NYC Stormwater Management Program

2021 MS4 Annual Report

Municipal Separate Storm Sewer Systems of New York City
SPDES Number: NY-028789

Contents

Flushing Bay at World's Fair Marina

New York City's (NYC) iconic waterfront and beloved waterbodies are cleaner and healthier than they have been since the 1860s. Whales and seals are returning to the harbor, wetland and mussel restoration projects are thriving, and New Yorkers are enjoying recreational activities in our local waterways. This is in no small part a testament to the City of New York's (City) substantial investments in upgrading our stormwater and wastewater infrastructure over the last four decades.

Building on these investments, fourteen City agencies now implement the NYC Stormwater Management Program (SWMP) in the areas served by the City's municipal separate storm sewer system (MS4). Approximately 40% of NYC is served by the MS4, including much of Staten Island, south Brooklyn, southeast Queens, and many City-owned parks. Managing stormwater in these areas is important because the MS4 carries stormwater runoff directly to nearby waterbodies instead of to a wastewater resource recovery facility (WRRF) for treatment. Untreated stormwater that flows on the streets and into catch basins in MS4 areas or directly into waterbodies may carry pollution such as pathogens and debris from the surfaces it passes over.

The NYC SWMP consists of the City's measures to reduce pollution in stormwater runoff discharging into and from the MS4. Through proper management and increased awareness, the City works to keep our streets and facilities maintained to reduce the risk of contributing pollution to stormwater runoff. 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 comprehensive integrated planning approach to protecting and improving our waterbodies.

The City developed and now implements the SWMP in compliance with its MS4 Permit, which was first issued by the New York State Department of Environmental Conservation (NYSDEC) in 2015. Throughout 2021, the City continued working with NYSDEC on renewing the MS4 Permit. In early 2022, NYSDEC released a draft of the new MS4 Permit for public comment. On August 1, 2022, the City's new MS4 permit went into effect.

Each year, the City prepares an MS4 annual report to inform NYSDEC and the public of the City's progress in implementing the SWMP and the status of compliance with the MS4 Permit. This MS4 Annual Report, covering January 1 through December 31, 2021, includes a brief description of the SWMP activities completed during the 2021 reporting year, measurable goals, and specific reporting requirements included in the MS4 Permit. If applicable, this report also includes activities planned for the 2022 calendar year and any proposed changes to SWMP.

This year, the City continued much of its MS4 programming; however, constraints imposed by the ongoing COVID-19 pandemic presented complex fiscal and operational challenges that forced the City to alter, reduce, or delay some existing programs and planned work. This report highlights measurable goals accomplished by the City, but also indicates how COVID-19 may have impacted the City's implementation of some programmatic elements (e.g., in-person public education and outreach programs, IDDE response, and pollution prevention/good housekeeping efforts).

Plumb Beach, Brooklyn

Introduction

On August 1, 2015, the City received a State Pollutant Discharge Elimination System (SPDES) MS4 Permit (No. NY-0287890) from NYSDEC. This permit required the City to develop, implement, and enforce a SWMP, which includes numerous programs designed to address pollutants of concern (POCs) and reduce the discharge of pollutants from the MS4, along with a corresponding SWMP Plan[1] (Plan), which describes how the City will control pollutants in stormwater runoff. The City submitted the Plan to NYSDEC on August 1, 2018, and NYSDEC approved the Plan on March 14, 2019. The main components of the SWMP are:

1. **Public Education and Outreach (PEO)**
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**

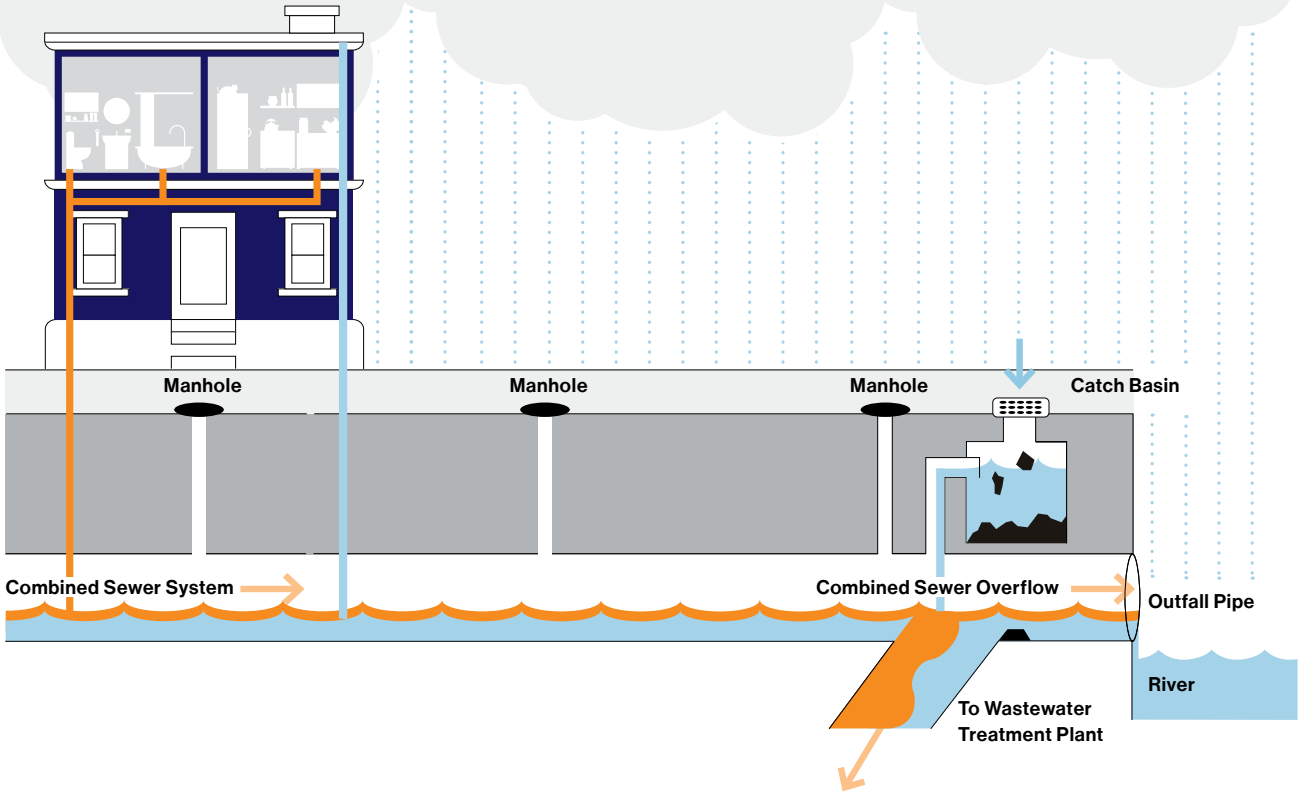
For each component, the City has identified best management practices (BMPs) and associated measurable goals, which the City reports on annually. The City periodically refines the measurable goals based on lessons learned from implementation of the programs, interagency working groups meetings, and public input. Continuing to refine and update the measurable goals allows the City to better quantify and more accurately represent the effectiveness of the SWMP. The City bases its Annual Effectiveness Assessment on the achievement of the stated measurable goals for each component of the SWMP.

In fall 2021, the City undertook a holistic update of the SWMP to reflect the current status of program implementation and the City's compliance with the 2015 MS4 Permit, and to bring the document up to date from the 2018 version. Notable revisions included updating the Public Education and Outreach section to reflect recent changes to program names and descriptions, updating the Mapping section to reflect the submission of the 2020 MS4 Map and supplemental information, and updating the Construction/Post-Construction and Legal Authority sections to reflect the new Unified Stormwater Rule.

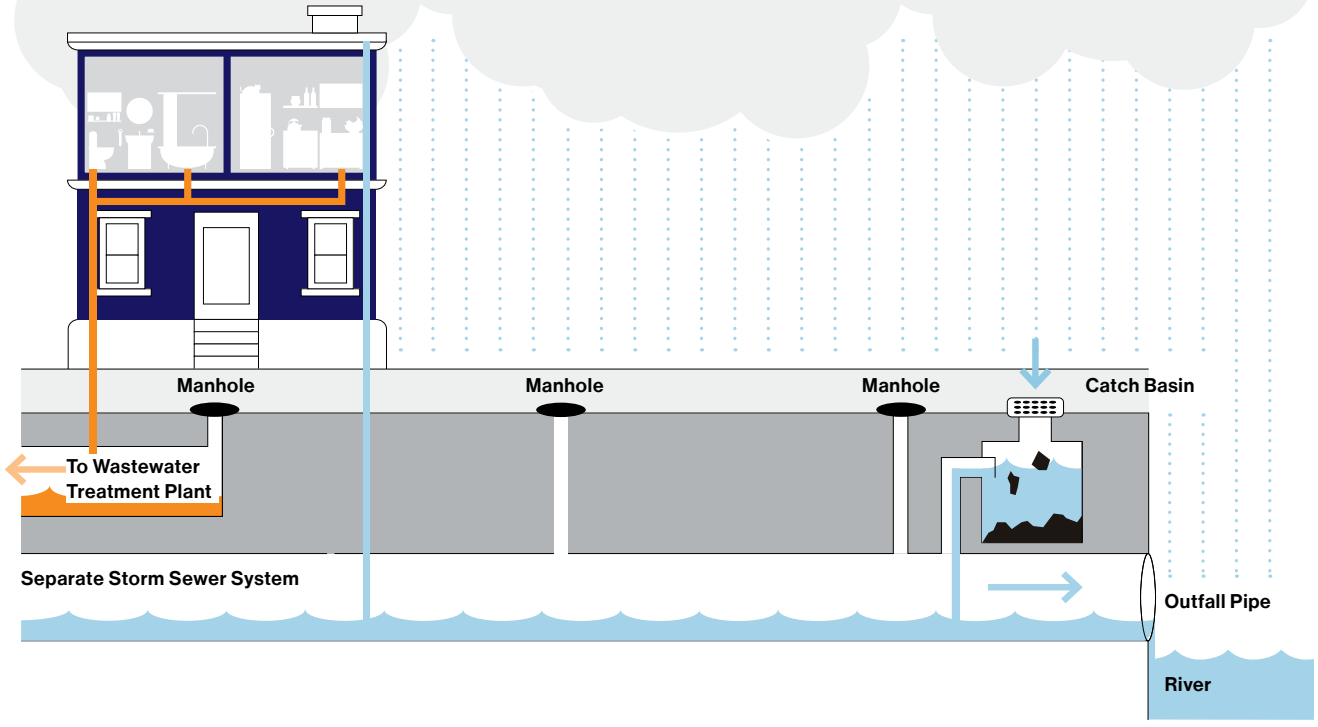
The 2015 MS4 Permit expired on July 31, 2020. As required by state regulations (6 NYCRR 750-1.16(a)) and the Permit (Part IV.O), the City submitted its permit renewal application 180 days prior to the expiration date. The 2015 MS4 Permit remained in effect through the 2021 reporting period, while issuance of the renewal permit was pending. During this time, the City continued to implement the approved SWMP during negotiations with NYSDEC on the renewal permit.

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

Combined Sewer System



Municipal Separate Storm Sewer System



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

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The New York City Department of Environmental Protection (DEP) coordinates 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 (Parks or DPR)
- Department of Sanitation (DSNY)
- Fire Department (FDNY)
- Police Department (NYPD)
- Small Business Services (SBS)

Collaborating Agencies

- NYC Law Department (LAW)
- Economic Development Corporation (EDC)
- Mayor's Office of Management and Budget (OMB)
- Mayor's Office of Climate and Environmental Justice (formerly the Mayor's Office of Recovery and Resiliency (ORR))

MS4 Annual Reports

Each year, the City reports on SWMP implementation and MS4 Permit compliance. Reporting years are full calendar years (January 1 to December 31). The MS4 annual reports reflect the structure of the City's MS4 Permit and the SWMP Plan, both of which are organized by program. For each program, these MS4 annual reports include the following sections:

- **Introduction.** This section includes an overview of the program and context for the activities completed within a reporting year. For more information on the programs, refer to the SWMP Plan.
- **Program assessment.** This section includes information on activities completed during the reporting year. Tables that present the measurable goals and measures of a program for the reporting year are complemented by a narrative that highlights and explains important activities. To the extent that COVID-19 has impacted a program, the City has described such impact.
- **Goals for the next reporting cycle.** This section includes the City's aspirations for applicable programs during the next reporting cycle. To the extent that the City has identified potential on-going impacts on its programs from COVID-19 that may continue in the next reporting cycle, such impacts are also noted in this section.
- **Program updates.** This section includes information on SWMP updates that the City is proposing as part of refining and adapting its program. The program updates section does not appear if no changes are required for a program. The City updates the SWMP Plan text annually but implements as soon as practicable any necessary changes identified during the reporting year.

Every spring, the City publishes a draft MS4 Annual Report online for public comment and holds a public meeting during the comment period. In 2022, because of the continuing pandemic, the City held the public meeting on June 1, 2022 on the draft 2021 MS4 Annual Report as a webinar. This alternative to the in-person meeting was allowed by an amendment to the Open Meetings Law (OML), Chapter 56 of the Laws of 2022 (Part WW of A.9006). Following the public review of the draft MS4 Annual Report, the City responded to public comments (see Appendix 1) and updated the MS4 Annual Report accordingly. The final version of the report is due to NYSDEC on September 30 of each year. The MS4 Annual Reports are available on the DEP website.[2]

2 https://www1.nyc.gov/site/dep/water/municipal-separate-storm-sewer-system.page

Launch of Harbor Protectors Program in Coney Island

Public Education and Outreach

The City implements a public education and outreach program (PEO Program) as part of its MS4 Permit obligations. The PEO Program has many education and outreach initiatives that inform a broad range of stakeholders and the public about stormwater, the sources of pollutants associated with stormwater, and stormwater's potential impacts on water quality.

2021 Program Assessment

During the 2021 reporting period, as part of the PEO Program, several programs and events were cancelled due to the pandemic. However, the City implemented 15 programs that included over 1,500 events, 40,000 participants, and the distribution of approximately 2 million materials. These metrics include activities conducted citywide.

Program Highlights:

Visitor Center at Newtown Creek – Sewer Exhibit. The Visitor Center at Newtown Creek features DEP employees in exhibits that explain the City's water cycle, including drinking water supply, water distribution, wastewater treatment, stormwater management, and harbor water quality. During 2021, a sewer exhibit was enhanced to include a three-dimensional, interactive design with informational discs that open to reveal images and text about stormwater pollution and actions New Yorkers can take to help protect our sewer system and the New York Harbor. This exhibit shares essential information about the actions all New Yorkers can take to help optimize the City's sewer system and to protect water quality, such as water conservation, litter reduction, and proper disposal of grease and other household waste.

Environmental Education. DEP created the following three educational resources, which were shared with thousands of educators citywide.

- Understanding NYC's Water Story: A Curriculum Guide for the Classroom. This comprehensive guide for K-8 teachers explores various content related to our shared water resources. The guide includes six units and features a variety of lessons and activities to enhance teaching styles and learning about the New York City water cycle. These lessons and activities are centered on science, technology, engineering, and math (STEM) concepts and humanities subjects, and are designed to support an interdisciplinary, hands-on approach to teaching.
- NYC Water Virtual Tours. Designed using ArcGIS StoryMaps, these virtual tours offer a collection of historical imagery, in-the-field footage, interactive maps, and staff interviews for a fun and easy way to discover the New York City drinking water supply, sewer system, wastewater treatment system, and harbor protection.
- Jamaica Bay Education Resource Directory. This updated guide provides an important teaching tool for educators and features partner organizations and educational opportunities, such as resources and program opportunities, in and around the Jamaica Bay watershed.

Harbor Protectors. DEP launched its much-anticipated Harbor Protectors Program on Earth Day, April 22, 2021, in collaboration with the Coney Island Beautification Project, elected officials, community leaders and student volunteers. This innovative stewardship program recruits volunteers to participate in activities such as clearing off catch basin gratings, stenciling educational/informational messages on the sidewalks near catch basins, caring for rain gardens and

participating in shoreline cleanups. In addition to beautifying communities and keeping pollution out of NYC's waterways, these stewardship actions also aid DEP in its critical mission to protect and improve water quality across the five boroughs. In 2021, the Harbor Protectors program stenciled 158 catch basins, cleaned 137 rain gardens and planted at 9 rain gardens.

SAFE Disposal Events. SAFE Disposal events provide a designated location for New Yorkers to dispose of waste, including harmful household products. These events help the City reduce the risk of pollution in stormwater runoff through trash management and illegal dumping avoidance. In 2021, the City distributed over 2 million neighborhood mailers to residents announcing the SAFE Disposal Event schedule, informing residents about what's accepted for recycling, and providing alternatives for how to get rid of those items outside of the SAFE Disposal Event season. There were a total of 5 events covering all NYC boroughs with over 14,000 participants, collecting more than 557 tons of materials. In 2021, DSNY also reopened special waste drop-off locations, which had previously been closed due to COVID-19. Special Waste Drop-Off Sites are locations where New York City residents can drop-off certain harmful products.

The Natural Classroom & Weekend, Pop-up, and Custom Adventures. In 2021, through several programs, NYC Parks Urban Park Rangers offered to nearly 10,000 participants over 700 events focused on ecology, stormwater, and waterbodies. These programs include:

- The Natural Classroom: People, Place, and Parks for school groups
- Custom Adventures for summer camp and youth groups
- Weekend Adventures and Pop-Up Adventures free to the public

Each park in New York City is unique and is shaped by its natural features, the plants and animals that live there, and the communities it serves. Through these programs students enjoy exploring these unique urban spaces through active and engaging on-site learning experiences that highlight real-world examples of concepts, ideas, and content learned in the classroom. During the educational tours, students investigate the diversity of parks and green spaces in the City, how these spaces improve the daily lives of New Yorkers, and how NYC Parks maintains the parks and recreational spaces. Over the years, these types of immersive, on-site outdoor environmental programs have been shown to advance academic achievement, build character, promote wellness and good health, cultivate environmental stewardship, and foster community and ecological resilience.

Goals for 2022

During the 2022 reporting cycle, the City will continue implementing the programs listed as "planned" in Table 1, including Harbor Protectors, SAFE Disposal events, and other Environmental Education programming. DEP will also continue to collaborate with other agencies on outreach and MS4-related materials. As NYC reopens following the COVID-19 pandemic, the City hopes to fully resume PEO programs and incorporate in-person and virtual programing moving forward. The City will also continue to develop educational materials and will increase our efforts to collaborate with stakeholders.

