ENVIRONMENTAL PROTECTION

14 WASTEWATER RESOURCE RECOVERY FACILITIES' SPDES PERMITS
COMBINED SEWER OVERFLOWS
BEST MANAGEMENT PRACTICES
ANNUAL REPORT

FOR THE PERIOD
JANUARY 1, 2023 - DECEMBER 31, 2023

CITY OF NEW YORK

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF WASTEWATER TREATMENT

MAY 2024

Table of Contents

EXECUTIVE SUMMARY

The waters surrounding New York City are cleaner and healthier than they have been in more than a century. Over the past decade, the New York City Department of Environmental Protection (DEP) has invested approximately $10 billion in projects such as sewer system and Wastewater Resource Recovery Facility (WRRF) upgrades to improve the health of these critical ecosystems. This investment has produced many ecological successes, ushering in the return of a variety of plant and animal species to our waters. It has also supported the redevelopment of vast swaths of our waterfront and numerous recreational opportunities for residents and visitors alike.

Although we continue to make great strides in improving the health of our waterbodies, we still face challenges. New York City, along with hundreds of other American communities, is largely served by a combined sewer system (CSS) where stormwater that falls on roofs, streets, and sidewalks, and wastewater from homes and businesses are carried together through a single sewer pipe to WRRFs. The City's 14 WRRFs can manage and treat to federal Clean Water Act standards all the wastewater created in New York City on a dry weather day, or about 1.3 billion gallons on average. On a rainy day, they have the capacity to partially treat and fully disinfect up to nearly 3 times that amount. However, during intense precipitation events, the stormwater that enters the system can exceed that capacity and can cause combined sewer overflows (CSOs), or the discharge of that untreated stormwater and wastewater mix into local waterways.

DEP implements three distinct strategies aimed at creating additional capacity in our wastewater system to reduce the number of CSOs during wet weather: grey infrastructure, green infrastructure and CSO Best Management Practices (BMPs).

GREY INFRASTRUCTURE

DEP has spent approximately $2.7 billion on baseline grey infrastructure projects to date and has forecasted costs of about $6.2 billion for CSO Long Term Control Plan (LTCP) recommended projects and for construction of 2 CSO retention tanks in the Gowanus Canal, as required by the Superfund Record of Decision. To reduce CSOs, DEP has utilized a variety of grey infrastructure controls such as improvements to the headworks of WRRFs, expansion of the storm sewer system, separation of storm sewers, sewer system and regulator optimization, and construction of large CSO retention tanks. All baseline grey CSO projects have been completed. The CSO LTCPs expand upon past successes and have proposed additional CSO controls and

ecological improvement projects. To learn more about the CSO Program visit nyc.gov/dep/ltcp.

GREEN INFRASTRUCTURE

DEP has constructed thousands of green infrastructure assets, such as rain gardens, green roofs, and porous surfaces to absorb stormwater runoff where it lands, thereby reducing or, in some cases, slowing the amount of stormwater entering the sewer system. To achieve this reduction, the Green Infrastructure Program has maintained critical partnerships with the Departments of Transportation (DOT), Parks and Recreation (DPR or Parks) and Education (DOE), the New York City Housing Authority (NYCHA), and other city agencies to implement green infrastructure on city-owned property. We are also continuing to develop private incentives to encourage New Yorkers to join us in managing stormwater and improving water quality.

Since 2022, DEP has implemented an updated stormwater rule that requires a retention-first approach to on-site stormwater management for all new construction and redevelopment sites. In 2023, DEP and DEC signed a modification to the CSO Consent Order. Major changes between the 2012 CSO Order and the 2023 Citywide Green Infrastructure Modification (2023 Modification)[1] include expanding the definition of green infrastructure, extending the NYC Green Infrastructure Program's timeline, updating the Program's certification metrics and interim milestones, and increasing the Program's total funding commitment to include resiliency projects. The Program's regulatory goals are to reduce CSOs by 1.67 billion gallons per year (BGY) in combined sewer areas by December 2040 and, building on current investments, to expend $3.5 billion on green infrastructure in both combined and separately sewered areas by December 2045. See additional information in section 16.7.

CSO BEST MANAGEMENT PRACTICES

DEP has continued implementing CSO BMPs to optimize existing facilities to capture and convey more wet-weather flow to the City's WRRFs. The State Pollutant Discharge Elimination System (SPDES) permits for the City's WRRFs list fifteen different CSO BMPs, which amplify EPA's national CSO Control Policy. This 21st Annual Report describes DEP's ongoing program to advance those BMPs and provides statistics for calendar year 2023. The report is divided into seventeen sections covering each of the BMPs and the additional Special Conditions listed in the SPDES permits.

Notable CSO BMP achievements during 2023 include:

- DEP inspected 131,433.20 linear feet of intercepting sewers citywide. (despite multiple attempts made, approximately 20,500 additional linear feet could not be accessed due to various field conditions). A total of 894.42 tons of sediment were removed including

[1] https://extapps.dec.ny.gov/docs/water_pdf/2023nycgiordermod.pdf

251.39 tons from the interceptors and an additional 643.03 tons from non-interceptor assets such as treatment plants, pumping stations, regulators, and other sewer appurtenances.

- DEP's in-house forces cleaned 295.91 miles of sewer as a proactive measure and 208.02 miles of sewer in response to 12,129 customer service requests.

MORE INFORMATION ABOUT WATER QUALITY

Beaches (see also Section 1.1):

During the summer months, DEP works closely with the NYC Department of Health and Mental Hygiene (DOHMH), which oversees bathing water quality at City beaches. DOHMH has an extensive beach monitoring program and posts wet-weather advisories if local waterways are affected by CSOs or faulty septic systems. DOHMH's 2023 Beach Surveillance and Monitoring report can be found online at: 2023 Beaches Report (nyc.gov) For information on beaches, visit the NYC Beach Water Quality website at https://maps.nyc.gov/beach/

Other Waterbodies:

DEP regularly posts monitoring data on our website, including non-beach waterbody advisories. In 2021, DEP launched an updated Waterbody Advisory System that the public can use when planning recreational activities in locations other than beaches; the advisories are based on water quality models and real-time rainfall data.

The Waterbody Advisory System also:

- Expanded from 28 to 45 the number of waterbodies that could receive an advisory.
- Utilizes and displays rainfall data from rain gauges at all 14 WRRFs.
- Provides more detailed advisory durations based on measured rainfall.
- Uses primary contact recreation standards.

New Yorkers can visit DEP's website for up-to-date information or register for daily alerts

at NotifyNYC.

http://www.nyc.gov/html/dep/html/stormwater/combined_sewer_overflow.shtml

1 CSO MAINTENANCE AND INSPECTION PROGRAM (OMIP)

CSO Maintenance/Inspection Program (OMIP)

a. *"The permittee shall continue to implement a written maintenance and inspection program for all CSOs listed, beginning on page 3 of this permit. This program shall include all regulators tributary to these CSOs and shall be conducted during periods of both dry and wet weather. This is to ensure that no discharge or leakage occurs during dry weather and that the maximum amount of wet weather flow is conveyed to the WRRF for treatment. This program shall consist of inspections with required repair, cleaning and maintenance performed as needed to prevent dry weather overflow and leakage and ensure maximum wet weather flow is conveyed in accordance with CSO BMP #3. Inspection reports shall be completed indicating visual inspection, any observed flow, incidence of rain or snowmelt, condition of equipment and work required. OMIP inspection reports shall be available for NYSDEC review no later than 9am on the day following the inspection and shall be available for NYSDEC review at the associated WRRF no later than 30 days following the inspection."*

b. *The permittee shall also include in the OMIP:*

i. *"A plan to maintain CSO tidegates to prevent infiltration of seawater into the collection system such that the WRRF influent concentration of chlorides does not exceed a twelve-month rolling average of 400 mg/L. The OMIP shall specify corrective actions to be taken within twelve months of an influent chloride exceedance of 400 mg/L."*

ii. *A plan and schedule for:*

1. *"Physical Condition Assessments of interceptor sewers every five years, with a minimum of twenty percent of the interceptor sewers assessed in each year of the five-year period. The assessment of the interceptors shall include an objective ranking and numerical scoring of physical assets. For interceptor sewers determined by permittee to be in need of repair or upgrade, a schedule for such projects shall be provided in each CSO BMP Annual Report. The current five- year assessment, repair and upgrade cycle commenced on January 1, 2018 and shall be completed by December 31, 2022. The next five-year assessment, repair and upgrade cycle shall commence on January 1, 2023, and be completed by December 31, 2028."*
2. *"A regular program of re-inspection and cleaning of the interceptors based on the inspections and the need to maximize storage capacity of the interceptors in accordance with BMP #2."*

1.1 REGULATORS

DEP submitted the CSO Maintenance and Inspection Program to DEC on August 14, 2003, and an addendum to that Program in February 2023. See Appendix 1.1, Exhibit 1.

A summary of preventive and corrective maintenance performed during 2023 on all regulators tributary to each treatment plant is attached as Attachment A (also submitted under separate cover). The table shows the regulator number, the date when preventive maintenance (PM) was performed at each site and whether any corrective actions were completed (designated on the table by an 'x').

PM of a regulator consists of a physical inspection of the regulator and diversion chambers as well as of the branch interceptors or drop pipes. PM also includes exercising or lubrication of sluice gates and any other maintenance not considered corrective.

Corrective Maintenance (CM) of a regulator includes the clearing or cleaning of all blockages within the diversion chamber, regulator, branch interceptor or drop pipe. CM also consists of any replacement of manhole rungs and the cleaning of all sensors within the chambers.

All inspections performed in 2023 are listed in Attachment A.

1.1.1 Beach-Sensitive Regulators

During the Enhanced Beach Protection period from May 15 through September 30, DEP performed inspections of beach-sensitive regulators through telemetry twice per day. Shift engineers from the Bureau of Wastewater Treatment (BWT) Collection Facilities Operations (CFO) monitor these locations at the beginnings of their shifts and at the ends of their shifts. If telemetry is inoperable, field crews perform site inspections until the telemetry is corrected. See Attachment A for locations DEP inspected when the telemetry was inoperable (designated by an 'x' in the column EBPP).

1.2 TIDEGATES

(b) A plan to maintain CSO tidegates to prevent infiltration of seawater into the collection system such that the WRRF influent concentration of chlorides does not exceed a twelve-month rolling average of 400 mg/L. The OMIP shall specify corrective actions to be taken within twelve months of an influent chloride exceedance of 400 mg/L.

WRRF and process personnel notify CFO if they measure elevated chloride levels and flow at their respective WRRFs. CFO personnel initiate a "chloride run" in response to the elevated chloride levels and extra flow. A "chloride run" is a visual inspection of the tide gates within the drainage area experiencing the high chlorides, followed by removal of debris, as needed, and closing of any gates found to be open. DEP performs chloride

inspections in addition to the standard maintenance and inspection of regulators. Please refer to Attachment A for the results of those inspections (table column designated CI).

Attachment A contains a summary of PM and CM performed during 2023 on all tidegates tributary to each WRRF. The table sets forth the Regulator Numbers, the dates when the corresponding facility performed PM (designated by an 'x' in the column TG PM) and whether any corrective actions were completed (designated on the table by an 'x' in the column TG CM).

PM of a tide gate consists of the physical inspection and exercising of the tide gate as well as any other maintenance not considered corrective.

CM of a tide gate includes removal of debris from the gate, cleaning of the rubber seals and rebuilding and refurbishing of all hardware as well as of the flap itself (which includes stop planking, gate removal, hardware cleaning, tap and chase adjusting bolts and new seals if required).

Chloride levels decreased at the following facilities:

- North River, Hunts Point, 26th Ward, Owls Head, Tallman Island, Bowery Bay, Oakwood Beach and Port Richmond.

Chloride levels increased at the following facilities:

- Ward's Island, Coney Island, Newtown Creek, Red Hook, Jamaica and Rockaway.

Analysis for calendar year 2023 shows that the following WRRFs exceeded the twelve-month rolling average of influent chlorides concentrations of 400 mg/l:

- Wards Island, Hunt's Point, Coney Island, Newtown Creek, Red Hook, Rockaway, and Port Richmond.

For more information regarding chloride levels at all 14 WRRFs see Appendix 1.3, Table 1.

Comparative yearly analysis of CY 2022 and CY 2023 average tidal inflow (Appendix 1, Table 2) indicates:

A decrease in estimated tidal inflow occurred at the following WRRFs:

- North River, Hunts Point, Owls Head, Tallman Island, Bowery Bay and Port Richmond.

An increase in estimated tidal inflow occurred at the following WRRFs:

- Wards Island, 26th Ward, Coney Island, Newtown Creek, Red Hook, Jamaica, Rockaway and Oakwood Beach.

A program is in place to repair defective tide gates to prevent tidal waters from entering the system. Below is an update of tide gate locations under reconstruction:

Regulator/Tide Gate Report Status

Reg. #	Status	Scope	Comments
26W-02	In Construction	32 New Gates	JOC Contract
PR -4E, 8E, 17E, 29E, 31E, 34E, 37E, 6W	In Construction	12 New Gates	JOC Contract
NCM-1	In Design	1	JOC Contract

1.3 INTERCEPTOR IMPROVEMENT PROGRAM

In 2023, BWT continued with its intercepting sewer inspection, cleaning, and rehabilitation program.

1.3.1 Scope of Work Completed in 2023

During 2023, the 1st year of the new 5-year cycle of SPDES permit-required inspections, DEP attempted to inspect 151,997 linear feet (more than 20%[2]) of the intercepting sewers; despite multiple attempts made to inspect some locations, they were found to be inaccessible because of various field conditions. DEP completed inspections of 131,433.20 linear feet.

A total of 251.39 tons of sediment were removed from the interceptors and an additional 643.03 tons of sediment were removed from non-interceptor assets such as treatment plants, pumping stations, regulators, and other sewer appurtenances, for a total of 894.42 tons.

DEP's in-house forces cleaned 295.91 miles of sewer as a proactive measure and 208.02 miles of sewer in response to 12,129 customer service requests.

[2] 20% of the intercepting sewers is approximately 145,000 linear feet.

Table 1: Interceptor Inspected Pipe Summary and Sediments Removed by Drainage Area (2023)[3]

Interceptor Cleaning and Inspection		
Drainage Area	Inspected (LF)	Cleaned (Tons)
26W		
BB	1,336.70	
CI		
HP		
JA	60,180.00	134.69
NC	1,316.60	11.75
NR		
OB	2,037.00	
OH		
PR	29,620.40	25.37
RH		
RK	31,654.10	44.85
TI	1,512.50	34.73
WI	3,775.90	
Total	**131,433.20**	**251.39**

[3] DEP inspected 131,433.20 linear feet of intercepting sewers citywide (despite multiple attempts made, approximately 20,500 additional linear feet could not be accessed due to various field conditions)

Using the Pipeline Assessment Certification Program (PACP) defect coding and condition scoring rating system developed by National Association of Sewer Service Companies (NASSCO) along with sound engineering judgment, DEP prioritized work such as repairs and cleaning of intercepting sewers. As a screening tool, the PACP system allows for quantitative identification of differences in pipe condition between one CCTV/sonar (inspection) and subsequent inspections, and prioritization based on significance of the defects in the different pipe segments.

The PACP grades two categories of defects: 1) structural and 2) operation and maintenance (O&M). Each condition defect code is assigned a grade from 1 to 5 (with 5 being the worst condition), based on significance of the defect. For each category an overall pipe index/rating is calculated from a summation of all the defects and the total number of defects. A rank from 1 to 5 (with a 1 being the highest priority) is then assigned to the pipe, depending on the severity of the defects over the entire pipe (manhole to manhole).

Pipes with priority ranking of 1 in the O&M category will be cleaned. Pipes with priority ranking of 1 in the structural category (those with the highest PACP grades) will be subject to a detailed engineering investigation to determine whether their rehabilitation and inclusion in the capital program are necessary. DEP will track the condition of pipes with lower ranks (and lower priority) over time to follow their structural degradation and impact on flow and storage capacity; closer attention will be given to those with a priority ranking of 2.

Other important information to note: Appendix 2.2.3 contains Table 3 – Intercepting Sewer Inspections 2023 – Pipe Rating Index and Ranking. Additionally, the 2023 Map of Intercepting Sewers inspected (CCTV/Sonar) and the locations cleaned are shown in Appendix 2.2.5

2 MAXIMUM USE OF COLLECTION SYSTEM FOR STORAGE

Maximum Use of Collection System for Storage – "The permittee shall optimize the collection system by operating and maintaining it to minimize the discharge of pollutants from CSOs. The sewage collection system, regulating devices and head works upstream of the throttling gates shall be capable of delivering, and must be designed and operated to deliver, at a minimum, the wet weather flow identified in CSO BMP #3. It is intended that the maximum amount of in-system storage capacity be used (without causing service backups) to minimize CSOs and convey the maximum amount of combined sewage to the treatment plant. The permittee shall utilize the InfoWorks model and hydraulic capacity of the system to evaluate potential improvements to convey the maximum amount of combined sewage to the treatment plant. The permittee should also implement a continuous program of flushing or cleaning to prevent deposition of solids and the adjustment of regulators and weirs to maximize storage."

a. *"No Combined Sewer Overflow (CSO) discharges shall occur from any approved key regulator[1] outside the period of a critical wet weather event[2] as a result of either: (1) inadequate or improper operation or maintenance of the WRRF, (2) inadequate or improper maintenance of the sewage collection system and regulators, (3) improper throttling/un-throttling of flow to the WRRF, (4) critical WRRF equipment out of service for prolonged periods, (5) negligence, (6) the system not being operated as designed, (7) or any combination thereof."*

[1] The current list of key regulators shall be provided annually to NYSDEC in the CSO BMP Annual Report
A "wet weather event" is any precipitation, snow melt, runoff or storm surge event which causes the influent flow at the WRRF to exceed normal dry weather flows. A "critical wet weather event" is a wet weather event which causes the influent flow at the WRRF to exceed the wet weather flow identified in the associated SPDES permit. The period of a critical wet weather event shall be defined, for these purposes, to begin when an instantaneous influent flow rate equivalent to the SPDES wet weather flow occurs at the WRRF and end when the instantaneous influent flow rate drops below the SPDES wet weather flow limit.

Interceptors that deliver wet weather flow to the WRRFs can provide in-line storage during wet weather. The following conditions induce this storage: when (a) the influent wet weather flow exceeds the WRRF capacity and the facility must throttle, (b) the WRRF wet well operates above the invert of the influent sewers, or (c) other site-specific circumstances occur. Generally, in these cases, in-line storage of a few hundred thousand to a few million gallons (MG) will be induced in the system.

DEP implements management practices for maximizing use of the collection system to reduce CSOs. The Stationary Electric Engineer (SEE) at the BWT Communication Center monitors approaching storms and notifies the plant Operations SEEs to begin reducing their wet-well elevations immediately, prior to the onset of rain. This action helps increase available capacity in the interceptor, which can reduce CSO volumes. Each plant has

established low-well elevation set points for impending rain events and has documented them in its Wet Weather Operating Plan (WWOP).

In-line storage upstream of CSO Control Facilities induces storage within the barrels upstream from the CSO facilities when operated in accordance with their WWOPs, as further described below.

2.1 KEY REGULATOR MONITORING

The current list of key regulators is in Appendix 2, Table 1.

DEP submits to DEC an annual report (Key Regulator(s) Monitoring Report) of all known or suspected CSO discharges from key regulators outside the period of critical wet weather events, using the data from the telemetry system at the key regulators. The report provides the list of such CSO discharges, the approximate start time and end time for each discharge, the corresponding WRRF flow rate, and the start time and end time of the critical wet weather event.

See Chapter 15 for the full list of the CSO discharges, including an engineering analysis of the cause(s) for each discharge and an analysis of options to reduce or eliminate similar future events.

