater's potential impacts on water quality. Collectively, these initiatives lay the foundation for the City's Public Education and Outreach Program described in Chapter 2 of the Plan.

Program Assessment

Since submittal of the Plan, the City has continued to implement stormwater-related education and outreach initiatives. During the 2018 reporting period, as part of the Public Education and Outreach Program, the City implemented 14 programs that included 643 events and more than 25,000 participants. These metrics include citywide programs.

Table 1 lists measurable goals, measures, and the status of the City's implementation of each Public Education and Outreach BMP.

Goals for Next Reporting Cycle

During the next reporting cycle, the City's stormwater activity goals include implementing the programs listed as planned in Table 1. The City will also continue to develop its Catch Basin Stenciling Program, as well as its education and collaboration efforts with stakeholders. Additionally, DEP plans to expand the existing Newtown Creek Nature Walk to provide uninterrupted public access to the waterfront.

Students Study the Ecological Health of the East River as Part of "A Day in the Life of the Hudson and Harbor" Event

Table 1. Public Education and Outreach 2018 Status of Implementation

BMP	Measurable Goals	Measures	Status
Provide an ongoing public education and awareness program	Develop, implement, and assess an ongoing public education and outreach program	List of education & outreach programs/events and relevant metric(s) for each (e.g., number of participants, events, or materials distributed)	• Adopt-a-Highway/Greenway (5 events, 338 participants) • Automotive Associations (12 events) • Business Outreach (26 events, 80 businesses) • Cease the Grease (12 events, 1,230 households) • Community Clean-ups (3 events, 55 participants) • DEP Environmental Education (37 events, 3,436 participants) • DPR Environmental Education (7 events, 633 participants) • Forgot Your Bag? (235 canine waste bag dispensers in the MS4 area) • Park Stewardship (103 events, 3,751 participants) • SAFE Disposal Events (5 events; 1,909,158 materials distributed; 12,219 participants) • STEAM Initiatives Program (8 events, 492 participants) • Urban Park Rangers Natural Classroom (233 events, 3,266 participants) • Visitor Center at Newtown Creek (68 events, 2,349 participants) • Weekend, Pop-up, and Custom Adventures (129 events, 1,407 participants)
		List of planned educational and outreach programs/activities to be undertaken in the next reporting cycle	• Annual Art and Poetry Contest • Business Outreach • Catch Basin Stenciling • Cease the Grease • DEP Environmental Education • Forgot Your Bag? • Park Stewardship • SAFE Disposal Events • Urban Park Rangers Natural Classroom • Visitor Center at Newtown Creek • Weekend, Pop-up, and Custom Adventures
	Develop and implement educational and informational activities related to illicit discharges for businesses and the general public	List of education & outreach programs/events and relevant metric(s) for each (e.g., number of participants, events, or materials distributed)	• Automotive Associations (12 events) • Business Outreach (26 events, 80 businesses) • Cease the Grease (12 events, 1,230 households) • DEP Environmental Education (36 events, 3,336 participants) • DPR Environmental Education (7 events, 633 participants) • Forgot Your Bag? (235 canine waste bag dispensers in the MS4 area) • Park Stewardship (103 events, 3,751 participants) • SAFE Disposal Events (5 events; 1,909,158 materials distributed; 12,219 participants) • Visitor Center at Newtown Creek (68 events, 2,349 participants)
		List of planned educational and outreach programs/activities to be undertaken in the next reporting cycle	• Business Outreach • Cease the Grease • DEP Environmental Education • Forgot Your Bag? • SAFE Disposal Events • Visitor Center at Newtown Creek
Facilitate public reporting of illicit discharges	Promote, publicize, and facilitate public reporting of illicit discharges and potential water quality impacts	Summary of public reports received by 311	The City responded to 100% of the 5,286 service requests it received for the 311 complaint types listed in Chapter 2 of the Plan.

Public Involvement and Participation

Involving the public in the implementation of the SWMP is a fundamental requirement of the City's MS4 Permit. Whether it is NYC residents who recreate in local waterbodies, real-estate developers who build in the MS4 area, groups who organize waterbody cleanups, or environmentalists who advocate for a healthier harbor, there is a wide range of stakeholders who can participate in the City's efforts to improve water quality. Chapter 3 of the Plan details the City's Public Involvement and Participation Program.

Program Assessment

During this reporting period, the City continued to engage the public in preparation for the implementation of the SWMP. The City hosted five meetings on the new rules associated with the SWMP for the Construction and Post-Construction Program and Industrial and Commercial Program. Approximately 95 participants attended the City-led meetings, including stakeholders from the environmental community; the industrial and commercial community; and the design, construction, and development community. Table 2 lists measurable goals, measures, and the status of the City's implementation of Public Involvement and Participation BMPs.

Table 2. Public Involvement and Participation 2018 Status of Implementation

BMP	Measurable Goals	Measures	Status
Provide and promote the opportunity to report and receive stormwater information	Comply with public notice requirements	Summary of public notices posted	The City notified stakeholders of the Annual Report meeting via email and an event webpage.
	Identify mechanism for public to report and request stormwater related information including contact process to receive and respond to requests	Summary of public reports and requests received by MS4@dep.nyc.gov	The City received and responded to comments on the MS4 Design Manual during this reporting period.
Provide public opportunity to participate in SWMP implementation	Seek public input on SWMP implementation and provide public access to Annual Reports	Date and location of draft Annual Report posted for public review and comment period	The City posted the draft Annual Report on May 8, 2019 on the DEP website. It was available for public comment from May 8 to June 26, 2019.
		Date and time of draft Annual Report stakeholder meeting and number of participants	May 21, 2019 at 6:30 pm. The City held its MS4 draft Annual Report public meeting in coordination with the Stormwater Infrastructure Matters (SWIM) quarterly public meeting. Approximately 25 participants attended the meeting.
		Summary of comments received on draft Annual Report and City responses	Appendix 1 - Public Comments on 2018 MS4 Annual Report
		List of involvement and participation activities (e.g., programs, events, key stakeholder meetings)	• MS4 Rulemaking • MS4 Rulemaking with Industrial and Commercial Facilities • MS4 Rulemaking with REBNY/GCA/Existing Construction and Post-Construction Permittee (2 meetings) • Southwest Brooklyn Industrial Development Corporation
		Status and location of final Annual Report and the Plan	The final 2018 Annual Report and the Plan are available on the DEP website www.nyc.gov/dep/ms4.
		List of planned participation and involvement programs/activities to be undertaken in next reporting cycle	Annual Report Meeting

Goals for Next Reporting Cycle

In the next reporting cycle, the City will continue to engage local stakeholder groups and partake in community events in order to educate and involve the public with respect to stormwater management and water quality.

The City will focus on expanding partnerships, and providing educational information and webinars for construction and post-construction stormwater controls. One such partnership is the collaboration between the City and the Water Research Foundation (WRF) on sustainable integrated water management (SIWM). WRF is a nonprofit, educational organization that funds, manages, and publishes research on technology, operation and management of drinking water, wastewater, and stormwater systems in the pursuit of ensuring water quality and improving water services to the public. Several areas in which the City and WRF collaborate under SIWM include water reuse, stormwater BMP database, and modeling.

The BMP model will allow the City to quantify BMP performances and demonstrate the relationship between trends in water quality and SWMP implementation.

DEP is also interested in expanding its financial incentives available to New Yorkers to help the City achieve water quality goals. As such, DEP plans to partner with the Brooklyn College of the City University of New York to develop a program that supports community-level stormwater management projects.

Program Updates

In future annual reports, for ease of reference, compliance with public notice requirements will be reported as part of the Program Assessment, rather than in the BMP table. Accordingly, this Measurable Goal will be removed from Table 3.1 on page 76 of the original Plan.

Volunteers clean shoreline at Marine Park beach in Brooklyn

Mapping

The City has several programs that document and map important information about NYC. Much of the information gathered by these programs is available to the public through NYC Open Data at opendata.cityofnewyork.us. As part of the SWMP, the City is mapping MS4 outfalls and drainage areas. Before NYSDEC issued the MS4 Permit in 2015, DEP had developed the Historical MS4 Map, which represented the City's best understanding of the MS4 area and outfalls at that time. The City used this map throughout the development of the SWMP. Pursuant to the MS4 Permit, the City is in the process of refining the MS4 Map. With the submission of the Plan, the City included the Preliminary MS4 Map, which shows the known MS4 drainage areas and outfalls as of August 1, 2018. An interactive version is available to the public at www.nyc.gov/dep/ms4map. The Preliminary MS4 Map also contains supplemental information that may be relevant to stormwater management. Refer to Chapter 4 of the Plan for more information on the Mapping Program.

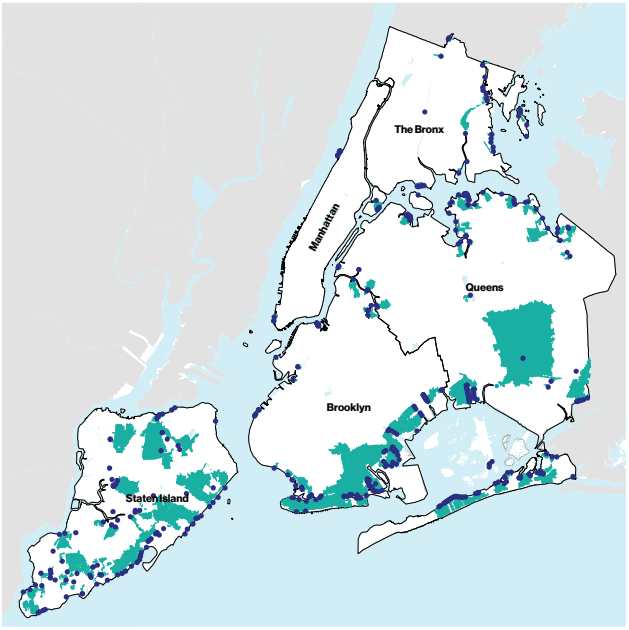
Program Assessment

Since the submission of the Preliminary MS4 Map, the City has continued to refine the datasets for MS4 outfalls and drainage areas. These refinements will be included in the update of the MS4 Map by August 1, 2020. Table 3 lists measurable goals and measures with the implementation status of the City's Mapping BMPs.

Historical MS4 Map

The information shown on this map was the best available as of August 1, 2015. This information was used for planning purposes during SWMP development and has been superseded by the Preliminary MS4 Map as of August 1, 2018.

MS4 Outfalls
Direct Drainage Area
Waterbody
MS4 Drainage Area



Preliminary MS4 Drainage Areas and Outfalls

The information shown on this map is the best available information as of August 1, 2018.

MS4 Outfalls
CSO Outfalls with MS4 connections
Waterbody
MS4 Drainage Area

Table 3. Mapping Program 2018 Status of Implementation

BMP	Measurable Goals	Measures	Status
Map the MS4 area	Map in GIS-format; MS4 outfalls, and drainage areas (Preliminary MS4 Map to be submitted by August 1, 2018 and Final Map to be submitted by August 1, 2020)	Status and location of the MS4 Map	Preliminary MS4 Map is online and available to the public at nyc.gov/dep/ms4map
		Number and percent of MS4 outfalls mapped	460; 100% *
	Update Final MS4 Map every 5 years	Date of latest MS4 Map updated submittal	August 1, 2018

* As of March 2018, DEP had classified 460 outfalls as MS4 outfalls, and the Preliminary Map due to NYSDEC in August 2018 included those 460 outfalls. This Annual Report for the 2018 reporting year accurately states that the City mapped 100% of known MS4 outfalls. However, by March 2019, DEP had classified approximately 510 outfalls as MS4 outfalls. Because the City will not update the MS4 map until the 2020 map is due to NYSDEC, the 2019 Annual Report will reflect that the City has mapped approximately 90% of known outfalls (the 460 included in the Preliminary Map). After 2020, the City must update the map every 5 years. In off-years in which the City does not update the map, similar discrepancies may exist.

East River

Illicit Discharge Detection and Elimination

The City has longstanding, effective programs for detecting, identifying, and eliminating illicit discharges citywide. These include the Shoreline Survey, Sentinel Monitoring Program, Harbor Survey Program, and Emergency Response Units.

Once the City identifies a potential illicit discharge, it initiates a trackdown to find the source and then takes steps to abate the discharge. The trackdown process may include a series of complex steps both in the office and in the field. Each trackdown investigation is unique; some can take a few hours, while others can take days or months depending on the location, the number of sources, the logistics and the complexity of the drainage area.

The City conducts outreach to inform the general public, businesses, and City employees about illicit discharges and the proper disposal of waste. The City also trains employees implementing the IDDE Program to properly identify, report, and respond to illicit discharges; their training also includes applicable health and safety guidelines. Refer to Chapter 5 of the Plan for more information on the IDDE Program.

Program Assessment

During this reporting period, the City continued to implement its citywide IDDE Program. The data in Table 4 represent citywide metrics; the City is working on separating out the actions taken in the MS4 area and aims to begin reporting MS4-specific data after the MS4 map is next updated (in 2020).

The City explored options for conducting an enhanced source tracking pilot program in Alley Creek. Alley Creek is a challenging waterbody to conduct source tracking as there are accessibility issues due to the presence of wetlands and shallow waters at low tide. DEP had successfully eliminated sources of illicit discharges in the past, but this new effort would incorporate new technologies and build on those past efforts. DEP conducted a reconnaissance of Alley Creek to evaluate the current conditions of the waterbody and to gather information for future decision-making. Potential options for enhanced source tracking include conducting a drone survey to obtain a thermal imagery map, and sampling the water column and sediment near certain outfalls. DEP may apply lessons learned from this pilot program to future source trackdown efforts in waterbody areas that have challenges similar to those at Alley Creek, if appropriate for a given waterbody. Table 4 lists measurable goals and measures with the status of the City's implementation of IDDE BMPs.

DEP staff conduct reconnaissance at Alley Creek

Table 4. IDDE Program 2018 Status of Implementation

BMP	Measurable Goals	Measures	Status
Detect and eliminate illicit discharges	Detect and eliminate illicit discharges including illegal dumping	Number of illicit discharges detected	454*
		Number of illicit discharges abated	454*
		Number of and type of enforcement actions and penalties issued	74 summons (excluding cases referred to NYSDEC); $39,000
	Conduct an outfall reconnaissance inventory with 100% completed every 10 years	Updated outfall spreadsheet submitted to NYSDEC	Appendix 2 - SPDES Outfall Listing†
		Percent of known MS4 outfalls inventoried	21.5%‡
Prepare reports	Special Report for waterbodies with fecal coliform above 200 colonies/100 ml and for unauthorized non-stormwater discharges within 3 years of August 1, 2018 and annually thereafter.	Integrated Sentinel Monitoring Report submitted to NYSDEC	June 30, 2018
Provide an ongoing public education and awareness program	Implement a public education program on potential hazards of illicit discharges	List of education activities for public employees	PP/GH agency staff training
		List of education and outreach programs/events for the general public and businesses, and relevant metric(s) for each (e.g., number of participants, event, or materials distributed)	• Automotive Associations (12 events) • Business Outreach (26 events, 80 businesses) • Cease the Grease (12 events, 1,230 households) • DEP Environmental Education (36 events, 3,336 participants) • DPR Environmental Education (7 events, 633 participants) • Forgot Your Bag? (235 canine waste bag dispensers in the MS4 area) • Park Stewardship (103 events, 3,751 participants) • SAFE Disposal Events (5 events; 1,909,158 materials distributed; 12,219 participants) • Visitor Center at Newtown Creek (68 events, 2,349 participants)
		List of planned educational and outreach programs/activities to be undertaken in next reporting cycle	• Business Outreach • Cease the Grease • DEP Environmental Education • Forgot Your Bag? • SAFE Disposal Events • Visitor Center at Newtown Creek
Provide training for staff	Implement a staff training program on IDDE	Number of staff training opportunities/events	2
		Number of DEP staff trained on IDDE	38

* number includes illicit discharges detected/abated by DEP Emergency Response Unit citywide and by agencies on-site at municipal facilities in the PP/GH inventory
† the spreadsheet is a full listing of CSO and MS4 outfalls, which DEP sent to NYSDEC on March 29, 2019
‡ number represents January 1 to December 31, 2018

Goals for Next Reporting Cycle

The City plans to continue its IDDE program, which includes the Shoreline Survey, Harbor Survey, Sentinel Monitoring, and Emergency Response Units. During the next reporting cycle, the City will address the need for better integration of the Sentinel and Harbor Survey monitoring programs in order to manage resources more efficiently, target areas in need of additional monitoring, and reduce redundancies of monitoring stations while continuing consistent monitoring of the NY harbor. The City also plans to identify feasible, enhanced source tracking methods in Alley Creek based on the site reconnaissance assessment.

Program Updates

On March 12, 2019, in consultation with NYSDEC, DEP made a minor modification to the Plan in order to clarify the reporting method for sewage discharges. Page 96 of Chapter 5 (Illicit Discharge Detection and Elimination) of the Plan originally stated,

"In addition, under the NYS Sewage Pollution Right to Know Law, the City contacts NYSDEC within two hours of confirming a sewage discharge. NYSDEC then notifies the public and adjoining municipalities within four hours of sewage discharges from municipal outfalls. Notifications to NYSDEC, DOHMH, adjoining municipalities, and the public are all made through the NY-Alert system. The public can sign up to receive NY-Alerts about illicit discharges in their area at the NYSDEC website."

The City clarified this text to state the following,

"In addition, the City notifies NYSDEC, DOHMH and adjoining municipalities following confirmation of a discharge and may notify the public directly through the NY-Alert system when waterways are significantly impacted by untreated or partially treated sewage discharges. The public can sign up to receive NY-Alerts about sewage discharges in their area at the NYSDEC website."

454

illicit discharges detected and abated citywide

Construction and Post-Construction

NYSDEC requires development or redevelopment projects disturbing an acre or more of soil to obtain coverage for stormwater discharges under the State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002)(NYSDEC CGP).

The City's Construction and Post-Construction (C/PC) Program will complement the NYSDEC CGP program in the NYC MS4 area by reviewing and approving stormwater pollution prevention plans (SWPPPs), and inspecting construction sites both for stormwater impacts and for operation of post-construction stormwater management practices (SMPs). The C/PC Program also requires developers to install adequate controls to ensure no net increase of a pollutant of concern causing the impairment of an impaired water without a TMDL. As part of the C/PC Program, DEP will issue two types of stormwater permits for covered development projects: the Stormwater Construction Permit and the Stormwater Maintenance Permit.

The City will incorporate a schedule to develop and implement a 20,000 square foot soil disturbance threshold to trigger the C/PC stormwater management requirements in the 2020 MS4 Permit renewal application. For municipal ROW projects,the one-acre threshold under the CGP will continue to apply, but the City will recommend that ROW projects should be exempt from the 20,000 square foot soil disturbance requirement. Chapter 6 of the Plan provides additional details on the C/PC Program.

Program Assessment

NYSDEC's approval of the SWMP was still pending during the 2018 reporting period; therefore, the City could not implement the C/PC Program, but did begin preparing for its implementation.

In 2018, the City developed a NYC Stormwater Design Manual to provide technical guidance for creating SWPPPs that meet the C/PC Program requirements, including details on how to determine whether a site drains to an impaired waterbody and how to demonstrate no net increase for the pollutant of concern causing the impairment. DEP posted a draft version of this manual for public comment on September 10, 2018, and the manual is currently available on the C/PC Program website.[2]

[2] https://www1.nyc.gov/site/dep/water/construction-post-construction-program-ms4.page

The City hired two engineers and one certified application developer to assist with the Construction and Post-Construction Program. DEP also continued its development of the Stormwater Permitting and Tracking System, an online permit application system that will serve as a tool for developers to input their applications and to follow the status of DEP's review.

Table 5 lists measurable goals and measures with the status of the City's implementation of C/PC Program BMPs. As the program was not implemented during this reporting period, there are no metrics provided in the table.

Goals for Next Reporting Cycle

During the upcoming reporting cycle, DEP's MS4 Construction Permitting Group plans to initiate the C/PC Program. These efforts will include conducting formal and informal trainings, finalizing the Stormwater Design Manual, and launching the Stormwater Construction Permitting and Tracking System (SWPTS). The rules for the program became effective on June 1, 2019.

Table 5. C/PC Program 2018 Status of Implementation

BMP	Measurable Goals	Measures	Status
Construction Site Stormwater Runoff Control	Review and Approve SWPPPs	Number of SWPPPs reviewed	Will report these metrics in the next annual report (2019)*
		Number of SWPPPs approved with and without post-construction stormwater management facilities	
		Number of Stormwater Construction Permits issued	
		Number of active construction sites	
		The percent of active Stormwater Construction Permit sites inspected once	
		The percent of active Stormwater Construction Permit sites inspected more than once	
		Number and type of enforcement actions and penalties issued	
		Number of construction site stormwater control trainings planned or completed	
	Inspect post-construction sites and enforce Stormwater Maintenance Permits	Number of Stormwater Maintenance Permits issued	
		Number of Flood Management Projects and existing structural flood control devices evaluated	
		Number and type of enforcement actions and penalties issued	
		Number of post-construction SMPs, including type of practice and contributing impervious area	
		Number and type of SMPs inspected	
		Number and type of SMPs properly maintained as determined by inspections	
		Number of individuals trained in inspection of long-term operation and maintenance of post-construction SMPs	

* There are no metrics for the C/PC Program during the 2018 reporting period as the SWMP was not yet approved by NYSDEC (NYSDEC approved 03/14/19).

Pollution Prevention/Good Housekeeping for Municipal Operations and Facilities

The City has an extensive network of municipal facilities and operations that serve New Yorkers and keep vital infrastructure functioning properly. Most City agencies with municipal facilities and operations already had practices in place that helped prevent stormwater pollution. Building upon those existing practices, the City is implementing a comprehensive PP/GH Program. The PP/GH Program includes an inventory of municipal facilities and operations assessed and prioritized by their potential to contribute pollution to stormwater runoff; guidance on stormwater control measures to reduce stormwater pollution from municipal facilities and operations; evaluation of runoff reduction techniques including green infrastructure in planned municipal upgrades; and training on PP/GH practices. Refer to Chapter 7 of the Plan for details on the PP/GH Program.