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

Enhanced Exhibit at Newtown Creek Visitor Center

Battery sorting at a SAFE Disposal Event

Table 1: Public Education and Outreach 2021 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 and outreach programs/ events and relevant metric(s) for each (e.g., number of participants, events, or materials distributed)	• Adopt-a-Highway/Greenway (83 materials distributed)* • Annual Art and Poetry Contest (5 events; 1,659 participants)* • Automotive Association Outreach (1 event; 53 businesses contacted)* • Community Clean-ups (253 events)* • DEP Environmental Education (91 events; 11,981 participants)* • Parks Environmental Education (6 events; 1,726 participants; 340 materials distributed; 27 Jr. Little League Teams; 12,687 pounds of trash collected)* • Forgot Your Bag? (231 canine waste dispensers in the MS4 area) • Harbor Protectors (4 events, 184 participants)* • Park Stewardship (339 event; 25 materials distributed; 3,652 participants)* • SAFE Disposal Events (5 events; 2,066,535 materials distributed; 14,167 participants)* • School Sustainability Coordinator Trainings (5 events; 818 participants) • "Trash it, Don't Flush It" Outreach (1 event with 35 participants; 2,183 households contacted)* • Urban Park Rangers Natural Classroom (282 events; 6,292 participants)* • Visitor Center at Newtown Creek (160 events; 4,015 participants)* • Weekend, Pop-up, and Custom Adventures (430 events; 3,669 participants)*
		List of planned educational and outreach programs/ activities to be undertaken in the next reporting cycle	• Annual Art and Poetry Contest • Automotive Associations Outreach • Community Clean-ups • DEP Environmental Education • Forgot Your Bag? • Harbor Protectors • Park Stewardship • SAFE Disposal Events • "Trash It, Don't Flush It" Outreach • 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 public	List of education & outreach programs/ events and relevant metric(s) for each (e.g., number of participants, events, or materials distributed)	• Annual Art and Poetry Contest (5 events, 1,659 participants)* • Automotive Associations Outreach (1 event; 53 businesses contacted)* • Community Clean-ups (253 events)* • DEP Environmental Education (91 events; 11,981 participants) * • Parks Environmental Education (5 events; 340 materials distributed, 1,576 participants; 27 Jr. Little League Teams; 12,687 pounds of trash collected)* • Forgot Your Bag? (231 canine waste dispensers in the MS4 area) • Harbor Protectors (3 events, 168 participants)* • Park Stewardship (339 events; 25 materials distributed; 3,652 participants)* • SAFE Disposal Events (5 events; 2,066,535 materials distributed; 14,167 participants)* • "Trash It, Don't Flush It" Outreach (1 event with 35 participants; 2,183 households contacted)* • Urban Park Rangers Natural Classroom (282 events; 6,292 participants)* • Visitor Center at Newtown Creek (160 events; 4,015 participants)* • Weekend, Pop-up, and Custom Adventures (430 events; 3,669 participants)*
		List of planned educational and outreach programs/ activities to be undertaken in the next reporting cycle	• Annual Art and Poetry Contest • Automotive Associations Outreach • Community Clean-ups • DEP Environmental Education • Forgot Your Bag? • Harbor Protectors • Park Stewardship • SAFE Disposal Events • "Trash It, Don't Flush It" Outreach • Urban Park Rangers Natural Classroom • Visitor Center at Newtown Creek • Weekend, Pop-up, and Custom Adventures
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 received 11,314 service requests for the 311 complaint types listed in this report as relevant to stormwater pollution. Because of staffing shortages due to the pandemic, the City was unable to respond to a small number of requests (fewer than 50) in early 2021 when DEP inspectors were reassigned to perform COVID-related inspections.

* These metrics reflect activities conducted citywide.

311 is New York City's main source of government information and non-emergency services.

It provides the public with quick, easy access to all New York City government services and information. The public may connect with 311 24 hours a day, 7 days a week, 365 days a year by:

- Visiting 311 online at nyc.gov/311;
- Calling 311 or (212) NEW-YORK, (212) 639-9675, from outside New York City;
- Texting 311-692;
- Downloading the NYC 311 mobile app for Apple or Android devices; or
- Tweeting to @nyc311

311 is accessible to non-English speakers, available online in over 50 languages and by phone in over 170 languages.

311 facilitates transparency and accountability. Service requests and agency responses are available to public as open data online.

Currently, the public can use 311 to access information on many topics relevant to stormwater pollution and water quality. The public is also encouraged to use 311 to report information relevant to stormwater pollution:

- **Waterway Complaint.** Report floatables, trash, oil, gasoline, sewage, or an unusual color in a waterway; report a potential illicit discharge from an MS4 outfall.
- **Dry Weather Sewage Discharge Complaint.** Report water flowing through a sewer outfall pipe during dry weather.
- **Dumping in Catch Basin or Sewer.** Report grease, gasoline, natural gas, cement, oil, sewage, chemicals, or other substances going into a sewer or catch basin.
- **Oil Spill.** Report an oil spill.
- **Illegal Dumping Complaint.** Report the dumping of large amounts of trash.
- **Catch Basin Complaint.** Report a storm drain that is missing its cover, clogged, sunken, raised, damaged, or defective.

Parks educates students about stormwater management at Prospect Park

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 participate in the City's efforts to improve water quality.

2021 Program Assessment

Because of the ongoing COVID-19 pandemic during the 2021 reporting period, the City continued to engage the public using virtual platforms. In partnership with other City agencies, DEP hosted outreach meetings for the public and key stakeholders on the Unified Stormwater Rule (USWR), which was adopted in February 2022.

The City also engaged the public on Trash Free NYC Waters and SWMP implementation. DEP hosted a public meeting on the City's floatables control and data collection programs, including the loading rate study detailed in the control of floatables section of this report. In May 2021, DEP published on its website the draft 2020 MS4 Annual Report, which covered activities completed in 2020, and hosted the 2020 MS4 Annual Report meeting as a webinar. The public was encouraged to provide comments on the draft MS4 Annual Report. These comments were addressed in Appendix 1 of the final 2020 MS4 Annual Report submitted to NYSDEC and published on the DEP website.

The City published a draft 2021 MS4 Annual Report on the DEP website on May 23, 2022. This report covers SWMP implementation for the 2021 calendar year. The City hosted the 2021 MS4 Annual Report meeting as a webinar at 4:00 pm on June 1, 2022. The public was encouraged to submit comments from May 23, 2022 through July 1, 2022 by email to MS4@dep.nyc.gov.

Goals for 2022

In 2022, the City plans to continue engaging with local stakeholder groups and participating in community events. In compliance with MS4 Permit requirements, the City also plans to publish, present, and respond to comments on its 2021 Annual Report detailing SWMP implementation.

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 2021 Status of Implementation

BMP	Measurable Goals	Measures	Status
Provide and promote the opportunity to report and receive stormwater information	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 responded to inquiries on various SWMP activities including but not limited to construction/ post-construction permitting, potential construction projects, USWR and other general stormwater discharge inquiries.
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	On May 21, 2021, the City posted on the DEP website the draft 2020 MS4 Annual Report. It was available for public comment through July 1, 2021.
		Date and time of draft Annual Report stakeholder meeting and number of participants	May 27, 2021, at 4:00 pm. Approximately 77 individuals registered.
		Summary of comments received on draft Annual Report and City responses	See Appendix 1 of 2020 MS4 Annual Report
		List of involvement and participation activities (e.g., programs, events, key stakeholder meetings)	• 2020 MS4 Annual Report (1 event, 77 individuals registered) • USWR Outreach (1 event, 150 participants) • American Council of Engineering Companies Construction Permitting and Enforcement (1 event, 155 participants) • NYWEA (1 event, 38 participants) • Trash Free NYC Waters Workshop (1 event, 50 individuals registered)
		Status and location of final Annual Report and the SWMP Plan	The SWMP Plan and final MS4 annual reports are available at www.nyc.gov/dep/ms4
		List of planned participation and involvement programs/activities to be undertaken in next reporting cycle	Presentation of this 2021 MS4 Annual Report

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 has mapped 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 then subsequently submitted with the SWMP the Preliminary MS4 Map, which showed the known MS4 drainage areas and outfalls as of August 1, 2018. The MS4 Permit required the City to update and submit the final MS4 map of the permit cycle on August 1, 2020.

2021 Program Assessment

The MS4 Map, along with supplemental information relevant to stormwater management, was last submitted to NYSDEC on August 1, 2020, as required by the 2015 MS4 Permit. The latest version of the MS4 Map is available to the public in an interactive format at www.nyc.gov/dep/ms4map. The MS4 Map includes 764 outfalls, specifically 693 MS4 outfalls and 71 CSO Outfalls with MS4 Connections downstream of the regulator.

As stated in the SWMP Plan, GIS datasets are dynamic and change over time as updates are received and processed. As a result, the MS4 Map may be periodically updated as new information becomes available.

Table 3 lists measurable goals and measures with the implementation status of the City's Mapping BMPs.

Wildlife in Jamaica Bay

Table 3. Mapping Program 2021 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	The MS4 Map is online and available to the public at nyc.gov/dep/ms4map
		Number and percent of MS4 outfalls mapped	764 outfalls mapped; 98%
	Update "Final" MS4 Map every 5 years	Date of latest updated MS4 Map submittal	August 1, 2020

2020 MS4 Drainage Areas and Outfalls

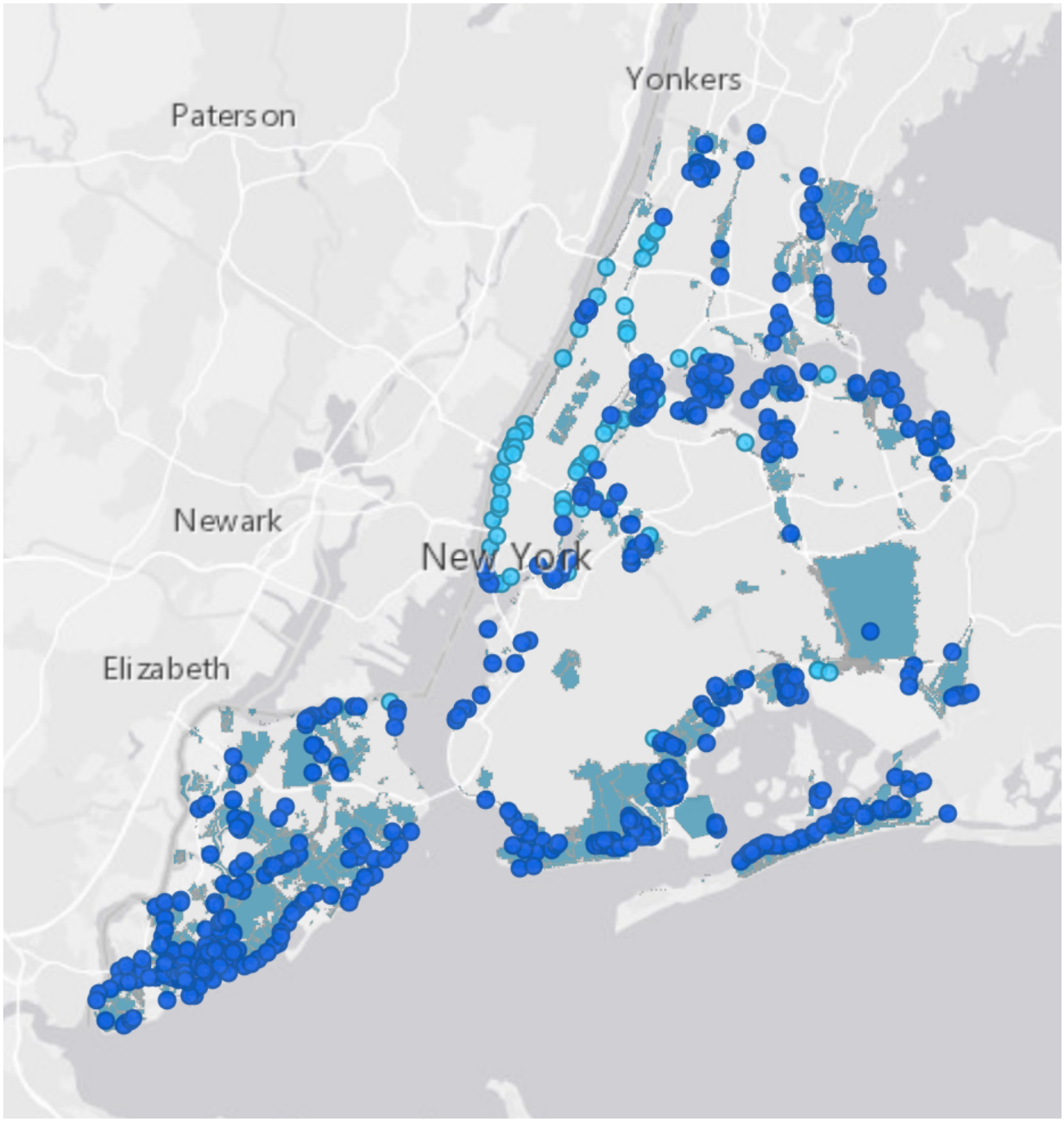
The information shown on this map is the best available information as of August 1, 2020.

MS4 Outfalls

- MS4 Outfall
- CSO with MS4 Connection

MS4 Drainage Areas

- City
- Unknown



Illicit Discharge Detection and Elimination

Illicit discharges are non-stormwater, unauthorized discharges into and from the MS4. Examples include sanitary pipes illegally connected to storm sewers and substances like oils dumped into catch basins. 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. City agencies also detect and abate illicit discharges discovered and confirmed to be originating from their properties.

The City has public education and outreach programs for the public, businesses, and City employees on the hazards of improper disposal of materials and actions to take to reduce the risk of an illicit discharge. City employees working off-site and the public are encouraged to call 311 if they see a potential illicit discharge.

Once the City identifies a potential illicit discharge, it initiates a trackdown to find the source and then takes steps to abate the discharge, if confirmed to be illicit. 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.

2021 Program Assessment

During this reporting period, the City continued to implement its citywide IDDE Program: characterizing outfalls, sampling receiving waterbodies, source tracking, and eliminating illicit discharges. The City detected illicit discharges and eliminated them citywide through the DEP Response and Compliance Units; Sentinel Monitoring and Shoreline Survey programs; and agency actions at their municipal facilities in the MS4 area. The City is working to investigate the illicit discharges that are within the City's jurisdiction that were detected in 2021 but not eliminated within the calendar year. Some illicit discharges reported as detected will not have an accompanying abatement record because of circumstances such as an investigation's resulting in the determination that the discharge was not illicit or that the matter should be turned over to NYSDEC.

Under the Shoreline Survey Program, DEP conducts an outfall reconnaissance inventory (ORI), surveying 100 percent of shoreline outfalls every 10 years.[3] MS4 outfalls are not evenly distributed throughout the shoreline;

3 As required in the 14 WRRF SPDES permits, DEP conducts the Shoreline Survey Program by surveying 50 percent of the shoreline every five years so that 100 percent of shoreline is completed every 10 years. DEP may also re-visit target drainage areas due to anticipated or identified changes to outfalls.

Non-stormwater discharges (e.g., water line flushing potable water, AC unit condensate, water from crawl spaces, dechlorinated swimming pool discharges) into the MS4 are generally considered illicit. However, some non-stormwater discharges are allowed, including those from firefighting activities and discharges determined by DEP not to be significant contributors of pollutants. DEP makes the determination on a case-by-case basis. To obtain DEP approval to discharge non-stormwater into the MS4, email DEP at MS4@dep.nyc.gov with the subject line Non-stormwater Discharge Inquiry.

DEP conducts dye test to track down illicit discharge

therefore, the percentage of outfalls DEP inventories each year depends on the area of shoreline inventoried.[4] In 2021, DEP inventoried approximately 9% of MS4 outfalls included in the Shoreline Survey and sent to NYSDEC an updated list of the DEP-owned CSO and MS4 outfalls.

Established as an enhancement to the Shoreline Survey, the DEP Sentinel Monitoring Program entails the regular monitoring and sampling of waterbodies throughout NYC. The purpose of the program is to detect continuous, intermittent, and/or transitory illicit discharges. Using a set list of Global Positioning System (GPS) coordinates, DEP visits sentinel stations quarterly, collects water for samples, and analyzes the samples for pathogens. DEP may also use Harbor Survey data for this effort as well. The results of the mini-shoreline investigations and sampling are included in the Integrated Sentinel Monitoring Reports.

Program Highlights:

Eliminated Illicit Discharge to Outfall TI-008. TI-008 is an outfall discharging to Alley Creek that receives over 2 MGD of flow from Oakland Lake via a connection downstream of the regulator. Water samples for bacteria were consistently low in Oakland Lake, but higher than expected at the mouth of outfall TI-008. Through sampling, CCTV investigations, and interior investigations by walking the sewer lines, DEP discovered the bacteria source from a parallel sanitary line infiltrating downstream of the regulator. In 2021, DEP completed the repair of the sanitary sewer adjacent to TI-008 and successfully eliminated an illicit discharge to Alley Creek.

Drone Flyover Pilot. The characteristics of Alley Creek, including extensive mud flats combined with silty and clay-like sediment as well as extensive vegetation, make investigating the shoreline by foot during low tide nearly impossible. To detect potential illicit discharges during low tide in Alley Creek, DEP piloted the use of drone technology and thermal imagery. The objective of the pilot study was to detect temperature anomalies: it would be expected that the temperature of a potential illicit discharge would generally be higher than that of the surface water during cooler seasons (i.e., late fall, winter, early spring). These detected temperature anomalies could then be further investigated on the ground, including by sampling, where feasible, to validate or reject the presence of a potential illicit discharge.

In 2021, The City completed the Alley Creek drone flyover pilot project, which was initiated in 2019. The three flights the City completed in 2019, 2020, and 2021 were conducted during the cooler seasons so that interference from vegetation would be minimized and potential illicit discharges could show a warmer temperature signature than that of Alley Creek. Utilizing drone technology for this type of application is relatively new, and this effort was considered a pilot study to determine its feasibility and efficacy. The thermal imagery collected during the drone flyovers did not lead to the discovery of illicit discharges. Based on this pilot study, the City does not recommend using this technology for other NYC waterbodies for a variety of reasons, including the logistics related to flying drones in NYC. While the flight path for the Alley Creek pilot was limited to City-owned parkland, this is unlikely to be true for other waterbodies. Regulations associated with flying above private property, major roads, and people, as well as in proximity to airports, would complicate or prohibit use of drones for IDDE.

Microbial Source Tracking Study. In 2020, DEP partnered with the US Geological Survey (USGS) on a microbial source tracking (MST) study to identify the source(s) and relative host contributions of bacterial contamination in Alley Creek. The object of the study was to analyze water samples for markers using the quantitative polymerase chain reaction (qPCR) method to characterize the various sources of fecal contamination (humans, waterfowl, and canines) in addition to microbiological and chemical constituents associated with human sewage. In 2021, DEP and the USGS completed sample collection for the study and conducted intensive sampling at the outfall TI-024 to investigate the area for illicit discharges. DEP will continue assessing this area. The USGS published the final MST report in July 2022.

Goals for 2022

For the 2022 reporting cycle, the City will continue its IDDE program, which includes the Shoreline Survey, Harbor Survey, Sentinel Monitoring, Emergency Response Units, and responding to issues discovered on-site at municipally-owned facilities. DEP will continue assessing the area around the outfall TI-024 in Alley Creek.

Table 4 lists measurable goals and measures with the status of the City's implementation of IDDE BMPs and represents citywide metrics.

4 The most recent Shoreline Survey report, covering the 2013-2017 period (report submitted March 2018), included approximately 80% of the shoreline MS4 outfalls. The next Shoreline Survey reporting period from 2018 – 2022 (report due March 2023) includes the remaining shoreline MS4 outfalls to be surveyed (approximately 20% of the total). The 2013-2022 period represents the ten-year period during which 100% of MS4 outfalls are expected to be surveyed, as required by the MS4 permit.