2.2 SEWER CLEANING AND INSPECTION

2.2.1 Introduction

DEP maintains its sewers through a program of inspections and cleaning performed by DEP personnel and various contractors. DEP does inspections either in person or via camera (CCTV, zoom camera, or push cams). Sewer cleaning methods include hydraulic (flushing), mechanical (e.g., dragging, rodding, vactoring) and chemical (degreasing) procedures. Table 2-1 summarizes cleaning activities performed in calendar year (CY) 2023. Maps of the cleaning activities, by Community Board, for the NYC Department of Design and Construction (DDC) are in Appendix 2.

2.2.2 Sewer Maintenance – Complaint-based Inspection and Response

The Bureau of Water & Sewer Operations (BWSO), Division of Field Operations, has personnel including construction laborers, supervisors, and technical staff whose primary functions are operation, maintenance, and repair of the sewer collection and water distribution systems. For the sewer collection system, this Division performs investigations and responds to all sewer complaints received by the City's 311 call center, including sewer back-ups (SBUs), catch basin flooding, and street flooding. The Division also performs programmatic work involving sewer cleaning and catch basin survey

inspections and cleaning. The group works in conjunction with the BWT Industrial Waste section to investigate grease conditions, to perform programmatic degreasing to ensure proper operation, and to perform routine inspections with the engineering-based Collection Systems Investigation (CSI) section. Maintenance and repair yard facilities are located throughout the five boroughs of NYC; they are equipped with heavy duty and light duty construction vehicles, including truck-mounted crane vehicles (catch basin cleaning trucks), power jet flushing vehicles, power rodding auger trucks, and combined flusher/vacuum trucks.

During CY 2023, there were 12,129 customer service requests that resulted in sewer inspections. Of those requests, DEP determined that 9,120 were unrelated to the DEP infrastructure. In response to each request, the sewer maintenance division performs an initial inspection. This initial inspection includes inspecting the downstream and upstream manholes nearest the complaint location and collecting all data relevant to the incident. If the manhole inspection determines that the complaint was unconfirmed, i.e., that the sewer was functioning as designed, crews are directed to perform hydraulic cleaning for at least two sections of sewer. If the sewer complaint is confirmed, i.e., there was evidence that the sewer was overtaxed, the crews are directed to initially perform hydraulic cleaning; if hydraulic cleaning does not alleviate the condition, crews perform mechanical cleaning to remove material obstructing flow in the sewer to resolve the condition.

In response to these complaints, DEP's in-house forces cleaned over 208.02 miles of sewer. This number either represents actual footage, or, when there was no report of actual footage, represents an estimate of 150 linear feet between two manholes. As indicated, DEP performed the inspections and cleaning in response to service requests, and some of the footage may overlap with requests made at different times.

2.2.3 Sewer Maintenance – Proactive Inspection and Response

BWSO performs proactive sewer inspections and response through a program called the Sewer Operations and Analysis Program (SOAP), initiated by DEP in 2011. Monthly, areas of the city associated with recurring, confirmed SBU complaints are assigned to each of the sewer yards for inspection.

Using its Geospatial Information System (GIS), DEP has divided the city into more than 157,700 sewer segments. A sewer segment is defined as a city block, street center line to street center line. Analysis has shown that approximately 1.06% of the overall sewer segments experienced a confirmed SBU, while only 0.30% of the overall sewer segments experienced more than 1 SBU event. Locations with recurring service issues are the focal point of the SOAP program. Under the SOAP program, in-house staff inspects and investigates each street segment. The inspections may lead to cleaning, as warranted, spot repair, if necessary, or referral for capital replacement, as appropriate.

DEP manages FOG issues of varying severity to ensure effective resolution and future maintenance. DEP's Programmatic Degreasing List addresses recurring FOG conditions. DEP tracks and visits the locations on the List, and cleans them mechanically, hydraulically, or chemically according to an established programmatic schedule. During CY 2023, under the Liquid Degreaser (LDG) Program, DEP proactively cleaned 110.99 miles of sewer. Some of these lengths may overlap depending on the frequency warranted by the FOG condition.

During CY 2023, under the programs for SOAP, LDG, and Field Operations' regular sewer maintenance, 295.91 total miles of sewer were proactively inspected and cleaned with in-house resources.

2.2.4 CSI Sewer Inspections

At times, field crews identify sewer conditions that require cleaning beyond the crews' capabilities. For example, the size and condition of the sewer or a record of recent, repeated cleanings may limit a crew's ability to take effective action. In these instances, DEP transfers the work to its CSI Section. The CSI staff then delineates the specific needs and boundaries of the work via more robust field inspection. Once staff defines the scope, DEP can assign the work to DEP's citywide contractors for cleaning and debris removal.

DEP's CSI Section is also responsible for performing internal, visual inspections of sewers. Field crew initial responders identify most areas that require inspection. Other agencies, such as the New York City DOT and DDC, identify the balance of the inspection work when it is required to support their capital planning work. DEP's CSI Section, through in-house personnel and citywide contracting, inspected 1,113,941 linear feet (or 210.97 miles) of sewers at 748 locations throughout the city during CY 2023. Some of this footage overlaps with areas addressed by field crews. As explained above and further below, this overlap occurs because the visual inspection is done prior to cleaning activities, as it is necessary to determine the extent of cleaning needed. DEP also conducts post-cleaning inspections to verify that the contractor has completed the work in an acceptable manner.

2.2.5 Citywide Sewer Cleaning Contracts

As discussed above, after DEP inspects the sewers to determine the scope of cleaning required, it assigns the work to a contractor who performs the work for DEP at various locations citywide. The contractor has equipment capable of cleaning sewers with diameters up to and including 204". Using the citywide sewer cleaning contractor resources, DEP cleaned 546,576 linear feet or approximately 103.52 miles of sewers in CY 2023. The cost of this work was $12,693,745.63.

2.2.6 Sewer Cleaning for Lining and Guniting Activities

DEP also rehabilitates sewers with the use of lining and guniting methods. For both lining and guniting, the first step is to remove all debris, grease, and silt from within the sewer. Upon completion of the rehabilitation, the sewers are either TV-inspected or visually inspected. In CY 2023, DEP lined 31,008 linear feet (or 5.87 miles) of sewer at a cost of $5,129,602.00. In CY 2023, DEP gunited 12,044 linear feet (or 2.28 miles) of sewers at a cost of $16,754,260.00.

2.2.7 Sewer Cleaning and Inspection: Capital Project Design

When DEP plans capital work for a specific location, DDC may perform sewer maintenance work associated with its capital project design program, i.e., it may inspect the sewer infrastructure in the street via TV camera and then clean as necessary. In CY 2023, DDC inspected and cleaned 84,256 linear feet or 15.96 miles. (See Table 2-1 and Appendix 2)

Table 2-1: Summary of Sewers Inspected & Cleaned by DEP BWSO & DDC in CY 2023

METHOD	**INSPECTED & CLEANED (miles)**
In-House (Reactive)	208.02
In-House (Proactive)	295.91
CSI Unit	210.97
Lining	5.87
Guniting	2.28
DDC Inspections & Cleaning	15.96
TOTALS:	**739.01**

3 MAXIMIZE FLOW TO WRRF

Maximize Flow to WRRF – "Factors cited in BMP #2 above shall also be considered in maximizing flow to the WRRF. Maximum delivery to the WRRF is particularly critical in treatment of "first-flush" flows. For the entire duration of each wet weather event, the treatment plant shall be physically capable of receiving and treating: a minimum of the plant-specific wet weather capacity through the plant headworks; a minimum of the plant-specific wet weather capacity through the primary treatment works and disinfection works; and a minimum of the plant-specific secondary system wet weather capacity through the secondary treatment works during wet weather. The actual process control set points may be established by the WWOP required in BMP #4. The collection system and associated regulating devices shall be optimized to the extent practicable to minimize the release of combined sewer overflows."

a. "All critical equipment out-of-service for necessary repair or maintenance must be returned to service as quickly as reasonably possible. If critical equipment is anticipated to be or is out-of- service for necessary repair or maintenance for more than 48 hours or under a NYSDEC approved schedule, NYCDEP must notify NYSDEC Region 2 verbally and in writing of such event and the anticipated time such equipment will be returned to service. NYCDEP must also notify NYSDEC Region 2 both verbally and in writing if during such an outage NYCDEP will be unable to temporarily and safely return the equipment to normal service without the potential for reasonable damage to the equipment. Upon receipt of such notice, and on a case-by-case basis, NYSDEC may adjust the flow required to be passed through the WRRF in consideration of the recommendations contained within an approved Wet Weather Operating Plan ("WWOP") as set forth in Subparagraph 4(b) below. NYSDEC will not unreasonably refuse to adjust the flow requirement. If NYSDEC adjusts the flow, the adjustment shall be deemed retroactive to the start date and time of the event."

b. "NYCDEP shall report all temporary throttling events, prior to achieving the minimum WRRF flows, even if they are the result of routine equipment outages for less than 48 hours. NYCDEP shall also report, as a reportable bypass, such events if they occur because screening equipment becomes "blinded" or equipment is removed from service during a wet weather event. NYSDEC will accept a revised bypass report, in the event that NYCDEP subsequently reports that all impacted equipment has been returned to service within 48 hours of the initial report."

DEP's WRRFs and associated interceptor sewers have been designed and constructed to deliver and treat approximately two times dry weather flow during wet weather. In order to protect the WRRFs' biological process to ensure effective treatment, as well as to guard against homes being flooded during wet weather events, conveyance structures called "regulators" were incorporated into the City's combined sewer system to regulate the flows that reach the interceptors and the WRRFs. Since the City's sewer system was constructed in the early 1900s, almost five hundred regulators have been installed to

regulate the flow to 135 miles of interceptors and 14 WRRFs. Regulators allow all dry-weather sewage and some stormwater runoff to enter the interceptor. During times when the amount of flow due to wet weather exceeds the design capacity of the sewer system, combined sewage spills over a fixed weir inside the regulator, and into a local water body. These discharges, subject to certain conditions, are permitted under DEP's SPDES permits.

Most of the regulators are located along waterways. The outfall pipe from the regulator is only a short distance from the waterbody, while the tributary WRRF may be miles away. Consequently, depending on the length and/or intensity of the wet weather event, and consistent with the design of the collection system, overflow from a regulator during a storm can occur at an outfall pipe some distance from the WRRF and long before the wastewater in a regulator's catchment area reaches the WRRF.

DEP has completed a number of CSO projects that convey additional flow to the WRRFs and, under the approved CSO LTCPs, will construct additional CSO controls in the future.

3.1 Critical Equipment Notifications

In accordance with the 2022 SPDES permits, DEP continued notifying DEC whenever critical equipment was anticipated to be, or was, out of service for necessary repair or maintenance for more than 48 hours or under a DEC-approved schedule. Upon receipt of such notice, and on a case-by-case basis, DEC may adjust the flow that must pass through the WRRF in consideration of the recommendations contained within an approved WWOP. DEP based all subsequent required reporting, including determination of critical wet weather events, on the reduced wet weather capacity levels submitted in these critical equipment notifications.

3.2 WRRF Wet Weather Throttling

DEP continued reporting, within the required two-hour time frame, events in which the WRRF throttled but never achieved the applicable SPDES-permitted wet weather capacity at any point during the period the WRRF throttled, except in instances when the WRRF was at reduced capacity in accordance with the Wet Weather Operating Plan and with prior approval by the DEC.

The 2022 SPDES permits define a critical wet weather event:

> A "*wet weather event"* is any precipitation, snow melt, runoff or storm surge event which causes the influent flow at the WRRF to exceed normal dry weather flows. A "*critical wet weather event"* is a wet weather event which causes the influent flow at the WRRF to exceed the wet weather flow identified in the associated SPDES permit. The period of a critical wet weather event shall be defined, for

these purposes, to begin when an instantaneous influent flow rate equivalent to the SPDES wet weather flow occurs at the WRRF and end when the instantaneous influent flow rate drops below the SPDES wet weather flow limit.

Generally, the wet weather flow identified in the associated SPDES permit of the WRRF is two times the design dry weather flow (2xDDWF), but it may be less than 2xDDWF under certain operational limitations (e.g., when DEP reports critical equipment is out of service and submits a reduced capacity request to DEC).

For Coney Island, an interim wet weather flow limit of 198 MGD was approved, by consent order, to facilitate completion of the replacement of the main sewage pump system as part of the Emergency Stabilization Project. Additionally, for part of 2023, the weather capacity was further reduced due to corrective maintenance to the main sewage pumps.

For Newtown Creek, a critical equipment notification and reduced weather capacity request was submitted for corrective maintenance to the plant's secondary outfall (Whale Creek). From September 23, 2022, to August 21, 2023, only the main plant outfall (India Street) was in service. The plant's reduced wet weather capacity is dependent on the tide cycles during the emergency repair of the Whale Creek outfall structure. Whale Creek was returned to service after August 21, 2023.

Included in Appendix 3.1 is the CY2023 Critical Wet Weather Event Summary for each plant (January to December.) The summary tables include details related to the critical wet weather events for each plant, including: the event-specific wet weather capacity, plant throttling information, and the start and end times of the critical event with its corresponding maximum and average flows.

3.3 Combined Sewage and Floatables Percent Capture at NYC WRRFs

DEP uses a calibrated InfoWorks Hydraulic Model in conjunction with WRRF rain gauge data, and plant operating and rain gauge information to calculate the annual percent wet weather capture. A detailed report on Combined Sewage and Floatables Percent Capture at DEP WRRFs is included in Appendix 3.

4 WET WEATHER OPERATING PLAN (WWOP)

Wet Weather Operating Plan (WWOP) – "The permittee shall maximize treatment during wet weather events, based on the critical equipment assessed to calibrate the peak hydraulic loadings. This shall be accomplished by having a WWOP containing procedures and operational guidance to WRRF staff for operating unit processes, including any regional CSO treatment/retention facilities listed in this permit, WRRF to treat the maximum flows, while not appreciably diminishing effluent quality or destabilizing treatment upon return to dry weather operation. The WWOP shall establish process control procedures and set points to maintain the stability and efficiency of the Biological Nitrogen Removal (BNR) process, if required, for the host WRRF. The WWOP shall be written in accordance with the NYSDEC publication, Wet Weather Operating Practices for POTWs with Combined Sewers."

> *a. " The WWOP shall also incorporate the throttling protocol and guidance developed during the 2014 CSO BMP Order Pilot Study and all subsequent updates. WRRF influent flow throttling operations shall not be initiated until the influent flow at the WRRF is at or above the wet weather flow requirement in the applicable SPDES permit (as may be adjusted in accordance with 3 above). Cessation of such flow throttling shall be initiated on or before the influent flow to the WRRF drops below the wet weather flow requirement and shall proceed at the maximum rate until complete."*

b. "The flow rate recommendations incorporated into an approved WWOP that apply when specific equipment is out of service are guidelines that should be followed by the personnel operating the WRRF. However, the recommendations contained within a WWOP do not automatically modify or reduce the requirement to maintain the minimum wet weather flow requirements in the applicable SPDES permit, nor does having a treatment unit out of service automatically modify or reduce such flow requirements."

c. "The permittee shall submit an updated WWOP to NYSDEC in accordance with the Schedule of Additional Submittals in this permit. A revised WWOP must also be submitted whenever the POTW and/or sewer collection system is substantially replaced or modified in a manner that may impact wet weather operations."

DEP updated and submitted to DEC in 2022 a WWOP for each WRRF and CSO retention facility. Appendix 4 summarizes the history of WWOP submittals.

DEP Engineering Analyses of WRRF influent flow throttling operations provide specific recommendations for initiation and cessation of wet weather flow throttling operations designed to maximize flow through the WRRF and include throttling protocol set points and indicators used to determine how and when throttling occurs at each WRRF. The WWOPs incorporate the throttling protocols and guidance developed in the Engineering Analyses and continue to be updated as needed based on changes to operations or equipment.

4.1 nFORM ADDITIONAL INFORMATION

BMP 5 Wet Weather Operating Plan (WWOP)

Line 176 *"Does the plant identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?"*

DEP answer: "No." The WWOPs identify the minimum flow capacity rates through the treatment units, not the maximum flow capacity.

Line 177 "In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service?"

There have been instances when wet weather flows have caused effluent violations; however, there have been no instances when wet weather flows have destabilized treatment upon return to normal service. Specifically, in the past year, DEP has reported effluent violations for parameters such as daily maximum total suspended solids (TSS) concentration at various WRRFs. Elevated flows due to wet weather can result in solids washout from the final clarifiers which can contribute to elevated fecal coliform counts or effluent TSS concentrations. Please refer to the monthly Discharge Monitoring Report submittals for specific information.

5 PROHIBITION OF DRY WEATHER OVERFLOW

Prohibition of Dry Weather Overflow – "Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated and reported to the NYSDEC Region 2 Office in accordance with 6 NYCRR Part 750-2.7."

Dry weather overflows from the combined sewer system are prohibited and DEP's goal is to reduce and eliminate dry weather bypasses. As a result of DEP's continuing efforts in this regard, in CY 2023, pump station and regulator bypasses continue to remain at low levels.

DEP promptly abates any dry weather overflow and reports it to DEC through the NY-Alert notification system within two hours of confirmation of the discharge. DEP also submits a written report to DEC within five (5) days of the confirmed time of occurrence.

A yearly comparison of regulators, pump stations and WRRFs' dry weather bypassing is attached in Appendix 5.

Dry weather bypasses from the NYC collection system during the reporting period totaled 0.89 MG, as listed in Appendix 5. This total includes discharges from other locations including outfalls and street locations. Bypasses from pump stations and regulators were 0.0000019% (0.89 MG) of the total 468 billion gallons (BG) of dry weather flow treated by NYC's 14 WRRFs in CY2023.

Pump station and regulator failures that resulted in dry weather bypassing during CY 2023 were categorized by cause and grouped by cause code. Major causes were further sub-coded and identified in more detail. These bypasses were analyzed for trends at individual locations and, as a result, DEP is studying specific locations for improvements or modifications to reduce future bypassing.

5.1 PUMP STATION DRY WEATHER BYPASSING AND ANALYSIS

On January 27, 2023, DEP reported a raw sewage bypass from the Hollers Avenue Pumping Station located in the Bronx, NY. The discharge originated from damage to the pump station's 8-inch force main from an unknown cause. The force main is located at the bottom of the Hutchinson River.

On February 2, 2023, DEP discovered a raw sewage bypass from the Hollers Avenue Pumping Station located in the Bronx, NY. The bypass was caused by a hole to the Pump Station's 8-inch force main in proximity to the broken section of the pipe that had occurred on January 27, 2023. The cause for the hole is unknown. The force main break resulted in untreated sewage discharging into the Hutchison River.

On May 03, 2023, DEP discovered a raw sewage bypass from the Conner Street Pump Station. The bypass was caused by a failure of the two backup pumps and excessive tidal

inflow from a tide gate. Because of heavy rain events on April 29th to April 30th, the screening chamber and wet well had elevated levels and two main sewage pumps (MSPs) failed to adequately pump the wet well down. The backup Godwin pumps were also unable to pump the wet well down. The backup Godwin pumps failed due to a hydraulic leak caused by a broken hydraulic hose and clogging from rags and other heavy materials. In addition, one of the two tide gates at Regulator HP-15 had materials that blocked the tide gate from fully closing after the heavy rain events (4/29-4/30) ended, which allowed tidal water into the Conner Street Pump Station influent area during the high tide cycles. Without the backup Godwin Pumps, the Conner Street Pump Station's two MSPs failed to keep up with the high flows.

On July 1, 2023, DEP discovered flooding on the Grand Central Parkway (GCP) near 75th Avenue. DEP personnel were deployed to investigate and determined that the source of the flooding was a broken force main from the Park Drive East Pump Station. This force main crosses the GCP and conveys sewage to the Bowery Bay WRRF. The force main break resulted in sewage entering nearby catch basins that discharge to Willow Lake.