Program Assessment

During this reporting period, a number of agencies (i.e., DPR, NYPD, DOE, and FDNY) assessed facilities they operate. These include DPR athletic fields, tennis courts, swimming pools, and playgrounds; NYPD precinct station houses, traffic enforcement and transit unit offices, vehicle shops, parking areas, and horse stables; DOE schools, playgrounds, and athletic fields; and FDNY firehouses. Operations assessed at these facilities include vehicle fueling and storage, vehicle and equipment cleaning, drum storage management, spill prevention and response, waste management and disposal, catch basin inlet cleaning and repair, and above ground fuel storage.

The City assessed a total of 78 municipal facilities for stormwater pollution potential, including 41 medium priority sites and 37 low priority sites. If appropriate, agencies revised the priority of sites after their assessments. High priority sites had been assessed in 2017 prior to the City's submittal of the Plan and will be assessed again in 2019.

TOP TO BOTTOM:

NYPD – Tanker Truck Under Dome and Secondary Containment

FDNY – Vehicle washing with Eco-Friendly Soap

NYPD – Washwater Recycling Equipment For Vessel Washing

NYC Parks – Leaf Collection

The City also updated the facility inventory as new information confirmed that some facilities drain to a combined sewer and that others are no longer occupied by a City agency. As such, the facility inventory decreased from 736, as stated in the Plan, to 708.

The City finalized the PP/GH Training Plan for classroom and computer-based environments with information on selecting, implementing, and evaluating stormwater control measures. DEP hosted classroom trainings for municipal staff and, after participating in the DEP training sessions, other agencies also conducted their own trainings tailored to agency-specific operations. During the reporting period, a total of 6,918 municipal employees received PP/GH training.

78 **municipal facilities assessed for stormwater pollution potential**

Table 6 lists measurable goals and measures with the status of the City's implementation of PP/GH Program BMPs.

Goals for Next Reporting Cycle

The City plans to continue assessing high, medium and low priority sites, refining the inventory, and administering staff trainings.

Table 6. PP/GH Program 2018 Implementation Status

BMP	Measurable Goals	Measures	Status
Provide program for pollution prevention and good housekeeping for municipal operations and facilities	Maintain an inventory of municipal operations and facilities	Number of facilities	708
		Number of off-site operations	9
	Implement the PP/GH Program	Acres of parking lots swept	6,337
		Miles of street swept	269,251*
		Number of catch basins inspected	10,461†
		Number of catch basins cleaned	4,873†
		Number of catch basins maintained	622†
		Miles of storm sewers inspected	275.8‡
		Miles of storm sewers cleaned	275.8‡
		Number of self-assessments completed, high priority	0¶
		Number of self-assessments completed, medium priority	41
		Number of self-assessments completed, low priority	37
		Percent of self-assessments completed of the total number of sites in the inventory, high priority	0
		Percent of self-assessments completed of the total number of sites in the inventory, medium priority	5.8%
		Percent of self-assessments completed of the total number of sites in the inventory, low priority	5.2%
		Number of facilities electing MS4 coverage that would otherwise be subject to MSGP	0
Provide for staff training	Implement a PP/GH Training Program	Number of staff trained in-person	6,918
		Number of staff trained computer-based	0
Consider runoff reduction and green infrastructure	Consider runoff reduction techniques and green infrastructure	Number of runoff reduction/green infrastructure opportunities evaluated	0
		Number of runoff reduction/green infrastructure opportunities implemented	3

* based on historical MS4 map for right-of-way (ROW) and citywide numbers for arterial highways, bridge roadways, tunnels, and underpasses
† data include the DEP ROW catch basin program based on the preliminary MS4 map and work done by agencies at their facilities listed in the inventory
‡ based on work done by DEP for all sewers citywide and work done by agencies at their facilities listed in the inventory
¶ High priority sites had been assessed in 2017 prior to the City submitting the Plan and will be assessed again in 2019.

Industrial and Commercial Stormwater Sources

NYSDEC requires certain industrial facilities to obtain coverage for stormwater discharges under the State Pollution Discharge Elimination System (SPDES) Multi-Sector General Permit for Stormwater Discharge from Industrial Activities (GP-0-17-004) (MSGP). While NYSDEC will continue to issue the MSGP, DEP will be responsible for the associated inspections and enforcement of the MSGP at both publicly and privately owned MSGP-covered facilities in the MS4 area. DEP will also assess unpermitted, industrial and commercial facilities in the MS4 area and transmit its observations to NYSDEC to facilitate NYSDEC's determination of the facilities' potential need for SPDES permit coverage.

Program Assessment

NYSDEC's approval of the SWMP was still pending during the 2018 reporting period; therefore, the City could not implement the I/C Program, but did begin preparing for implementation. Within three months of submission of the Plan, DEP sent initial notifications to over 1,200 unpermitted facilities and 28 permitted MSGP facilities. DEP made the notifications in accordance with Part III.E of the MS4 Permit. DEP also finalized its standard operating procedures for assessing unpermitted facilities and for inspecting those with MSGP coverage.

During this reporting period, DEP continued to develop online tools to better serve the regulated community and the public. These tools include a website on which permitted facilities can upload documents as well as a mechanism for the public to submit facility complaints. Both became available to the public in June 2019. Table 7 lists measurable goals and measures with the status of the City's implementation of I/C Program BMPs. As the program was not implemented during this reporting period, there are no metrics provided in the table.

Table 7. I/C Program 2018 Implementation Status

BMP	Measurable Goals	Measures	Status
Provide an industrial and commercial pollution control program	Implement an inspection and assessment program for unpermitted industrial and commercial sources by August 1, 2018	Status of the inspection program and stormwater controls for unpermitted industrial and commercial facilities	Will report in the next annual report (2019)*
	Implement an inspection program for MSGP Permit holders based on priority by August 1, 2018	Number of SPDES MSGP facilities inspected, high priority	
		Number of SPDES MSGP facilities inspected, medium priority	
		Number of SPDES MSGP facilities inspected, low priority	
		Number of non-compliant SPDES MSGP facilities	
		Number of repeat noncompliant SPDES MSGP facilities	
		Number and type of enforcement actions completed and penalties issued	

* There are no metrics for the I/C Program during the 2018 reporting period as the SWMP was not yet approved by NYSDEC (NYSDEC approved 03/14/19).

Goals for Next Reporting Cycle

During the next reporting cycle, DEP plans to initiate the I/C program, as the rules that govern the program became effective on June 1, 2019. DEP will inspect the sites DEC determined to be high priority by December 31, 2019.

Program Updates

In future annual reports, the two measurable goals in the BMP table (Table 7) will be reported as "Implement an assessment program for unpermitted industrial and commercial sources" and "Implement an inspection program for MSGP Permit holders based on priority." This change from the original text, which deletes the clause "by August 1, 2018" for each measurable goal, will ensure this is an ongoing goal for the City.

1200+

notifications sent to unpermitted facilities

28

notifications sent to MSGP facilities

Control of Floatable and Settleable Trash and Debris

Stormwater runoff can transport trash and debris from urban areas into local waterbodies. Once waterborne, these floatable and settleable materials are referred to as "floatables." The SWMP relies on many existing programs to control trash and debris stemming from the MS4 area. Key programs include street sweeping, catch basin hooding and maintenance, catch basin inspection and cleaning, and booming and netting to catch materials that could potentially discharge via the outfalls.

As noted in the Public Education section above, the City also administers a variety of programs that encourage the public to help manage trash and debris, including a suite of stewardship programs (e.g., Parks Community Clean-ups) and 311, which enables New Yorkers to report to the City dirty conditions they observe.

In addition to the above programs, the City included in Appendix 9.1 of the Plan, its work plan to determine the loading rate of trash and debris from the MS4 to floatables-impaired waterbodies. This work plan included an overview of other municipalities' loading rate study methodologies and details of the City's planned study. The City's loading rate study is a hybrid approach that combines field monitoring with model analysis. The City proposed to measure trash and debris discharged from 63 catch basins representing 21 categories. Each category will likely have a different loading rate as each represents a different combination of representative catch basin attributes and catchment characteristics or unique land use types. The primary factors for the categories include street litter level, street sweeping frequency, and catch basin hood status.

The City will determine the loading rate for each of the 21 catch basin categories after it normalizes the field monitoring data. The City will also assign a category designation to MS4 catch basins draining to a floatables-impaired waterbody based on their primary factor characteristics. Using the loading rate for each site category and the individual catch basin category assignments, the City will then estimate the loading rate from the MS4 to floatables-impaired waterbodies.

Program Assessment

During this reporting period, the City implemented the floatables control programs described in the Plan. These programs include street sweeping, catch basin hooding and maintenance, catch basin inspection and cleaning, booming and netting, as well as other controls listed in Chapter 9 of the Plan.

During this reporting period, pursuant to the City's work plan, the City also collected various datasets to inform the selection of representative catch basins for monitoring. The primary datasets included DSNY street sweeping routes, Mayor's Office Scorecard ratings, floatables accumulation rates in catch basins, and catch basin hood status. The City also collected other datasets potentially relevant to the study including the presence of a boom or net in waterbodies, population density, commuter areas, land use buffers, litter basket locations, and Business Improvement District area cleaning information.

The City continued to refine its representative MS4 catch basin site selection criteria, including which datasets best inform the catch basin categories. The City also began developing field monitoring protocols for collecting the samples in the field and for sorting the materials at a processing center. Table 8 lists measurable goals and measures with the status of the City's implementation of the Floatables Program BMPs.

10,461

MS4 catch basins inspected

Table 8. Control of Floatable and Settleable Trash and Debris

BMP	Measurable Goals	Measures	Status
Provide a Floatables and Settleable Trash and Debris Management Program	Determine Loading Rate of Floatable Trash and Debris discharged from MS4 to waterbodies impaired for floatables	Status of Loading Rate Study	The City collected data, confirmed factors for selecting monitoring sites, coordinated with other agencies, and refined the catch basin selection process.
	Continue DEP's Catch Basin Inspection, Cleaning, and Hood Replacement Program	Number of catch basins inspected, cleaned, and retrofitted	10,461* catch basins inspected, 4,873* catch basins cleaned, and 0† catch basins retrofitted
		Number of catch basin hoods repaired, installed, or replaced	194†
	Continue DEP's boom and netting program	Date of Combined Sewer Overflows Best Management Practices Annual Report with Floatables Control Program results	May 1, 2018
	Implement a public education program on floatables	List of education & outreach programs/events and relevant metric(s) for each (e.g., number of participants, events, or materials distributed)	• Community Clean-ups (3 events, 55 participants) • Environmental Education (1 event, 11 participants) • SAFE Disposal Events (5 events; 1,909,158 materials distributed; 12,219 participants)

*data include the DEP ROW catch basin program based on the preliminary MS4 map and work done by agencies at their facilities listed in the inventory.
† data include the DEP ROW catch basin program based on the preliminary MS4 map

Goals for Next Reporting Cycle

During the next reporting cycle, the City plans to continue its key floatables control programs, including street sweeping, catch basin inspections and cleaning, and DEP's boom and netting program. The City will conduct a desktop analysis using the data collected during this reporting period to select a set of potential catch basins for the floatables loading rate study. The City will conduct reconnaissance to assess potential catch basins for suitable monitoring locations. Additionally, the City will continue to develop and refine field monitoring protocols based on catch basin and manhole configurations. The City timely submitted to DEC by June 14, 2019, its proposed schedule for conducting the loading rate study.

Floating Boom in Flushing Creek

Monitoring and Assessment of Controls

To assess the quality of stormwater runoff from the MS4, the City developed an MS4 Monitoring Program that combines data collected from existing monitoring programs with additional MS4 outfall or manhole water quality and flow data. The City designed this program as an adaptive management approach using a phased method to assess the pollutant contribution from the MS4 area and its influence on New York Harbor water quality.

In Phase 1, DEP will meter and sample during wet weather at eight MS4 outfalls representative of six land use types within NYC: mixed; high-density residential; low-density residential; industrial; open space; and highway. The purpose of Phase 1 is to assess the influence of land use on stormwater discharge and pollutant concentrations. Phase 1 monitoring will begin by 2020 with the City's sampling once per quarter for two years for a total of 64 samples.

For Phase 2, the City will use Phase 1 data to develop a monitoring strategy that targets a second set of outfalls. The purpose of Phase 2 is to evaluate the role stormwater plays as a potential pollutant source and to analyze long-term trends in receiving water quality. Chapter 10 of the Plan includes more information on the MS4 Monitoring Program, and Appendix 10.1 of the Plan details the monitoring work plan.

Program Assessment

DEP is on track to begin Phase 1 of the monitoring program by 2020. DEP finalized field mobilization protocols and lab analysis methods during this reporting cycle. DEP also prepared to start the monitoring program by installing a flow meter and rain gauge at the HP-640 outfall in the Bronx. Table 9 lists measurable goals and measures with the status of the City's implementation of the Monitoring Program BMPs.

Table 9. MS4 Monitoring Program 2018 Implementation Status

BMP	Measurable Goals	Measures	Status
Monitoring and Assessment Program	Conduct wet weather sampling from outfalls/manholes	Results of monitoring data collected and analyzed	Phase 1 monitoring did not begin during the reporting period. Therefore, there are no water quality data to report.

Goals for Next Reporting Cycle

DEP will track the weather for qualifying storm events. DEP is on schedule to implement its Phase 1 Monitoring Program by August 2020.

DEP staff examine manhole

Stormwater discharging through MS4

Special Conditions for Impaired Waters

The City administers a number of programs and practices to reduce or remove pollutants in stormwater runoff from the MS4 area draining to surface waters of the State, including impaired waters. The MS4 Permit identifies special conditions for specific impaired waterbodies:

- **Impaired waters without Total Maximum Daily Loads (TMDLs)**
- **Impaired waters with NYSDEC-approved Combined Sewer Overflow Long Term Control Plans (CSO LTCPs) that have been identified as a Priority MS4 Waterbody**

Information on impaired waters without TMDLs is included in the Construction and Post-Construction section of this report. Impaired waters with approved CSO LTCPs that do not predict compliance with applicable water quality standards, and where stormwater contributions from the MS4 are expected to be a significant contributor to the impairment, are Priority MS4 Waterbodies. The City will develop and implement a Priority MS4 Waterbody Plan (PWP) for each waterbody that meets the definition of a Priority MS4 Waterbody.

DEP conducts Cease the Grease outreach in Coney Island

In 2018, the City designated Coney Island Creek as a Priority MS4 Waterbody; its PWP is included in Chapter 11 of the Plan. The MS4 Permit lists pathogens and floatables as the pollutants of concern causing impairments in Coney Island Creek. To target pollutant sources, the City listed in the PWP, enhanced or additional stormwater control measures, such as:

- **Pet waste management;**
- **Catch basin marking;**
- **Signage deployment;**
- **Monitoring;**
- **Source tracking;**
- **Public education and outreach; and**
- **Green infrastructure.**

If the City identifies additional Priority MS4 Waterbodies in the future, the City will develop additional waterbody-specific PWPs and summarize them in Annual Reports.

Program Assessment

As described in the Plan, the City is committed to implementing enhanced stormwater control measures in Coney Island. These measures include a variety of initiatives listed in Chapter 11 of the Plan. Table 10 includes status updates on the proposed stormwater control measures.

534

households in Coney Island visited by DEP as part of the Cease the Grease Program

Table 10. Special Conditions Program Status Updates

Program	Description	Update
Pet waste management	Install new pet waste bag dispensers and signage as part of DPR's "Forgot Your Bag?" Program, to minimize the presence of exposed pet waste.	Pet waste bag dispensers and signage were installed and maintained in both Calvert Vaux and Kaiser Park in 2017 and 2018 respectively.
Catch basin marking	Include a "no dumping" message stamped in the iron curb piece on new and replacement catch basins in the MS4 area. Provide catch basin stenciling opportunities for local organizations.	DEP began developing a stenciling program to raise awareness about catch basins draining to Coney Island Creek.
Signage deployment	Deploy signs to facilitate public reporting of dry weather discharges.	DEP placed signage at key MS4 outfalls in Coney Island Creek in 2017. The City received no public reports during the reporting period.
Monitoring	Explore modifications to existing sampling programs to allow the City to refine its source trackdown efforts in Coney Island Creek.	DEP is working to add a new Sentinel Monitoring station in Coney Island Creek as part of its proposed revisions to the Sentinel Monitoring Program.
Source tracking	Develop a pilot project to evaluate additional source tracking tools beyond those used in the citywide IDDE program.	DEP is assessing a variety of enhanced source trackdown methods for waterbodies that have proven to be particularly challenging. In these cases, traditional source trackdown methods may benefit from the use of supplemental new technologies or approaches. DEP may apply lessons learned from that program to future source trackdown efforts, if applicable.
Public education and outreach	Conduct education and outreach in the Coney Island Creek Community on pollution source controls.	The City prioritized the Coney Island Creek community for outreach about litter, trash and debris by launching the 2018 Annual Clean Streets = Clean Beaches Campaign at MCU Park in Coney Island, home of the Brooklyn Cyclones. This campaign featured an informational poster with the slogan "don't mess up summer" at area beaches as well as on Department of Sanitation fleet vehicles. During this reporting period, DEP conducted Cease the Grease outreach in Coney Island Creek to 534 households.
Green infrastructure	Identify potential GI opportunities in Coney Island Creek MS4 areas by prioritizing City-owned sites based on their potential to capture runoff.	DEP evaluated sites for GI and is moving forward with a more thorough site assessment of locations where it determined GI may be feasible.

"Clean Streets = Clean Beaches" Anti-littering Campaign Launches in Coney Island

Recordkeeping and Reporting

Each year, the City is required to prepare an Annual Report documenting the status of compliance activities related to the MS4 Permit. The reporting year for each Annual Report going forward will be a calendar year (i.e., January 1 to December 31). The City will submit these Annual Reports to NYSDEC by September 30 following each reporting year. The public can request information related to the City's stormwater management plan by emailing MS4@dep.nyc.gov.

Program Assessment

The City released this Annual Report to publicly document activities related to MS4 Permit compliance. The program assessment included in each section of this report serves as the Annual Effectiveness Assessment. The assessment of each program includes a summary of the program during the reporting period, stated BMPs and the status of the measurable goals for each BMP. The City assesses the effectiveness of the program through the achievement of the measurable goals included in the BMP tables. Refinements to the BMPs, measurable goals, or measures are included in the program updates sections of this report.

The City finished developing the Consolidated Information Tracking (CIT) System, an online database that stores information on SWMP implementation. The City conducted CIT System training sessions for agency users, including 50 individuals from the following agencies: DCAS, DDC, DEP, DOB, DOC, DOE, DOHMH, DOT, DPR, DSNY, FDNY, NYPD, and SBS. As such, the City was able to use data input to the CIT System by agency users in the development of this 2018 Annual Report.

50 **City employees trained on the CIT System**

Table 11. Recordkeeping and Reporting 2018 Implementation Status

BMP	Measurable Goals	Measures	Status
Provide annual reports to document compliance with the MS4 permit	Develop Annual Reports after submission of the Plan due September 30 following each reporting year.	Summary of annual effectiveness assessment	See effectiveness assessment of each program under pertinent subsections of this annual report.
		Municipal Compliance Certification submission	Appendix 3 - Municipal Compliance Certification

2018 Case Studies

The case study section highlights exemplary SWMP implementation initiatives in detail. Each annual report may include examples from different programs and highlight different measures of success.

PP/GH Program Highlight

During the 2018 annual reporting period NYPD explored new technologies and innovative approaches to meeting the requirements established in the SWMP.

During a PP/GH site assessment, NYPD discovered that its Harbor Repair Unit's washing operations could be generating pollutants with the potential to reach the nearby Harlem River. This scenario is common for many City-owned facilities as most designs pre-date environmental regulations, but NYPD sought to overcome this obstacle. In an effort to find an effective control measure, NYPD addressed several issues including limited space to clean large vessels; maintenance practices that could affect integrity of the vessels; and the availability of feasible alternatives for the facility.

Upon evaluating the unique circumstances at the Harbor Repair Unit, NYPD opted to pilot a mobile washwater recycling system. The washwater recycler is essentially a power washer, wet vacuum, filter, and reservoir mounted on a small trailer. This washwater system allows for flexibility in working around large vessels, while conserving water and preventing polluted water from entering the sewer system or nearby waterbodies. As an additional benefit, the personnel using the system find it easier to operate as compared to older power washers. The washwater system requires minimal maintenance as NYPD needs only to replace a fine-materials filter annually and discard grit and debris occasionally.

This example demonstrates only a segment of NYPD's diverse set of operations. Many of its behind-the-scenes operations are industrial in nature, which can involve chemicals, materials, and operations regulated by environmental laws and standards, including the MS4 Permit.

Additionally, to obtain assistance with technical challenges through expert resources from various environmental fields, NYPD developed a general environmental service contract. This contract aims to assist with on-call immediate response to incidences as well as planning and engineering support for more complicated issues. The three-year contract allows for a more prompt response and professional-solutions approach when addressing MS4 requirements to reduce the agency's pollution potential.

NYPD — Washwater Recycling System

Related Initiatives

NYC Green Infrastructure Program

Building upon the successes and lessons of earlier efforts, the City established the NYC Green Infrastructure Program (GI Program) in 2010. GI practices such as green roofs and rain gardens collect, treat, and infiltrate stormwater runoff. The goal of the GI Program is to reduce CSOs into the waterbodies of NYC by using GI technologies to manage stormwater from impervious surfaces. DEP works with partner agencies to design, construct, and maintain GI on City streets, sidewalks, and other public property.

The GI Program also offers grants to private property owners to install various types of GI. The GI program includes a research and development effort, which reviews GI performance over time, ensures performance-based maintenance and operations, and conducts cost-benefit analyses of various GI designs. The data analysis supports the City's water-quality related compliance programs and fills data gaps that DEP has identified through previous monitoring activities. This work is critical to the success of GI implementation in both combined and separate sewer areas of NYC. For more information on the NYC Green Infrastructure Program visit the DEP website.

Southeast Queens and Cloudburst Pilot Projects

The City identified the St. Albans neighborhood in Southeast Queens as an area where typical sewer solutions are unlikely to resolve chronic flooding. DEP is working with DDC and DOT to design and construct a stormwater management system using green infrastructure to mitigate nuisance flooding and improve public spaces while enhancing natural areas in St. Albans.

At the New York City Housing Authority's South Jamaica Houses, DEP has been working with community members to develop a "cloudburst" green infrastructure pilot project to manage runoff from extreme rain events. This project will allow stormwater to collect in a series of shallow retention areas, as well as a recessed basketball court that will incorporate both underground and above-ground storage to minimize local flooding. Following extensive community engagement and several design charrettes in 2018, design will take place through 2019 with construction expected to begin in 2021.