Table 4. IDDE Program 2021 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	935*
		Number of illicit discharges abated	927*
		Number of and type of enforcement actions and penalties issued	DEP issued 94 summonses, $54,480 in penalties and 7 Commissioner's Orders; DSNY issued 1,396 summonses†
	Conduct an outfall reconnaissance inventory with 100% completed every 10 years	Updated outfall spreadsheet submitted to NYSDEC	Appendix 2 – SPDES outfall listing‡
		Percent of MS4 outfalls for which an outfall reconnaissance inventory (ORI) has been performed	9%
Prepare reports	Prepare a Special Report for waterbodies with fecal coliform above 200 colonies/100 ml and for unauthorized non-stormwater discharges within 3 years of August 1, 2015 and annually thereafter.	Status and location of Integrated Sentinel Monitoring Report submitted to NYSDEC	Available on the DEP website under the header Sentinel Monitoring Program: https://www1.nyc.gov/site/dep/water/harbor-water-quality.page
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	Pollution Prevention/Good Housekeeping 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)	• Annual Art and Poetry Contest (5 events; 1,659 participants) ¶ • Automotive Associations Outreach (1 event; 53 businesses contacted) • Community Clean-ups (253 events) ¶ • DEP Environmental Education (91 events; 11,981 participants) ¶ • Parks Environmental Education (5 events; 340 materials distributed; 1,576 participants; 27 Jr. Little League Teams; 12,687 pounds of trash collected) ¶ • Forgot Your Bag? (231 canine waste dispensers in the MS4 area) • Harbor Protectors (3 events; 168 participants) • Park Stewardship (339 events; 3,652 participants; 25 materials distributed) ¶ • SAFE Disposal Events (5 events; 14,167 participants; 2,066,535 materials distributed) ¶ • "Trash It, Don't Flush It" Outreach (1 event with 35 participants; 2,183 households contacted) ¶ • Urban Park Rangers Natural Classroom (282 events; 6,292 participants) ¶ • Visitor Center at Newtown Creek (160 events; 4,015 participants) ¶ • Weekend, Pop-up, and Custom Adventures (430 events; 3,669 participants) ¶
		List of planned educational and outreach programs to be undertaken in next reporting cycle	• Annual Art and Poetry Contest • Automotive Associations Outreach • Community Clean-ups • DEP Environmental Education • Forgot Your Bag? • Harbor Protectors • Park Stewardship • SAFE Disposal Events • "Trash It, Don't Flush It" Outreach • Urban Park Rangers Natural Classroom • Visitor Center at Newtown Creek • Weekend, Pop-up, and Custom Adventures
Provide training for staff	Implement a staff training program on IDDE	Number of staff training opportunities/events	4 events
		Number of DEP staff trained on IDDE	23 participants total§

* Number includes illicit discharges detected/abated by DEP citywide and illicit discharges detected/abated by City agencies on-site at municipal facilities in the PP/GH Inventory. The total number of illicit discharges detected may not be counted by the City as abated if the resolution action includes transferring a case to DEC.
† Excludes cases DEP referred to NYSDEC; DSNY summons are for vehicle spillage and the extrusion of noxious liquids.
‡ The spreadsheet is a full listing of DEP CSO and MS4 outfalls.
¶These metrics reflect activities conducted citywide.
§ Participants total includes those who attended multiple training events.

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-0-020-001) (NYSDEC CGP).

The City's Construction and Post-Construction (C/PC) Program complements the NYSDEC CGP in the NYC MS4 area[5] 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 of certain projects[6] to install adequate controls to ensure no net increase (NNI) of a pollutant of concern causing the impairment of an impaired water without a total maximum daily load (TMDL). As part of the C/PC Program, DEP issues two types of stormwater permits for covered development projects: the Stormwater Construction Permit and the Stormwater Maintenance Permit.

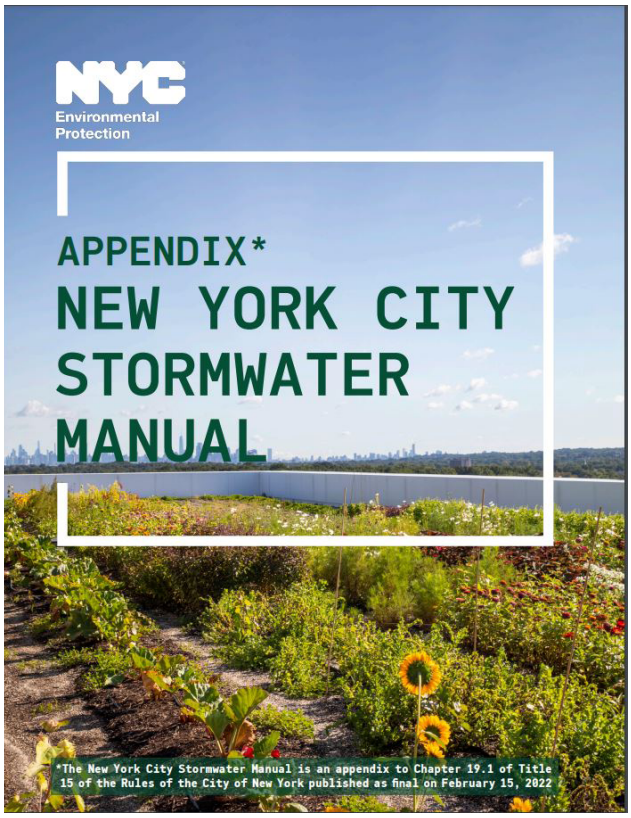
Rules governing the C/PC Program first went into effect on June 1, 2019 and were amended in February 2022 to meet the reduced threshold identified in the Lot Size Soil Disturbance Threshold Study required by the 2015 MS4 permit. The amended rule includes reducing the area of disturbance requiring Stormwater Construction and Stormwater Maintenance Permits to 20,000 square feet of soil disturbance and adds as a trigger the creation of 5,000 square feet or more of impervious surface.

2021 Program Assessment

During the 2021 reporting period, the City reviewed 128 SWPPPs and issued 58 approvals. The City also issued 20 Stormwater Construction Permits, bringing the total of active Stormwater Construction Permits during 2021 to 27. A list of active Stormwater Construction Permits is available through the Stormwater Permitting and Tracking System (SWPTS) at https://deppermits.microsoftcrmportals.com/. SWPTS is also the site on which applicants submit and track the review and approval of their SWPPPs and permit issuance. The City inspected 97% of active construction sites at least once in 2021, issuing one stop work order, three notices of non-compliance, and nine summonses. The City has not yet issued any Stormwater Maintenance Permits, as no project with an MS4 Construction Permit has reached a stage that would require maintenance of SMPs.

5. The City program was extended to the combined sewer area by Local Law 91 of 2020, effective March 2021.

6 NNI requirements apply to projects in an MS4 area draining to impaired waters without a TMDL and that result in non-negligible land use changes or changes to stormwater management practices.



Updated New York City Stormwater Manual following adoption of Unified Stormwater Rule

Of the 49 new projects received by the City in 2021, 23 met the criteria to have to comply with the NNI requirement. NNI is a requirement in the Special Conditions section of the MS4 Permit (II.B.1) under which projects that discharge to waters that are impaired, but do not have a TMDL allocation, must implement SMPs that negate any potential increase in pollutant loading.

In 2021, the City continued working to finalize the USWR, publishing draft rules in the City Record on December 10, 2021, and holding a virtual outreach meeting on the proposed rules on December 20, 2021.[7] The USWR aligned and streamlined stormwater-related requirements throughout NYC. It expanded the C/PC program to include combined sewer system areas, lowered the soil disturbance threshold that triggers the program from one acre to 20,000 square feet, and included as additional triggers for coverage the creation of 5,000 square feet of new impervious surface and roadway maintenance of 20,000 square feet. For more information on the USWR, visit https://www1.nyc.gov/site/dep/water/unified-stormwater-rule.page.

DEP continued its extensive outreach on the USWR by holding 15 stakeholder meetings in 2021. These meetings were held with the public, the state, developers, and other City agencies.

7 A second outreach meeting on the USWR was held virtually on January 4, 2022, and the official public hearing on the USWR was held virtually on January 10, 2022.

Goals for 2022

During the 2022 reporting cycle, DEP's Stormwater Permitting Group plans to continue outreach efforts to the construction community, to review and approve SWPPPs, and to inspect sites that have construction permits. Additionally, City staff will continue to respond to inquiries and provide applicants with information and training, as needed or requested.

Table 5 lists measurable goals and measures with the status of the City's implementation of C/PC Program BMPs.

Table 5. C/PC Program 2021 Status of Implementation

BMP	Measurable Goals	Measures	Status
Construction Site Stormwater Runoff Control	Review and Approve SWPPPs	Number of SWPPPs reviewed	128
		Number of SWPPPs approved with post- construction SMPs	42
		Number of SWPPPs approved without post- construction SMPs	16
		Number of Stormwater Construction Permits issued	20
	Inspect construction sites and enforce Stormwater Construction Permits	Number of active construction sites	27
		The percentage of active Stormwater Construction Permit sites inspected once	97%
		The percentage of active Stormwater Construction Permit sites inspected more than once	58%
		Number and type of enforcement actions and penalties issued	• Stop Work Orders: 1 issued • Notice of non-compliance: 3 issued • Summonses: 9 issued • Summons Penalties: $31,000
		Number of construction site stormwater control trainings planned or completed	6 completed, 0 planned
Post-Construction Stormwater Management	Inspect post-construction sites and enforce Stormwater Maintenance Permits	Number of Stormwater Maintenance Permits issued	0†
		Number of Flood Management Projects and existing structural flood control devices evaluated	0†
		Number and type of enforcement actions and penalties issued	0†
		Number of post-construction SMPs, including type of practice and contributing impervious area	0†
		Number and type of SMPs inspected	0†
		Number and type of SMPs properly maintained as determined by inspections	0†
		Number of individuals trained in inspection of long-term operation and maintenance of post-construction SMPs	0†

† No projects with MS4 construction permits have reached a stage that would require maintenance of SMPs.

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. To help reduce the potential for these facilities and operations to pollute stormwater, the City implements a comprehensive Pollution Prevention/Good Housekeeping (PP/GH) Program. The PP/GH Program maintains an inventory of municipal facilities and operations; prioritizes these facilities and operations for their potential to contribute pollution to stormwater runoff and assesses them on 2, 5 and 7-year cycles for high, medium and low priority, respectively; provides guidance on stormwater control measures to reduce stormwater pollution from municipal facilities and operations; evaluates runoff reduction techniques including green infrastructure in planned municipal upgrades; and trains City staff on PP/GH practices. The City also updates the facility inventory and priority ratings, as they are not static and can change from year to year based on new information.

2021 Program Assessment

Inventory

The facility inventory is dynamic in nature; facilities can be consolidated or separated, newly occupied or vacated, or confirmed served by the MS4 or combined sewers. The City updates the inventory each year. At the end of 2021, there were 34 high priority facilities, 268 medium priority facilities, and 199 low priority facilities in the inventory.

Facility and Off-site Assessments

Facility assessments evaluate stormwater controls associated with a facility's operations and assess stormwater pollution potential. Based on pollution potential, a facility may be categorized as a high, medium, or low priority site. For the 2021 reporting period, the City assessed over 100 facilities including sites owned or operated by DSNY, FDNY, DOE, DCAS, Parks, NYPD, DOT, and DOC.

The City also assessed off-site operations. Off-site operations are municipal activities generally performed in the right of way (ROW), including, but not limited to, pavement cleaning, road repairs, and catch basin cleaning. The off-site operations are assessed against the potential risk of impacts to stormwater runoff due to activities associated specifically with the operations. Typically, this assessment includes evaluation of waste-generating activities and their management, as well as stormwater controls. In 2021, the City completed the assessment of the DEP Bluebelts and DOT sidewalk and roadway repair and maintenance.

During the COVID-19 pandemic, facility and off-site assessments continued with assessors observing safety protocols such as wearing masks, maintaining social distancing, and conducting virtual interviews when possible.

Stormwater Control Practices

City agencies continued to implement stormwater control practices such as cleaning catch basins, sweeping pavement and practicing proper storage of materials. Because of COVID-19, however, there were reductions in street sweeping conducted by DSNY.

DEP catch basin cleaning

DSNY salt spreader in the snow

NYPD and Parks care for trees

Agencies also continued to look for ways to implement stormwater control practices. For example, DOT's Citywide Concrete Program utilized absorbent socks and slurry solidifier to capture and collect slurry that is generated during saw cutting; covered catch basins during concrete pouring; and collected concrete washout water in washout bags.

NYPD partnered with NYC Parks and the City Cleanup Corps to spread mulch at two NYPD facilities in the MS4 area. Spreading mulch helps increase water retention, improve soil health, and support healthier trees. NYPD also marked some catch basins and drains in high traffic areas with "No Dumping" tags, contracted cleaning crews to use water recovery systems when cleaning parking lots, and conducted three sewer mapping efforts at facilities to confirm if they discharge to MS4 area and look for any illicit connections.

Green Infrastructure

Agencies are required to consider, and if feasible and cost-effective, incorporate runoff reduction techniques and green infrastructure (GI) during planned municipal upgrades. In 2021, the City evaluated 18 planned municipal upgrade projects for potential GI opportunities. During this reporting period, Parks constructed GI projects including rain gardens and permeable pavement.

Pollution Prevention Training

The City continued to administer the PP/GH Training in both classroom (held in-person and virtually), and computer-based environments. During the 2021 reporting period, over 7,000 municipal employees received PP/GH training through their agencies.

Goals for 2022

For the 2022 reporting cycle, the City will continue to assess facilities and off-site operations based on their priority status; refine the facility and off-site operation inventory; and administer staff trainings. While there may be some continued COVID-related reductions in certain PP/GH metrics, it is anticipated that DSNY will resume pre-pandemic levels of street sweeping in July 2022.

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

With respect to data reported in the 2020 MS4 Annual Report, the City must update a metric with new information received in 2022. For the 2020 reporting period of January 1, 2020 to December 31, 2020, the number of catch basins maintained (originally reported as 1,362) was 1,886.

Table 6. PP/GH Program 2021 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, by priority	High – 34 Med – 268 Low – 199
		Number of off-site operations, by priority	Med - 11 Low - 4
	Implement the PP/GH Program	Acres of parking lots swept	47,228
		Miles of street swept	550,584*
		Number of catch basins inspected	12,445†
		Number of catch basins cleaned	6,176†
		Number of catch basins maintained	1,307†
		Miles of storm sewers inspected	619‡
		Miles of storm sewers cleaned	619‡
		Number of self-assessments completed of facilities in the inventory, high priority	27
		Number of self-assessments completed of facilities in the inventory, medium priority	72
		Number of self-assessments completed of facilities in the inventory, low priority	24
		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	6,890
		Number of staff trained computer-based	307
Consider runoff reduction and green infrastructure	Consider runoff reduction techniques and green infrastructure	Number of runoff reduction/green infrastructure opportunities evaluated	18
		Number of runoff reduction/green infrastructure opportunities implemented	8

* Based on citywide numbers for ROW, arterial highways, bridge roadways, tunnels, and underpasses, and work done by agencies at their facilities listed in the inventory.
† Data include the DEP ROW catch basin program based on the 2020 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.

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 issues the MSGP, DEP is responsible for the associated inspections and enforcement of the MSGP at privately owned MSGP-covered facilities in the MS4 area. DEP is also assessing unpermitted industrial and commercial facilities in the MS4 area and sending observations to NYSDEC to facilitate NYSDEC's determination of the facilities' potential need for SPDES permit coverage. DEP maintains a list of these permitted and unpermitted facilities, referred to as the I/C Facility Inventory.

DEP and Stantec assess an unpermitted recycling facility for MSGP applicability

2021 Program Assessment

Unpermitted Facility Assessments

During the 2021 reporting period, DEP assessed 77 unpermitted facilities for SPDES permit applicability. Of the 77 facilities assessed, DEP identified 33 facilities for referral to NYSDEC for potential MSGP no-exposure, full MSGP or other SPDES permitting. The remaining 44 facilities did not meet the criteria for referral and have been classified as requiring no further action. In 2021, DEP also identified an additional 41 facilities that were inactive (i.e., out of business) and, therefore, were removed from the inventory.

Since the start of the I/C Program, DEP has assessed 1067 unpermitted facilities. DEP estimates that there are 7 remaining unpermitted sites that require assessment. The rest of the facilities in the original inventory have been identified as not needing an assessment for a variety of reasons. In some cases, facilities have been abandoned, buildings have been demolished and/or replaced, or buildings are now occupied by a new business which may not be related to the previous enterprise or industrial sector. In other cases, facilities included in the original inventory were determined not to be in the MS4 area and, therefore, not subject to the I/C program. Finally, some facilities had already obtained SPDES MSGP coverage or applied for permit coverage, making assessment to determine SPDES permit applicability unnecessary.

Table 7 summarizes the results of unpermitted assessments performed during this reporting period.

Permitted Facility Inspections

During 2021, the City inspected 32 MSGP-permitted facilities. Table 8 summarizes the MSGP-permitted site inspections completed during this reporting period. These findings will be memorialized in inspection reports and associated enforcement (corrective action letters) to be completed after the reporting period. Inspection frequencies dictated by the MS4 Permit were met during this reporting period.

Complaint-Driven Inspections

By calling 311, the public may make a variety of complaints related to industrial activity. DEP received and evaluated

Table 7. Unpermitted Assessment Summary

Assessment Results	Number of Facilities in Reporting Period (2021)	Cumulative Number of Facilities to Date (2019-2021)
Unpermitted facilities with no further action needed*	85	943
Unpermitted facilities to be referred to NYSDEC for SPDES Permit Determination†	33	124
Total	**118**	**1067**

* Includes inventory listings deemed inactive or where no industrial activity was observed; and inventory listings that did not meet criteria for SPDES permitting referral.
† Includes facilities that may be eligible for MSGP coverage, may qualify for no exposure waiver, or may need an individual SPDES permit.

12 complaints for potential applicability to the I/C program. These evaluations resulted in the I/C program's inspecting one complaint location; this inspection did not result in an enforcement action. The remaining 11 sites were referred to other DEP response programs.

Enforcement

During the 2021 reporting period, DEP issued 21 Commissioner's Orders (COs) to unpermitted facilities, in each case associated with a SPDES referral inspection report. A CO, under this Industrial/Commercial program, is an order issued by DEP to enforce its rules for the use of and discharges to the MS4; the Order explains the nature of the violation and provides a deadline for taking corrective action. DEP did not issue any COs to MSGP-covered facilities in 2021; however, 6 COs are pending pursuant to inspections DEP conducted in 2021, and DEP expects to issue them in 2022. Another CO related to an unpermitted facility assessment is in progress and anticipated to be issued in 2022.

There were several categories of COs issued: some, considered "'precautionary" COs, prohibited non-stormwater discharge to the street and sidewalk; some presented options for preventative steps to eliminate potential illicit discharges through an indoor trench drain; some required submission of building plumbing investigations to confirm connectivity to the public collection system; and one required a recipient to clean up the street and sidewalk of waste discharged from the site.

DEP sent 12 formal corrective action letters to MSGP-permitted facilities in 2021. These letters directed facilities to make improvements to SWPPPs and/or housekeeping practices. Five of the letters were linked to inspections conducted during the prior reporting period (2020). An additional 25 corrective action letters stemming from inspections conducted in 2021 are still pending final completion and are expected to be completed in 2022.

DEP did not observe any active, unauthorized non-stormwater discharges to the MS4 while performing MSGP compliance inspections or unpermitted facility assessments. Therefore, in 2021, the City issued no enforcement actions with penalties (e.g., summonses) for observed, active, illicit discharges.

Goals for 2022

In 2022, DEP plans to continue the assessment of the remaining unpermitted facilities and inspection of permitted facilities. In addition, DEP plans to finalize SPDES assessment report referrals from the prior year and take any necessary enforcement actions stemming from assessments and inspections done in 2021.

Table 8 lists measurable goals and measures with the status of the City's implementation of the I/C Program BMPs.