On September 14, 2023, DEP responded to a leak of sewage at 75th Avenue & East Service Road of the GCP. DEP personnel were deployed to investigate and determined that the source of the leak was a broken force main from the Park Drive East Pump Station. This force main crosses the GCP and conveys sewage to the Bowery Bay WRRF. The force main break resulted in sewage entering nearby catch basins that discharge to Willow Lake.

5.2 Regulator Dry Weather Bypassing and Analysis

On April 16, 2023, DEP identified a raw sewage bypass at the Regulator OH–10. DEP personnel determined that the source of the bypass was a complete blockage caused by grease buildup at the Regulator OH–10 sluice gate.

On September 17, 2023, DEP acted upon a raw sewage bypass from Regulator NCB-05A. DEP personnel identified that the source of the bypass was a blockage caused by an accumulation of grease and rags in the branch interceptor line, resulting in a discharge of untreated sewage to the East River.

On October 16, 2023, DEP acted upon a raw sewage bypass from Regulator NCB-05A. DEP personnel identified that the source of the bypass was a blockage caused by the accumulation of 10 pounds of asphalt and rags in the branch interceptor line.

On October 23, 2023, DEP, during a routine monthly inspection, discovered a raw sewage bypass at Regulator No. NR-36. Debris was found blocking the opening to the regulator from the diversion chamber.

On November 03, 2023, a raw sewage bypass was discovered at Regulator WIM-39 during a routine inspection of the regulator. The blockage was caused by an accumulation of grease and rags between the diversion chamber and the regulator.

On December 7, 2023, DEP identified a raw sewage bypass at Regulator NCM-038 during monthly routine inspection of the regulator. DEP personnel identified that the source of the bypass was a blockage in the branch interceptor line.

5.3 WRRF Dry Weather Bypassing and Analysis

There were no WRRF-related dry weather bypasses in 2023.

5.4 Other Locations Dry Weather Bypassing and Analysis

On September 18, 2023, DEP was notified by the public of a water leak from a manhole. DEP investigated the incident and discovered that there was an overflowing manhole due to a break in a 10” sanitary sewer. The sanitary sewer was backed up, causing that flow to divert into a manhole . The rest of the flow went into the catch basin, which flows to Outfall PR-625.

On December 6, 2023, DEP was notified of a manhole overflowing near CSO Outfall CI-639 through a customer service request. DEP originally identified the issue as a freshwater leak due to the small amount of overflow and the lack of odor. Subsequently on 12/17/23, DEP personnel identified that the discharge was untreated sewage, and the source of the bypass was the blockage of a 10” sanitary sewer pipe.

6 INDUSTRIAL PRETREATMENT

Industrial Pretreatment – "The approved Industrial Pretreatment Program shall consider the impacts of discharges of toxic pollutants from unregulated, relocated, or new SIUs tributary to CSOs that were not identified in the report entitled, "CSO Abatement in the City of New York: Report on Meeting the Nine Minimum CSO Control Standards." The approved Industrial Pretreatment Program shall consider CSOs in the calculation of local limits for indirect discharges. Discharge of persistent toxics upstream of CSOs will be in accordance with guidance under ***NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.3.8 New Discharges to POTWs****. For industrial operations characterized by use of batch discharge, consideration shall be given to the feasibility of a schedule of discharge during conditions of no CSO. For industrial discharges characterized by continuous discharge, consideration must be given to the collection system capacity to maximize delivery of waste to the treatment plant. Non-contact cooling water should be excluded from the combined system to the maximum extent practicable. Direct discharges of cooling water must apply for a SPDES permit."*

"To the maximum extent practicable, consideration shall be given to maximize the capture of industrial waste containing toxic pollutants and this wastewater should be given priority over residential/commercial service areas for capture and treatment by the POTW. These factors shall be considered in the location and siting of new industrial users with preference to service by areas not tributary to CSOs or having sufficient capacity to deliver all industrial wastewater during all conditions to the POTW. These provisions apply to both new and existing industrial users."

This program continues as described in last year's Report. During 2023 DEP performed 581 inspections of regulated industries and issued 43 summonses.

Attached in Appendix 6, Exhibit 1 is a copy of the letter sent to industrial users (IUs) informing them that their permits had been amended, and a graph of annual trends in discharges to NYC WRRFs that contain metals. The total amount of metal being discharged by regulated IUs remains very low. In 2023, the average daily discharge containing metals by all regulated industries to the NYC WRRFs was 7.4 lb/day. This amount corresponds to a trend of declining IU discharges. If the same percentage of CSO bypass (0.2304 %) from the CSO report is applied to the 2023 data, then on average approximately 0.017 lb/day of total metal would be included in CSO overflows.

Between 1997 and 2023 the total amount of metal being discharged by regulated IUs in the City has been reduced by more than two orders of magnitude. The total metals

loadings for 1997–2009, 2012, 2017 and 2022 were calculated based on monthly metal sampling, and the remaining years were calculated based on annual priority pollutant scans. A list of regulated industries, with average daily wastewater discharge flows and average pollutant loadings is summarized in the 2023 IPP Progress Report.

6.1 Requirement for Significant Industrial Users to Hold Their Process Wastewater and Non-contact Cooling Water to the Maximum Extent Practicable During Heavy Rains

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains. In 2023, DEP continued to implement this requirement for Significant Industrial Users (SIUs). Please see the CY2009 CSO BMP Annual Report for more details about this program. Additional information may be found in Appendix 6.

7 CONTROL OF FLOATABLE AND SETTLEABLE SOLIDS

Control of Floatable and Settleable Solids – "The discharge of floating solids, oil and grease, or solids of sewage origin which cause deposition in the receiving waters, is a violation of the NYS Narrative Water Quality Standards contained in Part 703. As such, the permittee shall implement the following best management practices in order to eliminate or minimize the discharge of these substances:

- ***a. Catch Basin Repair and Maintenance* – "** *The permittee shall inspect each catch basin in the tributary collection system a minimum of once every 36 months. Catch basins will be cleaned as required based on these inspections and in accordance with the permittee's criteria for catch basin cleaning. The permittee shall replace missing or damaged catch basin hoods within 90 days after the date of inspection for basins known to be hooded upon completion of the catch basin hooding program. For all future basins found by inspection to require extensive repairs before a hood can be installed, the permittee shall repair and install a hood within 24 months."*
- ***b. Booming, Skimming and Netting* –** *"The permittee shall operate and maintain the floatable containment boom (or floatable containment netting or open-water skimming program) as applicable for the CSO outfalls listed in this permit. The in-water containment boom shall be inspected within 48 hours of a confirmed CSO event and, if necessary, cleared of floating debris. The permittee shall visually inspect floatable containment netting on a weekly basis and shall replace damaged or full netting bags as necessary."*
- ***c. Institutional, Regulatory, and Public Education* –"** *The permittee shall continue to implement the City-Wide Floatables Plan."*

"The permittee may submit an application to the department for an alternative implementation schedule for Items 7.a. and 7.b. for combined sewer areas that are tributary to a permanent land based CSO abatement and treatment facility designed for the control of floatables and permitted by the department. The permittee shall include a basic floatables control summary in the CSO BMP Annual Report under BMP #15 (checklist items at a minimum) and may defer more detailed reporting of floatables control efforts to the MS4 Annual Report."

7.1 CATCH BASIN REPAIR AND MAINTENANCE

Catch basin maintenance and repair work is a major focus of DEP's daily activities. DEP devotes significant resources to these tasks both as part of its three-year programmatic inspection cycle in compliance with the SPDES permits, and in response to complaints received from the public.

DEP tracks catch basin maintenance and repair activities through Infor Public Sector (IPS), a complaint and work order management system. DEP performed 89,247 programmatic catch basin inspections in 2023. Table 7.1-1: “CY 2023 Catch Basin Inspection & Cleaning” presents a summary of catch basin cleaning identified through the inspection program and other routine maintenance activities for each borough.

Catch basin hooding, one of EPA’s Nine Minimum Controls, is an important element of DEP’s CSO floatables control program and can significantly reduce the discharge of street litter to combined sewers, storm sewers, and receiving waters. In 2023, DEP hooded 2,836 catch basins; 1,390 of those were found to require extensive repairs before a hood could be installed and the work took on average 78 days. The rest (1,446) were installed within an average of 76 days, with 68% completed within the 90 days. Table 7.1- 2: CY 2023 Catch Basin Hooding, summarizes catch basin hooding during 2023 for each WRRF drainage area. The status of these basins is monitored through DEP’s IPS system to ensure compliance within the allotted time.

7.2 BOOMING, SKIMMING AND NETTING

BWT maintains 22 permanent floatable containment facilities and 1 temporary boom at the Gowanus Canal for a total of 23 facilities, corresponding to stormwater and combined sewer drainage areas totaling approximately 60,000 acres. Floatable containment site locations and offloading facilities are depicted in **Figure 7-2**. The offloading facility for floatables at Whale Creek is back in service.

The floatable materials contained by the boom and net sites are retrieved by three City-owned skimmer vessels. Offloading currently occurs at three DEP WRRFs. The skimmer vessels are operated by BWT marine title personnel who also perform containment site inspections, maintenance and repair. Skimmer vessel maintenance and repair services are conducted either by in-house personnel or, when deemed necessary, via a marine service contract.

Skimmer vessels are dispatched to retrieve collected floatables from booms and nets based on inspections conducted with small vessels within 24 to 48 hours of significant rain events. The inspection vessels are also equipped with hand netting tools in order to retrieve small amounts of floatables, so that the skimmer vessel use is more focused on containment sites with large amounts of floatables. In dry weather, boom and net inspections occur at least weekly and may occur more often for certain sites where specific tide and wind conditions may cause debris to accumulate outside of rain events.

In 2023, about 2432.00 cubic yards of floatable material were retrieved from the 23 containment facilities and some minor open water skimming (see **Table 7C-2A**)

Total floatable recovery per each year is provided in **Figure 7-3** and in **Appendix 7-BWT**, **Table 7C-1**. Floatable recovery totals for 2023 per each of the boom and net sites are included in **Appendix 7-BWT**, **Table 7C-2**.

Figure 7-4. DEP Skimmer Vessel "Shearwater"

DEP currently has two self-propelled skimmer vessels (Aquarius Systems Custom Model HSTH235 – High Speed Trash Hunter) and one vintage skimmer vessel which must be towed.

Table 7C-3 reflects NYCDEP CSO Floatable Removal Program Via Skimmer Vessels – Collection Summary (Cubic Yards).

7.3 INSTITUTIONAL, REGULATORY, AND PUBLIC EDUCATION CONTROLS

In 2023, DEP continued, in partnership with other City agencies, to implement a variety of institutional, regulatory, and public education controls. For a detailed description and history of the City's work to reduce trash and settleable debris citywide, please refer to prior CSO BMP Reports available at https://www1.nyc.gov/site/dep/water/combined-sewer-overflows.page and the NYC Stormwater Management Program (SWMP) Plan available at www.nyc.gov/dep/ms4.

7.3.1 Public Engagement – 2023 Activities

In 2023, DEP continued to educate the public and raise awareness about the New York City wastewater treatment and water supply systems and stormwater management (including floatables reduction, litter reduction, the proper disposal of grease, and water conservation). DEP developed and implemented through its Bureau of Public Affairs & Communication (BPAC), a comprehensive education and outreach program featuring in-person and virtual formats:

- School programs (grades pre-K-college graduate)
- Education programs for professional organizations
- Visitor Center at Newtown Creek programs
- Professional learning opportunities for formal and non-formal educators
- Special education programs and events
- Public exhibitions
- Volunteer programs
- Multi-media distribution
- Publications
- Promotional items
- Website updates

The City continued its annual “Clean Streets = Clean Beaches” Campaign, which featured an informational poster with the slogan “Don’t Mess up Summer” for display at area beaches, on NYC Department of Sanitation (DSNY) fleet vehicles and on City agency social media.

Through coordination with other city agencies, including DSNY and Parks, the public engagement program not only increased the public’s awareness of the impact of littering, but also directly reduced litter through community cleanups and reduced rainfall runoff through tree planting, all of which work to reduce CSOs and their impacts on New York Harbor.

7.3.2 Development of BMPs for the Automotive Industries

DEP translated its automotive guide into Russian and Spanish (for a full description of this guide, please see the CY 2012 CSO BMP Annual Report). The BPAC Environmental Compliance Outreach (ECO) unit visited 5 automotive businesses.

7.3.3 Control of Floatables in Bluebelts

Development of New Creek, South Beach, and Oakwood Beach Bluebelts: Construction progressed at New Creek BMPs NC-6, NC-15, and NC-16, and Lemon Creek BMP LC-1 neared completion. The US Army Corps of Engineers is slated to construct BMPs in the Oakwood Beach, New Creek, and South Beach areas as part of the South Shore Staten Island Coastal Storm Risk Management program. Design work for South Beach (Area C) was finalized in 2023, and then the contract solicitation process began. The commencement of BMPs SBE-1A, SBE-1B, and SBE-1C is pending.

Adopt-a-Bluebelt – This program is ongoing. The total number of sites adopted and maintained by local community groups, companies, or individuals is 50, covering an area of 47,100 square feet.

Volunteer Cleanups – Volunteers from St. Clare School and Gaynor McCown School participated in Bluebelt community cleanups, contributing a total of 10 hours.

Catch Basin Outreach and Education – All existing and newly installed catch basins that are tributary to Bluebelts are marked with the “No dumping – flows to Bluebelt” message.

Floatables Control – Dynamic detention weirs with trash capturing devices have been installed in the New Creek Bluebelt. The weirs and trash racks are maintained regularly and are functioning as designed to keep floatables out of New Creek. These weirs have eliminated the need for floating booms.

Illegal Dumping Enforcement – The DEP Bluebelt maintenance staff continue to monitor and remove illegal dumping and other debris found on DEP-owned properties. In 2023, in collaboration with the NYC Department of Sanitation, a contractor was issued a violation for dumping on City property. During the reporting period, the Bluebelt group removed 927 cubic yards of trash, dumped debris, and weedy vegetation.

7.3.4 School and Visitor Center Programs, Professional Development, Special Events and Exhibitions

DEP manages an extensive education and outreach program that targets NYC students, teachers, parents, school administrators, curriculum specialists, non-formal educators, residents, community organizations, businesses, and visitors and internet users. The program is supported through education programs at the Visitor Center at Newtown Creek and the Newtown Creek Nature Walk, education classes taught at schools and public events, digital resources and print material, multi-media public service campaigns, exhibitions, publications, promotional item distribution, and the DEP website.

BPAC's education programs and resources continued to reach thousands of young people and adults. Some specific examples of these programs are presented below.

7.3.4.1 Other Education Programs and Resources

DEP conducted hundreds of educational programs with young people and adults through both in-person and virtual school visits, field trips, Visitor Center at Newtown Creek presentations, teacher professional learning opportunities, and other educational programs and events. DEP developed and distributed educational materials to thousands of recipients throughout NYC, including information about NYC's wastewater treatment and water supply systems and about harbor water quality; teacher lessons and student activities; and educational resource guides. DEP continued to enhance, distribute, and workshop our curriculum guide for K-8 classrooms, *Understanding New York City's Water Story*, which includes a compilation of successful lessons and activities. Additionally, DEP updated and distributed the Jamaica Bay Education Resource Directory and four virtual tours (using ArcGIS StoryMaps) of the NYC watershed, sewer system, wastewater treatment process, and harbor protection programs. Through the NYC Department of Design and Construction's Town+Gown Program, DEP partnered with the Fashion Institute of Technology to design and distribute 10,000 copies of *Drippy's Water*

Adventure, a new coloring book filled with activities and vocabulary highlighting NYC's extensive water and wastewater infrastructure. Detailed information about these programs and resources is available from BPAC's Education Office and on DEP's website.

The Visitor Center at Newtown Creek, located at the Newtown Creek WRRF in Greenpoint, Brooklyn, provides an important venue for pre-K through college students, educators, professionals working in the field, and the public to learn about NYC's wastewater and water supply systems and stewardship opportunities. Exhibitions and hands-on, multi-disciplinary programs focus on the city's vital, but hidden, infrastructure; green solutions to stormwater management, including 35 Bluebelts, rain gardens, green and blue roofs, and rain barrels; the NYC sewer system, including its MS4; harbor water monitoring, including the role of NYC's fleet of vessels and scientific monitoring; and ways to become more effective stewards of the environment by disposing of litter and household waste properly and conserving water. The Visitor Center and the nearby Newtown Creek Nature Walk, open year-round, are popular destinations for school field trips and teacher professional learning opportunities. In 2023, DEP conducted more than 200 programs for 6,000 students and educators at the Newtown Creek WRRF.

DEP hosted its 37th annual Water Resources Art & Poetry Contest to recognize students' knowledge of the city's valuable water resources through their creative expression using art and poetry. More than 1,700 NYC and watershed students from 2nd through 12th grade attending over 100 public, charter, independent, and parochial schools participated in this special program. Winning entries are featured on DEP's website. DEP hosted virtual and in-person celebrations to honor the outstanding efforts of all the participating students.

For the past 20 years, DEP has collaborated with Trout Unlimited on the Trout in the Classroom (TIC) program, an upstate/downstate watershed environmental education initiative for elementary through high school students. In October, educators from NYC and NYC's watersheds east and west of the Hudson River attended the annual TIC teacher conference, where they received trout eggs distributed by the NYS Department of Environmental Conservation (DEC) to raise in their classrooms. Throughout the eight-month program, eggs hatched in classroom tanks and trout were raised by approximately 15,000 students in more than 150 schools in NYC and its watersheds. In the spring, NYC students and teachers released their trout into watershed streams and participated in hands-on activities focused on water stewardship and the importance of forests in helping to protect water quality.

DEP also participated with DEC during the annual statewide Citizen Science "A Day in the Life of the Hudson and Harbor" program. In 2023, DEP once again met middle school students in person to make environmental observations, collect and analyze water samples, and assess water quality along the East River at Gantry Plaza State Park. School participants shared data with DEC that tracked the river's tides and currents, examined the water chemistry, and identified local aquatic species.

Throughout the year, DEP conducted professional learning opportunities (PLO) for formal and non-formal educators about harbor water quality, watershed protection, stormwater management, wastewater resource recovery, climate change, and the history of the New York City water supply. Partners included the NYC DOE Science and STEM units and Office of Sustainability, New York State Parks, New York Sea Grant, Watershed Agricultural Council, South Street Seaport Museum, Math for America, Brooklyn Public Library, and many other cultural and environmental organizations. Some 2023 highlights include the return of DEP's popular in-person Watershed Forestry Bus Tour, tours of the Newtown Creek WRRF's waste-to-energy initiatives, harbor sails with the South Street Seaport Museum, a day-long study of the Long Island Sound with New York Sea Grant and NYC Parks, and a stormwater management and green infrastructure workshop series promoting our new module lessons and activities. As a Continuing Teacher and Leader Education (CTLE) sponsor, as approved by the New York State Education Department, DEP continued to support New York State teachers who participated in our PLOs by providing credit towards their required training hours.

In partnership with DEC, the BWSO Bluebelt Unit has led a Citizen Science program monitoring migratory glass eels since 2012. Each spring, for three months, students and volunteers monitor the influx of juvenile American Eels as they arrive on Staten Island from their birthplace in the Sargasso Sea. Participants, led by DEP and DEC staff, are taught about basic scientific methods, fish biology, and climate impacts.

7.4 FLOATABLES MONITORING PROGRAM PROGRESS REPORT

DEP has been tasked under its SPDES permits with implementing and maintaining a floatables control program and monitoring to assess the effectiveness of the program. These control and monitoring programs are detailed in the City-Wide Comprehensive CSO Floatables Plan Modified Facility Planning Report (Floatables Plan, 7/05) inclusive of Addendum 1 – Pilot Floatables Monitoring Program Work plan (12/05).