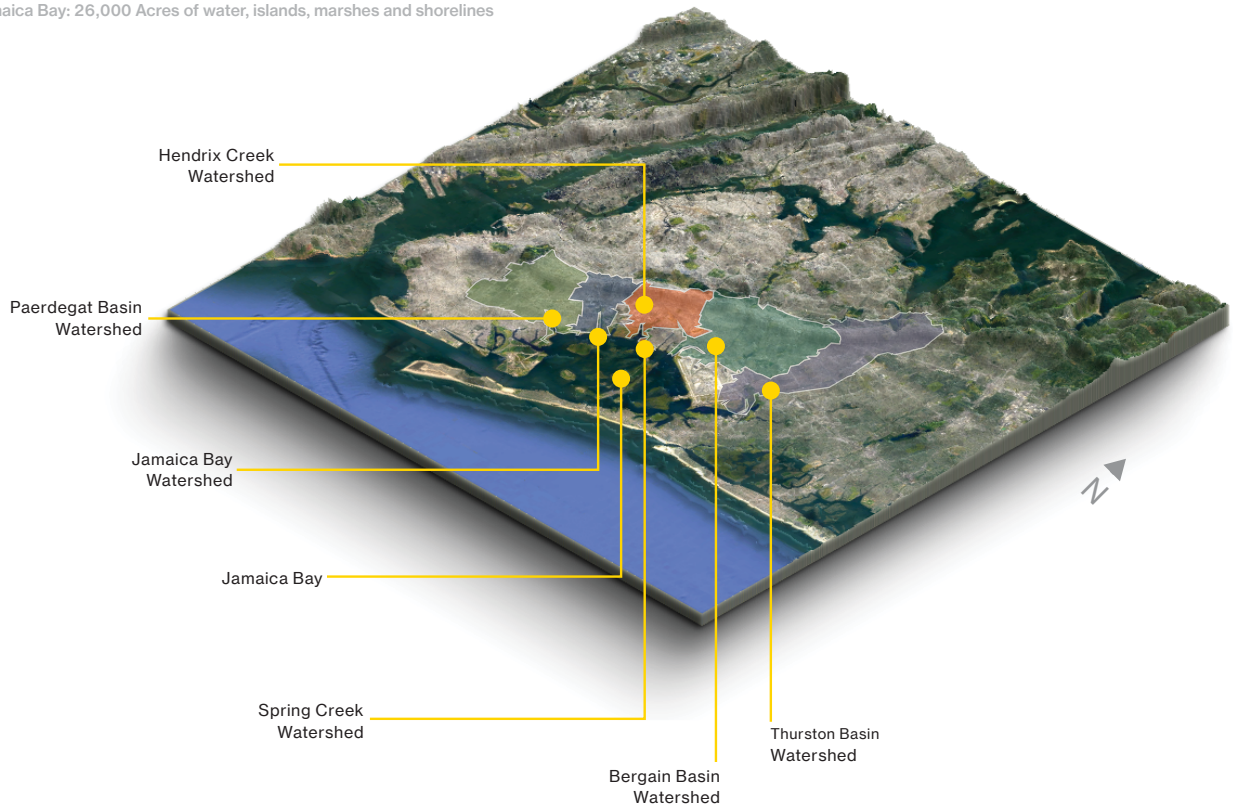
Jamaica Bay CSO Long-Term Control Plan

Stormwater management has reduced the volume of stormwater and combined sewer overflows (CSOs) to the Bay since 2010, and as a result has reduced the loading of pathogens and emerging contaminants. DEP's June 2018 Jamaica Bay and Tributaries CSO Long-Term Control Plan (LTCP) included a detailed Recommended Plan to improve and protect water quality through the expansion of green infrastructure, wetland creation, ribbed mussel colony creation, and environmental dredging in Bergen and Thurston Basins in addition to DEP's ongoing work to reduce CSO volume.

DEP estimates 202 million gallons a year in CSO reduction as a benefit of ongoing and planned green infrastructure projects, and an additional reduction of 15 million gallons a year under the LTCP Recommended Plan.

The LTCP Recommended Plan, as proposed to NYSDEC, includes 379 Greened Acres in Bergen and Thurston Basins, seven acres of ribbed mussel colonies, and 50 acres of wetland restoration. DEP expects these initiatives to provide increased co-benefits for the watershed in the form of improved air quality, reduced carbon footprint, reduced urban heat island effect, increased habitat creation, and improved water quality. The LTCP Recommended Plan remains under NYSDEC review.

Jamaica Bay: 26,000 Acres of water, islands, marshes and shorelines



Historically, Jamaica Bay has served as an important ecological resource for flora and fauna. The Bay has evolved as an important and complex network of open water, salt marsh, grasslands, coastal woodlands, maritime shrub lands, brackish and freshwater wetlands. Jamaica Bay, one of the largest coastal wetland ecosystems in New York State, is a component of the National Park Service's Gateway National Recreation Area.

This LTCP has been developed in an effort to better understand and address CSO impacts on water quality within Jamaica Bay. Throughout the process for developing this LTCP, DEP collected water quality data, performed extensive collection system and water quality modeling, held multiple public meetings and analyzed potential CSO control alternatives based on costs and model predicted water quality improvement.

The selection of the Recommended Plan was based on multiple considerations including:

- Public input
- Environmental and water quality benefits
- Community and societal impacts
- Issues related to implementation, operation and maintenance (O&M)
- Cost-performance and cost-attainment evaluations

Water Quality Impressions

Achieved through strategic investments

$600 Million Biological Nutrient Removal (BNR)

Upgrades across four wastewater resource recovery facilities (JA, 26W, RK, and discharge to Jamaica Bay

$32 Million Ecosystem Restoration and Research Efforts

Support pathogen reduction and dissolved oxygen improvement under the Jamaica Bay Watershed Protection plan

$1 Billion Past and Existing Grey Infrastructure

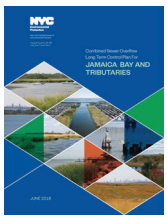
Investments to reduce combined sewer overflows

$1.9 Billion Southeast Queens Sewer Buildout

Commitment over the next decade under the OneNYC Plan

$300 Million Existing and Planned Green Infrastructure

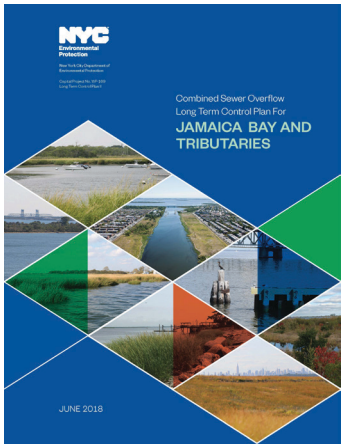
Commitment over the next decade under the OneNYC plan



LTCP Recommended Plan

Will build upon these past investments and provided further water quality improvements.

THE RECOMMENDED PLAN



- Can be implemented in 14 years as opposed to retained grey alternatives projected to take over 25 years.
- Provides higher levels of water quality attainment at much lower cost than grey alternatives.
- Supplements prior grey infrastructure improvements while providing holistic environmental, social, and economic benefits.

Wildlife Preserves

Parks

Marinas

Recreational Boating & Fishing

Additional 379 greened acres in Bergen and Thurston Basin tributary areas

7 acres of ribbed mussel colony creation

50,000 CY of environmental dredging in Bergen Basin

50 acres of wetland restoration

Reduce CSO discharges to Bergen and Thurston Basin by 15MGY

Stormwater discharges by 234 MGY

Provide air quality improvement

Carbon footprint reduction

Habitat creation

Heat island construction reduction

Property value improvement

Water quality improvement through the filtering of the ribbed mussels

Definitions

Annual Report: After submission of the Plan, DEP will publish a report by September 30 of each calendar year on SWMP implementation. The report will summarize activities performed throughout the reporting period (January 1 to December 31) by all agencies with obligations under the MS4 Permit; and will report on best management practices, measurable goals, and their measures stated in each chapter of the Plan, as well as Part IV.M of the MS4 Permit. It should be noted that for the first Annual Report (due September 30, 2019), the reporting year will be from submittal of the Plan (August 1, 2018) to the end of the calendar year.

Best Management Practice (BMP): Schedules, activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the State. BMPs also include treatment requirements (if determined necessary by DEP), operating procedures, and practices to control runoff, spillage, and leaks; sludge or waste disposal; or drainage from areas that could contribute pollutants to stormwater discharges. BMPs are referred to in EPA fact sheets and other materials. BMPs are also referred to as "activities" or "management practices" throughout the MS4 requirements under this SPDES individual permit. As such, BMPs are a sub-element of the SWMP Plan that describe the specific actions that will be taken to achieve the requirements of one or more sub-paragraphs of the SWMP Plan Element (e.g., the BMP "Identify Target Audiences for the pollutants of concern to each waterbody/sewershed of concern" would address the requirements of paragraph IV.A.1 of the SPDES MS4 Permit).

Covered development project: The term "covered development project" means development activity, private or public, that involves or results in an amount of soil disturbance within the MS4 area greater than or equal to one acre. Such term includes development activity that is part of a larger common plan of development or sale involving or resulting in soil disturbance within the MS4 area greater than or equal to one acre. Such term shall include all development activity within the MS4 area that requires a SWPPP pursuant to the New York State Department of Environmental Conservation (NYSDEC) construction general permit.

Floatables: Manmade materials, such as plastics, papers, or other products which, when disposed of onto streets or into catch basins, can ultimately find their way to waterbodies and may create nuisance conditions with regard to aesthetics, recreation, navigation, and waterbody ecology.

Green Infrastructure (GI): Green infrastructure infiltrates, evapotranspires, or reuses stormwater, with significant use of soils and vegetation rather than traditional hardscape collection, conveyance, and storage structures. Common green infrastructure approaches include green roofs, trees and tree boxes, rain gardens, vegetated swales, pocket wetlands, infiltration planters, vegetated median strips, reforestation, and protection and enhancement of riparian buffers and floodplains.

Historical MS4 Map: DEP created the Historical MS4 Map prior to permit issuance in 2015. While the Historical MS4 Map is unrefined and contains some inaccuracies, it represented the City's best understanding of the MS4 area at that time. In developing the SWMP, the City has relied upon the Historical MS4 Map to define the MS4 area. The Historical MS4 Map has also served as a starting point for the process of mapping the City's MS4 drainage areas and MS4 outfalls as required by the MS4 Permit.

Illicit Discharge: Illicit discharge is any discharge to an MS4 that is not composed entirely of stormwater, except allowable discharges pursuant to a SPDES permit and/or to DEP rules. Examples of illicit discharges are unauthorized sanitary sewage, garage drain effluent, and waste motor oil. However, an illicit discharge could be any other unauthorized discharge which the City or NYSDEC has determined to be a significant contributor of pollutants to the MS4.

Impaired Waters: A water is impaired if it does not meet its designated use(s) defined by the NYSDEC, generally determined by violations of state water quality standards. For purposes of this permit, 'impaired' refers to waters for which Total Maximum Daily Loads (TMDL) have been established, for which existing controls such as permits are expected to resolve the impairment, or for which a TMDL is needed. Impaired water compilations are also sometimes referred to as 303(d) lists; 303(d) lists generally include only waters for which TMDLs have not yet been developed.

Long-Term Control Plan (LTCP): Prepared in response to a consent agreement with the US Environmental Protection Agency (EPA), and developed using the EPA CSO Control Policy, an LTCP identifies and selects appropriate CSO controls to achieve applicable NYSDEC water quality standards consistent with the Federal CSO Policy and Clean Water Act.

Measurable Goal: One or more statements characterizing the goals of the SWMP that reflect the needs and characteristics of the City and the areas served by its MS4. Furthermore, the goals were chosen using an integrated approach that addresses the requirements and intent of the provisions of the MS4 Permit. Goals may be qualitative or quantitative.

Multi-Sector General Permit (MSGP): The Clean Water Act provides that stormwater discharges associated with industrial activity to waters of the United States (including discharges through a municipal separate storm sewer system) are unlawful, unless authorized by a National Pollutant Discharge Elimination System (NPDES) permit. In New York, the EPA-approved State Pollutant Discharge Elimination System (SPDES) program provides that industrial facilities engaged in activities defined in 40 CFR 122.26(b)(14)(i-ix) and (xi) must obtain permit coverage for stormwater discharges to waters of the United States through the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP), unless the facilities are individually SPDES-permitted or subject to No Exposure Exclusion (that industrial activities are not exposed to stormwater).

Municipal Separate Storm Sewer System (MS4):
A conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains):

1. **Owned or operated by a state, city, town, village, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA, that discharges to surface waters of the state;**
2. **Designed or used for collecting or conveying stormwater;**
3. **Which is not a combined sewer; and**
4. **Which is not part of a Publicly Owned Treatment Works as defined at 40 CFR 122.2**

MS4 Area: The term "MS4 area" means those portions of the City of New York served by separate storm sewers and separate stormwater outfalls owned or operated by the City of New York or areas served by separate storm sewers owned or operated by the City of New York that connect to combined sewer overflow pipes downstream of the regulator owned or operated by the city of New York, and areas in which municipal operations and facilities drain by overland flow to waters of the state, as determined by DEP and described on maps of the MS4 area set forth in DEP's rules and available on DEP's website.

MS4 Outfall: Defined as any point where a municipally owned or operated separate storm sewer system discharges to either surface waters of the state or to another MS4 (an MS4 owned or operated by another regulated entity). Outfalls include discharges from pipes, ditches, swales, and other points of concentrated flow. However, areas of non-concentrated (sheet) flow which drain to surface waters of the state or to another MS4 (owned or operated by another regulated entity) are not considered outfalls.

MS4 Permit: The New York State Pollutant Discharge Elimination System (SPDES) permit, issued to the City of New York on August 1, 2015, that defines the requirements to discharge stormwater from the City's MS4.

Pollutants: Dredged spoil, filter backwash, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand and industrial, municipal, and agricultural waste discharged into water which may cause or might reasonably be expected to cause pollution of the waters of the state in contravention of the standards or guidance values adopted as provided in 6 New York Code of Rules and Regulations (NYCRR) Part 750-1.2a.

Priority MS4 Waterbodies: Those waterbodies for which an approved CSO LTCP does not predict compliance with applicable water quality standards and where stormwater contributions from the City's MS4 are expected to be a significant contributor to the impairment identified in the CSO LTCP.

Settleables: Manmade materials that may sink depending on the ambient conditions to which they are subject. Floatables include settleable materials.

Standard Operating Procedure (SOP): A set of instructions for carrying out routine operations to achieve a specific outcome.

Stormwater Construction Permit: The term "stormwater construction permit" means a permit issued by DEP which authorizes development activity on land on which there is a covered development project with an approved SWPPP.

Stormwater Controls Working Group: An interagency group formed in 2013 in accordance with the Mayor's Executive Order Number 429. This group meets quarterly or as needed to discuss all updates involving the MS4 Permit and SWMP implementation.

Total Maximum Daily Load (TMDL): A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. It is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL stipulates waste load allocations for point source discharges, load allocations for nonpoint sources, and a margin of safety.

Acronyms

BMP Best Management Practice

CGP Construction General Permit

CIT System Consolidated Information Tracking System

C/PC Construction and Post-Construction

CSO Combined Sewer Overflow

CWA Clean Water Act

GI Green Infrastructure

GIS Geographic Information System

I/C Industrial/Commercial

IDDE Illicit Discharge Detection and Elimination

LTCP Long-Term Control Plan

MS4 Municipal Separate Storm Sewer System

MSGP Multi-Sector General Permit

NOI Notice of Intent

NYC New York City

NYS New York State

NYSDEC New York State Department of Environmental Conservation

PP/GH Pollution Prevention/Good Housekeeping

PWP Priority MS4 Waterbody Plan

ROW Right-of-Way

SAFE Solvents, Automotive, Flammables, and Electronics

SIWM Sustainable Integrated Water Management

SPDES State Pollutant Discharge Elimination System

SWMP Stormwater Management Program

SWPPP Stormwater Pollution Prevention Plan

SWPTS Stormwater Permitting and Tracking System

TMDL Total Maximum Daily Load

WRF Water Research Foundation

Appendix 1 – Public Comments on 2018 MS4 Annual Report

Administration

Comment: Will the City conduct a study on the feasibility of a stormwater fee?

DEP is launching a holistic sustainable rate structure study. The objectives of this study are to identify a program with revenue stability, minimization of customer impacts, affordability, resiliency and water conservation. As part of the study, DEP will also identify and compare fixed fee water, sewer and stormwater rate structures in other municipalities to learn more about the benefits and challenges of implementing fees of varying structures, and will utilize this information to evaluate holistic rate structure options.

DEP is currently going through the Request for Proposals (RFP) procurement process and has not yet selected a consultant to assist with this study. DEP is committed to having a public engagement process throughout the study and will work with stakeholders on the development of that process.

Priority Waterbodies

Comment: What are the criteria for the City to designate a waterbody as a Priority MS4 Waterbody and will the City designate additional waterbodies?

The NYC MS4 Permit defines a Priority MS4 Waterbody as an impaired waterbody for which an approved Combined Sewer Overflow (CSO) Long-term Control Plan (LTCP) does not predict compliance with applicable water quality standards and where stormwater contributions from the MS4 are expected to be a significant contributor to the impairment identified in the CSO LTCP. Currently, only Coney Island Creek meets the criteria, but DEP anticipates that Bergen Basin and Thurston Basin may also meet the criteria.

Public Education and Outreach

Comment: Is it possible to add the waterway complaint to the 311 app?

The 311 app includes complaints for which the City receives the highest volume of reports. At this time, the 311 app does not include waterway complaints, but the public may call 311 or use the 311 website to report a waterway complaint.

Comment: The public offered suggestions on how to educate people on stormwater including that schools should have sustainability teachers and the City should distribute mailers.

The City has many programs that educate the public on stormwater; these include the Department of Education (DOE) Office of Sustainability's program, which hosts borough-based trainings annually for school Sustainability Coordinators, teachers, and other school staff. The City also provides information about stormwater issues on the DEP website.

Public Involvement and Participation

Comment: The public offered suggestions on public involvement through catch basin stewardship such as utilizing local artists for stenciling and engaging youth and residents in catch basin cleanings.

In addition to DEP's catch basin inspection and maintenance program, residents can help by disposing of litter properly and carefully removing leaves or trash from catch basin grates. The City is continuing to develop its catch basin adoption and stenciling program.

Mapping

Comment: Why are there MS4 outfalls in Manhattan?

Manhattan has MS4 outfalls where there are City-owned separate storm sewers, such as infrastructure related to Department of Parks properties and DEP wastewater resource recovery facilities.

Floatables

Comment: Suggestion to use netting for all catch basins in the City to catch floatables.

Stormwater runoff can transport trash and debris from urban areas into local waterbodies. Once waterborne, these materials are referred to as "floatables." DEP's catch basins are fitted with hoods that function to keep floatables from entering the sewers. In addition to catch basin hooding and maintenance, City programs to control floatables include education campaigns, street sweeping, catch basin inspection and cleaning, and booming and netting to catch materials that could potentially discharge via the outfalls.

Additional comments

Comment: Concern about solar panel programs taking over green roof program.

The City offers multiple programs to incentivize and promote green roof installation on private property. These include the Green Infrastructure Grant Program and the Green Roof Tax Abatement. The City Council recently passed the NYC Climate Mobilization Act which includes legislation requiring new construction to build green roofs or solar panels as a way to promote resiliency.

Comment: Concern about tree planting and mature tree protection; suggestion for an agency of "tree protection."

NYC Parks has dedicated staff in each borough to protect and support the safety and health of our trees; maintaining New York City's urban forest is one of NYC Parks' most important responsibilities. They ensure safety by requiring a permit and tree protection for any work performed within 50' feet of a City tree. More information on the requirements are available here: https://www.nycgovparks.org/trees/street-tree-planting/best-practices.

Comment: Does DEP have a program to encourage people not to use potable water when it's raining?

DEP partners with elected officials to give free rain barrels to stakeholders across the City. Recipients are encouraged to use the collected rainwater for non-potable uses such as washing cars and watering lawns.

DEP also runs Wait..., a voluntary text messaging program that notifies participants when to use less water in their homes during a heavy rainstorm to help protect our waterways. To learn more about this program, visit https://www1.nyc.gov/site/dep/whats-new/wait.page

Comment: Trash along the Cross Bronx Expressway is an ongoing issue.

As part of the MS4 permit, the City will study the loading rate of trash and debris from the MS4 discharging to floatables-impaired waterbodies.

Comment: Shoelace Park in the Bronx is a good opportunity for GI to address flooding.

The NYC Green Infrastructure Program designs, constructs, and maintains green infrastructure to manage stormwater runoff. Green infrastructure locations are selected through a detailed process developed between DEP and relevant City agencies. More information is available at nyc.gov/dep/greeninfrastructure.