Table 8. I/C Program 2021 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	Status of the inspection program and stormwater controls for unpermitted industrial and commercial facilities	DEP performed 77 unpermitted facility assessments in 2021. 33 of these facilities will be referred to NYSDEC for SPDES coverage. DEP issued 21 Commissioner's Orders to unpermitted facilities, and one is in progress.
	Implement an inspection program for MSGP Permit holders based on priority	Number of SPDES MSGP facilities inspected, high priority	1
		Number of SPDES MSGP facilities inspected, medium priority	27
		Number of SPDES MSGP facilities inspected, low priority	4
		Number of non-compliant SPDES MSGP facilities	31
		Number of repeat non-compliant SPDES MSGP facilities	1
		Number and type of enforcement actions completed and penalties issued	12 completed formal letters to permittees identifying deficiencies and associated corrective actions. A portion of these were tied to inspections completed during the prior reporting period. 25 formal letters in progress to permittees identifying deficiencies and associated corrective actions. 6 Commissioner's Orders in progress to permittees with repeat non-compliance.

Measuring debris in catch basin for Loading Rate Study

Control of Floatable and Settleable Trash and Debris

Stormwater runoff can transport trash and debris from urban areas into local waterbodies. Once waterborne, these 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 to control trash and debris 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. Public education, outreach, involvement, and participation are also important parts of the City's efforts to control floatables. A variety of programs encourage the public to help manage trash and debris, including a suite of stewardship programs (e.g., Parks Community Cleanups) and 311, which enables New Yorkers to report to the City dirty conditions they observe.

In addition to these programs, the City developed a work plan to determine the loading rate of trash and debris from the MS4 to floatable-impaired waterbodies. This work plan, included as Appendix 9.1 of the SWMP Plan, has 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 discharging from 63 catch basins representing different combinations of characteristics such as street litter level, street sweeping frequency, and catch basin hood status.

Volunteers at Jr. Litter League clean up

2021 Program Assessment

During this reporting period, the City implemented the floatables control programs described in the SWMP Plan. These programs included sweeping more than 544,000 miles of streets citywide, inspecting more than 12,000 catch basins and cleaning more than 6,000 catch basins. DEP maintained 23 in-water floatable containment facilities. Because of COVID-19, however, there were continuing reductions in street sweeping conducted by DSNY as well as in education and outreach programs conducted by various agencies.

Program Highlights:

Jr. Litter League Pilot Program. In Spring 2021, Parks launched the Jr. Litter League to help combat litter in NYC parks. A total of 27 teams across all five boroughs participated in the pilot. Each team was given a toolkit that provided clean-up guidance and safety tips, data collection forms, and educational activities. During the 8-week program, the teams collected 12,687 pounds of trash. Visit https://www.nycgovparks.org/opportunities/volunteer/jll to learn more.

Straws Upon Request. In 2021, the City passed Local Law 64. As a result, starting on November 1, 2021, New York City food service establishments may no longer provide single-use plastic beverage straws, except upon request. Additionally, food service establishments may no longer provide single-use beverage splash sticks or stirrers made of plastic. Reducing this single-use plastic helps reduce floatables and protect NYC waterways and wildlife.

City Cleanup Corps. Taking advantage of temporary federal funding, the City created the City Cleanup Corps, which hired workers for beautification projects throughout NYC. Mayor De Blasio created the City Cleanup Corps to engage in a massive cleanup effort across New York

City focused on the neighborhoods hardest hit by the COVID-19 pandemic. This initiative included painting fire hydrants; stenciling catch basins; and cleaning sidewalks, public spaces, and rain gardens. In 2021, the City Cleanup Corps hand-swept over 70,000 blocks, removed more than 1,000,000 bags of trash, cleaned over 40,000 rain gardens, stenciled 9,000 catch basins, and painted nearly 18,000 fire hydrants.

Street Cleaning. Throughout 2021, the City continued to implement the Alternate Side Parking (ASP) reform rules enacted during 2020 in response to COVID-19. Under these reform rules, on days when ASP is in effect, residential "side streets" without meters are not cleaned more than once a week on each side. There were no changes to street cleaning frequency on commercial streets or in metered areas.

Loading Rate Study

In accordance with the 2015 MS4 Permit, DEP commenced the Loading Rate Study in early 2021, with the goal of starting data collection in the spring. Samples were collected from May 3, 2021 through the last week of November 2021. While the data analysis was not completed in 2021, preliminary results show that, by volume, plastic is the most prevalent type of material discharging from catch basins into sewers. Plastic, combined with paper, cloth, and metal items, makes up most of the collected material. As expected, the volume of material collected is directly related to precipitation that preceded.

In addition to collecting and counting items discharging from selected catch basins, DEP collected supplemental data about litter on sidewalks and in street gutters. By item count, paper pieces and cigarette butts are the most prevalent types of litter observed.

Goals for 2022

During the 2022 reporting cycle, the City plans to continue its key floatables control programs, including public education and outreach, street sweeping, catch basin inspections and cleaning, and DEP's boom and netting program.

In the 2022 reporting period, the City also plans to analyze the data collected during the Loading Rate Study and work towards calculating a loading rate of trash and debris discharged through the MS4.

Table 9 lists measurable goals and measures with the status of the City's implementation of the Floatables Program BMPs.

Table 9. Control of Floatable and Settleable Trash and Debris 2021 Status of Implementation

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	See above program assessment narrative.
	Continue DEP's Catch Basin Inspection, Cleaning, and Hood Replacement Program	Number of catch basins inspected, cleaned, and retrofitted*	12,445 catch basins inspected, 6,176 catch basins cleaned, and 0† catch basins retrofitted
		Number of catch basin hoods repaired, installed, or replaced*	469
	Continue DEP's boom and netting program	Status and location of Combined Sewer Overflows Best Management Practices Annual Report with Floatables Control Program results	The most recent Combined Sewer Overflows Best Management Practices Annual Report is online and available to the public at https:// www1.nyc.gov/site/dep/water/combined-sewer-overflows.page
	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)	• Adopt-a-Highway/Greenway (83 materials distributed) ‡ • Automotive Association Outreach (1 event; 53 businesses contacted) ‡ • Community Clean-ups (253 events) ‡ • Parks Environmental Education (1 event; 486 participants; 27 Jr. Little League Teams; 12,687 pounds of trash collected) ‡ • Harbor Protectors (4 events; 184 participants) ‡ • Park Stewardship (339 events, 3652 participants) ‡ • SAFE Disposal Events (5 events, 2,066,535 materials distributed, 14,167 participants) ‡ • School Sustainability Coordinator Trainings (4 events, 409 participants) ‡ • "Trash It, Don't Flush It" Outreach (1 event with 35 participants; 2,183 households contacted) ‡

* Data include the DEP ROW catch basin program based on the MS4 map and work done by agencies at their facilities listed in the PP/GH inventory.
† As of 2010, DEP completed its program of retrofitting those catch basins that required such repairs before a hood could be installed.
‡ These metrics reflect activities conducted citywide.

Monitoring and Assessment of Controls

To assess the quality of stormwater runoff from the MS4, the City developed and is implementing an MS4 Monitoring Program that combines data collected from existing monitoring programs with additional MS4 outfall or manhole water quality and flow data collected specifically for the MS4 program.

For the MS4 Monitoring Program, the City collects flow and water quality data at a set of MS4 outfalls and manholes during wet weather to assess the influence of land use on stormwater discharge and pollutant concentrations. The MS4 outfall sampling locations are representative of six land use types within NYC: mixed; high-density residential; low-density residential; industrial; open space; and highway. The wet weather events during which the City does sampling must meet the criteria of a "qualifying rain event:"

- no storm equal to or greater than 0.1 inch occurred in the outfall catchment area within 48 hours preceding the rain event;
- weather forecasts at least a day in advance predict rain with 80 percent probability of occurrence; and
- the event is predicted to result in at least 0.2 inches of rain.

In 2020, the City decided to extend sampling beyond the originally stated two-year period and continue to sample when feasible in order to collect the number of samples required for reliable data analysis.

2021 Program Assessment

The MS4 Monitoring Program, which began in 2019 and is ongoing, is inherently dependent upon the timing, variability, and unpredictability of the weather. During the 2021 reporting cycle, the City collected 14 sets of samples during qualifying rain events. Table 10 includes the number of samples collected from each sampling location during the sampling periods.

For the monitoring location at TI-633, DEP investigated the storm sewer system in 2019, and again in 2021, and did not see evidence of illicit connections. Both years, DEP determined through sampling that nearby catch basins had relatively high pathogen numbers, likely due to improper pet waste disposal.

For the monitoring location at TI-658, DEP noted some fluctuations in the data and decided to investigate in 2021. DEP did not note dry weather discharge at TI-658, but some pet waste was found in nearby catch basins. Other potential bacteria sources to the TI-658 monitoring location and catch basins may be leakage from failing cesspool systems and discharges to sidewalks from residential washing machines through flexible hoses located in the unsewered area of Douglas Manor. As a result, DEP is working in coordination with the Douglas Manor homeowner's association to inform the community about proper septic tank maintenance and the issue of having laundry pipes discharge directly to the street.

Table 10. Number of samples collected from sampling locations

Outfall	Borough	Land Use	Total Samples 2019	Total Samples 2020	Total Samples 2021
HP-640	Bronx	Mixed	3	3	2
HP-627	Bronx	Open Space	3	2	3
TI-604	Queens	Highway	3	2	2
TI-633	Queens	High-Density Residential	3	3	1
TI-658	Queens	Low-Density Residential	3	3	2
NCQ-632	Queens	Industrial	3	3	2
OH-607*	Brooklyn	Industrial	1	0	0
OB-722	Staten Island	Low-Density Residential	3	2	2
		Total	22	18	14

*OH-607 is no longer an active monitoring location and the City will not collect flow data from this site. See the 2020 MS4 Annual Report for further detail.

Goals for 2022

For the 2022 reporting cycle, DEP will continue tracking the weather to identify qualifying storm events. As conditions permit, DEP will continue collecting samples for the MS4 Monitoring Program.

Table 11 lists measurable goals and measures with the status of the City's implementation of the Monitoring Program BMPs.

Table 11. MS4 Monitoring Program 2021 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	Outfall monitoring continued through 2021 with DEP able to collect 14 water quality samples for the year.

Special Conditions for Impaired Waters

In addition to the City-administered programs and practices to reduce or remove pollutants in stormwater runoff throughout the MS4 area, there are 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 do not predict compliance with applicable water quality standards and have identified stormwater as a significant contributor to the impairment

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, require the City to implement enhanced BMPs. In 2021, Coney Island Creek was the only waterbody to meet these criteria. If NYSDEC approves additional CSO LTCPs for waterbodies that meet these criteria, the City will develop waterbody-specific plans and summarize them in an MS4 annual report.

In Coney Island Creek, the 2015 MS4 Permit lists pathogens and floatables as the POCs causing impairments. Table 12 shows a summary of the source categories of the POCs and the City's proposed control measures for Coney Island Creek.

2021 Program Assessment

The City implements enhanced stormwater control measures in the Coney Island Creek watershed. Table 13 includes status updates on the enhanced stormwater control measures the City proposed in the SWMP Plan.

Table 12. Source categories of POCs proposed control measures for Coney Island Creek

Pollutant of Concern	Targeted MS4 Source Categories	Proposed Control Measures and Projects for CIC
Floatables	Highly impervious area (littering)	Catch basin marking Source control Public education and outreach
Pathogens	Illicit discharges & Pet waste	Catch basin marking Sentinel Monitoring Source tracking and control Public education and outreach

Harbor Protectors stencil catch basin in Coney Island

Table 13. Special Conditions Program Status Updates

Program	Description	Update
Pet waste management	Maintain pet waste bag dispensers and signage as part of Parks' "Forgot Your Bag?" Program, to minimize the presence of exposed pet waste.	Parks continued to maintain the pet waste bag dispensers and signage in both Calvert Vaux and Kaiser Park.
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.	The City continued to include a "no dumping" message on newly installed catch basin curb pieces throughout the City. DEP launched the Harbor Protectors Program on Earth Day (April 22, 2021) in Coney Island Creek providing 4 different stencil designs and guidance to the local community.
Monitoring and Source Tracking	Explore modifications to existing sampling programs to allow the City to refine its source trackdown efforts in Coney Island Creek.	DEC approved a modified Sentinel Monitoring Program which included the substitution of 18 stations of the previous 80 Sentinel stations with 9 Harbor Survey stations and the addition of three new Sentinel stations (Coney Island Creek, Sheepshead Bay and Fresh Creek). DEP began implementation of the modified program in April 2020. The City also determined that an enhanced source tracking pilot would not be efficacious in Coney Island as the existing source tracking program is appropriate for the waterbody.
Public education and outreach	Conduct education and outreach in the Coney Island Creek Community on pollution source controls.	On Earth Day 2021, DEP kicked off the Harbor Protectors Program in Coney Island at Mermaid Ave from 22nd St to 35th St, Neptune Ave from 33rd St to 35th St with more than 100 participants who cleaned and stenciled over 50 catch basins. Harbor Protectors are DEP volunteers who sign up to do stewardship activities in their neighborhoods. These activities help keep our communities clean and pollution out of our waterways. Participants sign up for one or more of four activities that support stormwater management: • Clear Catch Basins: New York City has over 144,000 catch basins! Catch basins collect rainwater that flows down streets and sidewalks. Harbor Protectors remove litter and leaves that can cover catch basins causing flooding and pollution in nearby waterways. • Stencil Catch Basins: Sometimes people pour oils or dump garbage down catch basins. Those oils and debris can end up as pollution in nearby waterways. Harbor Protectors stencil an educational message on the sidewalk near a catch basin to remind their neighbors not to dump anything there. • Care for Rain Gardens: Rain Gardens are built in City sidewalks and are designed to collect rainwater before it gets to the catch basins. Harbor Protectors care for rain gardens by removing litter and debris, clearing inlets and outlets, and helping our maintenance staff care for plants. • Participate in Shoreline Cleanups: The City of New York has over 520 miles of shoreline. Litter and debris can wash up on the shoreline causing issues for the local ecology. Harbor Protectors partner with DEP on shoreline clean-up events to remove trash. In 2021, DEP also reached out to 53 automotive businesses in Coney Island on proper waste disposal. On July 10, 2021, Parks attended the City of Water Day in Coney Island at Kaiser Park for Wetland Clean-up. Parks Stewardship and the Coney Island Beautification Project hosted the event. Urban wetlands provide a variety of benefits including improved water quality and storm water retention. They also serve as critical habitat for native wildlife. 50 volunteers removed debris from the shorelines of Kaiser Park. Parks spoke and tabled the event to distribute brochures and to educate the public about MS4, stormwater runoff, and floatables.
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 completed the design of stormwater management practices for four schools in the Coney Island Creek drainage area in 2020. In 2021, DEP coordinated with DOE to set up construction contracts and permits for the following proposed GI practices at three of the schools: • K095: Gravesend – subsurface retention practice • K238: Anne Sullivan – bioretention practice and subsurface retention practice • K234: W. A. Cunningham – subsurface stormwater chamber The fourth school, K212: Lady Deborah Moody, whose design includes synthetic turf practice with subsurface stone storage, will be included on a separate construction contract with other synthetic turf projects.

Classon Point Park

Recordkeeping and Reporting

Each year, the City prepares an MS4 annual report documenting the status of compliance activities related to the MS4 Permit. The City submits the MS4 annual report to NYSDEC by September 30 following each reporting year. The public can request information related to the SWMP by emailing MS4@dep.nyc.gov.

This report documents activities related to MS4 Permit compliance for the 2021 reporting period and serves as the Annual Effectiveness Assessment required by the Permit. The City assesses SWMP effectiveness through its achievement of the measurable goals included in the BMP tables. In addition, the annual report includes a narrative highlighting and explaining important activities conducted during the reporting year. The City also periodically refines its measurable goals with information gained from program planning and implementation, interagency working groups, and public input. Continuing to refine and update the measurable goals allows the City to better quantify and accurately represent the effectiveness of each one. Table 14 shows the 2021 recordkeeping and reporting implementation status.

Table 14. Recordkeeping and Reporting 2021 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 sub-sections of this report.
		Municipal Compliance Certification submission	Appendix 3 – Municipal Compliance Certification

Related Initiatives

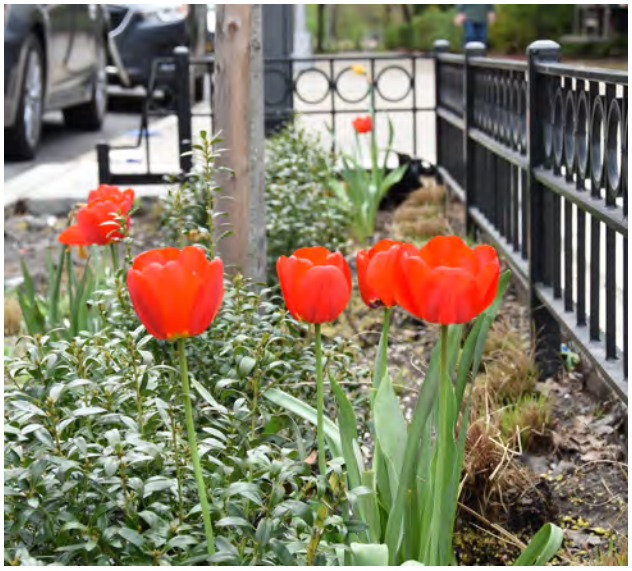
NYC Green Infrastructure Program

Building upon the successes and lessons of earlier efforts, in 2010, the City established the NYC Green Infrastructure Program (GI Program); the majority of program implementation has thus far taken place in areas of the City served by the combined sewer system. GI practices such as green roofs and rain gardens collect, treat, and infiltrate stormwater runoff. The GI Program has multiple goals, including stormwater management from impervious surfaces, improvement in water quality, and enhancement of neighborhood resiliency. DEP works with partner agencies to design, construct, and maintain GI on City streets and sidewalks, and on other public properties such as schools, parks, and public housing.

The GI Program also offers grants to private property owners to install green roof retrofits citywide (including in separately sewered areas of NYC). In 2021, DEP registered a $53 million contract to retrofit private properties with green infrastructure and officially launched Resilient NYC Partners, formerly known as the Private Property Retrofit Incentive Program. Resilient NYC Partners funds the design and construction of site-level green infrastructure practices such as rain gardens, subsurface storage, and permeable pavements on properties of 50,000 SF or more with extensive impervious area. The program provides an opportunity for large property owners to improve their properties by addressing localized flooding and other drainage issues, resurfacing parking lots, and adding more greenery, all while helping the City to manage stormwater.

To date, more than 100 highly impervious private properties in the combined sewer area have been identified for strategic outreach. There is great potential for the program to reach many private property owners in New York City. As of the date of this report, the program team is advancing conceptual plans for projects on three different private properties. For more information on NYC Resilient Partners, visit https://www1.nyc.gov/site/dep/whats-new/resilient-nyc-partners.page.

NYC rain garden in bloom



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 https://www1.nyc.gov/site/dep/water/green-infrastructure.page or check out the 2020 GI annual report https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/green-infrastructure/gi-annual-report-2020.pdf.

Rockaway Median Project (Beach-67th Street Project)

The Beach 67th-Green Street Median Project (between Thursby Avenue and Almeda Avenue) is designed to minimize major street and local area flooding using the existing street median assets and incorporating Green Infrastructure elements such as bioretention and detention structures.

Some of the key construction elements of this project include:

- Rehabilitation of the existing three street medians between Thursby and Almeda Avenues and incorporation of GI/LID elements such as bioretention and detention structures.
- Reconstruction and extension of the street median along the intersection of Beach 67th Street and Almeda Avenue.
- Pavement resurfacing along Beach 67th Street (between Thursby and Almeda Avenues).
- Pedestrian ramp improvements for ADA compliance at the intersections of Beach 67th Street and Almeda Avenue and Beach 67th Street and Thursby Avenue.
- Landscape work along Beach 67th Street (between Thursby and Almeda Avenues).