The Floatables Plan contains a conceptual framework for the monitoring of floatables conditions in the waters of New York Harbor. A pilot program was conducted over the course of 2006 and 2007 to develop and test the monitoring methodology envisioned in the framework, and the full program began in 2008. A progress report, presented in conjunction with the CSO BMP Annual Report, describes the progress that DEP has made.

The floatables monitoring program is based on observations of the presence/absence of floatables at monitoring stations throughout the harbor and has developed into one of a number of methods to assess floatables control programs. These basic monitoring data have been used to prioritize and select sites for more comprehensive site-specific investigations focused on priority sites with persistent poor ratings. The site-specific investigations characterize floatables, identify sources of floatables, correlate rating trends to floatables control programs where applicable, and, in conjunction with CSO LTCP processes, provide the first steps for appropriate remediation planning where feasible.

Since 2006, the program has expanded to monitoring most of NYC's regional waters and their near shores and shorelines. NYC DEP Harbor Water Quality Survey (HWQS) and Volunteer Survey Program monitoring stations increased from 25 sites in 2006 to 58 sites in 2023. Over the long term, variations in monitoring sites and locations will likely occur as public participation volunteer interest varies, shoreline cleanup sites change, and HWQS sites change. DEP will continue to perform floatables monitoring at additional PCM sites as forthcoming LTCP element construction is completed.

As part of the Floatables Monitoring Program, site-specific investigations were conducted for the monitoring sites that had the most persistently poor floatables condition ratings based on monitoring data collected in 2022 (i.e., TB1 Thurston Basin, NC2 Newtown Creek midpoint and K1 St. George, Staten Island; see Figure 6 in the Floatables Progress Report). The overarching goal of this year's site-specific investigations was to gain insight into the sources of floatables and other debris at the selected sites to inform planning within the framework of the City-wide CSO LTCP. The investigations were able to provide a step toward this goal.

In addition to the floatables controls listed in BMPs 7a through 7c, the City engages in a street sweeping program to reduce floatables' entry into catch basins and the combined sewer system. The program is administered by DSNY and evaluated through systematic street litter monitoring, known as the "Scorecard Program," conducted by the Mayor's Office of Operations. According to the Scorecard Program, Citywide street cleanliness levels have worsened somewhat since 2020 with a halt in the program in 2023. Scorecard Program results for the past forty-eight years are summarized in Appendix 7 (DEP BWT) Figure 7-2-5.

8 COMBINED SEWER SYSTEM REPLACEMENT

Combined Sewer System Replacement – "Replacement of combined sewers shall not be designed or constructed without an approved drainage plan signed by the NYC Department of Health and Mental Hygiene. When replacement of a combined sewer is necessary it shall be replaced by separate sanitary and storm sewers to the greatest extent possible. These separate sanitary and storm sewers shall be designed and constructed simultaneously but without interconnections to maximum extent practicable. When combined sewers are replaced, the design should contain cross sections which provide sewage velocities which prevent deposition of organic solids during low flow conditions to the maximum extent practicable."

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

9 COMBINED SEWER/EXTENSION

Combined Sewer/Extension – " Combined sewer/extension, when allowed should be accomplished using separate sewers. These sanitary and storm sewer extensions shall be designed and constructed simultaneously but without interconnections. No new source of stormwater shall be connected to any separate sanitary sewer in the collection system."

"If separate sewers are to be extended from combined sewers, the permittee shall demonstrate the ability of the sewerage system to convey, and the treatment plant to adequately treat, the increased dry-weather flows. Upon written notification by the Regional Water Engineer, the permittee shall assess the effects of the increased flow of sanitary sewage or industrial waste, on the frequency, flow and pollutant loading of CSOs, including the impacts on water quality and best usage(s) of the receiving water. This assessment should use techniques such as collection system and water quality modeling contained in the 1999 Water Environment Federation Manual of Practice FD-17 entitled, Prevention and Control of Sewer System Overflows, 2nd edition."

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

10 SEWER CONNECTION & EXTENSION PROHIBITIONS

Sewer Connection & Extension Prohibitions – "If there are documented, recurrent instances of sewage backing up into house(s) or discharges of raw sewage onto the ground surface from surcharging manholes, the permittee shall, upon letter notification from NYSDEC, prohibit further connections that would exacerbate the surcharging/back-up problems. Wastewater connections to the combined sewer system downstream of the last regulator or diversion chamber are prohibited."

For the calendar year 2023, DEP received no letter notification from DEC concerning chronic sewer backups or manhole overflows that would prompt DEP to prohibit additional sewer connections or sewer extensions.

11 SEPTAGE AND HAULED WASTE

Septage and Hauled Waste – "The discharge or release of septage or hauled waste upstream of a CSO is prohibited."

The septage and hauled waste program has continued unchanged since the 2022 Annual BMP Report issued in 2023.

12 CONTROL OF RUNOFF

Control of Runoff – "All sewer certifications for new development shall be consistent with NYCDEP rules and regulations and shall require on-site detention or retention to not exceed the capacity of the existing sewers fronting the property. Only allowable flow will be permitted to discharge into the combined or storm sewer system."

Connecting to or repairing/relaying an existing connection to any combined, storm or sanitary sewer requires a permit from DEP. A new connection is conditioned upon the submission of a Certification of a Site Connection Proposal (SCP) or a House Connection Proposal (HCP). A NYC Licensed Master Plumber can apply for a sewer connection permit provided there is a certified HCP/SCP submitted by a NYS Licensed Professional Engineer or Registered Architect.

BWSO oversees the sewer permitting process and inspects and approves water and sewer connections performed by licensed plumbers and/or authorized contractors. This oversight and the review of certifications of SCPs and HCPs allow DEP to ascertain whether the volume of sewage entering the collection system conforms to the City's Drainage Plan and will be conveyed to WRRFs without causing sewage back-ups.

DEP administers this program pursuant to the Clean Water Act and State and local laws regulating the treatment and disposal of wastewater. The City's "Rules Governing House/Site Connections to the Sewer System" are set forth in Title 15 of the Rules of the City of New York, Chapter 31.

Connections to any City sewer require DEP (BWSO) inspection, generating a "connection card" or "Certificate of Inspection." Such certification is a prerequisite to the property owner's receiving a Certificate of Occupancy from the NYC Department of Buildings (DOB). BWSO's Borough Water & Sewer Records Office maintains records of all connections.

The maximum Stormwater Release Rates are set forth in the following table.

Sewer Type	**Maximum Stormwater Release Rate**
Storm Sewer System	1 cfs per acre or 0.046 cfs, whichever is greater
Combined Sewer System	0.1 cfs per acre or 0.046 cfs, whichever is greater

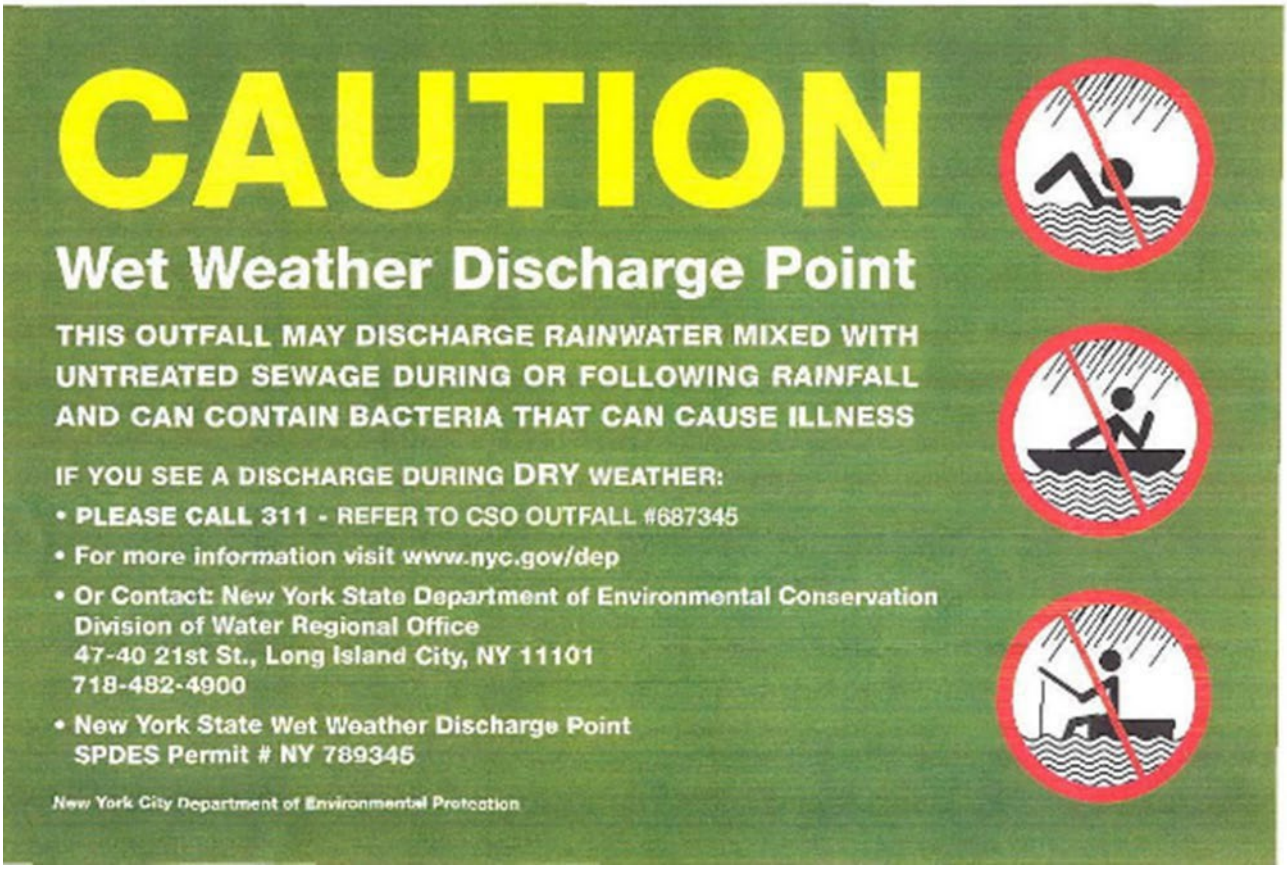
A copy of the Sewer Certification Form and Site Connection Proposal Form that must be filed for new development are attached in Appendix 12.

13 PUBLIC NOTIFICATION

Public Notification

*"The permittee shall maintain identification signs at all CSO outfalls owned and operated by the permittee, as listed in this permit. The permittee shall place the signs at or near the CSO outfalls and ensure that the signs are easily readable by the public. The signs shall have **minimum** dimensions and appearance as specified in the Discharge Notification Requirements page of this permit."*

DEP installed signs at all CSO outfalls in 2003 and at all WRRF outfalls in 2007. The sign panels are 24" x 36" and the plaques are 6" x 9" with white letters on a green background. Each notification sign and plaque asks the public to contact DEP with the depicted Outfall number and SPDES number if they observe dry weather discharge from the outfall.



Signs include warnings about recreational activities such as swimming, boating and fishing at the outfall locations and emphasize the word "Caution" in order to alert the public to the fact that the location is a point of release of wastewater into surface water during

wet weather. The signs also provide graphics of non-recommended activities. See Appendix 13 for the list of installed CSO sign locations.

The signs also provide contact information for reporting discharges during dry weather. The ID number can help a 311 operator or a DEP employee to recognize the location from which someone is reporting discharges and to take immediate action. DEP has received calls prompted by these signs. These calls are handled by a trained group of employees who are aware of related response actions. Calls are evaluated and forwarded to responsible staff who will take the appropriate action.

DEP's educational signs expand the knowledge of New York's citizens about their water environment. The notice depicts a typical CSO sewer regulator, explains its purpose, and alerts the public to action to be taken in the event of a release of wastewater from an outfall into surface waters during dry weather. The sign also serves a secondary purpose: it involves the citizen in community environmental actions.

"Waterwalk" Educational Signage

b. "The permittee shall report all known or suspected CSO discharge events in accordance with 6 NYCRR Part 750-2.7(b)."

The DOHMH *2023 NYC Beach Surveillance and Monitoring Report* can be accessed at the following link and a copy of the report is included in Appendix 13:

13.1 SUMMARY OF DOHMH REPORT:

13.1.1 Routine Monitoring and Surveillance Procedures

The routine beach monitoring and surveillance procedures consist of the following three major components:

- Routine beach water quality monitoring
- Compliance inspections
- Regulatory surveillance.

DOHMH monitors and samples each beach weekly, except for the Rockaway and Breezy Point beaches, which are sampled biweekly. Additional samples may be collected when necessary. The determining factors for additional sampling may include:

- Proximity to suspected pollution sources;
- Extent of pollution;
- Beach use;
- Historical water quality data; and
- Other health risk factors.

Prior to sample collection, a visual inspection is performed to identify any existing and/or potential sources of pollution that are likely to affect beach water quality. During a sampling event, three samples are collected at each beach. At larger beaches, such as Coney Island and Rockaway, additional samples are taken at multiple locations to ensure adequate representation and reliable data results. Water samples are collected at knee-depth (18 inches) in three feet of water, at the middle of a typical or most highly used area of the beach, or near a potential source of pollution. The collected samples are delivered to the DOHMH Office of Public Health Laboratories (PHL) for analysis. The analytical turnaround time for Enterococci is 24 hours.

13.1.2 Public Notification and Risk Communication

Six of the eight public beaches were issued at least one swimming advisory notice during the 2023 bathing season due to water quality exceedances, resulting in a total of 69 advisory notices, which ranged in length from 1 to 33 days. There was a total of nine closure days due to air quality issues, or shark sightings. The length of each beach closure did not exceed more than one day.

Of the seventeen private beaches in New York City, sixteen were open in 2023. Twelve private beaches were issued at least one swimming advisory notice during the bathing season, resulting in a total of 554 advisory notices with lengths ranging from 1 to 74 days. White Cross Fishing Club had the largest total number of advisory days, with a total of 74. Across all private beaches, there was a total of 32 closure days due to water quality exceedances. Whitestone Booster Civic Association had the largest number of closure days with 15. The length of each beach closure ranged from 2 to 15 days. Public notification details can be found in Appendix B (pages 19 to 22).

Water Quality and Illness Reporting

Routine water quality monitoring was performed at 25 permitted beaches. Between April and September 2023, over 1,400 samples were collected from these beaches and analyzed.

In 2023, DEP received a water quality and ecological complaint for Cedar Grove beach. Several dead seabirds were observed by patrons and lifeguards, who reported a foul smell and brown water. Upon investigation, DEP found on the shore an unusual number of dead bottom-dwelling marine animals, such as large snails, crabs, mussels, and oysters. DEP reported the issue to DEC and the United States Coast Guard. DEP did not receive any specific illness complaints due to contaminated water quality.

In 2023, DEP collected approximately 1,400 samples, compared to more than 1,000 samples in a normal beach season.

13.1.3 Inspections

During the 2023 beach season, DEP performed inspections of all 24 open, public and private beaches. Three beaches were cited for violations at the time of inspection as indicated in Appendix C. DEP observed disrepair of parts of the boardwalk during the inspection of Coney Island Beach. Additionally, some toilet facilities were not properly maintained at Rockaway Beach and Orchard Beach.

14 CHARACTERIZATION AND MONITORING

Characterization and Monitoring – " The permittee shall characterize the combined sewer system, determine the frequency of overflows, and identify CSO impacts in accordance with Combined Sewer Overflows, Guidance for Nine Minimum Controls, EPA, 1995, Chapter 10. These are minimum requirements, more extensive characterization and monitoring efforts which may be required as part of the Long-Term Control Plan."

a. *"NYCDEP shall assess available data for the purpose of verification and further calibration of the InfoWorks and hydraulic model developed under NYCDEP's CSO LTCPs. Data from specific monitoring systems, including key regulator monitoring systems, associated with CSO LTCP recommended projects, may be used in the CSO Post Construction Compliance Monitoring Plans to compare performance of the CSO LTCP recommended projects versus the landside model projections. NYCDEP shall, within 90 days of request by NYSDEC, provide all data from regulators and other combined sewer system structures with monitoring equipment installed."*

b. *" Based on observations, lessons learned, the availability of additional information or the development of new detection devices, NYSDEC may require NYCDEP to install additional feasible and effective monitoring equipment at key regulators if the existing monitoring equipment is unable to provide an accurate indication of CSO discharges, or add to the list of key regulators and install monitoring equipment at those additional regulators if it determines either: that additional monitoring locations are necessary to verify that the system has been maximized or to calibrate the hydraulic model; or that monitoring does not exist for a significant volume of the overall CSO discharge."*

Because DEP maintains many regulator structures that have very complex geometry and are tidally influenced, it is not feasible to monitor all CSO outfalls. DEP does have a SCADA system that helps provide some information pertaining to water levels in the regulator structures and provides some indication of whether a CSO is occurring, but SCADA does not provide a direct flow measurement and is influenced by factors such as tidal elevations. DEP has also conducted some very comprehensive and intense interim flow monitoring using specialized vendors at representative locations to calibrate and validate the InfoWork sewer system models. These calibrated InfoWork models are used to estimate the annual CSO volume and frequency for all the CSO outfalls.

There are four (4) NOAA rain gauges at the area airports, and DEP maintains rain gauges at all fourteen (14) WRRFs.

For additional details, refer to the CY 2023 Potential CSO Discharges table in Appendix 14.

DEP also regularly posts additional monitoring data on its website, including waterbody advisories. Information on the City's waterbody advisory application can be found here:

https://www1.nyc.gov/html/dep/html/harborwater/nyc_waterbody_advisory.shtml

15 ANNUAL REPORT

Annual Report – "The permittee shall submit a Combined Sewer Overflows (CSO) BMP Annual Report, which summarizes the implementation of the above BMPs and the Long-Term Control Plans. The CSO BMP Annual Report shall be submitted by May 1 of each year to the Regional Water Engineer and to the Bureau of Water Compliance. A singular report, covering all 14 NYCDEP WRRFs, is satisfactory and will be codified under the Wards Island WRRF (NY0026131)."

"The CSO BMP Annual Report form is available from NYSDEC on-line at https://www.dec.ny.gov/chemical/48985.html. The complete documentation shall be stored at a central location and be made available to NYSDEC upon request."

a. "The permittee shall summarize, in the CSO BMP Annual Report, all known or suspected CSO discharges from key regulators outside the period of a critical wet weather event. The summary shall provide an itemized list of such CSO discharges, the approximate start time and end time for each discharge, the corresponding WRRF flow rate, the start time and end time of the critical wet weather event, and an engineering analysis of the cause(s) for each discharge and an analysis of options to reduce or eliminate similar future events."

This report is the 21st annual report summarizing the implementation of the BMPs performed by DEP in calendar year 2023. While this narrative report may be a single report for all 14 DEP WRRFs, the additional required reporting on the new nForm has been entered for each applicable, individual plant (12 plants).

Field inspection logs, maintenance and repair schedules, summaries and analysis of performance are stored at DEP's Lefrak City office and respective crew quarters and are available to DEC upon request.

15.1 KEY REGULATOR REPORTS

CSO discharges from key regulators that occurred outside of a critical wet weather event were determined based on inference from synoptic data collected from the city telemetry system, meteorological and tidal observations, and plant operational data. Using InfoWorks CS models of the city's collection system, DEP performed analysis of mitigation strategies to reduce the occurrence of discharges outside the critical wet weather periods.

Appendix 15.1 includes the Key Regulators Monitoring Report Summary for CY 2023. Table 15.1 summarizes the observations of Key Regulators during the period of analysis, which includes data from January 2023 through December 2023.

15.2 ENGINEERING ANALYSIS

The SPDES permit requires DEP to evaluate and report on Key Regulators and stipulates that DEP shall "submit for DEC approval an engineering analysis of the cause(s) for each discharge and an analysis of options to reduce or eliminate similar future events." It should be noted that DEP implemented an extensive Regulator Improvement Program in the 1990s, through which low-cost upgrades were made to dozens of regulators.