Appendix 2 – SPDES Outfall Listing

26TH WARD

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
26W-001	26TH WARD W.P.C.P.OUTFALL	40	39	3	73	53	37	10' X 6'	HENDRIX CREEK				
26W-002	26TH WARD PLANT OUTFALL	40	39	2	73	53	37	4BL 11' X 7' 6"	HENDRIX CREEK	PLANT BYPASS			
26W-003	WILLIAMS AVE (REG #2)	40	38	57	73	53	26	180" X 120"	FRESH CREEK BASIN	REG #2		YES	YES
26W-004	HENDRIX CREEK & HENDRIX ST	40	39	17	73	52	49	4BL 11' X 7'6"	HENDRIX CREEK	REG #1	YES		YES
26W-005	SPRING CREEK AUXILIARY W.P.C.P	40	39	26	73	52	43	72BL 7'6" X 2'5"	OLD MILL CREEK	REG #3, JAM REG #2			YES (ON 3 & JAM REG #2)

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
26W-601	HENDRIX CREEK & 575' S/O FOUNTAIN ST	40	38	57	73	52	31	42" DIA	HENDRIX CREEK
26W-602	375' S/O FOUNTAIN ST	40	39	5	73	53	36	66" DIA	HENDRIX CREEK
26W-603	FOUNTAIN ST	40	39	27	73	52	47	78" DIA	OLD MILL CREEK
26W-604	BORDER AVE	40	38	27	74	7	12	8' X 4'	FRESH CREEK BASIN
26W-605	800' E/O SITE DRIVE (GATEWAY MALL)	40	38	60	74	7	48	42" DIA	Belt Parkway/Shore Parkway
26W-606	E/O SITE DRIVE (GATEWAY MALL)	40	39	2	74	7	52	36" DIA	Belt Parkway/Shore Parkway

BOWERY BAY

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
BB-001	BOWERY BAY W.P.C.P. OUTFALL	40	46	51	73	54	31	90" DIA	EAST RIVER				
BB-002	45TH ST (REG # 2)	40	46	46	73	54	33	9' X 9' FT	BOWERY BAY	REG #2			
BB-003	HAZEN ST (REG # 13)	40	46	35	73	53	29	10' 6" X 5' 9" FT	BOWERY BAY	REG #3			YES
BB-004	BORDEN AVE	40	44	21	73	57	31	6' 6" X 3' 3"	DUTCH KILLS	REG #L-3, L-41			
BB-005	E/O 81ST ST (REG # 14)	40	46	25	73	53	21	14' 7" X 8' FT	BOWERY BAY	REG #4	YES		
BB-006	114TH ST (REG # 10, 12 & 13)	40	45	37	73	51	17	4BL 10' 6" X 9' 2"	EAST RIVER	REG #10, 12, 13	YES		
BB-007	E/O 27TH AVE (REG # 5)	40	45	59	73	52	45	11' X 7'	EAST RIVER	REG #5			
BB-008	31ST DRIVE (REG # 6, 7, 8, 9)	40	45	45	73	52	32	DBL 13' 9" X 8'	EAST RIVER	REG #6, 7, 8, 9	YES		YES (ON 6 & 9)
BB-009	HUNTERS POINT AVE (REG # L-3B, L-37, L-38, L-41, L-3A)	40	44	27	73	56	25	11' X 4' 6"	DUTCH KILLS	REG #L-3B, L-37, L-38, L-41, L-3A			
BB-010	QUEENS-MIDTOWN EXPRESSWAY (REG # L-3C)	40	44	22	73	56	29	30" DIA	DUTCH KILLS	REG #L-3C			
BB-011	GREENPOINT AVE BRIDGE (REG # L-1)	40	44	1	73	56	24	24" DIA	NEWTOWN CREEK	REG #L-1			
BB-012	35TH ST (REG # L-2)	40	44	4	73	56	25	24" DIA	NEWTOWN CREEK	REG #L-2			
BB-013	11TH ST (REG # L-8)	40	44	23	73	57	10	72" DIA	NEWTOWN CREEK	REG #L-8			
BB-014	VERNON BOULEVARD (REG # L-9)	40	44	23	73	57	18	22" DIA	NEWTOWN CREEK	REG #L-9			
BB-015	5TH ST (REG # L-10)	40	44	22	73	57	28	15" DIA	NEWTOWN CREEK	REG #L-10			
BB-016	51ST AVE (REG # L-11)	40	44	35	73	58	39	2' 7" X 2'	EAST RIVER	REG #L-11			
BB-017	50TH AVE (REG # L-12)	40	44	38	73	58	35	15" DIA	EAST RIVER	REG #L-12			
BB-018	49TH AVE (REG # L-12A)	40	44	40	73	58	32	16" DIA	EAST RIVER	REG #L-12A			
BB-021	47TH AVE (REG # L-15)	40	44	47	73	58	32	48" DIA	EAST RIVER	REG #L-15			
BB-022	5TH ST (REG # L-16)	40	44	53	73	57	17	18" DIA	EAST CHANNEL	REG #L-16			
BB-023	44TH DRIVE (REG # L-17)	40	44	59	73	57	20	66" DIA	EAST CHANNEL	REG #L-17			
BB-024	43RD AVE (REG # L-18)	40	45	13	73	57	8	7' 8" X 7' 7" ARCH	EAST CHANNEL	REG #L-18			
BB-025	41ST AVE (REG # L-19)	40	45	26	73	57	57	57" DIA	EAST CHANNEL	REG #L-19			
BB-026	BETWEEN 28TH & 29TH ST. (REG # L- (4, 39, 40 & 42)	40	44	35	73	56	21	9' X 4' 6"	DUTCH KILLS	REG #L-4, L-39, L-40, L-42			YES (ON L-4)
BB-027	38TH AVE (REG # L-20)	40	45	36	73	57	49	72" DIA	EAST CHANNEL	REG #L-20			
BB-028	37TH AVE (REG # L-21)	40	45	41	73	57	45	DBL 12' X 8' 2"	EAST CHANNEL	REG #L-21			YES
BB-029	BROADWAY(REG # L-22)	40	46	7	73	56	16	14' 6" X 8' 10" FT	EAST CHANNEL	REG #L-22			YES
BB-030	30TH ROAD (REG # L-23)	40	46	16	73	56	6	DBL 9' 6" X 6'	EAST CHANNEL	REG #L-23			YES
BB-032	MAIN AVE (REG # L-29 A, # MH-15)	40	46	28	73	56	16	48" DIA	EAST RIVER	REG #L-29, L-29A, MH-15			
BB-033	27TH AVE (REG # L-27)	40	46	33	73	56	13	15" DIA	EAST RIVER	REG #L-27			
BB-034	HOYT AVE (REG # L-30)	40	46	37	73	56	42	10' 8" X 7' 4" ARCH	EAST RIVER	REG #L-30			YES
BB-035	DITMARS BLVD (REG # L-31)	40	46	58	73	55	12	18" DIA	EAST RIVER	REG #L-31			
BB-036	21ST AVE (REG # L-32)	40	47	3	73	55	2	24" DIA	EAST RIVER	REG #L-32			
BB-037	20TH AVE	40	47	10	73	55	56	48" DIA	EAST RIVER	REG #L-33			
BB-040	49TH AVE (REG # L-5)	40	44	27	73	56	27	24" DIA	DUTCH KILLS	REG #L-5			
BB-041	19TH AVE (REG # 1)	40	46	49	73	54	8	66" DIA	LUYSTER CREEK	REG #1			
BB-042	W/O 27TH ST (REG # L-6)	40	44	20	73	57	35	12" DIA	DUTCH KILLS	REG #L-6			
BB-043	11TH ST (REG # L-7)	40	44	22	73	57	8	54" DIA	NEWTOWN CREEK	REG #L-7			
BB-045	9TH ST (REG # L-25)	40	46	34	73	56	47	18" DIA	EAST RIVER	REG #L-25			
BB-053	SHORE BLVD AND 20 AVE	40	47	10	73	55	56	48"	EAST RIVER	N/A			
BB-054	ROOSEVELT ISLAND NORTH PUMPING STATION	40	46	7	73	57	32	18" DIA	EAST CHANNEL	ROOSEVELT ISL. P.S.			
BB-055	ROOSEVELT ISLAND MIDDLE PUMPING STATION	40	45	57	73	57	42	30" DIA	EAST CHANNEL	ROOSEVELT ISL. P.S.			
BB-056	ROOSEVELT ISLAND SOUTH PUMPING STATION	40	45	10	73	57	26	24" DIA	EAST CHANNEL	ROOSEVELT ISL. P.S.			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
BB-601	127TH ST	40	45	46	73	51	41	60" DIA	EAST RIVER
BB-602	126TH ST	40	45	41	73	51	49	60" DIA	EAST RIVER
BB-603	STEINWAY ST	40	46	54	73	54	43	7' X 6' 6" FT	EAST RIVER
BB-606	49TH AVE	40	44	40	73	58	32	60" DIA	EAST RIVER
BB-607	47TH ROAD	40	44	45	73	58	30	36" DIA	EAST RIVER
BB-608	70TH ROAD	40	43	30	73	50	8	60" X 24"	MEADOW LAKE
BB-609	S/O 28TH STS	40	44	35	73	56	23	48" DIA	DUTCH KILLS
BB-610	BETWEEN 28TH & 29TH STS	40	44	35	73	56	23	48" DIA	DUTCH KILLS

CONEY ISLAND

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
CI-001	CONEY ISLAND W.P.C.P OUTFALL	40	33	58	73	56	51	96" DIA	ROCKAWAY INLET				
CI-002	CONEY ISLAND WPCP PLANT OUTFALL	40	33	58	73	56	51	72" DIA	ROCKAWAY INLET				
CI-004	FLATLANDS AVE (REG # 5, TG # 5)	40	37	54	73	55	3	DBL 10' X 9'	PAERDEGAT BASIN	TG #5	YES		YES (ON TG-5)
CI-005	FLATLANDS AVE (REG # 1-4)	40	37	55	73	55	1	5BL 12' 0" X 9' 0"	PAERDEGAT BASIN	REG #1, 2, 3, 4	YES		YES (ON 4)
CI-006	RALPH AVE (REG # 6)	40	37	52	73	55	2	DBL 84" DIA	PAERDEGAT BASIN	REG #6	YES		YES

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
CI-601	W 28TH ST	40	34	48	73	60	44	5' X 4'	CONEY ISLAND CREEK
CI-602	W 33RD ST	40	34	53	74	0	3	6' 6" X 4'	CONEY ISLAND CREEK
CI-603	DOVER ST	40	34	56	73	57	0	72" DIA	SHEEPSHEAD BAY
CI-605	SHORE BLVD (140' N/O WEST END AVE PIER)	40	34	57	73	57	12	14' X 7'	SHEEPSHEAD BAY
CI-607	E 21ST ST (UNDER PIER 1)	40	35	1	73	57	51	12" DIA	SHEEPSHEAD BAY
CI-608	E 22ND ST (10' W/O PIER 3)	40	35	1	73	57	47	12" DIA	SHEEPSHEAD BAY
CI-610	E 27TH ST	40	35	0	73	56	29	DBL 13' X 7' 6"	SHEEPSHEAD BAY
CI-611	DEVON AVE	40	35	30	73	56	50	36" DIA	SHELL BANK CREEK
CI-612	EVERETT AVE	40	35	24	73	56	49	36" DIA	SHELL BANK CREEK
CI-613	FLATBUSH AVE	40	36	13	73	55	54	DBL 10' 6 "X 8'	MILL BASIN
CI-614	E/O E 58TH ST	40	36	49	73	55	59	60" DIA	MILL BASIN
CI-615	E 61ST ST	40	36	53	73	55	53	8' X 8' FT	MILL BASIN
CI-616	STRICKLAND AVE	40	36	26	73	55	60	4' X 4' FT	MILL BASIN
CI-617	E 64TH ST	40	36	19	73	55	54	48" DIA	MILL BASIN
CI-618	DAKOTA PLACE	40	36	23	73	54	30	42" DIA	MILL BASIN
CI-619	INDIANA PLACE	40	36	18	73	54	17	30" DIA	MILL BASIN
CI-620	BASSET AVE	40	36	30	73	54	7	4' X 4' FT	EAST MILL BASIN
CI-621	UTAH WALK	40	36	41	73	54	13	3' X 3' FT	EAST MILL BASIN
CI-622	OHIO WALK	40	36	51	73	54	24	4' X 4'	EAST MILL BASIN
CI-623	STRICKLAND AVE	40	36	57	73	55	32	4' X 4' FT	EAST MILL BASIN
CI-624	E 68TH ST	40	37	2	73	55	31	7' X 7'	EAST MILL BASIN
CI-625	AVE V	40	37	1	73	54	28	5' X 5' FT	EAST MILL BASIN
CI-626	AVE W	40	36	55	73	54	22	4' X 4' FT	EAST MILL BASIN
CI-627	AVE X	40	36	49	73	54	15	4' X 4' FT	EAST MILL BASIN
CI-628	AVE L	40	37	44	73	55	45	66" DIA	PAERDEGAT BASIN
CI-629	PAERDEGAT 4TH ST	40	37	47	73	55	42	6' 6" X 6' 6"	PAERDEGAT BASIN
CI-630	PAERDEGAT 7TH ST	40	37	43	73	55	33	6' 6" X 6' 6"	PAERDEGAT BASIN
CI-631	PAERDEGAT 10TH ST	40	37	39	73	54	24	5' X 5' FT	PAERDEGAT BASIN
CI-632	PAERDEGAT 13TH ST	40	37	35	73	54	15	6' 6" X 6' 6"	PAERDEGAT BASIN
CI-633	CANARSIE ROAD	40	37	43	73	53	8	9' 6" X 7'	JAMAICA BAY
CI-634	AVE N	40	38	29	73	53	57	6' 6" X 6' 6"	FRESH CREEK BASIN
CI-636	AVE L	40	38	40	73	53	11	6' 6" X 6' 6"	FRESH CREEK BASIN
CI-637	AVE K	40	38	46	73	53	18	6' X 6'	FRESH CREEK BASIN
CI-639	W 12TH ST	40	34	47	73	59	47	108"	CONEY ISLAND CREEK
CI-641	25' S/O SHORE PARKWAY (HEAD OF CREEK)	40	34	57	73	58	29	12' X 5' 6"	CONEY ISLAND CREEK
CI-653	W 8TH ST	40	34	53	73	59	34	7' 6" X 6'	CONEY ISLAND CREEK
CI-654	BRAGG COURT	40	34	59	73	56	58	84" DIA	SHEEPSHEAD BAY
CI-655	AVE Y	40	35	33	73	56	54	10' X 8'	SHELL BANK CREEK
CI-656	GERRITSEN AVE (HEAD OF SHELL BANK CANAL)	40	35	28	73	55	27	15" DIA	SHELL BANK CREEK
CI-657	GARLAND COURT	40	35	41	73	56	55	18" DIA	SHELL BANK CREEK
CI-659	SHORE BLVD	40	34	57	73	57	12	9' 6" X 7'	SHEEPSHEAD BAY
CI-660	E 66TH ST	40	36	15	73	55	50	2' 6" X 2' 6" FT	MILL BASIN
CI-661	SEAVIEW AVE	40	38	23	73	53	51	66" DIA	FRESH CREEK BASIN
CI-662	W 32ND ST	40	34	17	73	60	52	42" DIA	ATLANTIC OCEAN
CI-663	W 23RD ST	40	34	19	73	59	21	42" DIA	ATLANTIC OCEAN
CI-664	W 15TH ST	40	34	58	73	59	3	5' X 4'	CONEY ISLAND CREEK
CI-665	W. 21ST ST	40	34	44	73	59	18	13' 3" X 7' 6"	CONEY ISLAND CREEK
CI-666	N/O WEST END AVE PIER	40	34	56	73	57	12	72" DIA	SHEEPSHEAD BAY
CI-668	CHANNEL AVE	40	35	37	73	56	48	3' 6" X 3' 6" FT	SHELL BANK CREEK
CI-669	FLORENCE AVE	40	35	21	73	56	44	36" DIA	SHELL BANK CREEK
CI-670	BARTLETT PLACE	40	35	18	73	56	39	3' X 3' FT	SHELL BANK CREEK
CI-671	CYRUS AVE	40	35	14	73	56	36	3' X 3' FT	SHELL BANK CREEK
CI-672	SEBA AVE	40	35	10	73	56	32	3' X 3' FT	SHELL BANK CREEK
CI-673	LOIS AVE	40	35	9	73	55	22	2' 6" X 2' 6" FT	PLUM BEACH CHANNEL
CI-674	GERRITSEN AVE	40	35	12	73	55	5	3' 6" X 3' 6" FT	PLUM BEACH CHANNEL
CI-676	56TH DRIVE	40	36	14	73	55	33	24" DIA	MILL BASIN
CI-677	OCEAN AVE	40	35	1	73	57	54	DBL 8' 7" X 8'	SHEEPSHEAD BAY
CI-678	W 35TH ST	40	34	53	74	0	7	60" DIA	GRAVESEND BAY
CI-679	OXFORD ST	40	34	52	73	56	17	36" DIA	SHEEPSHEAD BAY
CI-680	MACKENZIE ST	40	34	52	73	56	25	48" DIA	SHEEPSHEAD BAY
CI-681	KENSINGTON ST	40	34	52	73	57	32	24" DIA	SHEEPSHEAD BAY
CI-682	BIJOU AVE	40	35	40	73	56	51	3' X 3'	SHELL BANK CREEK
CI-683	HASTINGS STREET	40	34	53	74	3	18	60"" DIA	SHEEPSHEAD BAY
CI-684	FALMOUTH STREET	40	34	54	74	3	11	24"" DIA	SHEEPSHEAD BAY
CI-685	SHEEPSHEAD BAY SHORELINE	40	34	56	74	2	53	24"" DIA	SHEEPSHEAD BAY
CI-686	Dooley Street	40	35	1	74	3	18	12"" DIA	SHEEPSHEAD BAY
CI-688	CYRUS AVENUE	40	35	14	74	4	23	10"" DIA	SHELL BANK CREEK
CI-687	E 23RD STREET	40	35	0	74	3	22	12"" DIA	SHEEPSHEAD BAY
CI-689	LANDIS PLACE	40	35	16	74	4	22	18"" DIA	SHELL BANK CREEK
CI-690	MERIT COURT	40	35	15	74	4	22	18"" DIA	SHELL BANK CREEK
CI-691	KEEN COURT	40	35	14	74	4	24	18"" DIA	SHELL BANK CREEK
CI-692	LESTER COURT	40	35	13	74	4	25	18"" DIA	SHELL BANK CREEK
CI-693	MELBA COURT	40	35	12	74	4	26	18"" DIA	SHELL BANK CREEK
CI-694	Nova Court	40	35	11	74	4	27	18"" DIA	SHELL BANK CREEK
CI-695	Seba Avenue	40	35	10	74	4	28	18"" DIA	SHELL BANK CREEK
CI-696	s/o Post Court	40	35	8	74	4	31	18"" DIA	PLUM BEACH CHANNEL
CI-697	MADOC AVENUE	40	35	10	74	4	33	18"" DIA	PLUM BEACH CHANNEL
CI-698	Frank Court	40	35	10	74	4	45	18"" DIA	PLUM BEACH CHANNEL

CI-699	Canton Court	40	35	10	74	4	47	18"" DIA	PLUM BEACH CHANNEL
CI-700	BEACON COURT	40	35	10	74	4	52	18"" DIA	PLUM BEACH CHANNEL
CI-701	ABBEY COURT	40	35	11	74	35	53	18"" DIA	PLUM BEACH CHANNEL