The City anticipates that this project will be completed by 2023.

Rendering of new weir at Van Cortlandt Lake

Tibbetts Brook and Van Cortlandt Lake Improvements

Tibbetts Brook originates in Yonkers and flows through Van Cortlandt Park in the Bronx before discharging into Van Cortlandt Lake (also known as Hester and Piero's Mill Pond). Since the early 1900s, the Brook has been diverted as it leaves Van Cortlandt Lake into an 8-foot diameter tunnel that connects to a combined sewer flowing to the Wards Island WRRF. During wet-weather events, overflow from the combined sewer discharges to the Harlem River at an outfall on W 192nd St, which, volumetrically, is one of the largest CSO discharge points in New York City. As part of the DEP Citywide Open Waters LTCP, the Tibbetts Brook Daylighting and Van Cortlandt Lake Improvements Project proposes to reduce CSO discharges to the Harlem River.

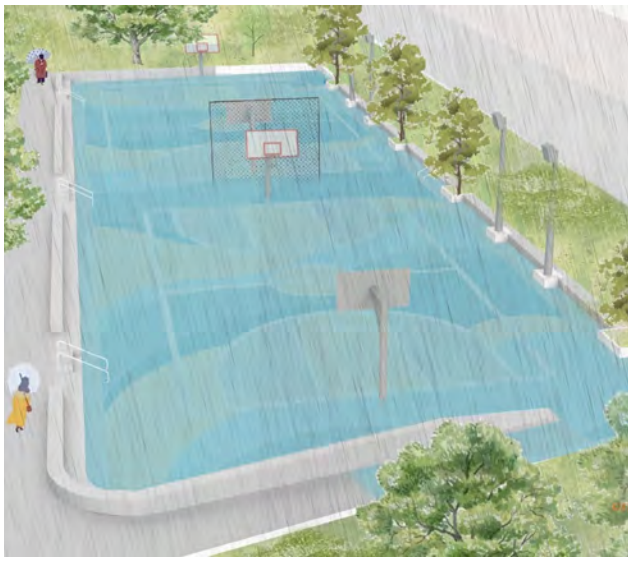
The City is planning to implement this project in two phases. Phase 1 will focus on Van Cortlandt Lake improvements such as removing invasive vegetation, restoring lake vegetation and the littoral zone, and piloting a living shoreline design. Phase 2 will focus on daylighting Tibbetts Brook, including re-routing flow from its current path through the sewer into a new stream channel and constructing a corresponding greenway.

Daylighting Tibbetts Brook, by diverting the stream away from the sewer system and into its own channel, will be the City's largest green infrastructure project to date. Once completed, daylighting would reduce CSOs to the Harlem River by an estimated 215-220 million gallons a year (about a 25% reduction at the existing outfall). The channel is designed for a baseflow of 7 cubic feet per second and maximum wet weather flow of 38 cubic feet per second, meaning that approximately 2.1 billion gallons of freshwater would be diverted away from the combined sewer system in a typical year. With the brook flowing through its own channel instead of the sewer system, the local capacity of the sewer and wastewater infrastructure would increase. Daylighting would also allow for the Wards Island WRRF to operate more efficiently by no longer treating freshwater during dry weather, which would result in energy savings and reduced greenhouse gas emissions.

In addition to increasing infrastructure efficiency and reducing CSOs, daylighting Tibbetts Brook would also expand public amenities through the construction of new greenway paths and the acquisition of 3.95 acres of new parkland. The City is proposing to create, alongside the new open channel, a greenway with a bike path and pedestrian walkway called the Putnam Greenway. The name pays respect to the New York and Putnam Railroad, the original owner of the ROW. The City is working with relevant property owners to acquire the new parkland for the proposed daylighted Tibbetts Brook and Putnam Greenway.

The City currently estimates that the Van Cortlandt Lake improvements portion of the project will begin in 2023 and that the design to daylight Tibbetts Brook and extend the Putnam Greenway will be completed in 2023. This joint project between DEP and NYC Parks is fully funded.

Rendering of cloudburst infrastructure during dry weather



Rendering of cloudburst infrastructure during wet weather

Southeast Queens and Cloudburst Pilot Projects

New York City has already seen flooding events caused by extreme rain and is anticipating that flooding may become worse with climate change. In the neighborhood of Southeast Queens, flooding has been a chronic issue for over 70 years and has been exacerbated by increasing rainfall, loss of permeable surfaces, and reduced groundwater. Over the past ten years, Queens Community Boards 12 and 13 have had more flooding complaints than any other areas of New York City. DEP's 10-Year Capital Budget allocates $1.5 billion to plan and begin full sewer build-out and to provide short-term relief wherever possible. Full build-out requires completion over many years of approximately 450 miles of new storm sewers, and upgrades to 260 miles of sanitary sewers and 30 miles of combined sewers.

To supplement ongoing sewer buildouts, DEP is partnering with other City agencies to implement GI in the ROW and on public properties as another tool to reduce localized flooding. Additionally, DEP has been actively engaging with other cities that have experienced extreme rain events to exchange knowledge and develop innovative approaches for managing stormwater and addressing climate change. After the devastation caused by Hurricane Ida, the City issued a report called, The New Normal Report: Combating Storm-Related Extreme Weather in New York City. The report prioritized stormwater resilience initiatives, including bringing Cloudburst Management projects into neighborhoods vulnerable to flooding from heavy rain.

To complement storm sewer and green infrastructure work in Southeast Queens, DEP is also implementing pilot projects identified as part of a study to assess risks, prioritize responses, develop neighborhood-based solutions, and assess costs and benefits for managing extreme rain events, or "cloudbursts." The Cloudburst Resiliency Planning Study adapted an approach developed in Copenhagen to manage large volumes of stormwater using streets and open space and created a unique learning exchange between Copenhagen and New York City. By modeling the flow of floodwater over the local topography, the study determines opportunities to slow and safely convey water to minimize damages and maximize co-benefits to the community.

As a result of the Cloudburst Resiliency Planning Study, DEP identified two pilot projects in the Southeast Queens neighborhood to help demonstrate the feasibility of implementing the cloudburst approach. These projects aim to supplement ongoing sewer buildouts and act as a buffer for storms that are not captured by sewers due to the size of the storm or the lack of fully built-out storm sewer infrastructure. This effort would reduce flooding in areas where grey infrastructure takes longer to implement and would alleviate chronic flooding of upstream areas.

DEP is currently in design phases for two cloudburst pilot projects in Southeast Queens. One of these projects, in St. Albans, seeks to design and construct a stormwater management system in the ROW using green infrastructure and cloudburst streets to mitigate flooding. A second project will be located at the South Jamaica Houses, a NYCHA campus, which includes eight city blocks in South Jamaica, Queens and is home to approximately 2,600 residents. South Jamaica Houses were chosen to provide relief upstream to allow for more flow to enter the sewer system downstream to reduce flooding. This project will maximize stormwater capture for up to 2.3 inches of rainfall per hour for climate resiliency. Aside from flood mitigation, another focus of this pilot is to show how cloudburst infrastructure can go beyond just managing stormwater and offer many co-benefits by reimagining the urban fabric of communities. DEP anticipates starting construction at the South Jamaica Houses in 2023.

Definitions

Annual Report: The City publishes, by September 30 of each calendar year, a report on SWMP implementation. The report summarizes activities performed throughout the reporting period (January 1 to December 31) by all agencies with obligations under the MS4 Permit; and reports on BMPs, measurable goals and their measures, as detailed in each chapter of the Plan and in Part IV.M of the MS4 Permit.

Applicant: The term "applicant" means the person filing the online application for Stormwater Permitting. This person may be the owner, developer, qualified professional, or other user registered in the online application system.

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 permit.

Combined Sewer Overflow (CSO): Sometimes, during heavy rain and snowstorms, a combined sewer system receives higher than normal flows. WRRFs are unable to handle flows that are greater than twice their design capacity, and, when such a flow occurs, a mix of excess stormwater and untreated wastewater discharges directly into the City's waterway at certain outfalls to prevent upstream flooding. This discharge is called a combined sewer overflow (CSO).

Combined Sewer System: A sewer system used to convey both wastewater and stormwater in a single pipe to the WRRF. During times of heavy precipitation, the combined sewer system may discharge into surface waters. See also Combined Sewer Overflow.

Covered development project: The term "covered development project" means development activity, private or public, that involves or results in an amount of soil disturbance greater than or equal to 20,000 square feet; or creation of 5,000 square feet or more of impervious surface; or is a covered maintenance activity (roadway maintenance that involves 20,000 square feet or more).[8] Such term includes development activity that is part of a larger common plan of development or sale involving or resulting in soil disturbance area greater than or equal to 20,000 square feet; or creation of 5,000 square feet or more of impervious surface; or a covered maintenance activity. Such term includes all development activity that requires a SWPPP pursuant to the New York State Department of Environmental Conservation (NYSDEC) construction general permit (CGP).

8 As of February 15, 2022, USWR lowered soil disturbance threshold from 1 acre to 20,000 square feet and added triggers of creation of 5000 or more square feet of impervious surface and covered maintenance activity on 20,000 square feet or more.

Covered Maintenance Activity: Roadway maintenance that involves 20,000 square feet or more.

CSO Outfall: The physical point where a municipally-owned or -operated combined sewer discharges to surface waters of the state.

CSO Regulator: A flow control structure in a combined sewer system that diverts a controlled portion of flow from the collection system to an intercepting sewer and allows the remaining flow to discharge to nearby waters as a combined sewer overflow.

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: Created prior to permit issuance in 2015, the Historical MS4 Map was unrefined and contained some inaccuracies but represented the City's best understanding of the MS4 area at that time. In developing the SWMP, the City relied upon the Historical MS4 Map to define the MS4 area. The Historical MS4 Map 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. The Historical MS4 Map is no longer in use.

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), as defined by 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 (TMDLs) 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): An LTCP identifies appropriate CSO controls to achieve applicable 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. The City identified its goals, both qualitative and quantitative, using an integrated approach that addresses the requirements and intent of the provisions of the MS4 Permit.

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 Operations and Facilities: Any operation or facility serving a New York City governmental purpose and over which New York City has operational control.

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):

- 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, floatables 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;
- Designed or used for collecting or conveying stormwater;
- Which is not a combined sewer; and
- 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 defined 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.

Pollutant of Concern (POC): A pollutant causing the impairment of an impaired water segment listed in Appendix 2 of MS4 Permit, including nitrogen, phosphorus, pathogens, and floatables.

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 or covered maintenance activity 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.

Stormwater Maintenance Permit: The term "stormwater maintenance permit" means a permit issued by the DEP where maintenance is required of post-construction stormwater management facilities by owners of real property benefited by such facilities.

Stormwater Management Program (SWMP): means the program developed and implemented by the Permittee which provides a comprehensive integrated planning approach involving public participation and, where necessary, intergovernmental coordination, to reduce the discharge of POCs and specified pollutants to the MEP, using management practices, control techniques and systems, design and engineering methods, and other appropriate provisions. Permittees are required at a minimum to develop, implement and enforce a SWMP designed to address POCs and reduce the discharge of pollutants from the MS4 to the MEP, to protect water quality, and to satisfy the appropriate water quality requirements of the ECL and the Clean Water Act. The SWMP must address all MS4 requirements in Part II and IV of this SPDES Permit.

Stormwater Management Program Plan (SWMP Plan): used by the Permittee to document developed, planned and implemented SWMP elements. The SWMP plan must describe how pollutants in stormwater runoff will be controlled.

Stormwater Pollution Prevention Plan (SWPPP): A SWPPP is (i) a plan for controlling stormwater runoff and pollutants during construction and, when required, after construction is completed, or (ii) when used in connection with an industrial stormwater source, a plan, which is required by the MSGP, for controlling stormwater runoff and pollutants.

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

ASP Alternate Side Parking

BMP Best Management Practice

CGP Construction General Permit

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

NNI No Net Increase

NOI Notice of Intent

NYC New York City

NYS New York State

NYSDEC New York State Department of Environmental Conservation

PEO Public Education and Outreach

POC Pollutants of Concern

PP/GH Pollution Prevention/Good Housekeeping

ROW Right-of-Way

SAFE Solvents, Automotive, Flammables, and Electronics

SMP Stormwater Management Practice

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

USWR Unified Stormwater Rule

WRRF Wastewater Resource Recovery Facility

New York City Departments and Agencies

DCAS Department of Citywide Administrative Services

DCP Department of City Planning

DDC Department of Design and Construction

DEP Department of Environmental Protection

DOB Department of Buildings

DOC Department of Correction

DOE Department of Education

DOHMH Department of Health and Mental Hygiene

DOITT Department of Information Technology and Telecommunications

DOT Department of Transportation

DPR Department of Parks and Recreation

DSNY Department of Sanitation

EDC Economic Development Corporation

FDNY Fire Department

LAW NYC Law Department

MOCEJ Mayor's Office of Climate and Environmental Justice (formerly Mayor's Office of Recovery and Resiliency or ORR)

MOO Mayor's Office of Operations

NYPD Police Department

OMB Mayor's Office of Management and Budgt

SBS Small Business Services

Appendix 1 – Public Comments on the 2021 Annual Report

General

Comment: Does DEP contribute to DSNY's costs for street sweeping?

Response: DEP contributes annually to the cost of street sweeping.

Comment: How is the City doing things differently following the sewer backup last summer?

Response: On September 1, 2021, Hurricane Ida reached New York City. Shattering the record for the most single hour rainfall in NYC, it flooded streets, subways, and homes. Ida was a 200-year event (an event that has a 0.5% chance of occurring at any given time), and most cities build their infrastructure for 5- to 10-year events.

Following Hurricane Ida, the City published a report titled The New Normal, which outlined actions to be taken to address flooding issues. In a July 2022 initiative, dubbed Rainfall Ready NYC, the City updated its flood maps and outlined its response and recovery plan for an extreme storm; it also committed to short-term mitigation efforts, including installing warning signs, completing sewer projects, and adding green infrastructure to help manage stormwater. Most recently, in September of 2022, DEP published "Increasing Stormwater Resilience in the Face of Climate Change: Our Long Term Vision." This report compiles all our stormwater resilience efforts including programs to expand sewer capacity, improve sewer performance, and spur the installation of blue and green infrastructure to intercept stormwater before it reaches the sewer system.

This builds on DEP's existing efforts to develop Cloudburst projects in neighborhoods that get heavily flooded. Cloudburst projects combine methods that absorb, store, and transfer stormwater to minimize flooding from intense rainfall. For more information about cloudburst pilot projects see pages 48–49 of the Green Infrastructure 2020 Annual Report.

Comment: We are always flooding not just with Ida-like storms. The problem has stretched the neighborhood (Gowanus) beyond. We have pumps and sandbags. We were prepared even before Ida, but we need better planning regarding stormwater.

Response: As with other climate change and flooding issues throughout NYC, planning efforts are ongoing. Because Gowanus is a Superfund site, its challenges present an added level of complexity.

Comment: In Gowanus we have questions about the City not allowing stormwater outlets in Gowanus canal, that the DEP lawyers have said that sewers are not going to be in Gowanus. Can you explain how this decision fits with the stormwater planning for the community?

Response: There have been no decisions made on sewers in Gowanus, and DEP continues to work with EPA on those issues.

Comment: Would you give us the link where we can view this presentation later?

Response: Yes, the presentation will be on the DEP MS4 website: https://www1.nyc.gov/site/dep/water/municipal-separate-storm-sewer-system.page

Comment: We cannot access the links in the presentation. Would you put them into the chat?

Response:

- *Link to the SWMP Plan: https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/ms4/nyc-swmp-plan-full.pdf*
- *Link to draft 2021 Annual Report: https://www1.nyc.gov/assets/dep/downloads/pdf/water/stormwater/ms4/nyc-ms4-annual-report-2021.pdf*
- *Link to MS4 Map: https://nycdep.maps.arcgis.com/apps/webappviewer/index.html?id=81c926d182454388869ff135ef603c60*

- *Harbor Protectors: https://www1.nyc.gov/site/dep/whats-new/harbor-protectors.page*
- *Harbor Survey data: https://www1.nyc.gov/site/dep/water/harbor-water-quality.page*

Comment: Will the questions asked tonight be published?

Response: Yes, the questions and responses are published as an appendix to the Annual Report.

Legal Authority

Comment: What is the outlook to maintain compliance with post construction requirements?

Response: DEP issues Stormwater Maintenance Permits, which require owners to certify annually that the stormwater management practices are operating as designed; permits must be renewed every 5 years. DEP performs random inspections onsite, and if a property owner is not complying with the requirements of the Maintenance Permit, DEP may take enforcement action.

Public Education and Outreach

Comment: Continue the educational projects and events along Coney Island Creek!

Response: DEP and agency partners will continue to conduct education and outreach initiatives for Coney Island Creek.

Comment: The resources for education are really well done, particularly the story map. We will disseminate the resources to our member organizations and encourage them to take advantage of them.

Response: Thank you for your feedback!

Comment: Are you monitoring the numbers of clicks, downloads, site visitors to the Resources webpage? If you are, we recommend including those numbers in the future annual report.

Response: While such metrics can give some information about the traffic these resources receive, these metrics do not provide the whole picture as to how the resources are used or their total reach. For example, one download may potentially reach hundreds of people if it is used during a class visit or at a teacher training or conference. Therefore, DEP does not typically monitor the number of clicks, downloads, or site visitors. However, we can check these numbers when needed. Following are the view and download counts for the resources described in the Annual Report:

- *NYC virtual tours (Feb 2021-22) – View count 16,849*
- *NYC DEP education curriculum guide (Aug 2021-22) – 141 downloads*
- *Jamaica Bay Education resource directory (Aug 2021-22) – 26 downloads*

Comment: Does the DEP have any sense of the impact of the public outreach and education programs? Have you noticed any changes in awareness or behavior among the public? We understand this is one of the most difficult things to assess, let alone measure, but we are curious to learn if and how the programs are impacting water quality.

Response: The City tracks a variety of metrics that generally speak to the overall condition of NYC and its environment. However, many different factors influence these metrics, making it difficult to assess the impact of any one program or initiative.

However, City agencies may periodically seek to assess the reach of public outreach and education programs. For example, following completion of the "Don't Trash Our Waters" Campaign, DEP surveyed 1,000 New Yorkers to try to assess the reach and impact of the campaign. The survey results indicated that an estimated 31% of New Yorkers recalled seeing the campaign, which was generally well-received, and that people understood the connection between litter on the street and trash in the water. A majority of self-identified litterers (58%) indicated that the campaign did or would make them less likely to litter.

Comment: Are there any new metrics in which the City plans on evaluating its Public Outreach program? There are several programs it has instituted including the Harbor Protectors, Trash It, Don't Flush It campaign among others. The

City should be planning on assessing these programs' effectiveness in terms of improvement in water quality or at the very least pollution abatement.

Response: Program managers track the metrics that best reflect the efforts and reach of their education/outreach programs. Typically, these are number of events, number of participants, and number of materials distributed. These metrics are consistent with those reported by other MS4s and are generally accepted as effective for assessing public education and outreach programs.

Some programs may periodically collect additional metrics. For example, DSNY SAFE Disposal Events reported the total amount of material collected in 2021. In 2021, the Harbor Protectors program also reported the number of catch basins stenciled, number of rain gardens cleaned, and number of rain gardens planted.