As discussed in previous report submittals, several strategies were identified that may alter the timing of regulator discharges so that such discharges occur less frequently. We considered the following strategies to have the greatest potential for success:

- Capital Improvements Already in Development. Capital projects in various stages of planning and development are expected to alter the timing of CSO discharges. These include not only projects directly at the regulator, but also other projects that may influence regulator performance, such as new force mains, the operation of a regional CSO facility, or downstream conveyance enhancements.
- Removal of Existing Elbow in Drop Pipe. In certain locations, vertical pipes convey flow from the regulator to the interceptor. As a result of the historical practice of installing elbows as a means of energy dissipation, vertical pipes are known to have chronic clogging that could contribute to early tipping.
- Enhanced Operations & Maintenance. Regulators can be influenced by the performance of the downstream interceptor, which may be influenced by, among other things, sedimentation or wet well operation at the WRRF.
- Flow Transference. The City sewers are divided into several mostly independent service areas. This division suggests there may be potential for diverting flow from an area of limited wet weather capacity to a nearby area with excess wet weather capacity.
- Continued Monitoring. Monitoring over a longer period is prescribed where regulator performance is not yet clearly understood, or where a regulator yields a small number of events compared to other Key Regulators. Limited sample sizes increase the risk of misinterpretation of data, and resultant ineffective mitigation strategy or inappropriate action taken at a regulator that is not actually significantly discharging early. A larger data set will allow for more accurate interpretation and better decision-making on future capital commitments.
- Citywide/Open Waters LTCP. As part of the Open Waters/Citywide LTCP all category A and B regulators discharging into the open waters were evaluated to assess alternatives to reduce hours of CSO discharges outside of the critical period. These alternatives included raising and lengthening of weir structures, opening of orifices, enlargement of branch interceptors, and in some locations expanding pump station capacities.

15.3 RESULTS

15.3.1 Key Regulators that may be influenced by planned capital improvements (projects currently in design or construction that may result in CSO reductions and additional wet weather capture)

26W-02

Regulator 26W- 02 had a sensor malfunction for most of the year, resulting in no reportable data available to be assessed during most of the CY2023 monitoring period. Pursuant to the CSO Order, there was a high-level storm sewer project completed in late CY2021 that, will help reduce CSO discharges into Fresh Creek.

HP-05

Regulator HP-05 had thirty-three (33) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 106.5 hours. Regulator HP-05 had a planned capital improvement, the installation of the Pugsley Parallel Interceptor upstream of this regulator under Contract CS-ER-WCP, which was completed in February 2020. There is also additional work planned at Regulator HP-09 and at Regulator HP-05 under the approved Bronx River LTCP that will impact performance; the current construction completion milestone is September 2026. Once the new facilities are in service, DEP will commence a 12-month monitoring period, and provide an engineering analysis in the applicable CSO BMP Annual Report following that 12-month monitoring period.

HP-13

Regulator HP-13 had a sensor malfunction, resulting in no reportable data available to be assessed during the CY2023 monitoring period. The Bronx River LTCP recommended regulator modifications and a parallel sewer at this regulator that is currently anticipated to be completed in 2026. Once the new facilities are in service, DEP will commence a 12-month monitoring period, and provide an engineering analysis in the applicable CSO BMP Annual Report following that 12-month monitoring period.

15.3.2 Key Regulators Averaging One Discharge or Fewer per Month[1]

26W-01

Regulator 26W-01 had nine (9) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 10.25 hours. DEP commenced a 12-month monitoring period in CY2022 and found it to average one discharge or fewer per month.

BBH-02

Regulator BBH-02 had eight (8) potential discharges outside the period of a critical wet weather event; the total duration of these periods 6.25 hours. DEP will continue to monitor it and report in accordance with DEP's SPDES permits. Regulator BBH-02 had previously been in Category A prior to 2019, as a regulator potentially influenced by planned capital improvements that included work at Regulator BBH-02 to raise the weir.

HP-10

Regulator HP-10 had a sensor malfunction, resulting in no reportable data available to be assessed during the CY2023 monitoring period. The evaluation for Regulator HP-10 was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports; it was identified as requiring further consideration as part of the LTCP process. Regulator HP-13 was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

JA-03

Regulator JA-03 had two potential discharges, outside the period of a critical wet weather event; the total duration of these periods was 2 hours. Regulator JA-03 had previously been in Category A prior to 2021, as a regulator potentially influenced by planned capital improvements. Bending weirs were installed at Regulators JA-03 & JA-14 along with a parallel interceptor to convey additional flow to the plant. As of June 2020, a new lateral Bergen Basin sewer was constructed enabling the sluice gate at Regulator JA-14 to be fully opened to maximize wet weather flow to the Jamaica WRRF.

NCM-47

Regulator NCM-47 had nine (9) potential discharges outside the period of a critical wet weather event; the total duration of these was 14.25 hours. Regulator NCM-47 was further evaluated as part of the Citywide/Open Waters LTCP.

NR-33

Regulator NR-33 had zero (0) potential discharge outside the period of a critical wet weather event; the total duration of this event was 0.00 hours. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

OH-01

Regulator OH-01 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits The evaluation for Regulator OH-01 was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports and was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

OH-06

Regulator OH-06 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits. The evaluation for Regulator OH-06 was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports. Regulator OH-06 was further evaluated as part of the Citywide/Open Waters LTCP.

RH-02

Regulator RH-02 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

RH-20

Regulator RH-20 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

TI-10

Regulator TI-10A did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

WIB-53

Regulator WIB-53 did not have any potential discharges outside the period of a critical wet weather event. Regulator WIB-53 had previously been in Category A prior to 2020, as a regulator potentially influenced by planned capital improvements. WIB-53 is about 1,000 feet from the Bronx Grit Chamber, where all four bar screens have been replaced. In addition, the main sewage pumps at the Wards Island WRRF were replaced with construction completion certified in August 2019. The bar screen replacement work was completed in January 2017. DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

15.3.3 Key Regulators Averaging More than One Discharge per Month

BBL-22

Regulator BBL-22 had sixteen (16) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 17.00 hours. Regulator BBL-22 had previously been in Category A prior to 2019, as a regulator potentially influenced by planned capital improvements. Regulator BBL-22 was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

NR-23

Regulator NR-23 had seventeen (17) potential discharges outside the period of a critical wet weather event; the total duration of these events was 16.50 hours. Regulator NR-23 was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

BBH-06

Regulator BBH-06 had fifteen (15) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 66.25 hours. Regulator BBH-06 had previously been in Category A prior to 2019, as a regulator potentially influenced by planned capital improvements. The Flushing Bay LTCP recommended construction of a CSO Storage Tunnel that would capture overflow from this regulator.

BBL-04

Regulator BBL-04 had forty (40) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 35.25 hours. Regulator BBL-04 had previously been in Category A prior to 2019, regulators potentially influenced by planned capital improvements. The Newtown Creek LTCP recommended diversion of wet weather flow to the Borden Avenue Pump station and increasing capacity of this pump station.

NCB-01

Regulator NCB-01 had twenty-four (24) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 38.75 hours. The Newtown Creek LTCP recommended a CSO Storage Tunnel that would capture overflow from this regulator.

NCB-04

Regulator NCB-04 had a sensor malfunction, resulting in no reportable data available to be assessed during the CY2023 monitoring period. Regulator NCB-04 was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

NR-16

Regulator NR-16 had twenty-four (24) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 20.00 hours. Regulator NR-16 was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

PR-06W

Regulator PR- 06W had a sensor malfunction, resulting in no reportable data available to be assessed during the monitoring period. The evaluation for Regulator PR-06W was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports; it was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

PR-13E

Regulator PR-13E had a sensor malfunction, resulting in no reportable data available to be assessed during the monitoring period. The evaluation for Regulator PR-13E was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports; it was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

TI-09

Regulator TI-09 had thirty-eight (38) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 75.25 hours. The Flushing Creek LTCP recommended floatables control and disinfection at this regulator.

WIB-67

Regulator WIB-67 had twenty-three (23) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 37.00 hours. Regulator WIB-67 had previously been in Category A prior to 2020, as a regulator potentially influenced by planned capital improvements. WIB-67 was influenced by the Bronx Grit Chamber and by the main sewage pump work at the Wards Island WRRF. Regulator WIB-67 was further evaluated as part of the Citywide/Open Waters LTCP, and there is a proposal to daylight Tibbett's Brook that will take a significant portion of wet weather flow that is currently being discharged into the combined sewers and divert

it directly to the Harlem River. This effort will result in considerably less wet weather flow going to Regulator WIB-67.

WIM-23

Regulator WIM-23 had twenty (20) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 13.50 hours. Regulator WIM-23 had previously been in Category A prior to 2020, as a regulator potentially influenced by planned capital improvements. Regulator WIM-23 was influenced by the Manhattan Grit Chamber and by the main sewage pump work at the Wards Island WRRF. Regulator WIM-23 was further evaluated as part of the Citywide/Open Waters LTCP, but no viable alternative was identified.

15.3.4 Non-Key Regulators with CSO Monitoring Equipment Identification Program Reporting

In February 2016, in accordance with Item 5.c. in Appendix B of Additional CSO BMP Special Conditions in the previous SPDES Permits, DEP submitted the report on Regulator(s) with CSO Monitoring Equipment Identification Program. Item 5.c. required DEP to commence a 12-month data gathering period and to submit a report of all known or suspected CSO discharges outside the period of a critical wet weather event from all regulators with CSO monitoring equipment. The report presented findings from the 12-month data gathering period of August 2014 through July 2015. Several regulators were reported to be in Category A at that time, which had current or future capital improvements that would potentially render the data collected unrepresentative of future conditions. As stated in the report submittal, once the new facilities were in service, DEP would commence a 12-month monitoring period, and provide an engineering analysis in the applicable CSO BMP Annual Report following that 12-month monitoring period. Below are the results of the non-key regulators in which the capital improvement work has been completed and 12 months of monitoring data under normal operations are available. See Appendix 15.2 for the CY2023 Non-Key Regulator Monitoring Reports.

WIM-02B

Regulator WIM-02B was further evaluated and is part of the Citywide/Open Waters LTCP.

WIM-07

Regulator WIM-07 was further evaluated and is part of the Citywide/Open Waters LTCP.

WIM-45

Regulator WIM-45 was further evaluated and is part of the Citywide/Open Waters LTCP.

16 SUSTAINABILITY AND POLLUTION PREVENTION ACTIVITIES

16.1 WATER CONSERVATION

DEP values the role of water conservation and demand management in the responsible long-term management of New York City's water supply. Despite a steady increase in population since the 1980s, New York City's average daily demand has decreased over the past several decades, with daily demand below the 1960s drought-of-record (1,405 MGD) since 2009 (Figure 16.1). Several factors are responsible for this decrease, such as increased efficiency and awareness of water conservation, as well as the implementation of DEP's Water Demand Management Program.

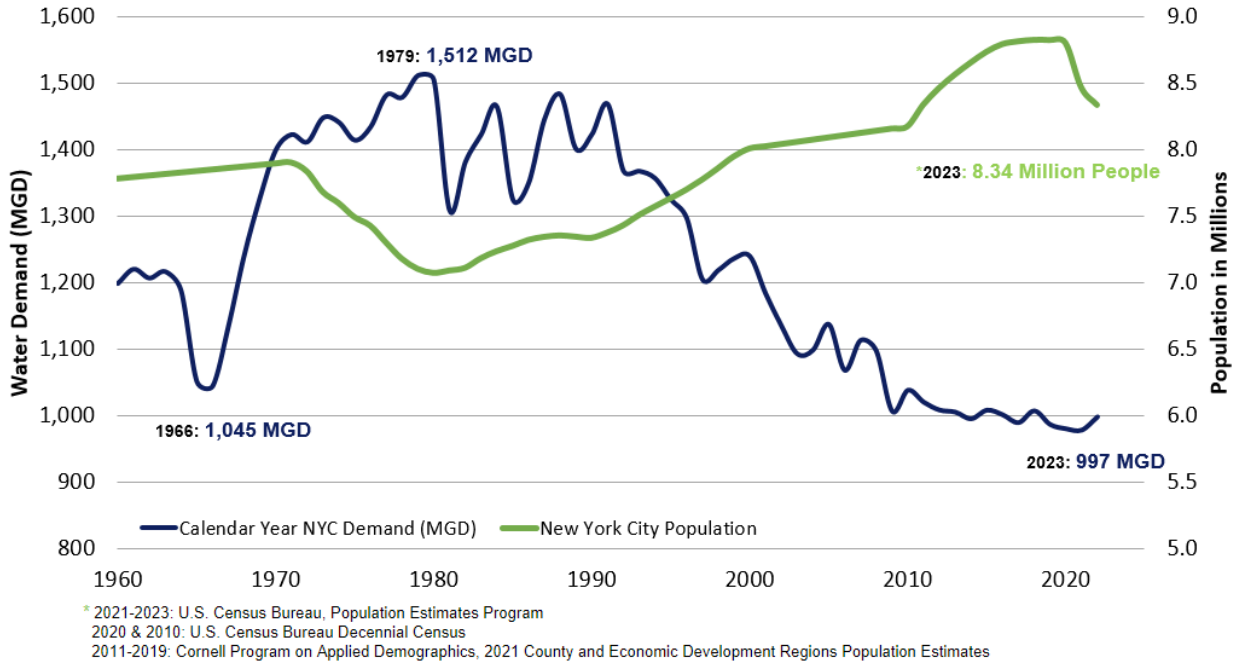


Figure 16.1 New York City Water Demand and Population

However, DEP must consider the increasing uncertainty of climate change – predictions of warmer temperatures and greater precipitation variability – in its management of the City's water supply and the demand for this resource. Further, the leaking of the Delaware Aqueduct and its planned shutdown and repair in 2024 as part of DEP's Water for the Future Program is a near-term certain event that provides an imperative not only to proactively manage, but also to explicitly reduce, existing water demand to ensure adequate water supply through this period.

16.1.1 Program Description

DEP's water conservation efforts aim to reduce water use in New York City and upstate communities by 20 million gallons per day (MGD). In 2023, DEP surpassed this goal with 22.7 MGD of water savings.

This goal is detailed in the 2018 Water Demand Management Plan, accessible here https://www1.nyc.gov/assets/dep/downloads/pdf/water/drinking-water/2018-water-demand-management-plan.pdf. The

The plan sets forth six major strategies DEP continues to implement to reduce water use:

- Municipal Water Efficiency Program: Involves retrofits of city-owned properties.
- Residential Water Efficiency Program: Focuses primarily on the Toilet Replacement Program for multi-family buildings.
- Non-Residential Water Efficiency Program: Collaboration with private sector organizations including restaurants, hotels, hospitals, and universities.
- Water Distribution System Optimization: Entails system repairs and upgrades, managing water pressure, and refining water meter accuracy and leak detection.
- Water Supply Shortage Management: Encompasses the review and revision of plans to prepare for a drought and other water shortages.
- Wholesale Customers Water Demand Management Program: Targets demand management planning and implementation for wholesale customers north of the City.

The following is a summary of DEP's 2023 progress in implementing the above-listed strategies.

16.1.2 Municipal Water Efficiency Program

DEP established partnerships and completed several projects with key municipal agencies and entities to support water efficiency measures in their facilities. Partners include the New York City Department of Education (DOE), the New York City Department of Parks and Recreation (Parks), the New York City Fire Department (FDNY), the City University of New York (CUNY), New York City Health and Hospitals Corporation (HHC), New York City Department of Citywide Administrative Services (DCAS), and New York City Department of Cultural Affairs – Cultural Institutions Group (CIG).

Beginning in 2013, DEP's partnership with DOE has funded the replacement of over 40,000 new and efficient fixtures in over 500 school facilities across all five boroughs. DEP completed the partnership in 2023 and in total, DOE retrofits are expected to save 3.8 MGD.

DEP's partnership with CUNY has included over 1,000 fixture upgrades at City College for a demand savings of 0.04 MGD. DEP and CUNY extended their partnership and executed an interagency agreement to replace inefficient fixtures at Queens College. In total, DEP and CUNY plan on replacing over 600 fixtures across four campus buildings at Queens College for an estimated savings of 0.03 MGD. These upgrades are currently underway and are expected to be completed in 2024.

In 2023, DEP continued its partnership with Parks, the Central Park Conservancy and Prospect Park Alliance. In Central Park, the North End Recirculation Project will include a pumping and filtration system to recirculate water in the Park's northern waterbodies and reduce flow to the City's combined sewer system. This project is currently in design

and is anticipated to save 0.48 MGD and reduce CSOs by about 3 MGY. In Prospect Park, DEP continued coordinating with Prospect Park Alliance to replace a valve on the make-up water line for the park's lake system. In 2022, Prospect Park Alliance completed design; once completed, the project is expected to save 0.80 MGD.

In January 2023, DEP launched its sixth Water Challenge to all 14 of the City's WRRFs in the 5 boroughs. Like the previous year, all facilities are being encouraged to reduce demand by 10% over a two-year baseline average from calendar year 2021 and 2022. The WRRF Water Challenges help raise continued awareness of the importance of water conservation and provide the opportunity for cross-agency collaboration.

DEP is also continuing to partner with HHC to complete an additional HHC retrofit project at Bellevue Hospital and North Central Bronx Hospital. Funding was transferred to HHC to replace 6 vacuum pumps that serve two medical vacuum systems. These pumps have far exceeded their useful life and are outdated, inefficient, and use a constant stream of water to create a vacuum seal within the pump. These retrofits are expected to greatly improve efficiency and result in significant savings. This project is currently underway and expected to be completed in 2025.

16.1.3 Residential Water Efficiency Program

In June 2019, DEP concluded the Toilet Replacement Program after five years of successful implementation. The program retrofitted approximately 13,300 toilets citywide for a savings of 0.63 MGD.

DEP worked with Honeywell to provide building owners with complimentary household water conservation surveys to help identify opportunities for water savings and detecting leaks, leading to .4 MGD of water savings. In total, DEP has achieved a demand savings of 1.03 MGD through these two initiatives.

16.1.4 Non-Residential Water Efficiency Program

The DEP Water Conservation and Reuse Grant Pilot Program incentivizes commercial and residential water conservation projects that achieve a minimum water savings of 2,740 gallons per day (1 million gallons per year). DEP has offered grant funding to one applicant and is currently in the process of confirming funding and legal agreement. The project includes a 400,000 gallon per day water reuse system that contributes not only to water conservation benefits, but also to CSO reductions. Overall, the pilot program was anticipated to save 0.2 MGD by 2023.

DEP has successfully completed several Water Challenges to different commercial sectors: hotels, restaurants, hospitals, and universities. Participants are encouraged to reduce their annual water consumption by at least 5% from their baseline year (measured as the 12-month period prior to the beginning of the Challenge). DEP prepares monthly reports to help participants track their consumption and their performance against the other participants. DEP also hosts quarterly workshops to help participants learn how to make their facilities more water efficient.

DEP's latest challenge, a two-year Water Challenge to Universities, was completed in August 2020.Collectively, the six participants—Fordham University: Lincoln Center

Campus, The New School, Long Island University: Brooklyn Campus, Pace University, St. John's University, and Weill Cornell Medicine—reduced their monthly average water consumption by 11%, surpassing the 5% Water Challenge goal, for a total savings of 0.12 MGD.

16.1.5 Water Distribution System Optimization

Water distribution system optimization includes system repairs and upgrades, water pressure management, refining water meter accuracy, and leak detection. In 2023, DEP surveyed a total of 669.46 miles of water mains. As a result of leaks proactively found and repaired, DEP estimates that 11,049,880 gallons of water per day were saved.

Leaking and/or vandalized fire hydrants can result in significant water waste; an illegally opened fire hydrant can release more than 1,000 gallons per minute. In 2023, DEP repaired 7,574 hydrants, replaced 834, and provided other maintenance services to 10,487 additional hydrants.