HUNTS POINT

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
HP-001	HUNTS POINT W.P.C.P. OUTFALL	40	48	8	73	53	57	84" DIA	EAST RIVER				
HP-002	TIFFANY ST (REG # 9, 9A)	40	48	19	73	53	23	DBL 5' 6" X 9'	EAST RIVER	REG #9, 9A			YES (ON 9)
HP-003	FARRAGUT ST (REG # 10)	40	48	5	73	52	29	DBL 12' X 9' 5-3/4"	EAST RIVER	REG #10	YES		YES
HP-004	WEST FARM ROAD	40	50	18	73	53	46	8' X 8'	BRONX RIVER	CSO-28, 28A	YES		
HP-005	HOLLARS AVE (PUMP STATION)	40	53	13	73	49	13	12" DIA	EASTCHESTER BAY	HOLLERS AVE P.S.			
HP-006	BARTOW AVE (CO-OP CITY SOUTH PS)	40	52	8	73	49	18	15' 0" X 8' 6"	EASTCHESTER BAY	CO-OP CITY SOUTH P.S., ELY AVE PS			
HP-007	E 177TH ST (CSO-27,27A)	40	50	20	73	53	43	DBL 11' 6" X 6' 6"	BRONX RIVER	CSO-27, 27A	YES		
HP-008	LAFAYETTE AVE & COLGATE AVE	40	49	8	73	53	53	54" DIA	BRONX RIVER	CSO-26			
HP-009	RANDALL AVE & METCALF AVE (REG #13)	40	48	52	73	52	15	14' X 8'	BRONX RIVER	REG #13			YES
HP-010	LACOMBE AVE	40	48	48	73	52	11	9' X 6'	BRONX RIVER	CSO-25			
HP-011	WHITE PLAINS ROAD (REG #5)	40	48	16	73	51	15	DBL 13' X 9'	EAST RIVER	REG #5, 6, 7	YES		YES (ON 5 & 6)
HP-012	LAFAYETTE AVE (CSO-23A)	40	49	27	73	50	27	12' X 8'	WESTCHESTER CREEK	CSO-23A			
HP-013	NEWMAN AVE (CSO-24)	40	48	52	73	51	19	12' X 8'	PUGSLEY'S CREEK	CSO-24			
HP-014	E.TREMONT AVE (CSO-29, 29A)	40	50	22	73	50	24	DBL 14' X 8' 6"	WESTCHESTER CREEK	CSO-29, 29A			
HP-015	LATTING ST (CSO-22)	40	50	15	73	50	22	4' 9" X 4'	WESTCHESTER CREEK	CSO-22			
HP-016	BRUCKNER EXPRESSWAY (REG #4)	40	49	42	73	51	32	10' X 8'6"	WESTCHESTER CREEK	REG #4			YES
HP-017	EMERSON AVE (REG #11)	40	48	41	73	50	35	14' X 8'	EAST RIVER	REG #11			YES
HP-018	ROBINSON AVE (REG #12)	40	48	43	73	49	28	6' 4" X 4'	EAST RIVER	REG #12			YES
HP-019	CALHOUN AVE (REG #3)	40	48	49	73	49	1	7' X 5' 6"	EAST RIVER	REG #3			YES
HP-020	THROGS NECK BOULEVARD (REG #2A)	40	48	46	73	49	39	8' X 6' 6"	EAST RIVER	REG #2A			
HP-021	PENNYFIELD AVE (REG #2)	40	48	31	73	48	14	6' 3" X 6' 6"	EAST RIVER	REG #2			YES
HP-022	E 177TH ST (REG #1)	40	48	56	73	48	52	8' X 8'	LONG ISLAND SOUND	REG #1			YES
HP-023	CONNOR ST (REG #15)	40	52	50	73	49	17	12'0" X 6'6"	EASTCHESTER BAY	REG #15, CONNOR ST.PS			
HP-024	E. 233RD ST (REG #15A)	40	53	16	73	49	27	12' 6" X 10'	EASTCHESTER BAY	REG #15A			
HP-025	TRUXTON ST (REG # 8)	40	48	23	73	54	32	11' 6" X 7' 3"	EAST RIVER	REG #8			YES
HP-026	ELLESWORTH AVE (REG #14)	40	49	27	73	49	50	9' X 8'	LONG ISLAND SOUND	REG #14			YES
HP-028	OUTLOOK AVE (CSO #20)	40	50	35	73	49	52	12" DIA	EASTCHESTER BAY	CSO-20			
HP-029	WATT AVE (CSO #21)	40	50	55	73	49	55	15" DIA	EASTCHESTER BAY	CSO-21			
HP-031	BELLAMY LOOP (NORTH)	40	52	26	73	49	25	72" DIA	EASTCHESTER BAY	CSO-32, CO-OP CITY N. P.S.			
HP-032	RIKERS ISLAND NORTH PUMPING STATION	40	47	51	73	53	10	14" DIA	EAST RIVER	RIKER'S ISLAND N. P.S.			
HP-033	S/O BRUCKNER BLVD & E/O ZEREGA AVE (CSO-23)	40	49	41	73	51	34	DBL 16' X 5'	WESTCHESTER CREEK	CSO-23			
HP-034	NEWBOLD AVE (COMMERCE ST PS)	40	50	6	73	50	23	60" DIA	WESTCHESTER CREEK	COMMERCE AVE P.S.			
HP-037	ORCHARD BEACH PUMPING STATION	40	52	1	73	48	5	15" DIA	LAGOON	ORCHARD BEACH P.S.			
HP-039	N/O HUNTS POINT	40	48	15	73	52	11	72" DIA	EAST RIVER	HUNT'S PONT MARKET P.S.			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
HP-602	LAFAYETTE AVE	40	50	0	73	49	59	36" DIA	LONG ISLAND SOUND
HP-608	S/O E. FORDHAM RD (BOTANICAL GDNS)	40	51	18	73	53	40	18" DIA	BRONX RIVER (W)
HP-626	242ND ST	40	54	26	73	51	18	36" DIA	BRONX RIVER
HP-627	S/O 233RD ST	40	53	40	73	52	46	36" DIA	BRONX RIVER
HP-631	RANDALL AVE	40	49	48	73	49	51	48" DIA	LONG ISLAND SOUND
HP-632	BEACH ST (CITY ISLAND)	40	51	6	73	47	25	15" DIA	LONG ISLAND SOUND
HP-634	E. TREMONT AVE	40	50	22	73	50	23	3' X 7' 4"	WESTCHESTER CREEK
HP-635	RANDALL AVE	40	49	11	73	50	20	30" DIA	WESTCHESTER CREEK
HP-636	UNDER BOSTON ROAD BRIDGE	40	53	17	73	49	26	48" DIA	EASTCHESTER BAY
HP-637	PEARTREE AVE	40	52	46	73	49	18	72" DIA	EASTCHESTER BAY
HP-638	BELLAMY LOOP (SOUTH)	40	52	20	73	49	25	36" DIA	EASTCHESTER BAY
HP-639	N/O BARTOW AVE	40	52	12	73	49	25	66" DIA	EASTCHESTER BAY
HP-640	EINSTEIN LOOP NORTH	40	51	54	73	49	12	48" DIA	EASTCHESTER BAY
HP-641	ERSKINE PLACE	40	51	46	73	49	10	42" DIA	EASTCHESTER BAY
HP-648	LAYTON AVE	40	50	10	73	49	57	16' X 6'	LONG ISLAND SOUND
HP-650	ABBOTT ST (BRADELEY ST)	40	54	23	73	51	20	30" DIA	BRONX RIVER
HP-651	50' E/O CASTLE HILL AVE	40	48	42	73	51	46	24" DIA	WESTCHESTER CREEK
HP-652	ERSKINE PLACE	40	51	46	73	49	10	30" DIA	EASTCHESTER BAY
HP-653	SUTHERLAND ST (CITY ISLAND)	40	51	23	73	47	19	2' 6" X 1' 7"	LONG ISLAND SOUND
HP-654	100' E/O RIKERS ISLAND NORTH PUMPING STATION	40	47	46	73	53	3	3' X 3'	EAST RIVER
HP-655	WILCOX AVE	40	49	37	73	49	50	30" DIA	LONG ISLAND SOUND
HP-656	SE/O HUTCHINSON RIVER PARKWAY (E)	40	52	3	73	49	14	30" DIA	EASTCHESTER BAY
HP-657	KILROE ST	40	51	18	73	47	19	18" DIA	LONG ISLAND SOUND
HP-658	AGAR PLACE	40	50	20	73	49	55	42" DIA	LONG ISLAND SOUND
HP-659	CITY ISLAND AVE	40	50	15	73	47	58	18" DIA	LONG ISLAND SOUND
HP-660	SCHOFIELD ST AND LANDING WAY	40	50	45	73	47	57	60''	LONG ISLAND SOUND

JAMAICA

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
JAM-001	JAMAICA W.P.C.P. OUTFALL	40	37	52	73	48	54	84" DIA	GRASSY BAY				
JAM-003	123RD ST (REG # 3)	40	39	44	73	49	7	DBL 8' X 9'	BERGEN BASIN	REG #3	YES		YES
JAM-003A	123RD ST (REG # 14)	40	39	44	73	49	7	DBL 13' 6" X 9'	BERGEN BASIN	REG #14	YES		YES
JAM-005	230TH ST (REG # 6, 7, 8 & 9)	40	38	52	73	45	18	4BL 16' X 8'	THURSTON BASIN	REG #6, 7, 8, 9	YES		YES (ON 9)
JAM-006	155TH AVE (REG # 1)	40	39	38	73	49	40	3BL 19' X 9'	BERGEN BASIN	REG #1, 4, 10, SECONDARY PLANT EFFLUENT	YES		YES (ON 1 & 10)
JAM-007	HEAD OF THURSTON BASIN (REG # 6, 7, 8 & 9)	40	38	52	73	45	17	4BL 17' X 6'	THURSTON BASIN	REG #6, 7, 8, 9	YES		YES (ON 9)

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
JAM-601	165TH AVE	40	38	57	73	50	13	36" DIA	SHELLBANK BASIN
JAM-602	164TH AVE	40	39	3	73	50	14	30" DIA	SHELLBANK BASIN
JAM-603	163RD AVE	40	39	9	73	50	15	84" DIA	SHELLBANK BASIN
JAM-604	162ND AVE	40	39	15	73	50	17	33" DIA	SHELLBANK BASIN
JAM-605	161ST AVE	40	39	21	73	50	18	36" DIA	SHELLBANK BASIN
JAM-606	160TH AVE	40	39	27	73	50	20	8' X 5' 6"	SHELLBANK BASIN
JAM-607	158TH AVE	40	39	39	73	50	23	10' X 5' 6"	SHELLBANK BASIN
JAM-609	158TH AVE	40	39	40	73	50	19	6' 6" X 6' FT	SHELLBANK BASIN
JAM-629	164TH AVE	40	39	6	73	50	54	12" DIA	HAWTREE BASIN
JAM-630	159TH AVE (REG # TG-12)	40	39	33	73	50	21	42" DIA	SHELLBANK BASIN
JAM-631	160TH AVE	40	39	28	73	50	17	12" DIA	SHELLBANK BASIN
JAM-632	162ND AVE	40	39	16	73	50	14	12" DIA	SHELLBANK BASIN
JAM-633	163RD AVE	40	39	10	73	50	12	12" DIA	SHELLBANK BASIN
JAM-634	164TH AVE	40	39	4	73	50	11	12" DIA	SHELLBANK BASIN
JAM-635	100TH ST	40	39	29	73	50	58	18" DIA	HAWTREE BASIN
JAM-636	161ST AVE	40	39	24	73	50	59	12" DIA	HAWTREE BASIN
JAM-637	162ND AVE	40	39	18	73	50	57	12" DIA	HAWTREE BASIN
JAM-638	164TH DRIVE	40	39	3	73	50	48	18" DIA	HAWTREE BASIN
JAM-640	147TH AVE & 184TH ST	40	39	35	73	46	48	24" DIA	SPRINGFIELD PARK
JAM-648	S/O 137TH AVE	40	40	15	73	44	14	15" DIA	LAURELTON
JAM-649	HUXLEY ST	40	38	57	73	44	13	13' 6" X 7' 0"	HOOK CREEK
JAM-651	255TH ST	40	38	60	73	44	6	15" DIA	HOOK CREEK
JAM-652	WELLER LANE	40	38	60	73	44	2	30" DIA	HOOK CREEK
JAM-653	256TH ST	40	39	0	73	44	59	36" DIA	HOOK CREEK
JAM-654	257TH ST	40	39	1	73	44	56	12" DIA	HOOK CREEK
JAM-655	HOOK CREEK BLVD	40	39	6	73	44	37	54" DIA	HOOK CREEK
JAM-656	101ST ST	40	39	30	73	50	55	18" DIA	HAWTREE BASIN
JAM-657	163RD AVE & PEDESTRIAN BRIDGE	40	39	12	73	50	56	24" DIA	HAWTREE BASIN
JAM-659	OPPOSITE OF 65TH AVE	40	45	8	73	45	33	36" DIA	ALLEY CREEK
JAM-660	N/O LONG ISLAND WB EXIT 31S RAMP NEAR CROSS ISLAND PAR	40	45	18	73	45	43	30" DIA	ALLEY CREEK
JAM-661	259TH ST	40	39	2	73	44	49	54" DIA	HOOK CREEK
JAM-662	119TH AVE	40	40	48	73	47	13	24" DIA	BAISLEY POND
JAM-663	ARTHUR ST	40	39	50	73	46	38	54" DIA	BAY/OCEAN

NEWTOWN CREEK

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
NCB-001	NEWTOWN CREEK W.P.C.P. OUTFALL	40	43	54	73	58	56	144" DIA	EAST RIVER				
NCB-002	NEWTOWN CREEK WPCP	40	44	4	73	57	48	3BL 7' X 8'	WHALE CREEK	WPCP OVERFLOW			
NCB-003	GREENPOINT AVE (REG # B-11)	40	43	46	73	58	40	24" DIA	EAST RIVER	REG #B-11			
NCB-004	QUAY ST (REG # B-10)	40	43	33	73	58	42	66" DIA	EAST RIVER	REG #B-10			
NCB-006	NORTH 12TH ST (REG # B-9)	40	43	31	73	58	43	13' X 13'	EAST RIVER	REG #B-9		YES	YES
NCB-007	NORTH 5TH ST (REG # B-8)	40	43	12	73	58	52	36" DIA	EAST RIVER	REG #B-8			
NCB-008	METROPOLITAN AVE (REG # B-7)	40	43	6	73	58	58	60" DIA	EAST RIVER	REG #B-7			
NCB-010	GRAND ST (REG # B-6A)	40	42	59	73	58	2	12" DIA	EAST RIVER	REG #B-6A			
NCB-012	SOUTH 5TH ST (REG # B-6)	40	42	46	73	58	6	144" DIA	EAST RIVER	REG #B-6			YES
NCB-013	DIVISION AVE (REG # B-5)	40	42	25	73	58	9	10' X 8'	WALLABOUT CHANNEL	REG #B-5	YES		YES
NCB-014	KENT AVE (REG # B-4)	40	42	22	73	58	9	DBL 13' 6" X 11' 6"	WALLABOUT CHANNEL	REG #B-3, B-4	YES		YES (ON B-4)
NCB-015	JOHNSON AVE (REG # B-1)	40	42	31	73	56	49	16' X 10'	ENGLISH KILLS	REG #B-1	YES		YES
NCB-019	METROPOLITAN AVE (REG B-2)	40	42	51	73	55	26	36" DIA	NEWTOWN CREEK	REG #B-2	YES		
NCB-021	MCGUINESS BOULEVARD	40	44	20	73	57	10	36" DIA	NEWTOWN CREEK	CSO NEXT TO B-17			
NCB-022	MCGUINESS BOULEVARD (REG # B-17)	40	44	20	73	57	11	6' 3" X 4' 6"	NEWTOWN CREEK	REG #B-17			
NCB-023	FRANKLIN ST (REG # B-16)	40	44	14	73	58	35	24" DIA	NEWTOWN CREEK	REG #B-16			
NCB-024	DUPONT ST (REG # B-15)	40	44	8	73	58	40	18" DIA	EAST RIVER	REG #B-15			
NCB-025	FREEMAN ST (REG # B-14)	40	44	2	73	58	44	24" DIA	EAST RIVER	REG #B-14			
NCB-026	GREEN ST (REG # B-13)	40	43	59	73	58	44	2' X 2' 6"	EAST RIVER	REG #B-13			
NCB-027	HURON ST (REG # B-12)	40	43	57	73	58	43	84" DIA	EAST RIVER	REG #B-12			
NCB-082	SOUTH 8TH ST (REG # B-6)	40	42	36	73	58	11	36" DIA	WALLABOUT CHANNEL	REG #B-5A			
NCB-083	METROPOLITAN AVE / SCOTT AVE	40	42	51	73	55	27	11' X 10'	NEWTOWN CREEK	DB OC			
NCM-005	N/O E 63RD ST (REG # M-51)	40	45	40	73	57	21	24" DIA	EAST RIVER	REG #M-51			
NCM-011	E 48TH ST (REG # M-47A)	40	45	6	73	58	53	4' X 2' 8" EGG	EAST RIVER	REG #M-47A			
NCM-016	E 46TH ST (REG # M-46)	40	45	1	73	58	57	4' X 4' FT	EAST RIVER	REG #M-46			
NCM-017	E 42ND ST (REG # M-45A)	40	44	53	73	58	4	4' X 2' 8"	EAST RIVER	REG #M-45A			
NCM-018	E 41ST ST (REG # M-45)	40	44	50	73	58	6	4' X 2' 8" FT	EAST RIVER	REG #M-45			
NCM-020	E HOUSTON ST (REG # M-31)	40	43	7	73	58	25	6' X 4' 6" FT	EAST RIVER	REG #M-31			
NCM-028	DELANCY ST (REG # M-28)	40	42	54	73	59	30	4' X 4' FT	EAST RIVER	REG #M-28			
NCM-030	E 71ST ST (REG # M-51C)	40	45	55	73	57	6	3' X 2' EGG	EAST RIVER	REG #M-51C			
NCM-031	E 70TH ST (REG # M-51B)	40	45	52	73	57	8	3' X 2' EGG	EAST RIVER	REG #M-51A, M-15B			
NCM-032	E 61ST ST (REG # M-50)	40	45	34	73	57	27	DBL 6' 6" X 5'	EAST RIVER	REG #M-50			YES
NCM-033	E 57TH ST (REG # M-49)	40	45	25	73	58	35	4' X 2' 4" FT	EAST RIVER	REG #M-49			
NCM-034	E 54TH ST (REG # M-48)	40	45	18	73	58	41	5' X 4' FT	EAST RIVER	REG #M-48			
NCM-035	E 53RD ST (REG # M-48A)	40	45	17	73	58	44	4' X 2' 4" FT	EAST RIVER	REG #M-48A			
NCM-036	E 49TH ST (REG # M-47)	40	45	8	73	58	51	54" DIA	EAST RIVER	REG #M-47			YES
NCM-037	E 41ST ST (REG # M-44)	40	44	50	73	58	6	9' X 7' FT	EAST RIVER	REG #M-44			YES
NCM-038	E 38TH ST (REG # M-43B)	40	44	44	73	58	12	5' X 4' FT	EAST RIVER	REG #M-43B			
NCM-038A	E 38TH ST (REG # M-43B)	40	44	44	73	58	12	5' X 4' FT	EAST RIVER	REG #M-43B			
NCM-039	E 37TH ST (REG # M-43A)	40	44	42	73	58	13	5' 6" X 2' 8" FT	EAST RIVER	REG #M-43A			
NCM-040	E 36TH ST (REG # M-43)	40	44	40	73	58	15	5' 6" X 2' 8" FT	EAST RIVER	REG #M-43			
NCM-041	E 33RD ST (REG # M-42)	40	44	33	73	58	18	DBL 8' X 6'	EAST RIVER	REG #M-42			YES
NCM-042	BROOME ST (REG # M-27)	40	42	49	73	59	32	4' X 4' FT	EAST RIVER	REG #M-27			
NCM-043	E 30TH ST (REG # M-41)	40	44	24	73	58	20	4' X 2' 4" FT	EAST RIVER	REG #M-41			
NCM-044	E 29TH ST (REG # M-41A)	40	44	22	73	58	21	5' 6" X 4' FT	EAST RIVER	REG #M-41A			
NCM-045	E 26TH ST (REG # M-40)	40	44	13	73	58	21	DBL 6' 6" X 6'	EAST RIVER	REG #M-40			YES
NCM-046	E 24TH ST (REG # M-39)	40	44	7	73	58	22	48" DIA	EAST RIVER	REG #M-39, M-39A			
NCM-047	E 23RD ST (REG # M-38B)	40	44	7	73	58	28	5' X 4' FT	EAST RIVER	REG #M-38B			
NCM-048	E 21ST ST (REG # M-38)	40	43	59	73	58	25	54" DIA	EAST RIVER	REG #M-38			
NCM-049	E 18TH ST (REG # M-37)	40	43	53	73	58	25	6' X 8' FT	EAST RIVER	REG #M-37			YES
NCM-051	OLD SLIP (REG # M-12)	40	42	11	74	0	28	48" DIA	EAST RIVER	REG #M-12			
NCM-052	E 14TH ST (REG # M-36)	40	43	36	73	58	18	DBL 6' X 7'	EAST RIVER	REG #M-36			YES
NCM-053	E 11TH ST (REG # M-35)	40	43	28	73	58	20	5' X 8' 9" FT	EAST RIVER	REG #M-35			
NCM-054	E 8TH ST (REG # M-34)	40	43	21	73	58	21	6' 6" X 5' FT	EAST RIVER	REG #M-34			
NCM-055	E 6TH ST (REG # M-33)	40	43	17	73	58	22	5' 6" X 4' FT	EAST RIVER	REG #M-33			
NCM-056	E 3RD ST (REG # M-32)	40	43	8	73	58	25	6' 6" X 6' FT	EAST RIVER	REG #M-32			
NCM-057	STANTON ST (REG # M-30)	40	43	2	73	58	27	5' 6" X 5' FT	EAST RIVER	REG #M-30			
NCM-058	IRVINGTON ST (REG # M-29)	40	42	57	73	58	28	5' 6" X 5' FT	EAST RIVER	REG #M-29			
NCM-059	50' S/O GRAND ST (REG # M-26)	40	42	45	73	59	34	6' X 3' FT	EAST RIVER	REG #M-26			
NCM-060	S/O CORLEARS HOOK PARK (REG # M-25)	40	42	38	73	59	41	5' X 4' FT	EAST RIVER	REG #M-25			
NCM-061	JACKSON ST (REG # M-23)	40	42	37	73	59	50	4' X 3' EGG	EAST RIVER	REG #M-23			
NCM-062	GOVERNEUR SLIP E (REG # M-22)	40	42	35	73	59	59	48" DIA	EAST RIVER	REG #M-22			
NCM-063	JEFFERSON ST (NORTH SIDE) (REG # M-21)	40	42	33	73	59	18	48" DIA	EAST RIVER	REG #M-21			YES
NCM-064	MARKET SLIP (REG # M -20)	40	42	33	73	60	38	54" DIA	EAST RIVER	REG #M-20			
NCM-065	S/O CATHERINE ST (REG # M-18)	40	42	32	73	60	47	4' 6" X 4' FT	EAST RIVER	REG #M-18			
NCM-066	ROBERT F WAGNER PLACE (REG # M -17)	40	42	29	73	60	56	48" DIA	EAST RIVER	REG #M-17			
NCM-067	MAIDEN LANE (REG # M -13A)	40	42	18	74	0	16	6' X 6' FT	EAST RIVER	REG #M-13			
NCM-068	COENTIES SLIP (REG # M -11)	40	42	7	74	1	34	4' 6" X 3' 8"	EAST RIVER	REG #M-11			
NCM-069	BROAD ST (REG # M-10)	40	42	5	74	1	40	5' X 4' FT	EAST RIVER	REG #M-10			YES
NCM-070	BATTERY PLACE (S/O PIER - A) (REG # M-9)	40	42	15	74	1	3	84" DIA	HUDSON RIVER	REG #M-9			
NCM-071	RECTOR ST (REG # M-6, M-7)	40	42	35	74	1	6	96" DIA	HUDSON RIVER	REG #M-6, M-7			
NCM-072	VESEY ST (REG # M-5)	40	42	54	74	1	3	96" DIA	HUDSON RIVER	REG #M-5			
NCM-073	DUANE ST (REG # M-4)	40	43	7	74	1	0	54" DIA	HUDSON RIVER	REG #M-4			
NCM-074	VESTRY ST (REG # M-3)	40	43	23	74	1	44	5' X 3' 8"	HUDSON RIVER	REG #M-3			
NCM-075	N/O WATTS ST (REG # M-2)	40	43	29	74	1	43	66" DIA	HUDSON RIVER	REG #M-2			YES
NCM-076	CLARKSON ST (REG # 1)	40	43	48	74	1	51	12' X 6' 3" FT	HUDSON RIVER	REG #M-1			YES
NCM-078	N/O DOVER ST (REG # M -16)	40	42	28	73	60	58	12' X 6'	EAST RIVER	REG #M-16			YES
NCM-080	N/O VANDAM ST (REG # TG-2)	40	43	38	74	1	41	48" DIA	HUDSON RIVER	REG #TG-2			
NCM-081	S/O CHARLES ST (REG # TG-1)	40	44	0	74	1	39	5' X 4'	HUDSON RIVER	REG #TG-1			
NCM-087	E 22ND ST (REG # M-38A)	40	44	4	73	58	27	5' X 3' 6" FT	EAST RIVER	REG #M-38A			
NCQ-029	43RD ST (REG # Q-2)	40	43	36	73	56	38	66" DIA	NEWTOWN CREEK	REG #Q-2			
NCQ-077	49TH ST (REG # Q-1)	40	43	25	73	55	13	DBL 11' X 7'	MASPETH CREEK	REG #Q-1	YES		