Through the Harbor Survey, the City tracks a variety of metrics that generally speak to the overall condition of water quality in NYC. However, many different factors contribute to water quality, making it difficult to assess the impact of any individual program or initiative.

Public Involvement and Participation

Comment: How has the virtual platform changed public involvement & participation? Are you reaching larger numbers of people? Is there a segment of the population not participating in the virtual events compared to in-person (such as seniors)?

Response: Overall, we find that virtual platforms have enabled more people to participate in our public meetings. Our last in-person Annual MS4 Meeting was held in 2019 and had approximately 25 participants. In 2020, we shifted to virtual platforms due to the pandemic, and that Annual MS4 Meeting had more than 100 participants.

We do not collect information about participants in the public meetings, aside from the name and email the person chose to provide. We are therefore unable to meaningfully comment on what segments of the population are participating.

Comment: How confident are you that you are reaching your target audience?

Response: Our Annual MS4 Meeting is typically announced through our NYC Water email listserv, which is open to all. As of August 2022, 2,024 email accounts have signed up to receive water and environment-related news from DEP through our NYC Water listserv. Given the number of people we reach and the number of people who attend the Annual MS4 meeting, we feel strongly that we are reaching the stakeholders interested in water quality and the MS4.

We also do targeted outreach outside of the general email list when appropriate. Such outreach includes delivering presentations to Community Boards; working directly with schools and community groups on education and outreach programs; reaching out to the development and construction community on the Stormwater Construction Permitting Program; and reaching out to industrial and commercial facilities impacted by the MS4 industrial and commercial program.

Comment: The City says in this report that it received 11,314 complaints via 311 and responded to over 11,250 of them. It also includes the various categories of 311 complaints that it associates with the MS4 or general stormwater pollution. The City should provide a breakdown of the complaints associated with each category so it is more clear which problems are drawing the most complaints from the public.

Response: In 2021, the City received 10,399 catch basin complaints citywide. Catch basin complaints include reports of clogged, sunken, raised, damaged, or defective catch basins. The City also received 915 complaints related to grease, gasoline, oil, or chemicals spilled into a catch basin or sewer; odor from a catch basin or sewer; and sewage, oil, gasoline, or unusual color in a waterway. Of these 11,314 complaints received in 2021, the City was unable to respond to only 29 complaints due to COVID-related staff shortages.

Information on other types of complaints received by the City through 311 is available and updated daily at https://data.cityofnewyork.us/Social-Services/311-Service-Requests-from-2010-to-Present/erm2-I9

Comment: It has been confirmed by DEP that 311 is not available in Great Kills National Park. Can this ever be changed?

Response: 311 provides the public with quick, easy access to New York City government services and information. A key component of 311 is that service requests are directed to the agency with the authority and ability to address the request.

Federal property is outside of NYC jurisdiction. 311 is unable to accept service requests about conditions observed at state and federal parks, including Great Kills National Park, because NYC does not have the authority or ability to address these issues.

You can contact these parks directly about maintenance problems and other issues. You can find more information for Gateway National Park, which includes Great Kills Park, here: https://www.nps.gov/gate/index.htm. You can report issues by calling (718) 354-4606.

Mapping

Comment: How can consultants help NYC with mapping and stormwater data collection needs?

Response: NYC is required by LL 63 of 2011 to publish a plan and schedule detailing the anticipated contracting ac-tions of each City agency for the upcoming fiscal year. Procurement of services such as mapping and stormwater data collection would be included in these plans, as needed. For more information on procurement plans, please visit https://www1.nyc.gov/site/mocs/reporting/local-law-63-procurements.page

Comment: Are there any CSO outfalls with MS4 connection UPSTREAM of the regulator?

Response: There are areas of NYC with discrete separate storm sewers that connect to a CSO outfall upstream of the regulator; however, all sewer connections upstream of a CSO regulator are part of the combined sewer system.

Comment: The report indicates 2% of the outfalls are still unmapped. Will they be mapped? Or is there a particular reason why these outfalls are not mapped?

Response: An updated outfall spreadsheet, which DEP must submit annually to DEC, is included in the MS4 Annual Reports as Appendix 2 – SPDES Outfall Listing. This list may change with the re-categorization, addition, and removal of outfalls as updated data are obtained from the cyclical surveys of the shoreline. Since the 2020 MS4 Map was finalized, DEP has updated this outfall list twice, and the number of known MS4 outfalls has increased by 2%.

As required by the new MS4 permit, the City will update the MS4 Map by August 1, 2027, five years from the effective date of this permit (EDP 8/1/22).

Illicit Discharge Detection and Elimination

Comment: What are the penalties for illicit discharge?

Response: The NYC Administrative Code §24-524 details enforcement actions and penalties. Enforcement actions include Commissioner's Cease and Desist Orders and summonses. Civil penalties may be imposed, up to $10,000 per violation. A perpetrator may be liable to the City for any expense, including but not limited to costs for response, remediation and emergency services or any other loss or damage suffered by the city by reason of such violation.

The Annual report includes the penalty amounts issued each year. More details are included in the best management practices (BMPs) table at the end of the IDDE chapter.

Comment: Can IDDE reporting website be set up to post picture or description?

Response: The most effective way to communicate with DEP and other NYC agencies is through 311. You can post location, description, and pictures with 311. Check the annual report or the SWMP for details on how to report to 311.

Comment: There are dozens of auto repair shops along Neptune Avenue, Cropsey Avenue, West 15th Street, West 16th Street, and Stillwell Avenue are illegally doing car repairs in the street and on sidewalks. Disabled cars are illegally parked along the curbs, leaking toxic materials such as oil, antifreeze, grease and other chemicals that get swept into

the storm sewers and into the Creek. There needs to be increased enforcement and monitoring to stop this practice.

Response: NYC regulations prohibit facility practices of temporarily staging vehicles in the public ROW and dumping grease, gasoline, cement, oil, sewage, chemicals, or other liquids either directly or indirectly into a street sewer grate or catch basin. As part of our public education and outreach work, DEP provides automotive associations with information on proper waste disposal as well as vehicle washing and refueling practices. In 2021, DEP reached 53 automotive businesses in the Coney Island area.

Additionally, NYC agencies including DSNY and DEP respond to 311 complaints related to these practices and issue summonses and/or Commissioner's Orders, as appropriate. Visit https://portal.311.nyc.gov/ to learn more about reporting discharge of grease, gasoline, cement, oil, sewage, chemicals, or other liquids to street sewer grates or catch basins.

Comment: NYC Transit has substantial runoff from the 75-acre Coney Island Complex that's now being funneled into Coney Island Creek through a new storm sewer outlet at Shell Road. Is this being monitored?

Response: NYC Transit is not covered by the NYC MS4 permit but rather by its own NYSDEC MS4 permit, which may include monitoring requirements. Any questions or concerns about environmental issues can be reported to NYSDEC at 1-844-DEC-ECOS (1-844-332-3267) or online at Report an Environmental Violation Online.

In addition, the City conducts an outfall reconnaissance inventory that identifies and characterizes shoreline outfalls in NYC. If DEP observes signs of an illicit discharge, it investigates to track down the source and then takes steps to abate the problem.

Comment: The report says that the City had detected 935 illicit discharges and abated 927 of them. The 2021 Sentinel Monitoring Report has not been released yet, but the City should provide a breakdown of where and how these illicit discharges were detected. DEC looked into the open 311 complaints for dry weather discharges on NYC Open Data and found that there are a significant number of complaints still open. There are several open cases for Gravesend Bay at OH-15, whose lacking water quality, compared to the rest of NYC open waters, has been identified as a potential target for LTCP projects under the CSO program. Why hasn't the City conducted more significant trackdowns in this area? It seems as if this sewershed in particular has been a perennial problem for dry weather discharges with open cases spanning from September 2014 to August 2021. DEC would like to see plans for more robust and responsive illicit discharge trackdowns in addition to its Sentinel Monitoring Program. Illicit discharges from the City's urbanized area should not be tolerated, especially obvious, recurring discharges that have been identified by the public for eight years.

Response: The City has several long-standing programs that together comprise our efforts to detect, identify, and eliminate illicit discharges: the Shoreline Survey Program, the Sentinel Monitoring Program, the Harbor Survey Program and Emergency Spill Response Units. When a potential illicit discharge is identified, DEP initiates a trackdown to find the source and takes steps to eliminate the discharge. 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, and the logistics and complexity of the drainage area. If the source of an illicit discharge is found, DEP issues a Commissioner's Order requiring the responsible party to take corrective action. DEP works with the responsible party to ensure that corrective action is taken as quickly as possible.

DEP detected 925 discharges citywide, including those reported through 311 complaints. Other City agencies detected the additional 10 on-site at municipal facilities in the PP/GH inventory. DEP is in the process of investigating the reason why some dry weather discharge complaints remain open and is committed to closing the complaints following review.

On August 26, 2022, DEP did identify an illegal connection impacting OH-15 and will follow through on the trackdown and elimination, as described above. OH-15 is a CSO outfall that is being addressed by the NYC's Citywide/Open Water LTCP, and, as the comment notes, additional controls have been proposed.

The 2021 Sentinel Monitoring Report is now available on DEP's website: https://www1.nyc.gov/assets/dep/downloads/pdf/water/nyc-waterways/sentinel-monitoring-program/2021-sentinel-monitoring-report.pdf.

Construction/Post-construction

Comment: Has NYCDEP worked with community boards to educate them on the stormwater rule to ensure when expansions occur that stormwater improvements are required?

Response: DEP conducted significant outreach on the Stormwater Permitting Program and Unified Stormwater Rule (USWR). As part of this outreach, DEP provided overviews of the USWR to community boards. In 2021, DEP held 15 meetings with various stakeholders including the public, the state, developers, and other City agencies. Notably, DEP hosted a USWR outreach event that reached 150 participants and gave a presentation to the American Council of Engineering Companies that reached 155 participants. These efforts built upon outreach done in 2020, which reached 265 participants through 4 virtual events.

The City took three years to draft and publish the USWR because we wanted to ensure that we got input from and educated stakeholders. Since publication of the USWR, there have been additional public workshops to help inform the public.

Comment: What are the city issued stormwater construction permits? Will NYC start issuing construction permits in combined sewer systems areas where NYSDEC construction permits are not required?

Response: Pursuant to the new Unified Stormwater Rule, a DEP-issued Stormwater Construction Permit is required for any development or redevelopment project (public or private) that:

- *drains to a City-owned sewer system, and*
- *disturbs 20,000 sf or more of soil, or adds 5,000 sf or more of new impervious area*

Projects draining to the combined sewer system (CSS) are included in the City permitting program but are not subject to NYSDEC construction permitting requirements.

A Stormwater Construction Permit requires that the applicant prepare a Stormwater Pollution Prevention Plan (SWPPP) that meets up to four requirements, as needed:

- *Erosion and sedimentation control (ESC)—to minimize the discharge of pollutants during construction activities.*
- *Water quality (WQ)—to manage runoff from small, frequent storm events that can significantly impact the quality of receiving waters in both MS4 and CSS areas.*
- *Runoff reduction (RR)—to maintain a minimum level of runoff reduction during small storms to preserve natural hydrologic functions.*
- *No-net increase (NNI)—to reduce pollutants of concern in MS4 sewershed areas that discharge to an impaired waterbody.*

For more details, visit https://www1.nyc.gov/site/dep/water/stormwater-permits.page

Comment: Staffing level for the reviews has been a concern. Is the current staffing level sufficient in managing the current workload? Does the DEP foresee the need to increase staffing as this part of the program is more fully implemented?

Response: Additional positions have been approved for the review of permit applications, and DEP is in the process of hiring staff. DEP has also released a request for proposals and is in the process of procuring consultant support and supplemental resources for the Stormwater Permitting Program.

Pollution Prevention/Good Housekeeping for Municipal Facilities and Operations

Comment: All city agencies are required to consider runoff reduction techniques and green infrastructure. In 2021, 18 opportunities were evaluated, and 8 opportunities were implemented. We assume the 8 implemented were not necessarily from the pool of 18 evaluated (because of the time lag in design/construction after evaluation). We would like to know:

- Of the 18 evaluated, how many will be implemented?
- For the 8 implemented, how many others were not implemented?

Response: Of the 18 evaluated in 2021, 17 were initially considered feasible. However, GI opportunities can be re-evalu-

ated multiple times during the progression from conceptual planning, to design, to completion of a project and may fall out at later stages.

Because of the time between design and construction, there is not a one-to-one relationship between the opportunities evaluated one year and those implemented the following years. Additionally, some opportunities are evaluated more than once, while some implemented projects may not have been reported as evaluated previously.

The City expects that with the lowering of the threshold under the USWR, the number of GI projects evaluated and implemented pursuant to this PP/GH provision will decrease because such projects likely will be captured by and required to comply with the USWR. Accordingly, going forward, they will be reported under the C/PC program.

Comment: In Table 6 as part of PPGH, the City claims that it has maintained 1,307 catch basins and has cleaned 619 miles of sewer. It indicates in a footnote that some of these catch basins and sewers overlap with infrastructure in the general right of way. How many of these assets are discretely on City property or are part of an agency facility within the urbanized area? It would be easier to assess the metrics if this uncertainty was removed.

Response: Off-site operations in the right of way (ROW) are covered under the Pollution Prevention and Good Housekeeping (PP/GH) Program. The metrics included in the Annual Report are for the program as a whole and include catch basin and sewer maintenance/cleaning performed by DEP in the ROW. The City maintained 389 catch basins and cleaned 6.7 miles of sewer at facilities in the PP/GH Program.

Industrial/Commercial

Comment: Is there a backlog of industrial and commercial facilities needing inspection? How are these facilities identified?

Response: There is no backlog of facilities needing inspection. All MSGP-covered sites are inspected in accordance with their priority rankings unless a site is subject to an open citizen suit or EPA/DEC enforcement matter. DEP resumes regular inspections when such matters are resolved. DEC provides updated permit status via its Dropbox, which DEP regularly monitors.

Unpermitted sites in the I/C inventory are subject to a one-time DEP assessment, unless there are subsequent complaints. The I/C inventory was originally generated from several data sources and includes publicly and privately owned industrial and commercial facilities in the MS4 areas that could potentially discharge pollutants of concern. DEP has completed assessments of the original inventory of more than 1,000 unpermitted sites. DEP continues to update the inventory with newly identified sites and performs assessments based on the sites' priority rankings.

Comment: Of the facilities that did not require referral to DEC for permit requirements, are there any reasons to believe that these facilities might need to be revisited in the future? For instance, the nature of the business might change in the future.

Response: All I/C assessment reports are submitted to DEC for its review and determination as to proper SPDES coverage. Unpermitted sites that are not subject to MSGP coverage may be identified and tracked as potential significant contributors of pollutants of concern.

The MS4 Permit requires the City to update annually its inventory of unpermitted sites. DEP also inspects unpermitted sites on a complaint basis.

Floatables

Comment: For data collected during the floatables loading rate study, it might be useful to further define the plastics (e.g., plastics designated for recycling/recovery, bags, straws, etc.)

Response: For the loading rate study, we have identified 53 specific item types that fall into 12 broader categories. For each sampling event, we track item count, weight, surface area, and volume. We are studying the data to determine how best to accurately reflect the impact of floatables on our waterbodies.

Comment: Is there any info on how the plastic bag ban has affected the volume of plastic bags being washed into the waters?

Response: The Loading Rate Study is collecting information on the prevalence of different types of trash and debris found discharging from the MS4. However, this data collection did not begin until after the plastic bag ban was in effect. Without data from before the ban went into effect, we may not be able to make any determinations about the impact of the ban.

DEP is looking for other data to understand how the ban may have affected plastic bags in the water.

Comment: How are outdoor dining structures affecting sewers/catch basins? How does DSNY handle this?

Response: DOT is currently working with an interagency group to develop rules and guidelines for the permanent open restaurants program. There will be specific siting criteria around catch basins and other utilities.

If while performing catch basin inspections DEP observes that a catch basin is obstructed by an outdoor dining structure, DEP will work with DOT to remedy the situation. DOT information regarding the open Restaurants Program can be found at https://www1.nyc.gov/html/dot/html/pedestrians/openrestaurants.

Under the DSNY Enforcement Routing Program, enforcement agents patrol all commercial and industrial blocks at specified times, focusing on violations for dirty sidewalks and failure to clean 18 inches into the street. When enforcement agents observe a dirty sidewalk or a failure to clean 18 inches into the street in front of commercial or industrial premises during two specified daily, one-hour enforcement routing time periods, they will issue a summons. They may issue summonses for all other Sanitation violations at any time.

Comment: Once a catch basin needs collection does it get regularly cleaned?

Response: In 2021, DEP catch basins were proactively inspected, and cleaned as needed, on a 3-year cycle. Catch basins were also inspected, and cleaned as needed, in response to 311 complaints. The goal of an inspection is to determine whether the catch basin is functioning properly; there are any safety hazards; the hood is in place; and there is debris that needs to be cleaned out.

As of July 1, 2022, DEP implemented a data-driven inspection schedule to prioritize basins that require cleaning more frequently based on past inspection results and identified cleaning needs. DEP has divided catch basins into four categories that will be inspected on 6-month, 1-year, 2-year and 3-year cycles.

Comment: Garbage cans in the amusement area (Coney Island) are not emptied on weekends. The trash overflow gets swept into storm sewers and into the creek. This causes a substantial increase in floatables. DSNY needs to correct this problem by installing more cans and emptying them after crowded weekends.

Response: The area in question receives 7-day per week basket service during the off season (non-summer months); during the summer months, DSNY increases the service to this area by an additional 5 trucks on the Saturday and Sunday schedule. In 2022, there has been only one "overflowing litter basket" complaint called into 311; the basket in question was 1 block north of the amusement area and the complainant reported that the basket had been "knocked over." DSNY responded to the complaint the following day.

Comment: Oakwood Beach Treatment Plant is a sanitary wastewater treatment plant known to have adequate capacity. However, on page 63 of this draft, there are CSO outfalls (OB-001 and OB-001A) in this MS4 area. How much is coming out of these outfalls, and how often? Can this explain the large amount of feminine hygiene products often seen on the shoreline of Great Kills Beach?

Response: The comment refers to page 63, Appendix 2 – SPDES Outfalls of the draft report, which incorrectly identified outfalls OB-001 and OB-001A as CSO outfalls (Appendix 2 has been corrected in the final report). OB-001 discharges the Oakwood Beach Wastewater Resource Recovery Facility (WRRF) treated effluent; the WRRF is required to and does meet effluent solids standards. OB-001A has been closed for many years. These outfalls could not be responsible for such debris on the shoreline.

Comment: Most of the activities, while worthwhile, are retroactive, meaning collecting litter right before it enters the sewer system or the waterway. Notable exceptions are the new plastic straws law and plastic bag ban. These policy level changes will actually lead to reductions in plastic litter. Has the DEP noticed any changes to the types of plastic floatables as the result of the policy changes? Is the DEP considering other policy level prevention measures to floatables?

Response: DEP is looking for and evaluating data to understand how item bans may have affected our infrastructure and water quality. DEP supports using item bans as a tool to control trash and debris in waterways. However, implementing item bans or fees is outside of DEP's purview as it requires a legislative change.

Comment: Is the DEP working with DSNY to install more covered trash bins to replace open top trash baskets?

Response: In April 2022, DSNY previewed the City's first containerized waste bins in a New York City commercial district (Times Square) as part of efforts to clean up NYC streets. The Times Square bins are the first example of DSNY's Clean Curbs Pilot Program and will test sealed containers that hold trash collected from sidewalk litter and nearby litter baskets. Currently, many litter baskets in business improvement districts (BID) are cared for by the local association, which monitors litter baskets, and, when the baskets are full, places bags next to baskets for collection, increasing capacity for the litter. The new containers will act as a centralized site to hold bags in a sealed atmosphere prior to collection. DSNY plans to expand the Clean Curbs Pilot to all five boroughs and include possible tests in BIDs and for both residential and commercial waste.