DEP continually works to improve maintenance of the pressure zones within the City's water distribution system. In 2023, DEP completed 4,465 preventive maintenance inspections/calibrations on pressure regulating valves. DEP also overhauled 1 of the 457 pressure regulating valves in use citywide. In 2023, the number of breaks per 100 miles was 4.97, slightly below the City's 10-year average of 6.43, and well below the accepted industry average of 25 breaks per 100 miles annually.

DEP's efforts to achieve universal metering of all DEP water and sewer accounts is motivated by the need to reduce non-revenue water and promote conservation among water users by providing accurate consumption information. The universal metering initiative is also critical to measuring the success of many other demand management strategies. Accurate consumption data enable DEP to determine whether target consumer groups have achieved projected consumption reductions or how demand management strategies may be adapted to improve their effectiveness. In 2023, DEP replaced 831 large meters.

To date, approximately 477,898 customers have signed up for My DEP to view their bills, water usage, and payment history online This service also allows customers to pay their bills online and sign up for automatic billing (eBills); approximately 150,000 customers have signed up for eBills. To date, over 699,000 customers have signed up for leak alerts.

16.1.6 Water Supply Shortage Management

In May 2022, amendments to DEP's "Drought Emergency Rules" (15 RCNY Chapter 21) were formally adopted and promulgated. As amended, the rules are now titled the "Water Shortage Emergency Rules."

The amendments to the rules were deemed final and effective as of May 13, 2022. The revisions to the rules expand their scope and applicability to include water shortages caused not only by hydrological droughts, but also by other types of events such as planned and unplanned infrastructure outages.

The revisions added, removed, and changed certain water use prohibitions during the different stages of a water shortage emergency, to provide more clarity and better reflect DEP's understanding of city water use. Although the prohibitions do not apply to routine residential water use such as drinking, bathing, or dishwashing, DEP expects that public awareness of the restrictions would lead to decreased residential water use during a declared water shortage emergency.

16.1.7 Upstate Wholesale Customers Demand Management Program

The Wholesale Customer Water Demand Management Program assisted DEP's seven upstate wholesale customers (utility partners) in developing demand management plans for their systems, with a target 5% reduction in consumption. All seven utility partners developed demand management plans under this program, with a total two-year sustained water demand savings of 5.21 MGD (a 9% decrease from their 2013 baseline). Due to unforeseen circumstances brought on by the COVID-19 pandemic, much of the anticipated funding for implementation of this program was reallocated.

However, in January 2023, DEP was able to reinitiate a partnership with the City of Yonkers, NYC's largest wholesale customer, to implement a combination of tailored demand management strategies. This project is expected to achieve an additional estimated savings of 1.3 MGD.

16.2 Drinking Water Supply and Quality Statement

In 2023, DEP continued efforts to notify the public of the availability of the 2022 Drinking Water Supply and Quality Statement. The agency sent bill inserts to 700,000 bill-paying customers notifying them of the report's availability on the DEP website; electronic notification was made to 440,000 customers, and postcards were sent to 30,000 customers. Additionally, outreach to all customers included:

- Posting information about the report on the DEP homepage beginning February 27, 2023.
- Highlighting and mentioning the report in the March 1, 2023, issue of Pipeline, the DEP newsletter which is distributed weekly to all 6,000 DEP employees and 2,000+ members of media, public, and public officials.
- Posting about the publication of the report on Twitter and Facebook seven times on each platform between March and August 2023. DEP currently has about 22,300 Twitter followers, and 13,000 "NYC Water" Facebook followers.
- Promoting the publication of the report in a Facebook ad campaign that ran from April 13 to April 30, 2023, and had over 539,000 impressions (an impression is a countable unit of measure of how many times the advertisement ran).
    - A static image displayed on the NYC Ferry system from February 24 to March 31, 2023.Nearly 1 million people ride the NYC Ferry each month.
    - An image posted on the Staten Island Ferry and in the ferry terminals from February 24 – March 31, 2023
    - 3,000 advertisements were posted in all NYC Parks recreation centers and comfort stations in message boards from March 1 –

May 31, 2023.
    - A public service announcement (PSA) on the NYC Life television channel and NYC Gov Channel from May 1 to August 31, 2023 and on Taxi TV from May 1 to August 31, 2023.
    - Audio from the PSA on radio station WNYE 91.5 FM and on 311 from May 1 to August 31, 2023.
- Contacting large housing complexes across NYC by phone and email, requesting that they spread the word about the report: NYCHA, real estate management organizations, and business groups active in housing issues, reaching 41 developments citywide representing over 52,660 residential units.
- Contacting 2 trade organizations (Plumbing Foundation and the Council of NY Cooperatives & Condominiums) committed to posting a notice in their newsletters and on their websites, representing 8,900 subscribers.
- Regular outreach to NYC libraries; at community and civic association meetings, outreach events (including trade shows, Greenmarkets, health fairs and street fairs), town halls, project tours, and tabling events. Over 5,000 copies of the Report were distributed, and copies of the Report are mailed out to the public upon request.
- Distributing 1,000 copies of the report to DOE's Sustainability Coordinators who communicate with school population of over one million.

.

16.3 Rain Barrel Program

For 2023, a total of 5,864 rain barrels were distributed citywide through coordinated events with elected officials, community boards, community groups and schools.

16.4 Grease Outreach

16.4.1 Development of an Expanded Grease Interceptor Program

DEP continues to develop the Expanded Grease Trap Program. The following summarizes activities during calendar year 2023:

- 145 Initial inspections performed
- 325 Follow-ups/maintenance inspections performed
- 492 Commissioner's Orders issued
- 153 Summonses issued
- 392 New grease interceptor installations required.

BPAC's ECO Unit conducted 3 workshops for community boards, residents and businesses on grease disposal and backups and continues to implement the "Trash It, Don't Flush It" campaign, which includes continued outreach to residents and businesses on proper grease disposal.

See below also for specific activities regarding DEP's ongoing SE Queens (Community Boards 12 & 13) and South Brooklyn (community Boards 13 & 15) projects.

16.4.2 Environmental Compliance Outreach to Business Community

ECO has continued to work with its primary partners including local business groups, trade associations and city agencies to conduct business outreach citywide reaching 3,133 business citywide. ECO has attended business resource fairs organized by local BIDs (Business Improvement Districts) and partners like the Queens, Bronx, Brooklyn Chambers of Commerce where direct one-on-one engagement with businessowners and prospective businessowners were conducted around local environmental regulations, and Best Management Practices (BMPs). Local partners have promoted DEP's resources in newsletters and other public facing materials throughout the year including DEP's "Trash It. Don't Flush It." PSA campaign.

ECO initiated a new environmental compliance education program in Summer 2023, Mercury Free NYC which aims to mitigate mercury contamination and pollution in the environment from business industries that work with mercury-containing materials. The outreach conducted consisted of direct outreach to 152 automotive businesses where safe disposal and BMP resources were shared in multiple languages with business management as well as 503 automotive businesses who were directly mailed these resources. ECO also conducted direct citywide outreach with Mobile Food Vendors, informing them on local environmental regulations and BMPs, reaching 143 mobile food vendor businesses.

16.4.3 Southeast Queens Outreach

ECO conducted extensive door-to-door residential environmental education outreach to reduce sewer backups to 9,314 households reaching nearly 24,000 residents. Outreach materials were provided in multiple languages to the residential community and was prioritized in various sectors of Southeast Queens between Community Boards 12 and 13, where sewer backups were most prevalent based on DEP data. Outreach was conducted so that ECO reached the majority of neighborhoods in Southeast Queens from Queens Village, Hollis, Springfield Gardens to Cambria Heights.

16.4.4 South Brooklyn Outreach

ECO continued to conduct significant door-to-door residential environmental education outreach in South Brooklyn's Community Boards 13 & 15 to reduce sewer backups reaching 19,256 households or nearly 49,000 residents. By Fall 2023, ECO has completed block by block direct outreach in both Community Boards in 2023 since the program began marking the first-time DEP has covered the entire geographic area through this outreach. Outreach materials were provided in multiple languages to the residential community and prioritized sectors of South Brooklyn between CBs 13 and 15 where sewer backups were most prevalent, based on DEP data. Outreach was conducted with a focus on completing neighborhoods like Gravesend, Brighton Beach and Sheepshead Bay while engaging the communities of Manhattan Beach and Gerritsen Beach.

16.4.5 Staten Island Outreach

ECO continued to conduct business outreach in Staten Island reaching 26 businesses in 2023, participating in a business resource fair with the local Staten Island Chamber of Commerce as well as working with local agencies to reduce sewer backups in Northern Staten Island.

16.5 Stormwater Regulations and Activities

16.5.1 Stormwater Rule

In 2022, DEP promulgated the Unified Stormwater Rule to update the 2012 Stormwater Rule requirements and provide alignment between the Stormwater Rule and the City's new Construction and Post-Construction Program (C/PC), which was launched in 2019. The City's C/PC Program complements the NYSDEC General Permit for Stormwater Discharges from Construction Activity (CGP) program in the NYC MS4 area by requiring DEP review and approval of stormwater pollution prevention plans (SWPPPs), and DEP inspection of construction sites both for stormwater impacts and for operation of post-construction stormwater management practices (SMPs). The final Unified Stormwater Rule was published and effective on February 15, 2022. The rule was further revised, effective February 1, 2024.

As part of the Unified Stormwater Rule, DEP published the NYC Stormwater Manual to assist NYC's development community and design professionals in complying with the Unified Stormwater Rule and designing post-construction SMPs.

DEP provides regular updates on the Unified Stormwater Rule as part of its Green Infrastructure Annual Reports available on its website here https://www1.nyc.gov/site/dep/water/green-infrastructure.page and its Municipal Separate Storm Sewer System (MS4) Annual Reports available at https://www.nyc.gov/site/dep/water/municipal-separate-storm-sewer-system.page

16.5.2 Green Roof Tax Abatement

In 2019, the New York State legislature renewed the Green Roof Property Tax Abatement available to property owners installing green roofs. It reauthorized the reimbursement of $5.23 per square foot of installed green roof and allowed the City to designate up to five community districts that would receive an enhanced abatement of $15 per square foot. The list of priority districts and the final rule were released in January 2021 and can be found on the NYC Department of Finance website.

16.5.3 Local Laws 92 and 94 of 2019

As part of the New York City Climate Mobilization Act passed in 2019, New York City Council passed Local Laws 92 and 94, which require new and substantially renovated or enlarged rooftops to incorporate sustainable roofing on all available roof space. Owners can choose to install solar photovoltaics and/or green roofs to reduce energy costs and the urban heat island effect. The City anticipates that these laws will help buildings manage up to 1 million additional gallons of stormwater per year, and help manage water quality and urban flooding.

16.5.4 Parking Lot Stormwater Pilot Program

First initiated in 2011, DEP's Parking Lot Stormwater Pilot Program generates revenue

for operation and maintenance of the City's wastewater system. The program applies a stormwater discharge fee to stand-alone parking lots that contribute runoff to the City's wastewater system but do not receive (or pay for) City water service. Effective July 1, 2023, DEP's stormwater discharge fee is currently $0.0760 per square foot. On July 1, 2023, DEP billed 464 accounts for $323,005.77 for FY 2024. Parking lot owners who implement green infrastructure practices can be exempted from the stormwater discharge fee, but, to date, no parking lot owners have taken advantage of that exemption.

16.6 PLANYC INITIATIVES

The Mayor's Office of Climate and Environmental Justice (MOCEJ) leads the City's sustainability planning efforts, leveraging and expanding upon many DEP programs. MOCEJ released the citywide sustainability plan, PlaNYC, in April 2023. The plan details 32 strategic initiatives for the City's future to address critical challenges, including protecting us from climate threats, improving our quality of life, and building the green economy. PlaNYC pledges to deliver the Long-Term Control Plans by 2045, expand the Green Infrastructure Program, and capture stormwater through the Unified Stormwater Rule. It also establishes goals to develop a strategy for further CSO reduction by 2060, to establish a citywide flood protection target for stormwater infrastructure, and to expand nature-based solutions including enhancing tree canopy and restoring wetlands.

16.7 NYC GREEN INFRASTRUCTURE PROGRAM

Since issuance of the 2012 CSO Consent Order, DEP has included the NYC Green Infrastructure Program as part of its regulatory milestones to complement traditional gray infrastructure investments; DEP has committed to reducing CSOs by 1.67 billion gallons annually by 2040 through green infrastructure projects. DEP has been leading the NYC Green Infrastructure Program in areas served by the combined sewer system (CSS) by constructing green infrastructure practices in the public right-of-way, on City-owned property, on private property through financial incentive programs, and through stormwater regulations. The use of green infrastructure is expanding on public and private properties citywide through updates to stormwater regulations, such as the implementation of the Unified Stormwater Rule in 2022.

In 2023, DEP and DEC signed a modification to the CSO Consent Order. Major changes between the 2012 CSO Order and the 2023 Citywide Green Infrastructure Modification (2023 Modification)[4] include expanding the definition of green infrastructure, extending the NYC Green Infrastructure Program's timeline, updating the Program's certification metrics and interim milestones, and increasing the Program's total funding commitment to include projects located citywide. The Program's regulatory goal is to reduce CSOs by 1.67 billion gallons per year (BGY) in combined sewer areas by December 2040 and, building on current investments, expend $3.5 billion on green infrastructure in both combined and separately sewered areas by December 2045.

Completed and upcoming projects can be viewed on the interactive Green Infrastructure

[4] https://extapps.dec.ny.gov/docs/water_pdf/2023nycgiordermod.pdf

Program public map available at nyc.gov/dep/gimap.

More information on these initiatives and other updates on the Green Infrastructure Program can be found in the Green Infrastructure Annual Reports published on the DEP website every year on April 30 https://www1.nyc.gov/site/dep/water/green-infrastructure.page.

16.8 CLIMATE CHANGE RESILIENCY PLANNING

DEP continues to study climate change and to prepare for its impacts by modeling the potential effect of various climate scenarios on the City's water supply system through the Climate Change Integrated Modeling Project; protecting wastewater treatment plants from storm surge as part of the Wastewater Resiliency Program; and reducing urban flooding through cost-effective investments in grey and green infrastructure. DEP has initiated several projects identified by the Wastewater Resiliency Plan as part of a portfolio of strategies to flood-proof critical equipment at WRRFs. These projects will harden the infrastructure at the Bowery Bay, Hunts Point, Red Hook, Newtown Creek, Owl's Head, Port Richmond, Tallman Island, and Wards Island WRRFs as well as several pumping stations. These investments enhance resiliency against future coastal storms and include a buffer for sea level rise.

DEP, in partnership with DOT, DDC and NYCHA, has initiated two cloudburst pilot projects in Southeast Queens, which were identified in DEP's Cloudburst Resiliency Planning Study. These projects will help manage extreme rainfall events in St. Albans and the South Jamaica Houses and help reduce nuisance flooding in Southeast Queens and enhance the local landscape.

In January 2023, the Mayor announced an expansion of the city's cloudburst program to four new sites as part of ongoing resiliency efforts to better prepare for intense rain events. Supported with nearly $400 million in capital funds, these specially designed, built, and engineered infrastructure projects will protect residents and property in Corona and Kissena Park, Queens, Parkchester, Bronx, and East New York, Brooklyn from future extreme weather brought about by climate change. These locations were selected considering physical vulnerability, social and economic factors, and below-ground conditions. DEP is actively seeking external funding opportunities to fund additional locations.

CONTENTS

Appendix 1:

- Appendix 1.1: Exhibit 1 - CSO Maintenance Program
- Appendix 1.2: Exhibit 2 - Rockaway Sanitary and Storm Sewer Projects
- Appendix 1.2.1: Completed Projects
- Appendix 1.2.2: Active Projects
- Appendix 1.3: Table 1 - 2023 12 Month Rolling Average Influent Chlorides

Appendix 1.1: EXHIBIT 1 - CSO MAINTENANCE PROGRAM

August 14, 2003

Mr. Robert Elburn
Regional Water Engineer
New York State Department of
Environmental Conservation, Region 2
Division of Water
47-40 21st Street - 2nd Floor
Long Island City, New York 11101

Re: NY0026131 NY0026115
NY0026191 NY0026239
NY0026204 NY0026158
NY0026182 NY0026221
NY0026166 NY0026107
NY0026212 NY0026247
NY0027073

Dear Mr. Elburn:

The attached CSO Maintenance and Inspection Program is submitted in compliance with the CSO Best Management Practice #1 contained in the SPDES permits for the following New York City WPCPs: Bowery Bay (Section XV(e)), Coney Island (Section XV(d)), Tallman Island (Section XV(e)), Jamaica (Section XIV(d)), Newtown Creek (Section XIV(e)), 26th Ward (Section XIV(e)), Hunts Point (Section XIV(e)), Rockaway (Section XIV(e), Owls Head (Section XIII(e)), Port Richmond (Section XIII(e)), Red Hook (Section XIII(e)), Wards Island (Section XIII(e)) and North River (Section XII(e)).

Sincerely yours,

Alfonso R. Lopez, P.E.
Deputy Commissioner

SR/fk

xc: Quinn/Sapienza/Rozelman/Volgende/Eckels/Hammerman/Kulcsar

CSO MAINTENANCE & INSPECTION PROGRAM
BEST MANAGEMENT PRACTICE #1 SPDES PERMIT

Section VIII (26W, HP, JA, NC, RK);
Section IX (BB, CI, TI);
Section VI (NR);
Section VII (OH, PR, RH, WI)

(a) *The permittee shall develop and implement a written maintenance and inspection program for all CSO's listed beginning on page 3 of this permit. This program shall include all regulators tributary to these CSOs. This is to insure that no discharge or leakage occurs during dry weather and that the maximum amount of wet weather flow is conveyed to the WPCP for treatment. This program shall consist of scheduled inspections with required repair, cleaning and maintenance performed as needed to prevent dry weather overflow and leakage and ensure maximum wet weather flow is conveyed in accordance with CSO BMP#4. Inspection reports shall contain a record of visual inspections, any observed flow, incidence of rain or snowmelt, condition of equipment and work required.*

Regulator / Tide Gate Maintenance Inspection Schedule

High priority regulators shall be inspected four times per month.
High Priority Regulators are regulators that convey at least five million gallons per day and / or inherently require high maintenance, or pose a threat to beaches because of their locations.

Normal priority regulators shall be inspected once per month.

Items of Inspection

The field crews inspect the entire regulator including, tide gates, sluice gates, access ways, electrical controls and any mechanical equipment and instrumentation located within each site. An inspection report must be completed for each CSO facility. This form is attached in appendix A.

During the inspection, the crews are responsible for correcting any conditions that they encounter which may have adverse effects on the proper operation of the regulator. Examples of these conditions include blockages or obstructions caused by debris that may result in partial or full dry weather bypassing.

Any blockage that the crew is not capable of removing is referred to an emergency Contractor, who is retained by the NYC DEP for such cases. The contractor is required to respond to the site within twenty-four hours of notification.
Furthermore, any structural damage noticed during the inspections upstream of the

regulators is referred to the appropriate group within DEP for repairs.

(b) *The permittee shall include in the maintenance and inspection program a plan to maintain CSO tide gates to prevent infiltration of seawater into the collection system such that the WPCP influent concentration of chlorides does not exceed a twelvemonth rolling average of 400 mg/l. The maintenance and inspection program shall specify corrective actions to be taken within twelve months of the influent chloride exceedance of 400 mg/l.*

CSO Tide Gate Maintenance Program

All tide gates are maintained and inspected on the same schedule as regulators. Antiquated tide gates are earmarked for replacement or reconstruction.

The maximum twelve-month rolling average of influent chloride concentration in the SPDES permits at all the applicable WPCPs except North River is 400-mg/L. The influent chloride concentration in the SPDES permit for North River WPCP is 250-mg/L.

In order to maintain CSO tide gates to prevent inflow of seawater into collection system the crews are responsible for correcting any conditions that they encounter during the inspections that may have adverse effects on the proper operation of the tide gates.