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
NCB-629	SCHOLES ST	40	42	38	73	56	52	60" DIA	ENGLISH KILLS
NCB-630	MEEKER ST & GARDNER AVE	40	43	41	73	56	57	DBL 16" DIA	NEWTOWN CREEK
NCB-631	N/O HENRY ST	40	44	10	73	57	39	90" DIA	NEWTOWN CREEK
NCB-635	10' S/O GRAND ST BRIDGE	40	42	51	73	56	51	42" DIA	ENGLISH KILLS
NCB-636	5' N/O GRAND ST BRIDGE	40	42	52	73	56	54	60" DIA	ENGLISH KILLS
NCB-638	GARDENER AVE	40	43	4	73	56	41	54" DIA	ENGLISH KILLS
NCB-639	MASPETH AVE & NEWTOWN CREEK	40	43	11	73	55	29	22''	NEWTOWN CREEK
NCM-628	RECTOR PLACE	40	42	35	74	1	6	54" DIA	HUDSON RIVER
NCM-634	FIRST PLACE	40	42	24	74	1	9	54" DIA	HUDSON RIVER
NCQ-632	GRAND AVE	40	42	60	73	55	20	54" DIA	NEWTOWN CREEK
NCQ-633	300' N/O GRAND AVE BRIDGE	40	43	5	73	55	24	60" DIA	NEWTOWN CREEK
NCQ-637	LAUREL HILL BLVD & REVIEW AVE	40	43	43	73	56	53	72" DIA	NEWTOWN CREEK

OAKWOOD BEACH

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
OB-001	OAKWOOD BEACH W.P.C.P OUTFALL	40	32	51	74	7	45	96" DIA	LOWER NEW YORK BAY				
OB-001A	OAKWOOD BEACH PLANT BYPASS	40	32	57	74	7	53	60" DIA	LOWER NEW YORK BAY	PLANT BYPASS			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
OB-605	450' N/O RICHMOND ROAD BRIDGE	40	34	20	74	9	52	5' X 3' 2"	RICHMOND CREEK
OB-607	SEAVIEW AVE	40	34	41	74	5	31	DBL 15' X 6'	LOWER NEW YORK BAY
OB-609	EBBITTS ST	40	33	32	74	6	58	10' X 5'	LOWER NEW YORK BAY
OB-610	TYSENS LANE	40	33	20	74	6	5	11' X 8'	LOWER NEW YORK BAY
OB-612	200' S/O FAIRLAWN AVE	40	32	45	74	8	14	42" DIA	GREAT KILLS HARBOR
OB-613	S/O WIMAN AVE	40	32	14	74	9	38	60" DIA	RARITAN BAY
OB-614	ARMSTRONG AVE	40	32	7	74	9	46	9' X 4' 6"	RARITAN BAY
OB-615	WOODS OF ARDEN ROAD	40	31	45	74	9	25	48" DIA	RARITAN BAY
OB-618	S/O ELMTREE AVE	40	33	59	74	5	29	3' X 2'7"	LOWER NEW YORK BAY
OB-619	N/O NEW DORP LANE	40	33	46	74	6	39	13' X 5' 6"	LOWER NEW YORK BAY
OB-622	HOLDRIDGE PLACE	40	31	35	74	10	50	48" DIA	RARITAN BAY
OB-623	150' N/O ARBUTUS AVE	40	31	35	74	11	45	6' 6" X 6'	RARITAN BAY
OB-625	HUGUENOT AVE	40	31	12	74	11	60	42" DIA	RARITAN BAY
OB-627	BEDELL AVE	40	30	7	74	14	52	36" DIA	RARITAN BAY
OB-628	S. GOFF & STATEN ISLAND RAILROAD	40	31	21	74	13	43	18" DIA	LEMON CREEK
OB-629	STATEN ISLAND RAILROAD & W/O SHARROTT AVE	40	31	22	74	13	49	5' 8" X 3' 7"	LEMON CREEK
OB-630	STATEN ISLAND RAILROAD & W/O WOODVALE AVE	40	31	27	74	13	36	4' X 2' FT	LEMON CREEK
OB-633	EAST DRUMGOOLE ROAD & ADDISON AVE	40	31	59	74	12	57	66" DIA	LEMON CREEK
OB-635	MAGUIRE AVE & FONDA PLACE	40	31	43	74	13	39	50" DIA	LEMON CREEK
OB-636	PAGE AVE & STATEN ISLAND RAILROAD	40	31	7	74	14	4	42" DIA	MILL CREEK
OB-637	PAGE AVE & RICHMOND VALLEY ROAD	40	31	14	74	14	5	42" DIA	MARSH
OB-638	BOSCOMBE AVE & E/O WEST SHORE EXPRESSWAY	40	31	28	74	14	36	42" DIA	MILL CREEK
OB-639	BOSCOMBE AVE & E/O WEST SHORE EXPRESSWAY	40	31	28	74	14	36	18" DIA	MILL CREEK
OB-640	STATION AVE & W/O PARK SOUTH SERVICE ROAD	40	31	22	74	13	19	36" DIA	MILL CREEK
OB-641	ARTHUR KILL ROAD & PARK DRIVE SOUTH	40	33	51	74	11	39	48" DIA	RICHMOND CREEK
OB-642	RICHMOND AVE & N/O ARTHUR KILL ROAD	40	33	43	74	10	10	72" DIA	RICHMOND CREEK
OB-643	RICHMOND AVE & N/O ARTHUR KILL ROAD	40	33	43	74	10	10	8' X 7'	RICHMOND CREEK
OB-644	ARTHUR KILL ROAD & E/O RIDGEWOOD AVE	40	33	38	74	10	59	3'9" X 2'5"	RICHMOND CREEK
OB-645	ABINGDON AVE & N/O ARTHUR KILL ROAD	40	33	55	74	10	51	3BL 16' X 6'6"	RICHMOND CREEK
OB-646	ARTHUR KILL ROAD & S/O TANGLEWOOD DRIVE	40	34	4	74	9	8	6' 6" X 3'	RICHMOND CREEK
OB-647	RICHMOND AVE & RICHMOND HILL ROAD	40	35	24	74	10	6	16' X 6'	SPRINGVILLE CREEK
OB-648	RICHMOND AVE & RICHMOND HILL ROAD	40	35	21	74	10	4	42" DIA	SPRINGVILLE CREEK
OB-649	RICHMOND AVE & RICHMOND HILL ROAD	40	35	21	74	10	4	5' X 3'2"	SPRINGVILLE CREEK
OB-650	RICHMOND AVE & W/O RICHMOND HILL ROAD	40	35	22	74	10	5	30" DIA	SPRINGVILLE CREEK
OB-652	RICHMOND AVE & NOME AVE	40	35	27	74	10	58	6'11" X 4'5"	SPRINGVILLE CREEK
OB-653	TRAVIS AVE & DRAPER AVE	40	35	36	74	10	51	8'10" X 5'8"	SPRINGVILLE CREEK
OB-654	TRAVIS AVE & FREEDOM AVE	40	35	36	74	10	53	36" DIA	SPRINGVILLE CREEK
OB-655	TRAVIS AVE & W/O MULBERRY AVE	40	35	39	74	10	9	42" DIA	MARSH
OB-656	CLEVELAND AVE	40	32	32	74	9	32	9' X 5' 6"	GREAT KILLS HARBOR
OB-657	POILLON AVE	40	31	22	74	10	25	36" DIA	RARITAN BAY
OB-660	ROSSVILLE AVE	40	33	21	74	13	47	4' 8" X 2'	ARTHUR KILL
OB-661	ARTHUR KILL ROAD & HERVEY ST	40	33	18	74	13	5	9' 6" X 6'	ARTHUR KILL
OB-662	HUGUENOT AVE	40	33	23	74	12	11	DBL 8'10" X 6'	ARTHUR KILL
OB-663	SHARON LANE & W/O HELENE COURT	40	32	10	74	13	55	36" DIA	LEMON CREEK
OB-664	INDEPENDENCE AVE & N/O FOREST HILL ROAD	40	34	17	74	10	6	78" DIA	RICHMOND CREEK
OB-666	LUTEN AVE & EYLANDT ST & JANSEN ST	40	31	33	74	11	26	48" DIA	LEMON CREEK
OB-668	CINDRA AVE	40	32	23	74	9	34	4' X 1' 6"	GREAT KILLS HARBOR
OB-669	RICHMOND AVE	40	31	58	74	9	5	4' X 3'	RARITAN BAY
OB-670	ARDEN AVE	40	31	39	74	10	36	48" DIA	RARITAN BAY
OB-671	ARBUTUS AVE	40	31	36	74	11	50	60" DIA	RARITAN BAY
OB-672	W/O SHARROTT AVE	40	30	39	74	13	42	4' X 3' 6" EGG	MARSH
OB-673	JOLINE AVE	40	30	4	74	14	59	5' X 3'	RARITAN BAY
OB-674	SPRAGUE AVE	40	30	1	74	14	11	36" DIA	RARITAN BAY
OB-675	LORETTO AVE	40	29	58	74	14	16	13' 6" X 5'	RARITAN BAY
OB-676	TRACY AVE	40	30	57	74	15	44	4' X 3'	ARTHUR KILL
OB-677	NASSAU PLACE	40	31	9	74	14	26	36" DIA	ARTHUR KILL
OB-678	SAND LANE	40	35	18	74	4	52	10' X 6'	LOWER NEW YORK BAY
OB-679	ATLANTIC AVE	40	34	54	74	4	14	DBL 10' X 6' 6"	LOWER NEW YORK BAY
OB-680	GREELEY AVE	40	34	2	74	5	21	DBL 15' X 6' 3"	LOWER NEW YORK BAY
OB-682	SEGUINE AVE	40	30	47	74	12	48	36" DIA	LEMON CREEK
OB-685	850' E/O ARTHUR KILL ROAD & PAGE AVE	40	31	47	74	14	35	48" DIA	MILL CREEK
OB-686	MAIN ST	40	30	51	74	15	6	30" DIA	ARTHUR KILL
OB-687	QUINTARD ST	40	35	18	74	4	30	10' X 6'	MARSH
OB-688	NAUGHTON AVE	40	34	30	74	5	43	DBL 10' X 6' 6"	LOWER NEW YORK BAY

OB-689	MIDLAND AVE	40	34	7	74	5	10	8' 6" X 5'	LOWER NEW YORK BAY
OB-690	ARTHUR KILL & PAGE AVE	40	31	39	74	14	7	24" DIA	ARTHUR KILL
OB-691	MILL POND	40	34	20	74	9	37	3' X 2'6"	RICHMOND CREEK
OB-692	ST. ANDREWS ROAD	40	34	25	74	9	33	4' X 2'	RICHMOND CREEK
OB-693	LIGHTHOUSE AVE	40	34	25	74	8	29	18" DIA	RICHMOND CREEK
OB-694	MACE ST & LIGHTHOUSE AVE	40	34	24	74	8	23	24" DIA	RICHMOND CREEK
OB-695	ST. GEORGES ROAD	40	34	33	74	8	1	4' X 2'	RICHMOND CREEK
OB-696	BOYLE PLACE / NUGENT ST	40	34	35	74	8	60	5' X 3'	RICHMOND CREEK
OB-697	MEISNER AVE & LIGHTHOUSE AVE	40	34	58	74	8	51	36" DIA	RICHMOND CREEK
OB-698	BOOTH AVE	40	32	10	74	11	34	5' X 3'2"	BLUE HERON
OB-699	EYLANDT ST	40	31	58	74	10	24	5'8" X 3'7"	BLUE HERON
OB-700	KOCH POND	40	32	2	74	10	5	3'9" X 2'5"	BLUE HERON
OB-701	SHIRLEY AVE	40	31	48	74	10	15	4'5" X 2'10"	BLUE HERON
OB-702	NEWTON ST	40	31	41	74	10	20	3'9" X 2'5"	BLUE HERON
OB-703	DOLE ST	40	31	39	74	10	18	18" DIA	BLUE HERON
OB-704	POILLON AVE	40	31	46	74	11	34	30" DIA	BLUE HERON
OB-705	BENNETT POND	40	32	8	74	11	15	3'9" X 2'6"	ARBUTUS CREEK
OB-706	PHILIP AVE	40	32	1	74	11	51	3'9" X 2'5"	ARBUTUS CREEK
OB-707	HUGUENOT POND	40	31	50	74	11	24	3'9" X 2'5"	ARBUTUS CREEK
OB-708	ANDROVETTE POND	40	31	34	74	11	23	4' X 2'8"	ARBUTUS CREEK
OB-709	LUTEN POND	40	31	29	74	11	19	6'4" X 4"	MARSH
OB-710	SALA COURT	40	31	56	74	11	11	3'2" X 2'	ARBUTUS CREEK
OB-711	RUGGLES ST	40	32	0	74	11	59	18" DIA	MARSH
OB-712	CONVENT AVE	40	32	25	74	13	48	6'11" X 4'5"	LEMON CREEK
OB-713	EDGEGROVE AVE	40	32	1	74	12	28	4' X 2'	LEMON CREEK
OB-714	DARLINGTON AVE	40	31	58	74	12	27	3' 2" X 2'	LEMON CREEK
OB-715	MAGUIRE AVE	40	31	56	74	13	40	4' X 2'	LEMON CREEK
OB-716	FOSTER ROAD	40	31	39	74	12	6	5' X 3' 2"	LEMON CREEK
OB-717	AMBOY ROAD	40	31	31	74	13	33	4'5" X 2'10"	LEMON CREEK
OB-718	BAYVIEW AVE	40	31	11	74	12	16	5' X 2'6"	LEMON CREEK
OB-719	BAYVIEW AVE	40	31	17	74	12	17	4' X 4'	LEMON CREEK
OB-720	KOREAN WAR VETERANS MEMORIAL PARKWAY	40	32	2	74	12	57	60" DIA	WOLFE'S POND
OB-721	CHISHOLM AVE	40	31	33	74	12	35	8'10" X 5'8" EGG	WOLFE'S POND
OB-722	CLERMONT AVE / FINLAY ST	40	30	3	74	15	52	DBL 7'3" X 3'6"	RARITAN BAY
OB-723	HOPKINS AVE	40	33	21	74	8	43	36" DIA	GREAT KILLS HARBOR
OB-724	BAY TERRACE	40	33	8	74	8	58	66" DIA	GREAT KILLS HARBOR
OB-725	CLARK AVE & ARUTHUR KILL RD	40	34	16	74	9	52	7' 3" X 3' 6"	MARSH
OB-726	REDGRAVE AVE	40	33	4	74	8	3	24" DIA	GREAT KILLS
OB-727	NE/O AINSWORTH AVE	40	33	1	74	8	8	36" DIA	GREAT KILLS
OB-728	VETERANS RD W AND TYRELLAN AVE	40	31	39	74	14	34	15"	MARSH
OB-729	BILLIOU ST AND STECHER ST	40	31	55	74	11	13	90'' X 42''	POND
OB-730	ITHACA ST AND HYLAN BLVD	40	33	33	74	7	17	42''	STREAM WIDER THAN 8 FEET
OB-731	HYLAN BLVD AND BUFFALO ST	40	33	24	74	8	39	42''	MARSH
OB-732	STOBE AVE AND ZOE ST	40	35	3	74	6	0	72'' X 48''	RIVER
OB-733	MASON AV & BEDFORD AVE	40	34	33	75	34	13	10' X 3'	Stream wider than 8 feet
OB-734	N/O Patten Street	40	30	37	75	30	48	12"" DIA	ARTHUR KILL
OB-735	SOUTH BRIDGE STREET	40	31	28	75	31	24	36"" DIA	ARTHUR KILL
OB-736	HYLAN BOULEVARD & BERMUDA PLACE	40	34	56	75	34	12	24"" DIA	River Stream
OB-737	HYLAN BOULEVARD & BERMUDA PLACE	40	34	57	75	34	10	24"" DIA	Pond
OB-738	PURDY PLACE	40	30	45	75	30	22	5' X 3'	LEMON CREEK
OB-739	AMBOY ROAD	40	31	10	75	31	17	12"" DIA	MARSH
OB-742	SIGNS ROAD	40	36	9	75	36	42	36""DIA	MARSH
OB-743	NUGENT STREET	40	34	38	75	34	6	3.5' X 3'	Stream wider than 8 feet
OB-744	LINCOLN AVENUE	40	34	32	75	34	55	60""DIA	Stream wider than 8 feet
OB-745	AMBOY ROAD	40	31	16	75	31	56	24""DIA	MARSH
OB-746	OCEANIC AVENUE	40	31	58	75	31	58	20""DIA	RARITAN BAY
OB-747	GRANTWOOD AVENUE	40	33	18	75	33	2	48""DIA	MARSH
OB-748	HUGUENOT AVENUE	40	31	30	75	31	47	15""DIA	MARSH
OB-749	IONIA AVENUE	40	32	30	75	32	0	4.5' X 11'	Stream wider than 8 feet
OB-750	KINGDOM AVENUE	40	31	35	75	31	51	24""DIA	MARSH
OB-751	COLON STREET	40	31	51	75	31	50	20""DIA	Stream wider than 8 feet
OB-753	LIPSETT AVENUE	40	32	4	75	32	33	30""DIA	MARSH
OB-754	EDGEGROVE AVENUE	40	32	30	75	32	4'	4.5' X 11'	Stream wider than 8 feet
OB-755	CARLTON BOULEVARD & JEFFERSON BOULEVARD	40	32	34	75	32	13	20""DIA	Stream wider than 8 feet
OB-756	WOODROW ROAD & SHOTWELL AVENUE	40	33	21	75	33	4	20""DIA	MARSH
OB-757	SHELDON AVENUE	40	32	37	75	32	43	7.6' X 5.8'	MARSH
OB-758	FINGAL STREET	40	32	11	75	32	39	20""DIA	MARSH
OB-759	ARDEN AVENUE & SNEDEN AVE	40	32	29	75	32	45	20""DIA	Pond
OB-760	ARDEN AVENUE & SNEDEN AVE	40	32	29	75	32	45	2.5' X 1.6'	Pond
OB-761	LACONIA AVENUE	40	34	52	75	34	20	12"" DIA	River Stream
OB-762	MASON AVENUE	40	34	48	75	34	26	42"" DIA	River Stream
OB-764	GRAHAM BOULEVARD	40	34	31	75	34	51	45"" DIA	River Stream

OWLS HEAD

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
OH-001	OWLS HEAD W.P.C.P OUTFALL	40	38	31	74	2	14	96" DIA	UPPER NEW YORK BAY				
OH-002	64TH ST (REG #6A,B,C)	40	38	42	74	2	51	3BL 7' 6" X 8' 10"	UPPER NEW YORK BAY	REG #6A, 6B, 6C			YES (ON 6C)
OH-003	49TH ST (REG #7A,B,C)	40	39	10	74	1	17	11' X 8' FT	UPPER NEW YORK BAY	REG #7A, 7B, 7C			YES (ON 7A)
OH-004	43RD ST (REG #7D)	40	39	20	74	1	1	6' X 4'	UPPER NEW YORK BAY	REG #7D, 19TH ST. PS			YES
OH-005	CARROLL ST BRIDGE	40	40	41	73	59	20	42" DIA	GOWANUS CANAL	3RD AVE SEWER RELIEF			
OH-006	19TH ST (NORTH SIDE)	40	40	3	74	0	2	36" DIA	GOWANUS CANAL	3RD AVE SEWER RELIEF			
OH-007	2ND AVE	40	40	32	73	59	27	78" DIA	GOWANUS CANAL	2ND AVE P.S.			
OH-015	17TH AVE (REG #9A, B, C)	40	36	5	74	1	44	4BL 14' 6" X 10'	GRAVESEND BAY	REG #9A, 9B, 9C			YES (ON 9A & 9B)
OH-017	92ND ST (REG #1)	40	37	14	74	2	30	3BL 7' 4" X 7' 4"	UPPER NEW YORK BAY	REG #1			YES
OH-018	79TH ST (REG #3)	40	37	54	74	2	25	12' X 7'	UPPER NEW YORK BAY	REG #2, 3			YES (ON 3)
OH-019	71ST ST (REG #4)	40	38	13	74	2	16	48" DIA	UPPER NEW YORK BAY	REG #4			YES
OH-020	BAY RIDGE AVE (REG #5)	40	38	21	74	2	12	3' X 3' FT	UPPER NEW YORK BAY	REG #5			
OH-021	W 15TH ST	40	34	60	73	59	2	3BL 15' X 9' 9"	CONEY ISLAND CREEK	REG #10, 11, AVE.V P.S.	YES		YES (ON 10 & 11)
OH-022	32ND ST (BUSH TERMINAL COMPLEX)	40	39	36	74	0	29	11' X 6' FT	GOWANUS BAY	2ND AVE SEWER RELIEF			
OH-024	23RD ST	40	39	49	74	0	1	3' 6" X 2' 3"	GOWANUS BAY	3RD AVE SEWER RELIEF			
OH-025	29TH ST (BUSH TERMINAL COMPLEX)	40	39	43	74	0	23	66" DIA	GOWANUS BAY	BUSH TERMINAL PS			
OH-026	22ND ST	40	39	51	73	60	59	36" DIA	GOWANUS BAY	3RD AVE SEWER RELIEF			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
OH-606	W 15TH ST	40	35	0	73	59	2	5' X 5'	CONEY ISLAND CREEK
OH-607	E/O 9TH ST	40	40	27	73	60	47	12" DIA	GOWANUS CANAL
OH-610	20TH AVE	40	35	51	74	0	20	3' 6" X 3' 6" FT	GRAVESEND BAY
OH-611	BAY PARKWAY	40	35	39	74	0	7	60" DIA	GRAVESEND BAY
OH-612	25TH AVE	40	35	24	73	60	55	8' X 8'	GRAVESEND BAY
OH-613	15TH AVE	40	36	9	74	1	7	24" DIA	GRAVESEND BAY
OH-614	27TH AVE (S/O BELT PARKWAY)	40	35	14	73	60	33	54" DIA	GRAVESEND BAY
OH-615	BAY 43RD ST (S/O BELT PARKWAY)	40	35	20	73	60	35	5' 6" X 5' 6"	GRAVESEND BAY
OH-616	21ST ST	40	39	55	74	0	3	24" DIA	GOWANUS BAY
OH-618	CROPSEY AVE DRAWBRIDGE	40	34	55	73	59	10	24" DIA	CONEY ISLAND CREEK