Comment: Under the Floatables Control section, DEP indicates its progress in Table 9. Based on the table, the City is inspecting about 12,000 catch basins per year; how long will it take the City to inspect each catch basin in the urbanized area, or are inspections conducted on a complaint-basis?

Furthermore, what is the difference between a catch basin "retrofit" and catch basin hood installation, repair or replacement? In 2021, the City did not retrofit a single catch basin but installed, repaired or replaced 469 catch basin hoods.

Response: In 2021, DEP catch basins were proactively inspected on a 3-year cycle and cleaned, as needed. DEP also inspected catch basins (and cleaned, as needed) in response to 311 complaints. As described above, beginning July 1, 2022, DEP began proactively inspecting some catch basins more frequently.

Beginning in the mid-1990s, DEP embarked on a catch basin hooding program to reduce floatables reaching waterways. During this program, DEP identified catch basins that should have hoods but required extensive repairs before hood installation could take place. DEP retrofitted these catch basins by making the necessary repairs and/or modifications to allow for hood installation. As of 2010, DEP had completed all identified repairs and hood installations and no longer needs to retrofit catch basins.

When broken or missing hoods are identified during regular inspections, DEP replaces them.

Monitoring

Comment: Are we continuing to monitor for covid 19 and its variants and where can the results be found?

Response: DEP takes wastewater samples at all 14 plants twice per week and provides the data to DOHMH. CDC also performs the SARS-CoV-2 analysis. Data are available on NYC Open Data.

Comment: How are the land use types for each borough chosen?

Response: When selecting monitoring locations, the City looked for large MS4 drainage areas where a particular type of land use was dominant. The monitoring locations and associated land use types are not related to a particular borough.

Comment: Can the waters of Raritan Bay and Lower New York Bay be included on the Shoreline Survey/ Harbor Survey and be reported on?

Response: The outfalls along the shoreline of Staten Island are included in the Shoreline Survey. The Harbor Survey includes more than 70 sampling locations. Raritan Bay and Lower New York Bay have Harbor Survey locations. The data are available on NYC Open Data.

Comment: Which parameters are measured in the MS4 Monitoring Program? We would appreciate your listing the parameters in the report.

Response: The parameters are included in Table 3 of the SWMP Plan Appendix 10.1. Parameters include fecal coliform, enterococcus, total dissolved solids, total phosphorus, dissolved phosphorus, total nitrogen, total ammonia (as N), total Kjeldahl nitrogen, total cadmium, total chromium, total copper, total lead, total nickel, total arsenic, total mercury, total zinc, and oil and grease.

Comment: Are pathogens, dissolved oxygen and floatables considered pollutants of concern for all waterways or just for "impaired" waterways as listed in the 303(d) list?

Response: The MS4 permit indicates pollutants of concern for each impaired waterbody as set forth in the approved NYS 303d list.

Comment: Are floatables monitored? If so, how are they measured (e.g., volume, weight, etc.)?

Response: The City is conducting a floatables loading rate study separate from the MS4 monitoring program. For this study, we track item count, weight, surface area, and volume.

Additionally, since 2010, DEP has implemented a separate floatables monitoring program. Under this program DEP visually rates floatables levels at set locations in waterways throughout NYC.

Comment: The landside stormwater monitoring conducted by the City is insufficient and inconsistent with EPA's stormwater sampling guidance that is referenced in the SWMP Plan. Page 37 of that guidance, in Section 3.1.2, says composite samples must be flow-weighted by compositing the samples taken at different time periods of the discharge proportionally with the flow rate corresponding to that time of sample. The way in which DEP describes its composite sampling procedure in Section 4.1 of Section 10.1 of the Appendix in the SWMP Plan is inadequate. The samples should be flow weighted. Moreover, the frequency of sampling is also insufficient. The goal of one sample per quarter for at least two years cannot form the basis of any conclusion of pollutant discharge from different land use types or be used to extrapolate a trend. DEP needs to drastically enhance its sampling program. The intention of this monitoring program is to collect meaningful data to be able to more narrowly target certain land-use types that discharge higher pollutant loads, and to eventually create a water quality model that assists in analysis of the MS4 as a whole and how both structural and non-structural BMPs affect pollutant discharge. The way the data is being collected based on this report indicates that the information cannot be meaningfully relied upon.

Response: Part IV.J.2 of the 2015 MS4 permit required the City to develop, and revise as necessary, a monitoring and assessment program and provided the City with the latitude to develop its program as appropriate for the City. To guide our monitoring program development, the City met with more than a dozen MS4 municipalities, referenced guidance documents including EPA's NPDES Stormwater Sampling Guidance and researched a variety of methods for sampling, including flow-weighted composite sampling. Pursuant to the findings of our research, DEP implemented time-weighted composite sampling (with the exception of oil and grease, fecal coliform and enterococcus parameters for which grab samples were collected) to characterize and assess the quality of stormwater discharges at representative MS4 outfalls. Time-weighted composite sampling uses samples of equal volume taken over equal time increments that are composited to create an average sample.

The MS4 Monitoring Program underwent a peer review that provided recommendations on sampling frequency and parameters. Additional sampling events were recommended, and DEP increased the number of sampling locations and events, as reflected in the DEC-approved monitoring plan. The Program was ultimately developed to capture more rainfall events than the EPA guidance recommended and to collect a greater number of samples (program targeted and achieved 64) for the analysis of a greater number of parameters (program targeted and achieved 22).

The recommended program in the EPA guidance specifies sampling for only three events at each monitoring location. By sampling nine events at each location, the Monitoring Program was able to assess a wider range of conditions including storm volume, duration, intensity, and time between events. These additional sampling events provide more information that can be used to characterize and assess the quality of stormwater discharges at representative MS4 outfalls and identify potential sources of specific pollutants, as required by the MS4 Permit.

The Program also aimed to characterize concentrations for different land uses. EPA's guidance was referenced to help select representative outfalls from all MS4 outfalls in the City and, per the guidance, consideration of land use patterns was a major factor in the selection of outfalls to monitor. Although homogeneous distribution of land use types in NYC is

limited, the City selected MS4 outfall locations that are representative of six land use types: mixed, high-density residential, low-density residential, industrial, open space, and highway. DEP will use the collected data to analyze whether there is any meaningful correlation between land use type and pollutant concentrations.

Special Conditions

Comment: We continue to express our concern that waterways such as Westchester Creek and Hutchinson River are not included in the Special Conditions although the CSO LTCPs for these waterbodies expect non-attainment of primary contact water quality criteria. In Westchester Creek, the LTCP does not make any investments beyond what was planned under the waterbody/watershed facilities plan, because of the significant contribution from the MS4.

Response: Part II.B.2.a of the MS4 permit states that the City must implement additional or customized stormwater control measures specific to the impaired waterbody if it meets the following criteria:

- *Approved CSO LTCP does not predict compliance with applicable water quality standards **and***
- *Stormwater contributions from the Permittee's MS4 are expected to be a significant contributor to the impairment identified in the CSO LTCP.*

Neither Westchester Creek nor Hutchinson River meet these criteria. The approved Westchester Creek LTCP 1) projected compliance with applicable water quality standards and 2) found that the MS4 is not a significant contributor to the impairment. The approved Hutchinson River LTCP 1) projected compliance with applicable water quality standards and 2) found that the MS4 is not a significant contributor to the impairment (the river is impacted by non-NYC-controlled sources).

For impaired waterbodies that do not meet the Part II.B.2a criteria, the City must still comply with Part II.B.1 no net increase (NNI) requirements as well as all applicable controls and requirements in Parts IV.A through IV.I of the MS4 permit.

Comment: Coney Island Creek is better monitored; because of signage and meetings the community is more aware about how to report dumping. The community has very valuable insights.

Response: DEP will continue to work with and seek the input of community groups in Coney Island.

Comment: Why is stormwater causing impairments in Coney Island Creek? Haven't we dealt with the problems there; what else needs to be done?

Response: Stormwater can pick up pollutants and carry them to waterbodies. Coney Island Creek Long-Term Control Plan (LTCP) pointed to stormwater as a source of the impairment of Coney Island Creek.

Under the 2015 MS4 permit, the City implemented customized, non-structural BMPs to address the POCs (pathogens and floatables) causing the impairments identified in the CSO LTCP. An initial effort was placement of additional Sentinel Monitoring stations in the Creek to obtain more data for analysis of conditions.

Under the new permit, the City will continue implementing additional enhanced BMPs, as follows:

i. *Catch basin marking program*
ii. *Identified green infrastructure projects*
iii. *Pet waste management stations*
iv. *Source tracking and expanded IDDE*
v. *Public education and outreach*

Comment: Consider converting the vacant 16-acre parcel adjacent to the Coney Island Subway Yards into a constructed wetland that could filter and clean outflow from the many storm sewers that flow into the eastern end of the creek. Spartina is able to break down heavy metals and other contaminants. This parcel is the former site of the Brooklyn Union Gas Company and was formerly a salt marsh. It's been remediated and is up for sale.

Response: Thank you for the suggestion.

Comment: DEP has instituted several enhanced BMPs for Coney Island Creek, an impaired waterbody, including for floatables. However, it has not and does not seem to plan to install any more netting on any outfalls, a BMP that it referenced to control floatables. Why are netting systems not being proposed? It seems that this is a control that could act as a final practice to capture the remaining floatables that make it to the outfall during storm events and curb this impairment.

Response: DEP currently maintains a boom in Coney Island Creek that captures debris from five upstream MS4 outfalls. Because of dredging and construction work associated with the Coney Island Ferry Project, DEP is not considering the installation of additional booms or nets at the four other MS4 outfalls at this time.

Appendix 2- SPDES Outfalls

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 WRRF OUTFALL	40	39	3	73	53	37	10' X 6'	HENDRIX CREEK				
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)

26TH WARD MS4									
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
26W-607	W/O SITE DRIVE (GATEWAY MALL)	40	39	5	73	52	3	30" 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 WRRF 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 EX-PRESSWAY (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-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			

BOWERY BAY													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			

BOWERY BAY													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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 MID-DLE 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.			
BB-057	BORDEN AVE (REG #L-11)	40	44	33	73	57	40	48" DIA	EAST RIVER	REG #L-11			

BOWERY BAY MS4									
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
BB-611	CENTER BLVD & BOR-DERN AVE	40	44	33	73	57	40	42" DIA	EAST RIVER
BB-612	CENTER BLVD & 54 AVE	40	44	28	73	57	40	42" DIA	EAST RIVER
BB-613	26TH AVE	40	46	38	73	56	9	48" DIA	EAST RIVER

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 WRRF OUTFALL	40	33	58	73	56	51	96" DIA	ROCKAWAY INLET				
CI-002	CONEY ISLAND WRRF 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
CI-008A	RALPH AVE (PAERDEGAT BASIN CSORF OVER-FLOW)	40	37	48	73	54	57	3BL 10' x 6'	PAERDEGAT BASIN	PAERDEGAT BASIN CSORF OVERFLOW			
CI-008B	RALPH AVE (PAERDEGAT BASIN CSORF OVER-FLOW)	40	37	48	73	54	57	3BL 10' x 6'	PAERDEGAT BASIN	PAERDEGAT BASIN CSORF OVERFLOW			
CI-008C	RALPH AVE (PAERDEGAT BASIN CSORF OVER-FLOW)	40	37	48	73	54	57	3BL 10' x 6'	PAERDEGAT BASIN	PAERDEGAT BASIN CSORF OVERFLOW			
CI-008D	RALPH AVE (PAERDEGAT BASIN CSORF OVER-FLOW)	40	37	48	73	54	57	3BL 10' x 6'	PAERDEGAT BASIN	PAERDEGAT BASIN CSORF OVERFLOW			

CONEY ISLAND MS4									
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

CONEY ISLAND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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

CONEY ISLAND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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

CONEY ISLAND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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

CONEY ISLAND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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 WRRF 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 & COL-GATE 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

HUNTS POINT													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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.			

HUNTS POINT MS4									
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-655	WILCOX AVE	40	49	37	73	49	50	30" DIA	LONG ISLAND SOUND

HUNTS POINT MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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
HP-661	BUTLER PL & FERRIS PL	40	50	18	73	50	24	24" DIA	WESTCHESTER CREEK
HP-662	BEACH ST & KING AVE	40	51	9	73	47	12	30" DIA	LONG ISLAND SOUND
HP-663	ZEREGA AVE & LACOMBE AVE	40	49	3	73	50	32	5' X 3' 2"	WESTCHESTER CREEK
HP-664	CORNELL AVE	40	48	29	73	50	59	24" DIA	EAST RIVER
HP-665	SCHLEY AVE	40	48	59	73	50	24	36" DIA	WESTCHESTER CREEK

JAMAICA													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
JAM-001	JAMAICA WRRF 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 (JAMAICA WRRF SECONDARY OUTFALL & 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)

JAMAICA MS4									
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

JAMAICA MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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-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	125' N/O LONG ISLAND WB EXIT 31S RAMP NEAR CROSS ISLAND PARKWAY	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
JAM-664	ROCKAWAY BLVD AND 183RD ST	40	39	16	73	45	49	16'6" x 5'0"	Stream wider than 8 feet

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 WRRF OUTFALL	40	43	54	73	58	56	144" DIA	EAST RIVER				
NCB-002	NEWTOWN CREEK WRRF SECONDARY OUTFALL	40	44	4	73	57	48	3BL 7' X 8'	WHALE CREEK	WRRF 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-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			

NEWTOWN CREEK													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			
NCB-084	COMMERCIAL ST (REG # B-16)	40	44	13	73	57	35	24" DIA	NEWTOWN CREEK	REG#B-16			
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			

NEWTOWN CREEK													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			

NEWTOWN CREEK													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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

NEWTOWN CREEK													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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		

NEWTOWN CREEK MS4									
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
NCM-640	E 15TH STREET (CO ED-NORTH)	40	43	40	73	58	18	42" DIA	EAST RIVER

NEWTOWN CREEK MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
NCM-641	E 16TH STREET	40	43	42	73	58	17	5' 6" X 4'	EAST 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

NORTH RIVER													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
NR-001	NORTH RIVER WRRF OUTFALL	40	49	31	73	58	30	96" DIA	HUDSON RIVER				
NR-002	W 152ND ST (REG # N-20, 21, 21A, 21B)	40	49	57	73	57	4	60" DIA	HUDSON RIVER	REG #N-20, N-21, N-21A, N-21B			
NR-003	W 158TH ST (REG # N-19)	40	50	12	73	57	57	48" DIA	HUDSON RIVER	REG #N-19			
NR-004	W 171ST ST (REG # N-18)	40	50	45	73	57	47	6' X 10' 6" FT	HUDSON RIVER	REG #N-18			YES
NR-005	W 190TH ST (REG # N-17)	40	51	28	73	56	22	18" DIA	HUDSON RIVER	REG #N-17			
NR-006	DYCKMAN ST (REG # N-16)	40	52	9	73	56	56	DBL 7' 0" X 5' 0"	HUDSON RIVER	REG #N-16			YES
NR-007	W 218TH ST (REG # N-15)	40	52	29	73	55	9	4' 0" X 2' 4" FT	SPUYTEN DUYVIL CREEK	REG #N-15			
NR-008	W 216TH ST (REG # N-14)	40	52	8	73	55	41	5' X 4' EGG	HARLEM RIVER	REG #N-14			
NR-009	W 215TH ST (REG # N-13)	40	52	5	73	55	42	3' 6" X 2' 4" EGG	HARLEM RIVER	REG #N-13			
NR-010	W 211TH ST (REG # N-10, N-11, N-12)	40	51	56	73	55	48	54" DIA	HARLEM RIVER	REG #N-10, N-11, N-12			
NR-011	W 209TH ST (REG # N-9)	40	51	52	73	55	54	24" DIA	HARLEM RIVER	REG #N-9			
NR-012	W 207TH ST (SOUTH SIDE) (REG # N-7)	40	51	47	73	55	56	36" DIA	HARLEM RIVER	REG #N-7			

NORTH RIVER													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
NR-013	W 206TH ST (REG # N-6)	40	51	45	73	55	58	3' 6" X 2' 4" EGG	HARLEM RIVER	REG #N-6			
NR-014	W 205TH ST (REG # N-5)	40	51	43	73	55	1	48" DIA	HARLEM RIVER	REG #N-5			
NR-016	W 203RD ST (REG # N-4)	40	51	39	73	55	5	3' 6" X 2' 4" EGG	HARLEM RIVER	REG #N-4			
NR-017	W 201ST ST (REG # N-3)	40	51	34	73	55	8	6' X 4' FT	HARLEM RIVER	REG #N-3			YES
NR-018	HIGHBRIDGE PARK (REG # N-1)	40	51	26	73	55	18	48" DIA	HARLEM RIVER	REG #N-1			
NR-019	BANK ST (REG # N-56)	40	44	11	74	1	38	48" DIA	HUDSON RIVER	REG #N-56			
NR-020	JANE ST (REG # N-55)	40	44	18	74	1	40	48" DIA	HUDSON RIVER	REG #N-55			
NR-021	GANSEVOORT ST (REG # N-54)	40	44	21	74	1	41	48" DIA	HUDSON RIVER	REG #N-54			
NR-022	S/O W 17TH ST (REG # N-51)	40	44	40	74	1	32	54" DIA	HUDSON RIVER	REG #N-51			
NR-023	W 18TH ST (REG # 50)	40	44	45	74	1	41	5' 0" X 4' 6"	HUDSON RIVER	REG #N-50			YES
NR-024	W 21ST ST (REG # N-48, N-49)	40	44	52	74	1	41	48" DIA	HUDSON RIVER	REG #N-48, N-49			
NR-025	W 24TH ST (REG # N-47)	40	45	3	74	1	39	42" DIA	HUDSON RIVER	REG #N-47			
NR-026	W 26TH ST (REG# N-46)	40	45	9	74	1	34	DBL 4' X 3'	HUDSON RIVER	REG #N-46			
NR-027	W 30TH ST (REG # N-45)	40	45	17	74	0	26	11' X 6'	HUDSON RIVER	REG #N-45			YES
NR-028	W 36TH ST (REG # N-43)	40	45	34	74	0	24	48" DIA	HUDSON RIVER	REG #N-43			
NR-029	W 40TH ST (REG # N-42)	40	45	40	74	0	10	30" DIA	HUDSON RIVER	REG #N-42			
NR-030	W 43RD ST (REG # N-39 & N-40)	40	45	49	74	0	13	54" DIA	HUDSON RIVER	REG #N-39, N-40			
NR-031	W 44TH ST (REG # N-38)	40	45	50	74	0	3	54" DIA	HUDSON RIVER	REG #N-38			
NR-032	W 46TH ST (REG # N-36)	40	45	57	74	0	8	48" DIA	HUDSON RIVER	REG #N-36, N-37			
NR-033	N/O W 48TH ST (REG # N-34, N-33)	40	45	58	73	60	53	4' X 2' 8" FT	HUDSON RIVER	REG #N-33, N-34			YES (ON N-33)