DEP is responsible for developing a drainage area evaluation program to identify possible sources of seawater infiltration. Chloride sampling and tide gate repairs are performed immediately by the CFO crews when seawater inflow is discovered and result in elevated levels of chlorides at the WPCPs. Corrective actions are taken within twelve months of influent chloride exceedance of 400 mg/l.

(c) *The permittee shall include in the maintenance and inspection program a schedule for telemetering regulators and a plan to report the telemetering results. Within six months after the completion of the telemetering of regulators required in the NYSDEC/NYCDEP Omnibus IV Consent Order Compliance Schedule (as noted in the outfall description page) the permittee shall record and report the number and duration of events that cause a discharge at an outfall during dry weather conditions.*

Regulator Telemetering

The installation of the telemetering equipment at one hundred and two regulators was completed in May, 2001 in accordance with the compliance schedule in Schedule B to the Omnibus IV Order on Consent.

The system is currently maintained through a service contract. The contractor is responsible for all maintenance work.

DEP records and reports the number and duration of events that cause a discharge during dry weather conditions.

(d) CSO maintenance and inspection program reports shall be available for DEC review no later than 9 AM on the day following the day of the inspection was conducted and shall be available for DEC review at the associated WPCP no later than 30 days following the inspection

Maintenance and Inspection Reports

The CSO maintenance and inspection program reports are kept at each respective crew quarters and are available for DEC by 9:00 AM on the day following an inspection. Rather than store these reports at WPCP's where they may get misplaced, we have centralized the storage into 5 collection crew quarters.

These crew quarters are located as follows:

Tallman Island WPCP
Wards Island WPCP
Paedergat Pump Station
Gowanus Pump Station
Oakwood Beach WPCP

We believe this record storage policy is more condusive to record retention and retrieval than storing at WPCP's, many of which are undergoing massive upgrades.

REGULATOR and TIDE GATE Inspection Log

Regulator Truck # : _____ Backup Truck # : _____

DATE: _____ RUN : _____ WEATHER : _____

	Regulator Tide Gate 'Number'	Inspection Level 1 / 2 / 3 ?	Inspection y / n Diversion	Inspection Of Regulator	Inspection y / n Tide Gate
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

Reporting System for Regulator and Tide Gate Locations

INSPECTION LEVEL :

LEVEL 1):	Diversion, Regulator and Tide Gate Manhole Inspections performed from above ground which DO NOT involve entry into regulator or tide gate chambers
LEVEL 2) :	FULL ENTRY Regulator and Tide Gate inspections which DO NOT involve the use of back - up trucks
LEVEL 3) :	FULL ENTRY Regulator and Tide Gate inspections which DO involve the use of back - up trucks

REGULATOR CHAMBERS :

A 1):	Regulator flow O.K. No visible flow obstruction through regulator. Gate operational in automatic mode.
A 2):	Regulator flow O.K. No visible flow obstruction through regulator. Gate operational in manual mode ONLY ! **Explanation of problem required on log sheet**
A 3):	Regulator flow O.K. No visible flow obstruction through regulator. Gate NOT OPERATIONAL ! **Explanation of problem required on log sheet**
A 4):	Partial Blockage in Regulator. When flow through regulator is partially obstructed by debris, which may result in dry weather by-passing **Explanation required**
A 5):	Blockage in Regulator causing partial or full dry weather by-passing. **Explanation of problem required on log sheet**

TIDE GATE CHAMBERS :

INSPECTIONS DURING HIGH TIDE :

B 1):	No leak from TIDE GATE. When the gate is properly closed and there is no tidal flow
B 2):	Minor leak from TIDE GATE. When tidal inflow is small and acceptable.
B 3):	Mild leak from TIDE GATE. When tidal inflow is noticeably higher than a Minor leak.
B 4):	MAJOR LEAK from TIDE GATE. When tidal inflow is significantly high and may impact treatment plant processes with high chlorides

INSPECTIONS DURING LOW TIDE :

C 1):	No leak from TIDE GATE. When the gate is properly closed and there is no evidence of any potential tidal inflow problem.
C 2):	TIDE GATE is visibly held open by DEBRIS or FROZEN HINGES etc. **Explanation of problem required on log sheet**
C 3):	TIDE GATE Vulnerable to inflow. When gate is closed, damaged seals, warping or other factors likely to allow leakage. **Explanation of problem required on log sheet**

S.S.T.W. : _____ S.E.E. : _____ S.S.E.E. _____ CHIEF : _____

Appendix A

Appendix 1.2: EXHIBIT 2 - ROCKAWAY SANITARY AND STORM SEWER PROJECTS

Appendix 1.2.1: Completed Projects

Project No. Locations Status

PS-312Q Beach Channel. Completed in Sep-2017

SEQ-002516/ 200352 Cornaga Ave. Completed in Jun-2006, part of QED-965

SE-196/372 Camp Road, etc. Completed in Jun-1991

SE-378A/379A B. 130th Street, etc. Completed in Mar-1989

SE-378B/379B Rockaway Beach Blvd. etc. Completed in Nov-1998

SE-422A/423A B. 121st Street, etc. Completed in Jun-1989

SE-422B/423B B. 123rd Street, etc. Completed in Apr-1990

SE-422C/423C B. 127th Street, etc. Completed in Apr-1991

SE-424A/425A B. 132nd Street, etc. Completed in Apr-1993

SE-426A/427A B. 135th Street, etc. Completed in Dec-1990

SE-426B/427B B. 138th Street, etc. Completed in Nov-1990

SE-426C/427C B. 140th Street, etc. Completed in Jun-2003

SE-424B/425B B. 134th Street, etc. Completed in Aug-1999

SE-426C/427C Beach 69th St. Completed in Jan-2003

SE-772/87HW Formerly SEQ-200350 Beach 71st Str. Completed in Dec-2004

SE-789/ HWQ631B1 Sommerville Area. Completed in May-2014

SE-795 Chandler St. Completed in Jun-2017

SE-817 Beach 29th St. Completed in Aug-2015

SEQ-002546/ 200425 Grandview Terrace. Completed in Mar-2004

SEQ-200358 Beach 87th St. Completed in Sep-2002

SEQ-200368 Redfern Ave. Completed in Jun-2006

SEQ-002348 Rockaway Blvd., etc. Completed in May-1997

SEQ-002355 Beach 43rd Street, etc. Completed in Apr-1991

SEQ-002363 Beach 37th Street, etc. Completed in Apr-1996

SEQ-002380 Rockaway Beach Blvd. Completed in Nov-1996

SEQ-002402 Beach 45th Street, etc. Completed in Sep-1997

SEQ-002413/ 200275 R. Collier Avenue, etc. Completed in Mar-2005

SEQ-002426 Bay 25th Street, etc. Completed in Sep-1998

SEQ-002427 Cold Spring Road, etc. Completed in May-1998

SEQ-002428 Healy Avenue, etc. Completed in Jan-2000

SEQ-002460 West Bourne Ave, etc. Completed in Nov-2000

SEQ-002499 Beach 61st St. Completed in Sep-2000

SEQ-002511/ 200347 Beach 36th St. Completed in Jan-2003

SEQ-002538/ 200371 Beach 18th St. Completed in Aug-2003

SEQ-002550/ 200390 Beach 40 St. (Edgemere Phase HD153B). Completed in Nov-2005

SEQ-002551/ 200398 (HD153B1) Edgemere Phase B1. Completed in Jun-2007

SEQ-002571/ 200412 Hope VI Phase A. Completed in Apr-2004

SEQ-02479/ QED-983/ SEQ-200341 Rockaway Beach Blvd. Completed in Sep-2014

SEQ-200239 Rockaway Freeway, etc. Completed in Aug-1996

SEQ-200240 Rockaway Freeway, etc. Completed in Aug-1996

SEQ-200251 Rockaway Beach Blvd. Completed in May-1997

SEQ-200254 Beach 108th Street, etc. Completed in Nov-1998

SEQ-200305 Amstel Blvd, etc. Completed in May-2000

SEQ-200311 Beach 35th St. Edgemere. Completed in Apr-2002

SEQ-200378 Seagirt Blvd. Completed in Sep-2002

SEQ-200453 Thursby Ave. Completed in Jun-2007

SEQ-200508 Beach 32nd St. Completed in Jun-2015

SEQ-200523 New Haven Avenue, etc. Completed in Aug-2013

SEQ-200524 Beach 21st St. Completed in Apr-2020

SEQ-200533 Beach 42nd St. Completed in Jun-2012

HD153C1/ SEQ-002562/ SEQ-200406 Edgemere C1. Completed in Nov-2016

HD153C2/ SEQ-200421/ SEQ-002576 Edgemere C2. Completed in Sep-2014

HD153C1/ SEQ-200406/ 2562 Edgemere C1. Completed in Apr-2009

HWQ631 Beach 72 St. Completed in Dec-2004

SEQ-002442 Burchell Ave. Completed in Jun-2000

SEQ-002443 Beach 87 St. Completed in Apr-2000

SEQ-200251 Rockaway Beach Blvd. Completed in May-1997

SEQ-0201A6 Burchell Ave. Completed in May-2001

SEQ-0201A7 Beach 67 St. Completed in Aug-2002

SEQ-0201B3 Beach 86 St. Completed

SE-569U Thursby Ave. Completed in May-2004

SE-569V Almeda Ave. Completed in May-2005

SE-569W Shore Front Parkway. Completed in May-2006

SE-569Y Beach 80 St. Completed

SEQ-0201B5 Beach 113 St. Completed

SEQ-201BS4 Beach 87th St. Completed

SEQ-201BS2 Beach 114 St. Completed

SEC-20004I Seaside Ave. Completed

SEQ-200381R Beach 53 St. Completed in Mar-2004

HWQ230GR Cornaga Ave. Completed in Sep-2005

HWQ1126A Almeda Ave. Completed in Apr-2004

SEQ-002413R Collier Ave. Completed in Mar-2005

QED-973 Rockaway Turnpike. Completed in Jul-2002

SE-196B Camp Road. Completed in Jun-1998

SE-610 Granada Place. Completed in Dec-1996

SEQ-200364 Edgemere Ave. Completed in Apr-2003

QED-988 Channing Road. Completed in Jan-2007

SEQ-002623 Nameoke St. Completed in Jun-2007

SEQ-200550 Beach 99th St. Completed in May-2018

SEQ-002453 B. 47th Street, etc. Canceled Dec-1997

SEQ-002507 Beach 69th St. Canceled, included SEQ-200356 in HWQ641 Completed in Dec-2004

SEQ-200381 Beach 53th St. Canceled due to LIPA issues, was scheduled for FY2002

HWQ1682/ SE-884 Shore Front Parkway. Canceled Mar-2015

QED-982/ SANDHW13 Rockaway Beach Blvd. & B. 73rd St. Completed in Jun-2020

SEQ-200524 B. 21st St. Completed in Jun-2020

SEQ-200582/ HWQ1182A Broad Channel Phase I. Completed in May-2020

QED-1007 Rockaway Beach Blvd. & B. 49 St. Completed in Mar-2021

SANDHW11/ QED-1030 Beach Channel. Completed in May-2021

HWQ1126C Rockaway Beach. Canceled

SEQ-200426/ HWQ1126B Hope VI Phase B. Canceled

SANDR02/ SE-830 Far Rockaway Business District. Completed in August-2022

SANDR04/ QED-1044 Beach 108th Street. Completed in November-2022

Appendix 1.2.2: Active Projects

Project No. Locations Status

SEQ-200595/ HWQ1187 Westbourne Norton Drive Reconstruction - Design, FY2028

HD-153C3/ SEQ-002682 Edgemere C3 - on hold

SEQ-200597/ HWQ631B2 Somerville Area - CPI development, FY2027

SEQ-200598/ HWQ631B3 Somerville - CPI development, FY2031

SEQ200599/ HWQ631B3 Somerville Area - CPI development, FY2032

SEQ-200586/ HWQ1182B Broad Channel Phase II - Construction started 6/15/20, projected completion October-2024

SE-829 Brunswick Ave. - CPI development, FY2029

SE-886/ HWQ1079 Beach Channel Drive area - CPI development, FY2027

SE-887/ HWQ1079 Cornaga Ave area - CPI development, FY2030

SE-900 Beach 22 Street area - CPI development, FY2032

HWQ1198/ QED-1030B Beach Channel Phase 2 - CPI development, FY2027

SEQ-002720 Lanark Road & E. 9th Road - CPI development, FY2027

SEQ-200601 E. 16th Street in Broad Channel - CPI development, FY2026

Appendix 1.3: TABLE 1 - 2023 12 MONTH ROLLING AVERAGE INFLUENT CHLORIDES (MG/L)

2023 12-Month Rolling Average Influent Chlorides (mg/L)												
	Jan-2023	Feb-2023	Mar-2023	Apr-2023	May-2023	Jun-2023	Jul-2023	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023
Wards Island	430	430	430	440	450	460	460	460	450	450	450	450
North River	340	330	330	340	330	350	340	340	310	300	300	300
Hunts Point	500	470	450	440	440	440	450	490	480	470	470	470
26th Ward	300	280	270	280	280	280	270	280	260	290	290	290
Coney Island	940	940	980	1,010	1,030	1,070	1,120	1,120	1,080	1,050	1,050	1,050
Owls Head	280	280	280	280	270	260	260	250	250	250	250	250
Newtown Creek	860	920	980	1020	1060	1110	1150	1230	1240	1210	1210	1210
Red Hook	370	390	400	400	380	390	500	500	480	600	600	600
Jamaica	260	270	270	280	280	290	290	290	290	290	290	290
Tallman Island	380	370	370	370	360	350	360	360	330	330	330	330
Bowery Bay	340	320	320	320	320	320	330	340	330	310	310	310
Rockaway	2,130	2,140	2,160	2,190	2,210	2,260	2,290	2,320	2,330	2,380	2,380	2,380
Oakwood Beach	280	250	250	250	250	260	260	270	260	280	280	280
Port Richmond	560	550	550	540	540	500	500	500	500	500	500	500

(*) The chloride concentration action level for WRRFs is 400 mg/L with the exception of Rockaway that has a plant specific action level of 3,000 mg/L.

WPCP	JANUARY - DECEMBER 22		JANUARY - DECEMBER 23		VARIANCE (CY23-CY22)		REMARKS*
	INFLOW (MGD)	% DWF	INFLOW (MGD)	% DWF	INFLOW (MGD)	% DWF	
WARDS ISLAND	4.9	2.5%	5.2	2.5%	0.29	0.1%	5.8% Increase
NORTH RIVER	2.8	2.7%	2.4	2.2%	-0.37	-0.5%	13.2% Decrease
HUNTS POINT	2.8	2.1%	2.3	1.8%	-0.44	-0.3%	16% Decrease
26th WARD	0.6	1.3%	0.7	1.4%	0.05	0.1%	8.5% Increase
CONEY ISLAND	2.7	3.4%	3.3	3.6%	0.53	0.2%	19.4% Increase
OWLS HEAD	0.9	1.1%	0.9	1.0%	-0.04	-0.1%	4% Decrease
NEWTOWN CREEK	7.4	3.7%	12.4	5.9%	4.97	2.2%	67.3% Increase
RED HOOK	0.4	1.6%	0.8	2.8%	0.37	1.2%	81.7% Increase
JAMAICA	0.9	1.1%	1.0	1.3%	0.14	0.1%	15.9% Increase
TALLMAN ISLAND	1.0	1.6%	0.9	1.4%	-0.11	-0.2%	10.9% Decrease
BOWERY BAY	1.7	1.7%	1.6	1.5%	-0.18	-0.2%	10.3% Decrease
ROCKAWAY	1.8	9.4%	2.2	10.5%	0.38	1.1%	20.8% Increase
OAKWOOD BEACH	0.3	1.1%	0.4	1.1%	0.04	0.0%	11.4% Increase
PORT RICHMOND	0.7	2.6%	0.6	2.1%	-0.14	-0.6%	18.2% Decrease

**Tidal Inflow (MGD) annual percentage change.*

WRRF Dry Weather Flows (MGD)

WRRF	CY2022	CY2023	Variance
WARDS ISLAND	198	205	3.5%
NORTH RIVER	105	110	5.2%
HUNTS POINT	129	129	0.4%
26th WARD	48	50	3.9%
CONEY ISLAND	80	91	13.1%
OWLS HEAD	88	92	4.4%
NEWTOWN CREEK	197	208	5.5%
RED HOOK	28	29	4.2%
JAMAICA	77	79	2.9%
TALLMAN ISLAND	62	63	2.0%
BOWERY BAY	102	106	4.1%
ROCKAWAY	19	21	8.6%
OAKWOOD BEACH	29	32	11.1%
PORT RICHMOND	28	29	4.7%
			4.65%

			Receiving Waters				
WRRF	CY2022	CY2023	East River	Harlem & Hudson	New York Bay	Jamaica Bay	Newtown Creek
WARDS ISLAND	17,800	17,400	40%	60%			
NORTH RIVER	13,000	13,000		100%			
HUNTS POINT	25,000	24,000	100%				
26th WARD	23,000	23,000				100%	
CONEY ISLAND	27,000	27,000			80%	20%	
OWLS HEAD	28,000	28,000			100%		
NEWTOWN CREEK	22,600	20,600	50%	20%			30%
RED HOOK	25,000	24,000	100%				
JAMAICA	23,000	23,000				100%	
TALLMAN ISLAND	25,000	24,000	100%				
BOWERY BAY	25,000	24,000	100%				
ROCKAWAY	23,000	23,000				100%	
OAKWOOD BEACH	26,400	26,400			80%		
PORT RICHMOND	20,000	20,000					

Receiving Water Salinity

Waterbody	WRRF	Salinity
East River	WI, TI, HP, BB, NC, RH	24,000
Newtown Creek	NC	20,000
New York Bay	OH, CI, OB	28,000
Arthur & Kill Van Kull	PR & OB	20,000
Harlem & Hudson River	NR & WI	13,000
Jamaica Bay	JA, 26W, RK	23,000

Appendix 2:

Appendix 2.1: BWSO

- Appendix 2.1.1: Maps of Cleaning Activities for NYC DDC: TV Inspection and Cleaning