PORT RICHMOND

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
PR-001	PORT RICHMOND WPCP OUTFALL	40	38	29	74	7	29	96" DIA	KILL VAN KULL				
PR-002	E/O TAYLOR ST	40	38	24	74	7	27	20" DIA	KILL VAN KULL	REG #R-34			
PR-003	BROADWAY	40	38	30	74	7	7	15" DIA	KILL VAN KULL	REG #R-33			
PR-004	BARD AVE	40	38	44	74	7	32	18" DIA	KILL VAN KULL	REG #R-29			
PR-005	30' N/O KISSEL AVE	40	38	44	74	6	24	20" DIA	KILL VAN KULL	REG #R-28			
PR-006	CLINTON AVE	40	38	43	74	6	54	36" DIA	KILL VAN KULL	REG #R-23			
PR-007	SAILOR SNUG HARBOR (BRENTWOOD AVE)	40	38	44	74	6	7	15" DIA	KILL VAN KULL	REG #R-27			
PR-008	FRANKLIN AVE	40	38	46	74	6	35	15" DIA	KILL VAN KULL	REG #R-21			
PR-009	JERSEY ST	40	38	50	74	5	22	6' X 4'6"	KILL VAN KULL	REG #R-20			
PR-010	ST. PETERS PLACE	40	38	55	74	5	3	30" DIA	UPPER NEW YORK BAY	REG #R-19			
PR-011	HAMILTON AVE	40	38	49	74	5	36	30" DIA	UPPER NEW YORK BAY	REG #R-18			
PR-013	VICTORY BOULEVARD	40	38	17	74	4	21	7' 1" X 4' 1"	UPPER NEW YORK BAY	REG #R-17			
PR-014	BALTIC ST	40	37	51	74	4	23	DBL 6'2" X 3'6"	UPPER NEW YORK BAY	REG #R-15			
PR-015	S/O DOCK ST	40	37	33	74	4	21	3' 6" X 2' 4"	UPPER NEW YORK BAY	REG #R-11			
PR-016	MARINE HOSPITAL	40	37	28	74	4	20	20" DIA	UPPER NEW YORK BAY	REG #R-10			
PR-017	NORWOOD AVE	40	37	21	74	4	14	48" DIA	UPPER NEW YORK BAY	REG #R-9			
PR-018	N/O CAMDEN ST	40	37	15	74	4	9	36" DIA	UPPER NEW YORK BAY	REG #R-8			
PR-019	LYNHURST AVE	40	37	10	74	4	2	13' X 6' FT	UPPER NEW YORK BAY	REG #R-7			YES
PR-020	N/O SYLVA LANE	40	37	2	74	4	53	15" DIA	UPPER NEW YORK BAY	REG #R-5			
PR-021	HYLAN BOULEVARD	40	36	56	74	4	47	10" DIA	UPPER NEW YORK BAY	REG #R-4			
PR-023	NAUTILUS ST	40	36	43	74	4	35	6'6" X 5'11"	UPPER NEW YORK BAY	REG #R-3			
PR-023A	NAUTILUS ST	40	36	43	74	4	36	20" DIA	UPPER NEW YORK BAY	REG #R-2			
PR-023B	NAUTILUS ST	40	36	43	74	4	36	20" DIA	UPPER NEW YORK BAY	REG #R-1			
PR-024	W/O HOLLAND AVE	40	38	41	74	10	18	16" DIA	KILL VAN KULL	REG #R-1W			
PR-025	SOUTH AVE	40	38	28	74	10	57	10" DIA	KILL VAN KULL	REG #R-2W			
PR-026	HARBOR ROAD	40	38	18	74	10	37	52" DIA	KILL VAN KULL	REG #R-3W			
PR-027	UNION AVE	40	38	17	74	9	28	12" DIA	KILL VAN KULL	REG #R-4W			
PR-028	HOUSEMAN AVE	40	38	15	74	9	55	DBL 5' 11-1/2" X 2'9"	KILL VAN KULL	REG #R-5W			
PR-029	NICHOLAS ST	40	38	27	74	8	21	DBL 8' 6" X 6'	KILL VAN KULL	REG #R-6W			YES
PR-030	SYLVATON TERRANCE	40	37	5	74	4	55	16" DIA	UPPER NEW YORK BAY	REG #R-6			
PR-031	CANAL ST	40	37	37	74	4	22	DBL 3'1" X 3'6"	UPPER NEW YORK BAY	REG #13			YES
PR-032	VICTORY BOULEVARD	40	38	14	74	4	14	24" DIA	UPPER NEW YORK BAY	REG #16			
PR-033	ELIZABETH AVE	40	38	38	74	7	47	12" DIA	KILL VAN KULL	REG #R-31			
PR-034	BEMENT AVE	40	38	37	74	7	50	12" DIA	KILL VAN KULL	REG #R-32			
PR-035	BODINE ST	40	38	25	74	8	34	18" DIA	KILL VAN KULL	REG #R-35			YES
PR-036	RECTOR ST	40	38	15	74	8	40	9' X 4'	KILL VAN KULL	REG #R-36			
PR-037	PORT RICHMOND AVE	40	38	28	74	8	52	5' X 3'	KILL VAN KULL	REG #R-37			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
PR-603	DAVIS AVE	40	38	42	74	7	39	84" DIA	KILL VAN KULL
PR-612	SIGNS ROAD (100' W/O DINSMORE ST)	40	36	8	74	10	18	DBL 12' X 5' 6"	MAIN CREEK
PR-613	RECTOR ST	40	38	15	74	8	40	DBL13' 10" X 5' 4"	KILL VAN KULL
PR-614	CLOVE ROAD	40	37	6	74	6	29	7' X 4' 8"	CLOVE LAKE
PR-615	LOGAN AVE	40	36	56	74	6	23	8' 10" X 5' 8"	CLOVE LAKE
PR-616	MANOR ROAD	40	36	53	74	7	26	36" DIA	CLOVE LAKE
PR-617	CLOVE ROAD	40	37	23	74	7	5	42" DIA	MARTLING LAKE
PR-618	FOREST AVE	40	37	39	74	7	21	36" DIA	BROOKS LAKE
PR-619	FOREST AVE	40	37	39	74	7	22	12' X 5'6"	BROOKS LAKE
PR-621	GARRICK ST	40	37	21	74	10	16	DBL 16' X 6'6"	OLD PLACE CREEK
PR-622	END OF SWAN ST AND MURRAY HULBERT AV	40	38	6	74	4	23	21" DIA	KILL VAN KULL
PR-623	RICHMOND TER AND TOMPKINS CT	40	38	26	74	7	21	96'' X 60''	KILL VAN KULL
PR-624	BEMENT AVE AND RICHMOND TER	40	38	37	74	7	50	48''	KILL VAN KULL
PR-625	RICHMOND TERRACE & BROADWAY	40	38	26	75	38	54	10' X 4.5'	KILL VAN KULL
PR-626	KILL VAN KULL SHORELINE	40	38	43	75	54	5	12" DIA	KILL VAN KULL
PR-627	LAFAYETTE AVENUE	40	38	43	75	38	14	54" DIA	Stream wider than 8 feet
PR-628	FOREST HILL ROAD	40	35	58	75	35	35	18" DIA	Pond
PR-629	HIRSCH LANE	40	36	53	75	36	53	12" DIA	MARSH
PR-630	GRAHAM AVENUE	40	36	50	75	36	51	12" DIA	MARSH
PR-631	MEREDITH AVENUE	40	35	55	75	35	28	18" DIA	MARSH

RED HOOK

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
RH-001	RED HOOK W.P.C.P. OUTFALL	40	42	15	73	59	38	96" DIA	NAVY YARD BASIN				
RH-002	HUDSON AVE (REG # R-21A)	40	42	21	73	59	52	15" DIA	EAST RIVER	REG #R-21A			YES
RH-003	HUDSON AVE (REG # R-21)	40	42	21	73	59	52	4' 6" X 7' 3"	EAST RIVER	REG #R-21			
RH-005	GOLD ST (REG # R-20A)	40	42	20	73	59	57	168" DIA	EAST RIVER	REG #R-20A			YES
RH-006	PEARL ST (REG # R-19A)	40	42	19	73	59	15	36" DIA	EAST RIVER	REG #R-19A			
RH-007	ADAMS ST (REG # R-19)	40	42	16	73	59	18	15" DIA	EAST RIVER	REG #R-19			
RH-008	WASHINGTON ST (REG # R-18A)	40	42	18	73	59	23	60" DIA	EAST RIVER	REG #R-18A			
RH-009	MAIN ST (REG # R-18)	40	42	16	73	59	26	2' X 2'	EAST RIVER	REG #R-18			
RH-010	ORANGE ST (REG # R-16)	40	42	0	73	60	50	18" DIA	EAST RIVER	REG #R-16			
RH-011	MONTAGUE ST (REG # R-15)	40	41	46	73	60	59	4' 0" X 4' 0"	EAST RIVER	REG #R-15			
RH-012	CADMAN PLAZA (REG # R-17)	40	42	11	73	60	42	6' X 6' FT	EAST RIVER	REG #R-17			
RH-013	JORALEMON ST (REG # R-14)	40	41	39	74	0	4	18" DIA	EAST RIVER	REG #R-14			
RH-014	ATLANTIC AVE (REG # R-13)	40	41	29	74	0	3	24" DIA	BUTTERMILK CHANNEL	REG #R-13			
RH-016	AMITY ST (REG # R-12)	40	41	26	74	0	3	8' 6" X 8' 6"	BUTTERMILK CHANNEL	REG #R-12			
RH-018	KANE ST (REG # R-11)	40	41	20	74	0	15	5' 7" X 3' 9"	BUTTERMILK CHANNEL	REG #R-11			
RH-019	HAMILTON AVE (REG # R-9)	40	41	11	74	0	29	72" DIA	BUTTERMILK CHANNEL	REG #R-9	(HAMILTON AVE PS??)		
RH-020	DEGRAW ST (REG # R-10)	40	41	12	74	0	20	18" DIA	BUTTERMILK CHANNEL	REG #R-10			
RH-021	SACKETT ST (REG # R-9A)	40	41	13	74	0	27	48" DIA	BUTTERMILK CHANNEL	REG #R-9A			
RH-022	S/O BOWNE ST (REG # R-8)	40	40	60	74	1	35	24" DIA	BUTTERMILK CHANNEL	REG #R-8			
RH-023	COMMERCE ST (REG # R-7)	40	40	57	74	1	38	24" DIA	BUTTERMILK CHANNEL	REG #R-7			
RH-024	VERONA ST (REG # R-6)	40	40	53	74	1	43	24" DIA	BUTTERMILK CHANNEL	REG #R-6			
RH-025	PIONEER ST (REG # R-5)	40	40	50	74	1	47	30" DIA	BUTTERMILK CHANNEL	REG #R-5			
RH-028	WOLCOTT ST (REG # R-2)	40	40	50	74	1	4	72" DIA	BUTTERMILK CHANNEL	REG #R-2			YES
RH-029	VAN BRUNT ST (REG # R-1)	40	40	25	74	1	2	24" DIA	UPPER NEW YORK BAY	REG #R-1, VAN BLANT ST. PS			
RH-030	HICKS ST	40	40	7	74	0	26	54" DIA	GOWANUS BAY	CSO-2			
RH-030A	W/O HENRY ST	40	40	7	74	0	25	54" DIA	GOWANUS BAY	CSO-2			
RH-031	CREAMER ST	40	40	17	73	60	56	72" DIA	GOWANUS CANAL	BOND-LORRAINE SWR RELIEF			
RH-033	DOUGLASS ST (REG # R-25)	40	40	53	73	59	13	42" DIA	GOWANUS CANAL	REG #R-25	YES		
RH-034	HEAD OF GOWNAUS CANAL (GOWANUS PUMPING STATION)	40	40	54	73	59	13	4BL 10' X 10'	GOWANUS CANAL	GOWANUS PS	YES		
RH-035	BOND ST	40	40	34	73	60	33	DBL 24" DIA	GOWANUS CANAL	CSO-3, BOND-LORRAINE SWR RELIEF			
RH-036	PRESIDENT ST (REG # R-23)	40	40	44	73	59	19	18" DIA	GOWANUS CANAL	REG #R-22			
RH-037	SACKETT ST (REG # R-23)	40	40	48	73	59	16	18" DIA	GOWANUS CANAL	REG #R-23			
RH-038	DEGRAW ST (REG # R-24)	40	40	51	73	59	14	12' 0" X 5' 2-1/2"	GOWANUS CANAL	REG #R-24			
RH-040	EAST RIVER & NAVY YARD	40	42	12	73	59	39	72" DIA	NAVY YARD BASIN	REG #R-26			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
RH-601	GOWANUS CANAL & W.9TH ST	40	40	28	73	60	47	12"DIA	GOWANUS CANAL
RH-602	SULLIVAN ST	40	40	51	74	1	1	15" DIA	BUTTERMILK CHANNEL

ROCKAWAY

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
ROC-001	FAR ROCKAWAY W.P.C.P OUTFALL	40	35	4	73	50	47	72" DIA	GRASS HASSOCK CHANNEL				
ROC-003	PLANT OUTFALL (FAR ROCKAWAY WPCP)	40	35	5	73	50	44	72" DIA	GRASS HASSOCK CHANNEL	PLANT BYPASS			
ROC-009	BEACH 98TH ST (REG # D-6)	40	35	13	73	49	16	24" DIA	GRASS HASSOCK CHANNEL	REG #D-6			
ROC-013	BEACH 93RD ST (CSO)	40	35	19	73	49	5	12" DIA	GRASS HASSOCK CHANNEL	N/A			
ROC-014	BEACH 91ST ST (REG # D-2)	40	35	22	73	49	60	16" DIA	GRASS HASSOCK CHANNEL	REG #D-2			
ROC-016	BAYSWATER AVE	40	36	26	73	46	12	60" DIA	GRASS HASSOCK CHANNEL	BAYSWATER P.S.			
ROC-017	BEACH 3RD ST	40	35	51	73	44	19	DBL 13' 6" X 5'	HEMPSTEAD BAY	SEAGIRT AVE. P.S.			
ROC-029	BEACH 106TH ST (REG # D-1, 2)	40	35	5	73	50	43	72" DIA	GRASS HASSOCK CHANNEL	REG #1, 2			YES (ON 1 & 2)
ROC-031	REDFERN AVE	40	36	37	73	45	21	8' X 6' 6" FT	NEGRO BAR CHANNEL	NAMEOKE P.S.			
ROC-032	BEACH 98TH ST (REG # D-7,D-8,D-9,D-10,D-11)	40	35	13	73	49	16	36" DIA	GRASS HASSOCK CHANNEL	REG #D-7,D-8,D-9,D-10,D-11			
ROC-033	BEACH 106TH ST	40	35	6	73	50	43	36" DIA	GRASS HASSOCK CHANNEL	REG #D-12			RECLASSIFIED ROC-632

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
ROC-601	BEACH 5TH ST	40	35	46	73	44	26	42" DIA	HEMPSTEAD BAY
ROC-611	BEACH 147TH ST	40	34	29	73	52	55	48" DIA	ROCKAWAY INLET
ROC-614	BEACH 145TH ST	40	34	32	73	52	49	48" DIA	ROCKAWAY INLET
ROC-617	BEACH 141ST ST	40	34	38	73	52	38	48" DIA	ROCKAWAY INLET
ROC-618	BEACH 140TH ST	40	34	40	73	52	35	20" DIA	ROCKAWAY INLET
ROC-619	BEACH 139TH ST	40	34	41	73	52	33	48" DIA	ROCKAWAY INLET
ROC-624	BEACH 136TH ST	40	34	45	73	51	24	60" DIA	ROCKAWAY INLET
ROC-625	BEACH 130TH ST	40	34	54	73	51	8	7' 7" X 4' 10"	ROCKAWAY INLET
ROC-627	BEACH 126TH ST	40	34	56	73	51	54	54" DIA	ROCKAWAY INLET
ROC-629	BEACH 121ST ST	40	34	54	73	51	35	5' X 3' 2"	ROCKAWAY INLET
ROC-630	BEACH 118TH ST	40	34	54	73	50	25	8' X 6' 6"	ROCKAWAY INLET
ROC-631	BEACH 106TH ST	40	35	5	73	50	43	60" DIA	GRASS HASSOCK CHANNEL
ROC-633	BEACH 74TH ST	40	35	33	73	48	9	12' 6" X 4' FT	VERNAM BASIN
ROC-634	ELIZABETH AVE	40	35	43	73	48	13	24" DIA	VERNAM BASIN
ROC-635	ELIZABETH AVE	40	35	46	73	47	21	42" DIA	SOMMERVILLE BASIN
ROC-636	THURSBY AVE	40	35	43	73	47	21	DBL 7' X 4'	SOMMERVILLE BASIN
ROC-637	BEACH 40TH ST	40	35	56	73	46	26	7' X 5'	GRASS HASSOCK CHANNEL
ROC-638	BEACH 38TH ST	40	35	54	73	46	16	54" DIA	GRASS HASSOCK CHANNEL
ROC-641	EGMONT PLACE	40	36	44	73	46	54	54" DIA	NEGRO BAR CHANNEL
ROC-642	CHANDLER ST	40	36	36	73	45	20	36" DIA	NEGRO BAR CHANNEL
ROC-648	BEACH 49TH ST	40	35	49	73	47	48	8' 6" X 5' FT	CONCH BASIN
ROC-649	ALAMEDA AVE	40	35	52	73	47	53	66" DIA	CONCH BASIN
ROC-651	FAR ROCKAWAY BOULEVARED	40	35	53	73	46	5	DBL 12' 9" X 6'	GRASS HASSOCK CHANNEL
ROC-652	DICKENS ST	40	36	37	73	46	35	24" DIA	NEGRO BAR CHANNEL
ROC-653	BEACH 77TH ST	40	35	29	73	48	16	7' 6" X 4' 6"	BARBADOES BASIN
ROC-656	BEACH 87TH ST	40	35	29	73	49	46	18" DIA	GRASS HASSOCK CHANNEL
ROC-657	BEACH 84TH ST	40	35	32	73	49	35	11' X 4' 6"	GRASS HASSOCK CHANNEL
ROC-658	BEACH 72ND ST	40	35	57	73	48	5	12" DIA	GRASS HASSOCK CHANNEL
ROC-659	BEACH 68TH ST	40	35	58	73	48	52	16" DIA	GRASS HASSOCK CHANNEL
ROC-660	DWIGHT AVE	40	36	1	73	46	16	24" DIA	GRASS HASSOCK CHANNEL
ROC-666	CHURCH ROAD	40	36	16	73	49	5	18" DIA	BROAD CHANNEL
ROC-667	CHURCH ROAD	40	36	19	73	49	5	24" DIA	BROAD CHANNEL
ROC-670	FALCON AVE	40	35	54	73	46	7	9' X 4' FT	GRASS HASSOCK CHANNEL
ROC-671	BEACH 127TH ST	40	34	56	73	51	57	5' 8" X 3' 7"	ROCKAWAY INLET
ROC-672	BEACH 125TH ST	40	34	55	73	51	50	5' X 3' 2"	ROCKAWAY INLET
ROC-674	BEACH 136TH ST	40	34	47	73	51	22	5' X 3' 2"	ROCKAWAY INLET
ROC-675	BEACH 134TH ST	40	34	48	73	51	19	5' X 3' 2"	ROCKAWAY INLET
ROC-676	BEACH 132ND ST	40	34	51	73	51	13	54" DIA	ROCKAWAY INLET
ROC-677	BEACH 128TH ST (REG # D-20)	40	34	56	73	51	1	18" DIA	ROCKAWAY INLET
ROC-678	BEACH 124TH ST	40	34	54	73	51	46	5' X 3' 2"	ROCKAWAY INLET
ROC-679	BEACH 122ND ST (REG # D-18)	40	34	54	73	51	39	5' X 3' 2"	ROCKAWAY INLET
ROC-680	BEACH 108TH ST (REG # D-14)	40	35	3	73	50	52	6' X 4' FT	GRASS HASSOCK CHANNEL
ROC-684	BEACH 137 ST AND BEACH CHANNEL DR	40	34	44	73	51	27	60'' X 38"	ROCKAWAY INLET
ROC-685	BURCHELL AVE AND BARBADOES DR	40	35	45	73	48	15	12"	VERNAM BASIN
ROC-686	CHANNEL RD AND E 14 RD	40	36	10	73	49	7	18"	BROAD CHANNEL
ROC-688	THURSBY AVE	40	35	43	73	47	27	13' X 5' FTRC	SOMMERVILLE BASIN
ROC-689	BEACH CHANNEL DR AND BEACH 138 ST	40	34	42	73	52	30	53'' X 34"	ROCKAWAY INLET
ROC-690	E 9 RD AND LANARK RD	40	36	25	73	49	56	30'' X 19"	BROAD CHANNEL
ROC-691	BEACH CHANNEL SHORELINE	40	35	16	74	10	49	12" DIA	GRASS HASSOCK CHANNEL
ROC-692	BEACH CHANNEL SHORELINE	40	35	14	74	10	46	12" DIA	GRASS HASSOCK CHANNEL

TALLMAN ISLAND

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
TI-001	127TH ST (WPCP OUTFALL)	40	47	52	73	50	25	60" DIA	EAST RIVER	PLANT OUTFALL			
TI-003	N/O 7TH AVE (REG # 10A)	40	47	35	73	50	45	11' X 7'	EAST RIVER	REG #10A, 10B			YES (ON 10B)
TI-004	151ST ST (REG # 11)	40	47	50	73	49	47	42" DIA EGG	EAST RIVER	REG #11			
TI-005	154TH ST (REG # 12)	40	47	47	73	48	24	24" DIA	EAST RIVER	REG #12			
TI-006	24TH AVE	40	46	56	73	46	15	10' X 7' 6"	LITTLE NECK BAY	24 AVE P.S.			
TI-007	NORTHERN BLVD	40	45	47	73	45	7	18" DIA	ALLEY CREEK	OLD DOUG P.S.			
TI-008	46TH AVE (REG # 46, 47, 48, 49)	40	45	42	73	45	4	10' X 7' 6"	ALLEY CREEK	REG #46, 47, 48, 49			YES (ON 46, 47, & 49)
TI-010	ROOSEVELT AVE (REG # 30, 31, 40, 44)	40	45	20	73	50	19	3BL 18' 6" X 10'	FLUSHING CREEK	REG #30, 31, 40, 44	YES		YES (ON 30 & 40)
TI-011	32ND AVE (REG # 51 - 54)	40	45	57	73	50	21	DB 96" DIA	FLUSHING CREEK	REG #9, 51, 52, 53, 54		YES	YES (ON 9)
TI-012	29TH AVE (REG # 9)	40	46	19	73	51	59	10" DIA	EAST RIVER	122ND ST P.S.			
TI-014	23RD AVE (REG # 7)	40	46	43	73	51	58	12" DIA	EAST RIVER	REG #7			
TI-015	22ND AVE (REG # 6)	40	46	49	73	51	1	12" DIA	EAST RIVER	REG #6			
TI-016	20TH AVE (REG # 5)	40	46	54	73	51	57	60" DIA	EAST RIVER	REG #5			
TI-017	15TH AVE (REG # 4)	40	47	1	73	51	29	12" DIA	EAST RIVER	REG #4			
TI-018	14TH AVE (REG # 3)	40	47	8	73	52	32	7' 7" X 4' 10" EGG	EAST RIVER	REG #3			
TI-019	9TH AVE (REG # 2)	40	47	21	73	51	16	15" DIA	EAST RIVER	REG #2			
TI-020	COLLEGE PLACE (REG # 1)	40	47	40	73	51	56	54" DIA	EAST RIVER	REG #1			
TI-022	40TH ROAD (REG # 55 - 58)	40	45	22	73	50	19	8' 6" X 6'	FLUSHING CREEK	REG #55, 56, 57, 58	YES		
TI-023	CRYDERS LANE (REG # 13)	40	47	21	73	48	37	13' 6" X 8'	EAST RIVER	REG #13, CLEARVIEW P.S.			YES (ON 13)
TI-024	61ST AVE	40	45	24	73	45	41	DB 6' X 6'	ALLEY CREEK	NEW DOUG P.S.			
TI-025	400' SOUTH OF LIRR BRIDGE	40	45	51	73	45	10	52' 6" X 9' 0"	ALLEY CREEK	ALLEY CREEK CSO STORAGE FACILITY			
TI-026	W/O 154TH STREET	40	47	47	74	11	37	48" DIA	EAST RIVER	REG #			