NORTH RIVER													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
NR-034	W 50TH ST (REG # N-32)	40	46	7	74	0	5	4' X 4' FT	HUDSON RIVER	REG #N-32			
NR-035	W 56TH ST (REG # N-31)	40	46	16	73	60	43	6' X 4' 6" FT	HUDSON RIVER	REG #N-31			
NR-036	W 59TH ST (REG # N-30)	40	46	26	73	60	46	48" DIA	HUDSON RIVER	REG #N-30			
NR-037	N/O W 72ND ST (REG # N-29)	40	46	54	73	59	17	60" DIA	HUDSON RIVER	REG #N-29			
NR-038	W 80TH ST (REG # N-28)	40	47	12	73	59	5	10' 6" X 6' 0" FT	HUDSON RIVER	REG #N-28			YES
NR-039	W 91ST ST (REG # N-27)	40	47	37	73	59	47	48" DIA	HUDSON RIVER	REG #N-27			
NR-040	W 96TH ST (REG # N-26, 26A)	40	47	49	73	59	38	10' X 6' FT	HUDSON RIVER	REG #N-26, N-26A			YES (ON N-26)
NR-041	W 108TH ST (REG # N-25)	40	48	17	73	58	19	4' 0" X 4' 0"	HUDSON RIVER	REG #N-25			
NR-042	W 115TH ST (REG # N-24)	40	48	33	73	58	7	4' 6" X 4' 0"	HUDSON RIVER	REG #N-24			
NR-043	SAINT CLAIRS PLACE (REG # N-23)	40	49	5	73	58	43	DBL 8' 8" X 7'	HUDSON RIVER	REG #N-23			YES
NR-044	W 138TH ST (REG # N-22)	40	49	25	73	58	34	42" DIA	HUDSON RIVER	REG #N-22			
NR-045	ACADEMY ST (REG # N-2)	40	51	36	73	55	16	DBL 6' X 7'	HARLEM RIVER	REG #N-2			
NR-046	W 66TH ST (REG # N-29A)	40	46	39	73	59	27	10' 8" X 6' 10"	HUDSON RIVER	REG #N-29A			YES
NR-047	W 47TH ST	40	45	54	73	60	55	4' X 2' 8" FT	HUDSON RIVER	REG #N-35			
NR-048	W 42ND ST (REG # N-40 & N-41)	40	45	44	74	0	7	DBL 8' 0" X 2' 0"	HUDSON RIVER	REG #N-40, N-41			
NR-049	W 14TH ST (REG # N-52)	40	44	33	74	1	33	6' X 4' FT	HUDSON RIVER	REG #N-52			
NR-050	BLOOMFIELD ST (REG # N-53)	40	44	27	74	1	40	3' 6" X 2' 4" EGG	HUDSON RIVER	REG #N-53			
NR-051	W 49TH ST (CSO)	40	45	59	73	60	51	DBL 12' 0" X 6' 0"	HUDSON RIVER	N/A			
NR-052	N/O W 33RD ST (REG # N-44)	40	45	24	74	0	21	4' 9" X 4' 6" FT	HUDSON RIVER	REG #N-44			
NR-055	W 207TH ST (NORTH SIDE) (REG # N-8)	40	51	47	73	55	56	36" DIA	HARLEM RIVER	REG #N-7, N-8			
NR-056	W 142ND ST (REG # N-22A)	40	49	33	73	57	18	5' X 4'	HUDSON RIVER	REG #N-22A			

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 WRRF OUTFALL	40	32	51	74	7	45	96" DIA	LOWER NEW YORK BAY				
OB-001A	OAKWOOD BEACH WRRF PLANT BYPASS	40	32	57	74	7	53	60" DIA	LOWER NEW YORK BAY	PLANT BYPASS			

OAKWOOD BEACH MS4									
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

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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-631	15 HASTINGS COURT	40	31	26	74	12	24	48" DIA	AR-10 DEC WETLAND
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-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-645A	GREAVES AVE & ISLINGTON ST	40	33	42	74	9	1	24" DIA	AR-38 DEC WETLAND
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

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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-688A	NAUGHTON AVE	40	35	8	74	5	51	42" DIA	LAST CHANCE POND PARK MARSH
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-691A	RICHMOND HILL RD & MACE ST	40	34	21	74	8	40	6'0" 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

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
OB-696	BOYLE PLACE / NUGENT ST	40	34	35	74	8	60	5' X 3'	RICHMOND CREEK
OB-697	MEISNER AVE & LIGHT-HOUSE 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

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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-740	HYLAN BLVD & BUFFALO STREET	40	31	12	75	52	22	20" DIA	GREAT KILLS HARBOR
OB-741	AULTMAN AVE & ST GEORGE RD	40	34	31	74	8	13	18" DIA	LIGHTHOUSE HILL STREAM
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-752	SHOTWELL AVE	40	33	18	75	49	5	42" DIA	ARDEN HEIGHTS WOODS MARSH
OB-753	LIPSETT AVENUE	40	32	4	75	32	33	30""DIA	MARSH

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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
OB-765	MILL CREEK	40	31	15	74	13	19	5' x 3'	MILL CREEK
OB-766	ARDEN AVE	40	32	46	74	10	47	48" DIA	ANNADALE STREAM
OB-767	ARDEN AVE	40	32	46	74	10	47	48" DIA	ANNADALE STREAM
OB-768	ARDEN AVE	40	32	48	74	10	42	12" DIA	ANNADALE STREAM
OB-769	GRANTWOOD AVE	40	32	53	74	10	33	36" DIA	ANNADALE STREAM
OB-770	GRANTWOOD AVE	40	32	53	74	10	32	24" DIA	ANNADALE STREAM
OB-771	ARTHUR KILL ROAD	40	34	20	74	8	48	18" DIA	LATOURETTE PARK RIVER
OB-772	SHADYSIDE AVE & WOODVALE AVE	40	31	17	74	12	29	10" DIA	LEMON CREEK MARSH
OB-773	BAYVIEW AVENUE	40	31	18	74	12	17	4' X 4'	LEMON CREEK

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
OB-774	GOFF AVE	40	31	40	74	12	46	38" x 24"	MARSH
OB-775	BALSAM PL & GERVIL ST	40	32	54	74	12	45	48" DIA	WOODBROOKE ESTATES COMMUNITY PARK STREAM
OB-776	MAGUIRE AVE & MC BAINE AVE	40	32	35	74	12	42	6.3' x 2'	ROSSVILLE POND
OB-777	HUGUENOT AVE & ARTHUR KILL RD	40	33	20	74	12	10	6.3' x 4'	ARTHUR KILL STREAM
OB-778	LEMON CREEK PARK	40	31	6	74	11	57	4'2" x 2'	LEMON CREEK MARSH
OB-779	BMP LC-15 (Lemon Creek)	40	31	22	74	12	4	30" DIA	LEMON CREEK MARSH
OB-780	BMP LC-17 (Lemon Creek)	40	31	22	74	12	0	4' X 3'	LEMON CREEK MARSH
OB-781	BMP LC-18 (Lemon Creek)	40	31	12	74	12	0	4'2" x 2'	LEMON CREEK MARSH
OB-782	FOREST HILL RD & YUKON AVE	40	34	26	74	9	49	18" DIA	LATOURETTE PARK STREAM
OB-783	ROBERTS DRIVE	40	33	32	74	6	41	30" DIA	GREAT KILLS PARK MARSH
OB-784	HYLAN BLVD	40	31	25	74	11	15	15" DIA	WOLFE'S POND PARK MARSH
OB-785	LUTEN AVE	40	31	26	74	11	21	3.75' x 2.4'	WOLFE'S POND PARK MARSH
OB-786	BARCLAY AVE & SANDBORN ST	40	31	59	74	10	17	12" DIA	BLUE HERON PARK POND
OB-787	MERRICK AVE DEAD END	40	36	6	74	6	29	24" DIA	POND
OB-788	RICHMOND RD & INDEPENDENCE AVE	40	34	25	74	10	13	24" DIA	MARSH
OB-789	RICHMOND RD & FOREST HILL RD	40	34	17	74	10	13	24" DIA	MARSH
OB-790	ROSSVILLE AVE	40	32	35	74	12	31	8" DIA	AR105 DEC WETLAND
OB-791	MERRICK AVE DEAD END	40	36	6	74	6	29	24" DIA	Reed's Basket Willow Swamp Park
OB-792	OLYMPIA BLVD & BUEL AVE	40	34	52	74	5	8	36" DIA	NA-9 DEC WETLAND

OAKWOOD BEACH MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
OB-793	ITHACA ST & HYLAN BLVD	40	33	33	74	7	16	42" DIA	NA-10 DEC WETLAND
OB-794	LOUISE ST	40	31	41	74	10	56	45" x 29"	AR-12 DEC WETLAND
OB-795	PLATINUM AVE & RICHMOND AVE	40	34	47	74	10	11	34" x 53"	FRESH KILLS MARSH
OB-796	160' NW/O ARTHUR KILL RD AND ERIKA LOOP	40	33	53	74	11	9	48" DIA	FRESH KILLS MARSH
OB-797	KYLE CT & ARDEN AVE	40	33	29	74	11	48	12" DIA	AR-5 DEC WETLAND
OB-798	ARDEN AV (200' NW/O HALPIN AV)	40	33	4	74	11	21	36"DIA	AR-5 DEC WETLAND
OB-799	FAIRLAWN AVE	40	32	49	74	8	13	24" DIA	GREAT KILLS HARBOR
OB-1600	BROOK AVE (120' NE/O FARIBANKS AVE)	40	33	23	74	7	19	36" DIA	NA-10 DEC WETLAND
OB-1601	WOODROW RD (300' SW/O ERIKA LOOP)	40	33	21	74	10	58	24" DIA	AR-5 DEC WETLAND
OB-1602	PEMBROOK LOOP	40	32	6	74	13	12	36" DIA	AR-10 DEC WETLAND
OB-1603	ALVERSON AVE & POND ST	40	33	9	74	12	35	24" x 38"	POND
OB-1604	SHARON LANE	40	32	9	74	12	53	36" DIA	AR-10 DEC WETLAND
OB-1605	IONIA AVE	40	32	43	74	10	50	120" x 30"	AR-28 DEC WETLAND
OB-1606	ALVERSON AVE & AARON LANE	40	33	18	74	12	39	12" DIA	Arthur Kill and minor tribs
OB-1607	GRASMERE LAKE	40	36	15	74	4	42	18" DIA	NA-4 DEC WETLAND
OB-1608	263 MACE ST	40	34	26	74	8	17	15" DIA	AR-3 DEC WETLAND
OB-1609	CODY PLACE (175' S/O ARTHUR KILL RD)	40	33	20	74	12	8	128" x 82"	Arthur Kill and minor tribs
OB-1610	COMMODORE DR	40	30	47	74	12	4	36" DIA	RARITAN BAY
OB-1611	CODY PLACE	40	33	18	74	12	2	90" DIA	Arthur Kill and minor tribs

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 WRRF 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			

OWLS HEAD MS4									
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-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-619	39TH ST	40	39	27	74	0	52	48" DIA	UPPER NEW YORK BAY
OH-620	E/O 9TH STREET	40	40	27	73	60	47	42" DIA	GOWANUS CANAL

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 WRRF 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			

PORT RICHMOND													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			

PORT RICHMOND													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			

PORT RICHMOND MS4									
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

PORT RICHMOND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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
PR-632	FOREST HILL RD & FIELD ST	40	35	38	74	8	36	3.75' x 2.4'	WILLOWBROK WETLAND
PR-633	WESTBURY AVE & HENDERSON AVE	40	38	21	74	6	14	96" X 84"	SNUG HARBOR
PR-634	AVON LN & WILLARD PL	40	36	54	74	8	7	53" x 34"	POND

PORT RICHMOND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
PR-635	5 CHESHIRE PLACE	40	37	16	74	6	8	18" DIA	VALLEY LAKE
PR-636	LOGAN AVE	40	36	56	74	6	23	84" x 74"	NA-1 DEC WETLAND
PR-637	GOETHALS RD N	40	37	25	74	10	25	15" DIA	E-3 DEC WETLAND
PR-638	MARTLING LAKE	40	37	22	74	7	7	30" DIA	NA-1 DEC WETLAND
PR-639	WATCHOGUE ROAD & VOGEL LOOP	40	36	54	74	7	57	18" DIA	WATCHOGUE ROAD
PR-640	2800 VICTORY BOULE-VARD	40	36	24	74	9	8	4 pipes of 10"	STREAM
PR-641	MEREDITH AVE & NECK CREEK	40	35	47	74	11	26	96" x 72"	NECK CREEK
PR-642	136 LIVINGSTON AVE	40	36	8	74	7	43	76" x 48"	STREAM
PR-643	WEST SHORE PLAZA (230' NE/O MEREDITH AVE)	40	35	59	74	11	31	53" x 34"	AR-52 DEC WETLAND
PR-644	66 SIDEVIEW AVE	40	36	23	74	10	3	24" DIA	STREAM

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 WRRF 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			

RED HOOK													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			

RED HOOK													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
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			

RED HOOK MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
RH-602	SULLIVAN ST	40	40	51	74	1	1	15" DIA	BUTTERMILK CHANNEL
RH-603	BEACH 5TH ST	40	35	46	73	44	26	18" DIA	GOWANUS CANAL

ROCKAWAY													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
ROC-001	ROCKAWAY WRRF OUTFALL	40	35	4	73	50	47	72" DIA	GRASS HASSOCK CHANNEL				
ROC-001A	ROCKAWAY WRRF DISINFECTION SYSTEM BYPASS	40	35	5	73	50	44	72" DIA	GRASS HASSOCK CHANNEL	PLANT DISINFECTION SYSTEM BYPASS			
ROC-001B	BEACH 106TH ST	40	35	5	73	50	43	72" DIA	GRASS HASSOCK CHANNEL	REG #1, 2, EMERGENCY BYPASS			YES (ON 1 & 2)

ROCKAWAY MS4									
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

ROCKAWAY MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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-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 BOULE-VARED	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-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

ROCKAWAY MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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
ROC-693	BEACH 88th STREET	40	35	26	73	48	52	8' 2" x 5' 3"	GRASS HASSOCK CHANNEL
ROC-694	Dwight Ave - Norton Basin Shoreline	40	36	0	73	46	16	24" DIA	GRASS HASSOCK CHANNEL

ROCKAWAY MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
ROC-695	Mott Basin Shoreline - North of Battery Rd and Chandler Street	40	36	37	73	45	20	DBL 9.5' x 4.5'	NEGRO BAR CHANNEL
ROC-696	BEACH 106TH STREET	40	35	5	73	49	42	36" DIA	GRASS HASSOCK CHANNEL
ROC-697	BEACH 98TH ST (REG # D-7,D-8,D-9,D-10,D-11)	40	35	12	73	49	16	36" DIA	GRASS HASSOCK CHANNEL
ROC-698	BEACH 98TH ST (REG # D-6)	40	35	13	73	49	16	24" DIA	GRASS HASSOCK CHANNEL
ROC-699	MOTT AVE	40	36	46	73	46	17	4" DIA	GRASS HASSOCK CHANNEL WETLAND
ROC-700	MOTT AVE	40	36	27	73	45	45	12" DIA	NEGRO BAR CHANNEL WETLAND
ROC-701	BEACH CHANNEL DR & ROCKAWAY FREEWAY	40	34	59	73	50	5	18" DIA	GRASS HASSOCK CHANNEL
ROC-702	512 CROSS BAY BLVD	40	36	40	73	49	7	18" DIA	MARSH
ROC-703	ARDEN AVE	40	36	39	73	49	10	15" DIA	BROAD CHANNEL
ROC-704	525 CROSS BAY BLVD	40	36	39	73	49	10	15" DIA	BROAD CHANNEL
ROC-705	526 CROSS BAY BLVD	40	36	39	73	49	6	15" DIA	MARSH
ROC-706	BAYSWATER AVE (BAY-SWATER PS EMERGENCY BYPASS)	40	36	26	73	46	12	60" DIA	GRASS HASSOCK CHANNEL
ROC-707	BEACH 3RD STREET (SE-AGIRT PS EMERGENCY BYPASS)	40	35	51	73	44	19	DBL 13' 6" X 5'	HEMPSTEAD BAY
ROC-708	9 WEST 16TH ROAD	40	36	7	73	49	15	15" DIA	JAMAICA BAY, EASTERN, AND TRIBS (QUEENS)
ROC-709	205 AVENUE	40	36	2	73	49	16	15" DIA	JAMAICA BAY, EASTERN, AND TRIBS (QUEENS)
ROC-710	9 19TH ROAD	40	35	56	73	49	17	15" DIA	JAMAICA BAY, EASTERN, AND TRIBS (QUEENS)
ROC-711	SEAGIRT AV & BEACH 5TH STREET	40	35	46	73	44	26	42" DIA	MARSH
ROC-712	W 10 RD & SHAD CREEK RD	40	36	22	73	49	21	30" X 19"	JAMAICA BAY, EASTERN, AND TRIBS (QUEENS)
ROC-713	322 CROSS BAY BOULE-VARD	40	36	48	73	49	11	15" DIA	MARSH

TALLMAN ISLAND													
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER	CONTRIBUTORS	BOOM	NET	TELEMETRY
		DEG	MIN	SEC	DEG	MIN	SEC						
TI-001	TALLMAN ISLAND WRRF OUTFALL	40	47	52	73	50	25	60" DIA	EAST RIVER				
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-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-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	73	48	23	48" DIA	EAST RIVER	REG #			

TALLMAN ISLAND MS4									
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-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

TALLMAN ISLAND MS4									
OUTFALL ID	OUTFALL LOCATION	LATITUDE			LONGITUDE			OUTFALL SIZE	RECEIVING WATER
		DEG	MIN	SEC	DEG	MIN	SEC		
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
TI-677	SANDHILL RD	40	46	21	73	44	40	72" DIA	UDALLS COVE PARK POND
TI-678	40 AVE & 247 ST	40	46	20	73	44	37	30" DIA	UDALLS COVE PARK POND
TI-679	BROOKSIDE ST & 34 AVE	40	46	35	73	44	40	5.5' x 2'	UDALLS COVE PARK POND
TI-680	POPPENHUSEN AV AND 115TH ST	40	47	28	73	51	10	5'6" x 3'0"	EAST RIVER
TI-681	POPPENHUSEN AV AND COLLEGE PL	40	47	36	73	50	55	4'6" x 3'6"	EAST RIVER
TI-682	20TH AVE	40	46	53	73	49	52	48" DIA	MARSH
TI-683	20TH AVE	40	46	53	73	50	8	24" DIA	MARSH
TI-684	61ST AVE	40	45	24	73	45	41	DBL 6' X 6'	ALLEY CREEK
TI-685	SEAGIRT AV & BEACH 5TH STREET	40	46	53	73	49	58	54" DIA	FL-2 DEC WETLAND

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 WRRF 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

3258632975

MS4 Annual Report Cover Page

MCC form for period ending December 31, 2021

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, 2021

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, 2021

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:

5690581587

MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2021

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: ROHIT | MI: T | Last Name: AGGARWALA

Title: COMMISSIONER

Address: 59-17 JUNCTION BLVD

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

eMail: RAGGARWALA@DEP.NYC.GOV

Phone: (718) 595-6565 | County: QUEENS

5690581587

MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2021

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

5690581587

MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2021

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: SARA | MI: | Last Name: LUPSON

Title: PROGRAM MANAGER

Address: 59-17 JUNCTION BLVD

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

eMail: SLUPSON@DEP.NYC.GOV

Phone: (718) 595-5348 | County: QUEENS

MS4 Municipal Compliance Certification (MCC) Form

MCC form for period ending December 31, 2021

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.

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MS4 Municipal Compliance Certification(MCC) Form

MCC form for period ending December 31, 2021

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:

Date: 09/30/2022

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

Printed on post-consumer recyled paper