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
TI-601	NORTHERN BOULEVARD (SOUTH SIDE)	40	45	45	73	50	11	30" DIA	FLUSHING CREEK
TI-603	NORTHERN BOULEVARD (NORTH SIDE)	40	45	47	73	50	11	30" DIA	FLUSHING CREEK
TI-605	300' W/O WHITESTONE EXPRESSWAY	40	45	60	73	50	25	DB 6' 9" X 4' 11"	FLUSHING CREEK
TI-609	121ST ST	40	47	46	73	51	47	36" DIA	EAST RIVER
TI-610	147TH ST	40	47	52	73	49	26	48" DIA	EAST RIVER
TI-615	9TH AVE	40	47	34	73	48	41	54" DIA	EAST RIVER
TI-616	12TH AVE	40	47	30	73	48	42	24" DIA	EAST RIVER
TI-617	12TH ROAD	40	47	26	73	48	40	18" DIA	EAST RIVER
TI-618	14TH AVE	40	47	23	73	48	39	18" DIA	EAST RIVER
TI-619	CRYDERS LANE	40	47	21	73	48	38	18" DIA	EAST RIVER
TI-623	28TH AVE	40	46	46	73	46	5	24" DIA	LITTLE NECK BAY
TI-624	35TH AVE	40	46	20	73	46	48	10' X 4'	LITTLE NECK BAY
TI-631	31ST ROAD	40	46	1	73	50	22	48" DIA	FLUSHING CREEK
TI-633	250' S/O 17TH AVE	40	47	9	73	46	26	54" DIA	LITTLE NECK BAY
TI-634	FORT TOTTEN SOUTH JETTY	40	47	28	73	47	54	24" DIA	EAST RIVER
TI-646	POPPENHUSEN AVE	40	47	28	73	51	10	30" DIA	EAST RIVER
TI-653	SANDHILL ROAD	40	46	19	73	45	39	48" DIA	UDALL'S COVE
TI-654	20' N/O NORTHERN BOULEVARD	40	45	49	73	45	6	54" DIA	ALLEY CREEK
TI-655	223RD ST & NORTHERN BOULEVARD	40	45	49	73	45	7	18" DIA	ALLEY CREEK
TI-656	39TH AVE	40	46	8	73	45	16	60" DIA	LITTLE NECK BAY
TI-658	233RD PLACE	40	46	20	73	45	14	39" DIA	LITTLE NECK BAY
TI-660	39TH AVE & 248TH ST	40	46	23	73	45	40	12" DIA	AURORA POND (E)
TI-661	208TH ST	40	47	26	73	47	2	30" DIA	EAST RIVER
TI-666	9TH AVE	40	47	21	73	50	53	48" DIA	EAST RIVER
TI-670	100' N/O NORTH SHORE M.T.S.	40	46	16	73	51	56	83" X 53" EGG	EAST RIVER
TI-671	W/O 8TH AVE	40	47	23	73	51	16	36" DIA	EAST RIVER
TI-673	FLUSHING BAY & 25TH AVE	40	46	37	73	51	57	48" DIA	EAST RIVER
TI-674	9TH AVE	40	47	21	73	50	15	18" DIA	EAST RIVER
TI-675	131ST ST	40	47	20	73	50	14	72" DIA	EAST RIVER
TI-676	POWELLS COVE BLVD	40	47	32	73	50	12	4' 5" X 2' 10" EGG	EAST RIVER

WARDS ISLAND

OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
WIB-053	W 255TH ST (REG # R-3)	40	54	18	73	55	50	7' X 4'	HUDSON RIVER	REG #R-3			
WIB-054	W 248TH ST (REG # R-2)	40	53	51	73	55	0	8' X 6'	HUDSON RIVER	REG #R-2			
WIB-055	W 236TH ST (REG # R-1)	40	53	18	73	55	12	6' X 4' 6"	HUDSON RIVER	REG #R-1			
WIB-056	W 192ND ST (REG # 67)	40	52	13	73	55	33	DBL 15' X 9' 2"	HARLEM RIVER	REG #67			YES
WIB-057	LANDING ROAD (REG # 66)	40	51	47	73	55	46	66" DIA	HARLEM RIVER	REG #66			YES
WIB-058	W 178TH ST (REG # 65)	40	51	21	73	55	13	57" DIA	HARLEM RIVER	REG #65			
WIB-059	W 176TH ST (REG # 64)	40	51	2	73	55	27	72" DIA	HARLEM RIVER	REG #64			
WIB-060	200' N/O HIGH BRIDGE (REG # 62)	40	50	34	73	56	45	DB 12' X 7' 4"	HARLEM RIVER	REG #62			
WIB-061	WEST 167TH ST (REG # 61)	40	50	25	73	56	50	42" DIA	HARLEM RIVER	REG #61			
WIB-062	JEROME AVE (REG # 60)	40	49	42	73	56	59	10' X 7'	HARLEM RIVER	REG #60, 60A			YES
WIB-063	S/O MCCOMBS DAM BRIDGE (REG # 72)	40	49	40	73	56	59	48" DIA	HARLEM RIVER	REG #72			
WIB-064	E 149TH ST (REG # 59)	40	49	11	73	56	56	7' X 7'	HARLEM RIVER	REG #59			
WIB-065	PARK AVE (REG # 57)	40	48	39	73	56	58	36" DIA	HARLEM RIVER	REG #57			
WIB-066	THIRD AVE BRIDGE (NORTH SIDE) (REG # 56)	40	48	29	73	56	54	4' X 2' 8" EGG	HARLEM RIVER	REG #56			
WIB-067	LINCOLN AVE (REG # 55)	40	48	23	73	56	50	60" DIA	HARLEM RIVER	REG #55			
WIB-068	BROOK AVE (REG # 53, 54)	40	48	9	73	55	23	12' X 9' 10"	BRONX KILL	REG #53, 54			YES (ON 53)
WIB-069	CYPRESS AVE (REG # 71)	40	47	57	73	55	10	2' 2" X 3'	BRONX KILL	REG #71			
WIB-070	E 134TH ST (REG # 70)	40	47	56	73	54	30	4' 2" X 3' 2" EGG	EAST RIVER	REG #70			
WIB-071	E 138TH ST (REG # 69)	40	48	5	73	54	22	60" DIA	EAST RIVER	REG #69			
WIB-072	E 149TH ST (REG # 68)	40	48	18	73	54	8	9' X 6' 6"	EAST RIVER	REG #68			YES
WIB-073	SAINT ANN'S AVE (REG # 73)	40	48	6	73	55	18	DBL 144" DIA	BRONX KILL	REG #73			
WIB-075	E 138TH ST (REG # 58)	40	48	50	73	56	56	12' X 6' 3"	HARLEM RIVER	REG #58			YES
WIB-076	W/O BRADLEY TERRACE (REG # MH-1)	40	52	43	73	55	21	54" DIA	SPUYTEN DUYVIL CREEK	REG #MH-1			
WIB-077	TEUNISSEN PLACE (REG # MH-2)	40	52	32	73	55	58	8' 6" X 7'	SPUYTEN DUYVIL CREEK	REG #MH-2			
WIB-078	BROADWAY BRIDGE (NORTH SIDE) (REG # MH-3)	40	52	27	73	55	39	5' X 4' 6"	SPUYTEN DUYVIL CREEK	REG #MH-3			
WIB-079	750' N/O W 261ST ST (REG # R-4)	40	54	54	73	55	38	18" DIA	HUDSON RIVER	REG #R-4			
WIM-001	WARDS ISLAND W.P.C.P. OUTFALL	40	47	11	73	55	15	144" DIA	EAST RIVER				
WIM-002	E 73RD ST (REG # 1)	40	45	59	73	57	2	3' 6" X 2' 0" EGG	EAST RIVER	REG #1			
WIM-003	E 74TH ST (REG # 2A, 2B)	40	46	1	73	57	0	72" DIA	EAST RIVER	REG #2A, 2B			YES (ON 2A)
WIM-004	E 75TH ST (REG # 3)	40	46	3	73	57	58	3' 6" X 2' 0" EGG	EAST RIVER	REG #3			
WIM-005	E 76TH ST (REG # 4)	40	46	6	73	57	57	3' 6" X 2' 0" EGG	EAST RIVER	REG #4			
WIM-006	E 77TH ST (REG # 5)	40	46	8	73	57	55	3' 6" X 3' 0" EGG	EAST RIVER	REG #5			
WIM-007	E 78TH ST (REG # 6)	40	46	10	73	57	53	3' X 2' EGG	EAST RIVER	REG #6			
WIM-008	E 79TH ST (REG # 7)	40	46	13	73	57	51	60" DIA	EAST RIVER	REG #7			YES
WIM-009	E 83RD ST (REG # 8)	40	46	21	73	57	42	16" DIA	EAST RIVER	REG #8			
WIM-010	E 84TH ST (REG # 9)	40	46	23	73	57	40	16" DIA	EAST RIVER	REG #9			
WIM-011	E 86TH ST (REG # 10)	40	46	27	73	57	36	5' X 5'	EAST RIVER	REG #10			
WIM-012	E 89TH ST (REG # 11)	40	46	35	73	57	31	60" DIA	EAST RIVER	REG #11			
WIM-013	E 90TH ST (REG # 12)	40	46	40	73	57	33	4' X 2' 4" EGG	EAST RIVER	REG #12			
WIM-014	E 91ST ST (REG # 13)	40	46	42	73	57	34	15" DIA	EAST RIVER	REG #13			
WIM-015	E 92ND ST (REG # 14)	40	46	47	73	57	36	48" DIA	EAST RIVER	REG #14			
WIM-016	E 95TH ST (REG # 15)	40	46	55	73	57	38	48" DIA	EAST RIVER	REG #15			
WIM-017	E 96TH ST (REG # 16)	40	46	58	73	57	37	42" DIA	EAST RIVER	REG #16			
WIM-018	E 100TH ST (REG # 17)	40	47	6	73	56	26	3' 6" X 2' 4" EGG	EAST RIVER	REG #17			
WIM-019	E 101ST ST (REG # 18)	40	47	7	73	56	23	4' X 2' 4" EGG	EAST RIVER	REG #18			
WIM-020	E 103RD ST (REG # 20)	40	47	11	73	56	20	4' X 2' 4" EGG	EAST RIVER	REG #20			
WIM-021	E 104TH ST (REG # 21)	40	47	14	73	56	17	3' 6" X 2' 4" EGG	EAST RIVER	REG #21			
WIM-022	E 105TH ST (REG # 22)	40	47	16	73	56	16	4' X 2' 4" EGG	EAST RIVER	REG #22			
WIM-023	E 106TH ST (REG # 23)	40	47	19	73	56	15	DBL 6' X 7' 6"	EAST RIVER	REG #23			YES
WIM-024	E 110TH ST (REG # 24)	40	47	28	73	56	9	DBL 8' 6" X 7' 6"	EAST RIVER	REG #24			YES
WIM-025	E 114TH ST (REG # 25)	40	47	35	73	56	58	5' 3" X 8'	EAST RIVER	REG #25			
WIM-026	E 115TH ST (REG # 26)	40	47	37	73	56	55	15" DIA	EAST RIVER	REG #26			
WIM-027	E 116TH ST (REG # 27)	40	47	39	73	56	52	15" DIA	EAST RIVER	REG #27			
WIM-030	E 119TH ST (REG # 30)	40	47	46	73	56	45	4' 6" X 2' 4" FT	EAST RIVER	REG #30			
WIM-031	E 120TH ST (REG # 31)	40	47	48	73	56	45	5' X 4' 6" FT	EAST RIVER	REG #31			
WIM-032	E 121ST ST (REG # 32)	40	47	52	73	56	44	4' X 2' 4" FT	EAST RIVER	REG #32			
WIM-033	E 122ND ST (REG # 33)	40	47	54	73	56	44	4' 9" X 4' FT	BRONX KILL	REG #33			
WIM-034	E 124TH ST (REG # 34)	40	47	59	73	56	44	3' 6" X 2' 4"	BRONX KILL	REG #34			
WIM-035	E 125TH ST (REG # 35)	40	48	4	73	56	45	4' X 2' 8" EGG	BRONX KILL	REG #35			
WIM-036	E 129TH ST (REG # 36)	40	48	20	73	56	54	42" DIA	HARLEM RIVER	REG #36			
WIM-037	E 130TH ST (REG # 37)	40	48	25	73	56	59	4' X 2' 8"	HARLEM RIVER	REG #37			
WIM-038	E 135TH ST (REG # 38)	40	48	41	73	56	3	6' X 8' 6" FT	HARLEM RIVER	REG #38			YES
WIM-039	W 140TH ST (REG # 39)	40	48	57	73	56	2	4' X 2' 8" EGG	HARLEM RIVER	REG #39			
WIM-040	W 141ST ST (REG # 40)	40	48	58	73	56	2	5' X 2' 4" FT	HARLEM RIVER	REG #40			
WIM-041	W 142ND ST (REG # 41)	40	49	1	73	56	2	6' X 4' FT	HARLEM RIVER	REG #41			
WIM-042	W 143RD ST (REG # 42)	40	49	4	73	56	2	3' 6" X 2' EGG	HARLEM RIVER	REG #42			
WIM-043	E 102ND ST (REG # 19)	40	47	9	73	56	21	42" DIA	EAST RIVER	REG #19			
WIM-044	W. 145TH ST (REG # 44)	40	49	10	73	56	2	6' X 2' 8" FT	HARLEM RIVER	REG #44			
WIM-045	W 149TH ST (REG # 45)	40	49	22	73	56	3	6' X 5' 6"	HARLEM RIVER	REG #45			YES
WIM-046	W 151ST ST (REG # 46)	40	49	29	73	56	4	8' 6" X 8'	HARLEM RIVER	REG #46			YES
WIM-047	W 154TH ST (REG # 47)	40	49	39	73	56	4	6' X 4' FT	HARLEM RIVER	REG #47			
WIM-048	W 155TH ST (REG # 48)	40	49	42	73	56	5	4' X 2' 4" FT	HARLEM RIVER	REG #48			
WIM-050	W 156TH ST (REG # 50)	40	49	44	73	56	5	15" DIA	HARLEM RIVER	REG #50			
WIM-051	W 167TH ST (REG # 51)	40	50	14	73	56	2	48" DIA	HARLEM RIVER	REG #51			YES
WIM-052	W 176TH ST (REG # 52)	40	50	36	73	56	50	5' X 5'	HARLEM RIVER	REG #52			YES

Appendix 3 - Municipal Compliance Certification

MS4 Annual Report Cover Page

MCC form for period ending December 31, 2018

This cover page must be completed by the report preparer.
Joint reports require only one cover page.

SPDES ID: NY0287890

Choose one:

● **This report is being submitted on behalf of an individual MS4.**

Fill in SPDES ID in upper right hand corner.

Name of MS4: CITY OF NEW YORK

OR

○ **This report is being submitted on behalf of a Single Entity**

(Per Part II.E of GP-0-10-002)

Name of Single Entity:

OR

○ **This is a joint report being submitted on behalf of a coalition.**

Provide SPDES ID of each permitted MS4 included in this report. Use page 2 if needed.

Name of Coalition:

SPDES ID:

MS4 Annual Report Cover Page

MCC form for period ending December 31, 2018

Provide SPDES ID of each permitted MS4 included in this report.

SPDES ID	SPDES ID	SPDES ID
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MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2018

Name of MS4: CITY OF NEW YORK

SPDES ID: NY0287890

Each MS4 must submit an MCC form.

Section 1 - MCC Identification Page

Indicate whether this MCC form is being submitted to certify endorsement or acceptance of:

- ● An Annual Report for a single MS4
- ○ A Single Entity (Per Part II.E of GP-0-10-002)
- ○ A Joint Report

Joint reports may be submitted by permittees with legally binding agreements.

If Joint Report, enter coalition name:

MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2018

Name of MS4: CITY OF NEW YORK

SPDES ID: NY0287890

Section 2 - Contact Information

Important Instructions - Please Read

Contact information must be provided for ***each*** of the following positions as indicated below:

1. Principal Executive Officer, Chief Elected Official or other qualified individual (per GP-0-08-002 Part VI.J).
2. Duly Authorized Representative (Information for this contact must only be submitted if a Duly Authorized Representative is signing this form)
3. The Local Stormwater Public Contact (required per GP-0-08-002 Part VII.A.2.c & Part VIII.A.2.c).
4. The Stormwater Management Program (SWMP) Coordinator (Individual responsible for coordination/implementation of SWMP).
5. Report Preparer (Consultants may provide company name in the space provided).

   A separate sheet must be submitted for each position listed above unless more than one position is filled by the same individual. If one individual fills multiple roles, provide the contact information once and check all positions that apply to that individual.

   If a new Duly Authorized Representative is signing this report, their contact information must be provided and a signature authorization form, signed by the Principal Executive Officer or Chief Elected Official must be attached.

For each contact, select all that apply:

● Principal Executive Officer/Chief Elected Official

○ Duly Authorized Representative

○ Local Stormwater Public Contact

○ Stormwater Management Program (SWMP) Coordinator

○ Report Preparer

First Name: VINCENT MI: Last Name: SAPIENZA

Title: COMMISSIONER

Address: 59-17 JUNCTION BLVD

City: FLUSHING State: NY Zip: 11373-

eMail: VSAPIENZA@DEP.NYC.GOV

Phone: (718) 595-6565 County: QUEENS

MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2018

Name of MS4: CITY OF NEW YORK

SPDES ID: NY0287890

Section 2 - Contact Information

Important Instructions - Please Read

Contact information must be provided for ***each*** of the following positions as indicated below:

1. Principal Executive Officer, Chief Elected Official or other qualified individual (per GP-0-08-002 Part VI.J).
2. Duly Authorized Representative (Information for this contact must only be submitted if a Duly Authorized Representative is signing this form)
3. The Local Stormwater Public Contact (required per GP-0-08-002 Part VII.A.2.c & Part VIII.A.2.c).
4. The Stormwater Management Program (SWMP) Coordinator (Individual responsible for coordination/implementation of SWMP).
5. Report Preparer (Consultants may provide company name in the space provided).

   A separate sheet must be submitted for each position listed above unless more than one position is filled by the same individual. If one individual fills multiple roles, provide the contact information once and check all positions that apply to that individual.

   If a new Duly Authorized Representative is signing this report, their contact information must be provided and a signature authorization form, signed by the Principal Executive Officer or Chief Elected Official must be attached.

For each contact, select all that apply:

○ Principal Executive Officer/Chief Elected Official

● Duly Authorized Representative

● Local Stormwater Public Contact

● Stormwater Management Program (SWMP) Coordinator

● Report Preparer

First Name: PINAR | MI: | Last Name: BALCI

Title: ASSISTANT COMMISSIONER

Address: 59-17 JUNCTION BLVD

City: FLUSHING | State: NY | Zip: 11373-

eMail: PBALCI@DEP.NYC.GOV

Phone: (718) 595-3168 | County: QUEENS

MS4 Municipal Compliance Certification (MCC) Form

MCC form for period ending December 31, 2018

Name of MS4: CITY OF NEW YORK

SPDES ID: NY0287890

Section 3 - Partner Information

Did your MS4 work with partners/coalition to complete some or all permit requirements during this reporting period? ○ Yes ● No

If Yes, complete information below.

Submit a separate sheet for each partner. Information provided in other formats will not be accepted. If your MS4 cooperated with a coalition, submit one sheet with the name of the coalition. It is not necessary to include a separate sheet for each MS4 in the coalition.

If No, proceed to Section 4 - Certification Statement.

Partner/Coalition Name

Partner/Coalition Name (con't.)

SPDES Partner ID - If applicable

Address

City

State

Zip -

eMail

Phone ( ) -

Legally Binding Agreement in accordance with GP-0-08-002 Part IV.G.? ○ Yes ○ No

What tasks/responsibilities are shared with this partner (e.g. MM1 School Programs or Multiple Tasks)?

○ MM1

○ MM2

○ MM3

○ MM4

○ MM5

○ MM6

Additional tasks/responsibilities

○ *Watershed Improvement Strategy Best Management Practices* required for MS4s in impaired watersheds included in GP-0-08-002 Part IX.

MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2018

Name of MS4: CITY OF NEW YORK

SPDES ID: NY0287890

Section 4 - Certification Statement

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

This form must be signed by either a principal executive officer or ranking elected official, or duly authorized representative of that person as described in GP-0-08-002 Part VI.J.

First Name: PINAR | MI: | Last Name: BALCI

Title (Clearly print title of individual signing report): ASSISTANT COMMISSIONER

Signature: Pinar Balci

Digitally signed by Pinar Balci
DN: cn=Pinar Balci, o, ou, email=pbalci@dep.nyc.gov, c=US
Date: 2019.09.26 16:14:59 -04'00'

Date: 09 / 26 / 2019

Send completed form and any attachments to the DEC Central Office at:

MS4 Permit Coordinator
Division of Water
4th Floor
625 Broadway
Albany, New York 12233-3505

nyc.gov/dep/ms4

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