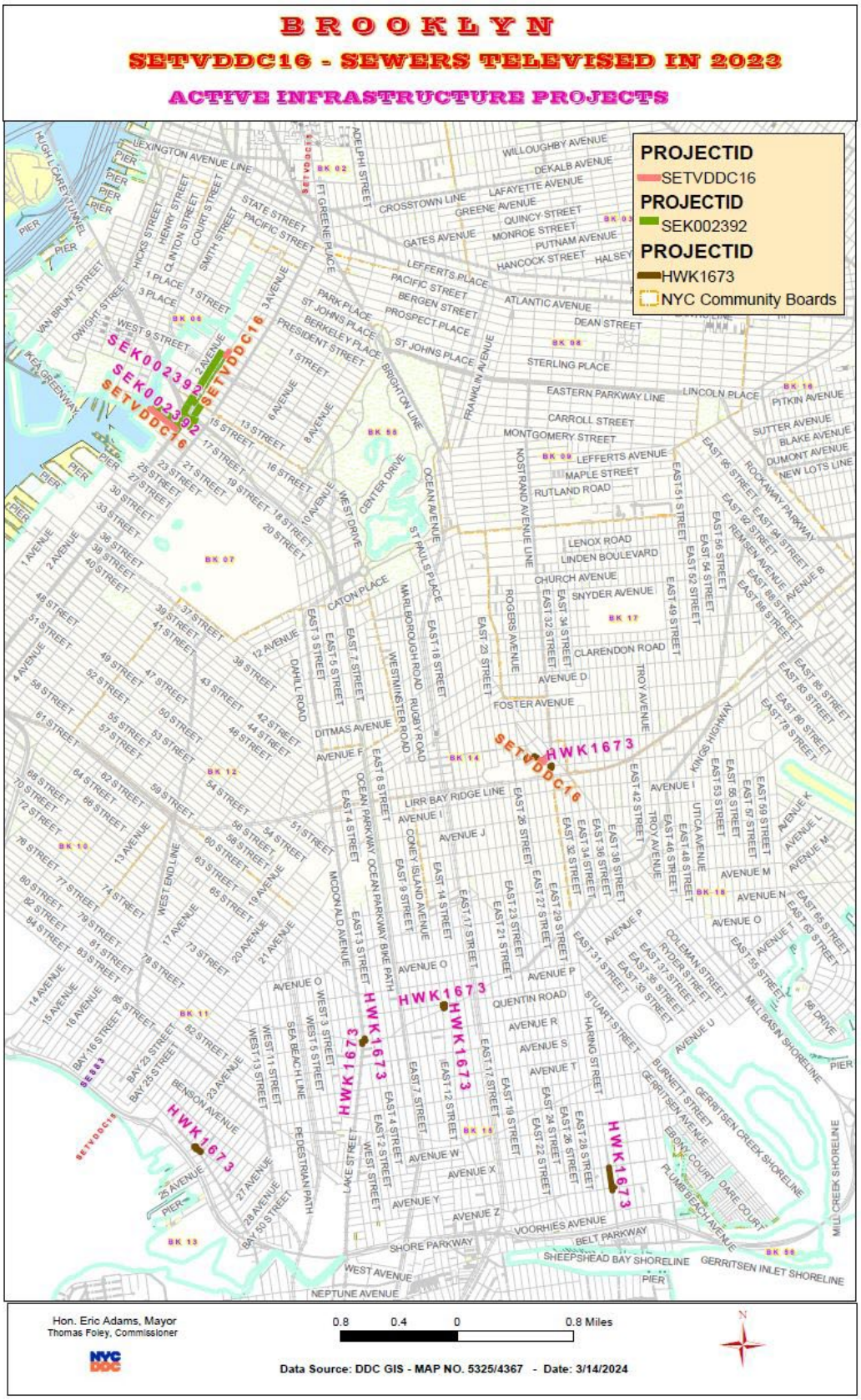
Appendix 2.2: BWT

- Appendix 2.2.1: Table 1 – Summary of 100 Telemetered Regulators
- Appendix 2.2.2: Table 2 – Sediments Removed from Non-Interceptor Assets
- Appendix 2.2.3: Table 3 – Intercepting Sewer Inspections 2023 – Pipe Rating Index and Ranking
- Appendix 2.2.4 2023 Asset Repair List
- Appendix 2.2.5: Map 1 - 2023 BMP Interceptors and Local Sewers CCTV/SONAR, Pump Stations, Regulators and Interceptors/Local Sewers Cleaned Map

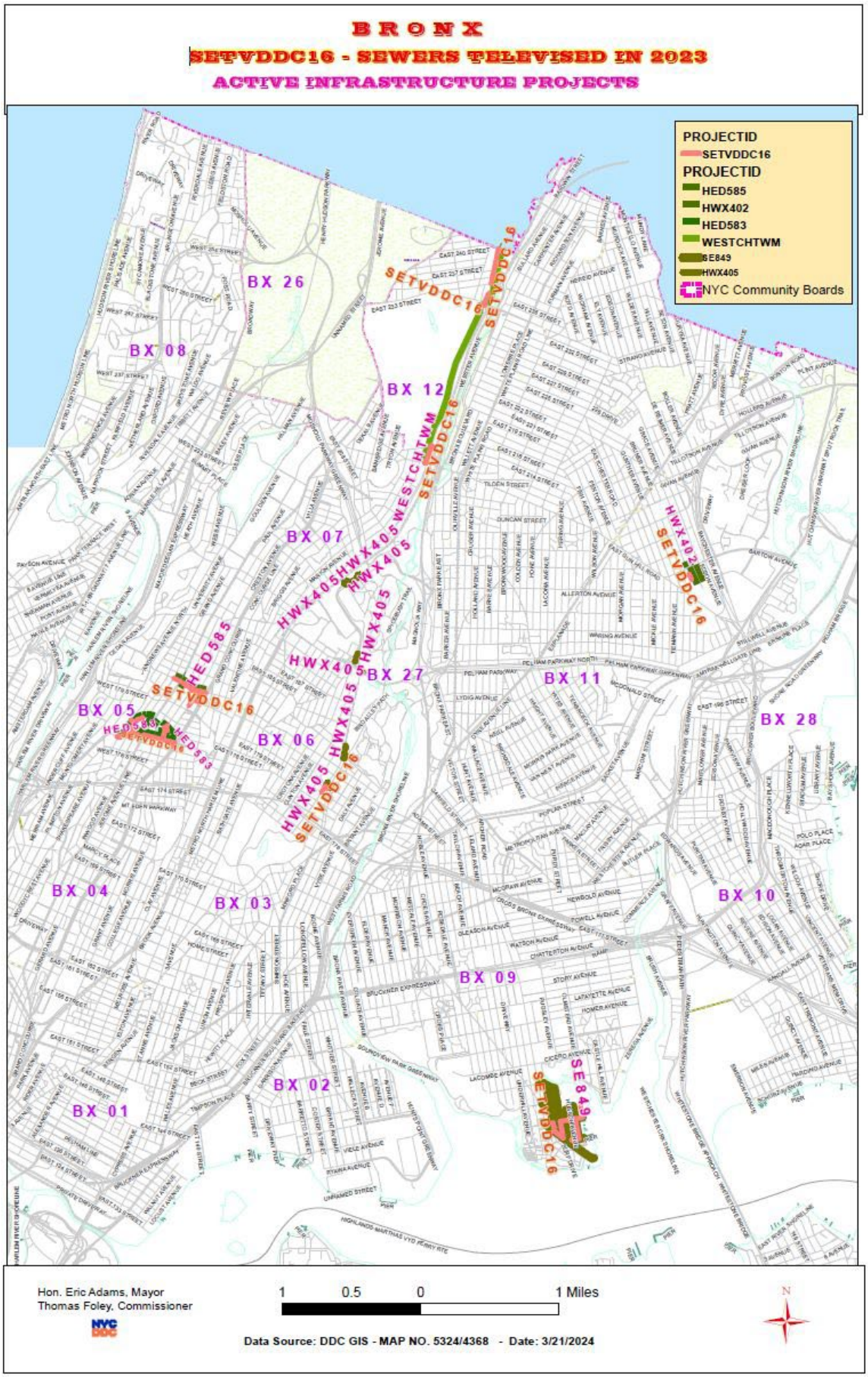
Appendix 2.1: BWSO

Appendix 2.1.1: Maps of Cleaning Activities for NYC DDC

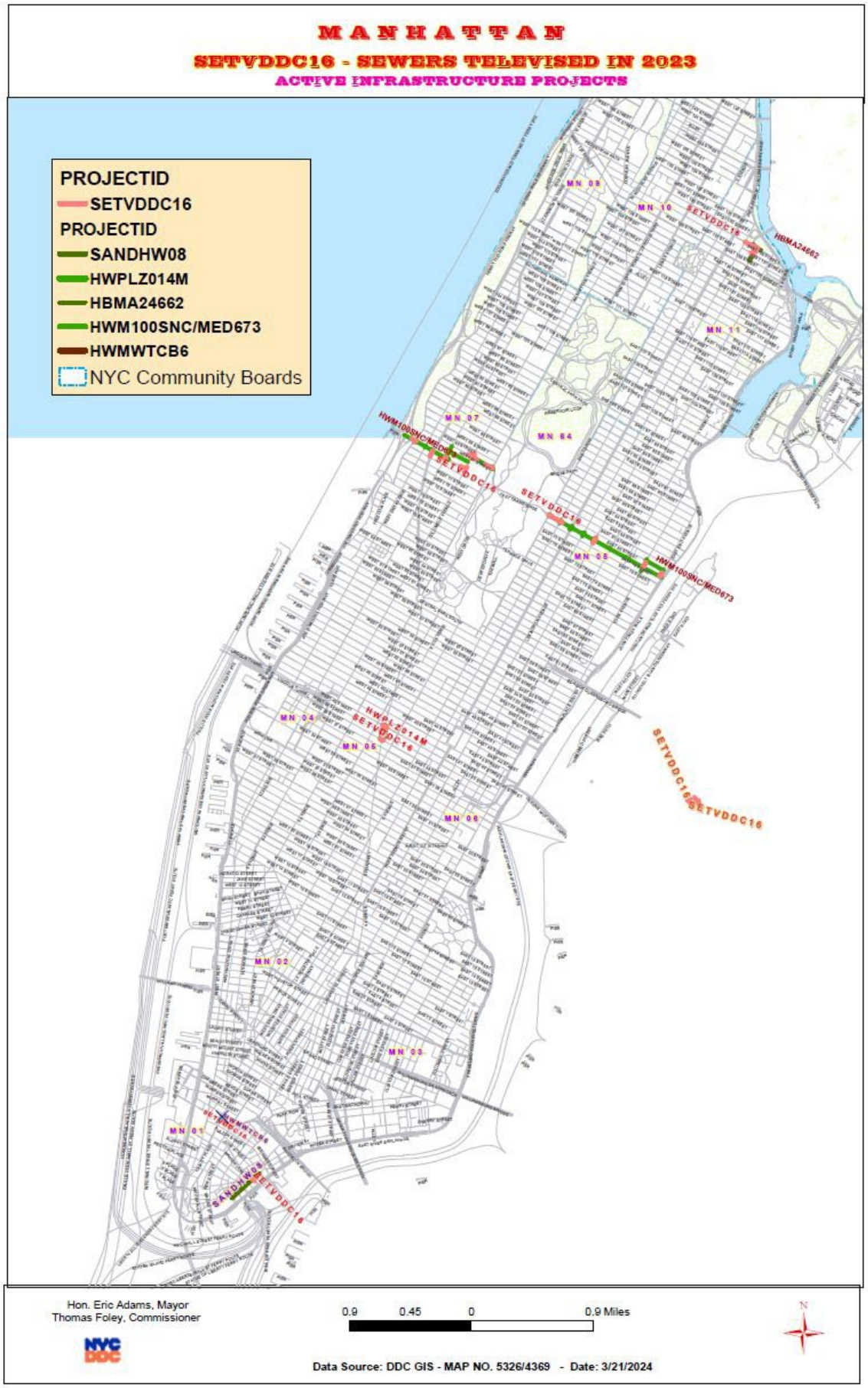
Appendix 2.1.1.1: *Brooklyn*



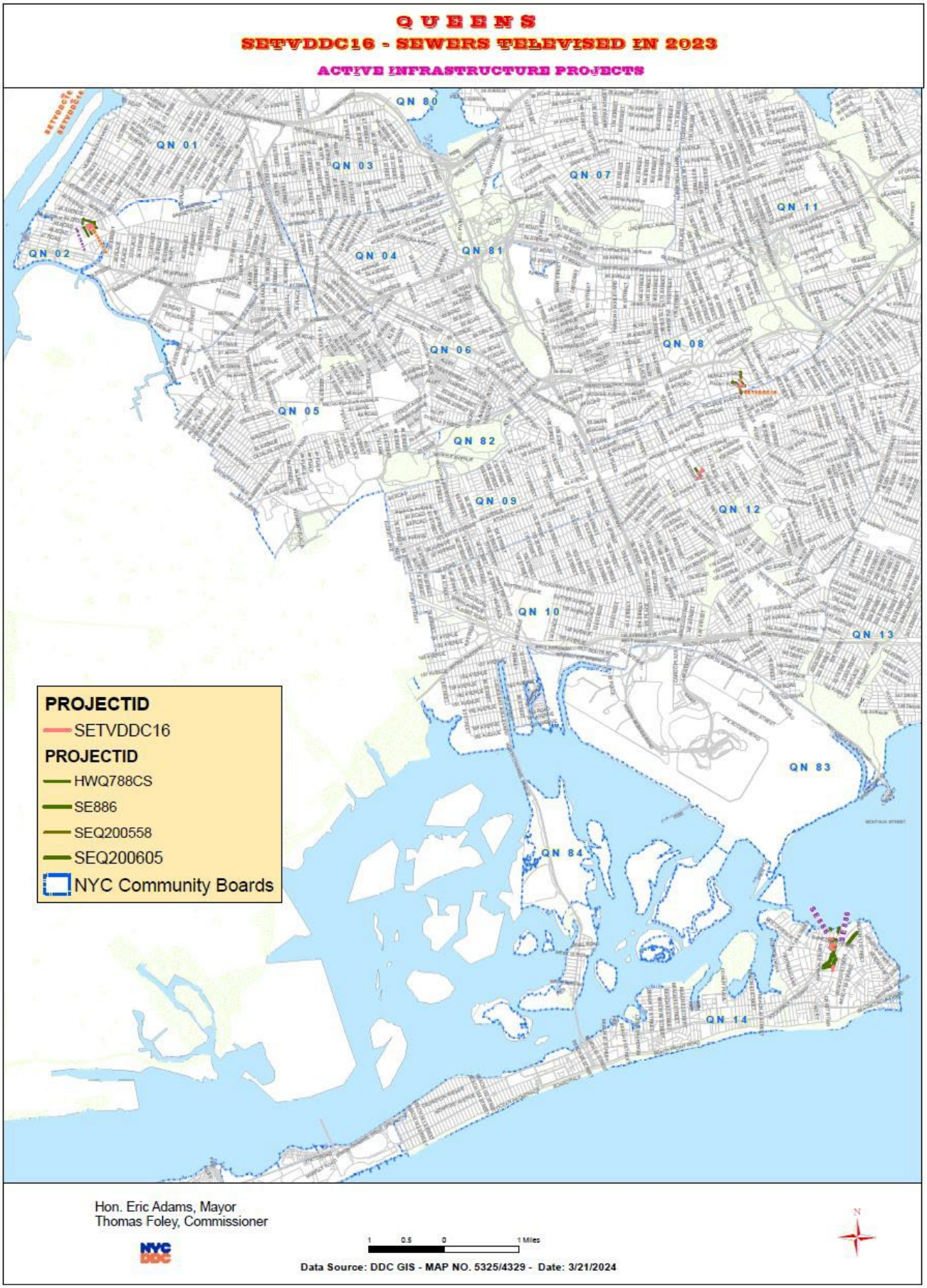
Appendix 2.1.1.2: ***Bronx***



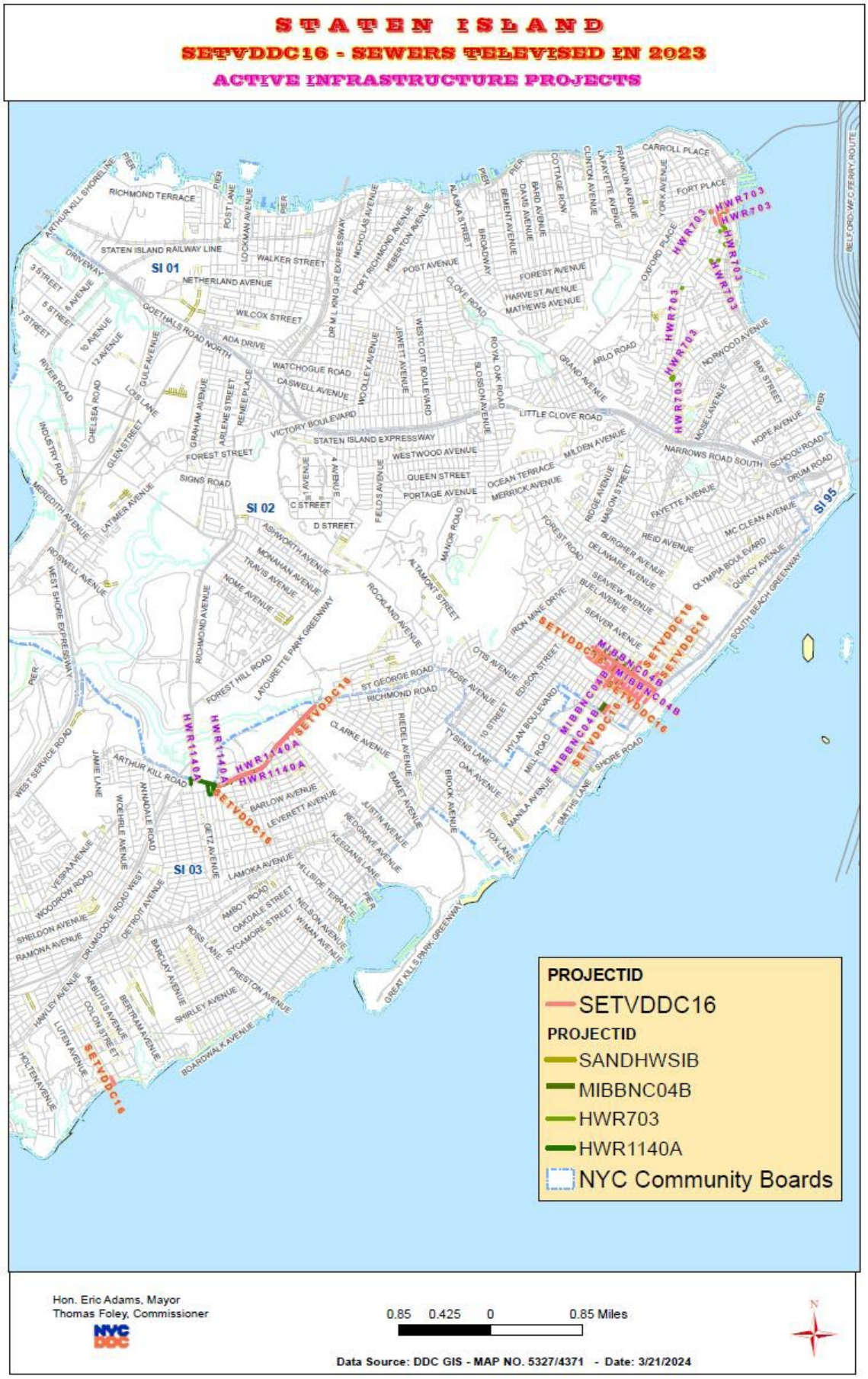
Appendix 2.1.1.3 Manhattan



Appendix 2.1.1.4 Queens



Appendix 2.1.1.5 Staten Island



Appendix 2.2: BWT

Appendix 2.2.1: Table 1 - Summary of 100 Telemetered Regulators (2023)

Summary of 100 Telemetered Regulators

= 17 with Inclinometers

= 27 Key Regulators*

05/01/16

No.	WPCP	Reg. No.	Regulator Location	Outfall SPDES No.	Reg. Type	Flow Compartment	Weir Data		Hydraulic Capacity (mgd)	Flow Data	
							Length (ft)	Elev. (ft)		Peak (mgd)	Mean DWF (mgd)
1	26W	01	TIDE GATE (26 WARD WPCP)	004	TG.	S.G./72"x56"			N/A	21.71	19.15
2	26W	02	WILLIAMS & FLATLANDS AVES.	003	HYD.	S.G./48"x36"	68'-0"	-6.00	32.85	11.34	9.80
3	26W	03	CRESENT ST. & FLATLANDS AVE.	005	HYD.	S.G./48"x36"	76'-0"	-6.85	38.53	29.72	24.64
3 Subtotal											
1	BBL	L-04	47th AV. BETW. 28th & 29th ST.	026	HYD	SG/36"x30"	9'-0"	-2.50	24.46	9.57	6.67
2	BBL	L-21	37th AVE. & VERNON BLVD.	028	HYD	SG/30"x24"	22'-6"	-4.00	20.00	14.50	11.19
3	BBL	L-22	VRNON BLVD. & BROADWAY	029	HYD	SG/30"x24"	12'-0"	-5.00	19.72	12.18	9.06
4	BBL	L-23	30th RD. & VERNON BLVD.	030	DC/TG	FO/12"DIA.	2'-0"	-1.75	1.36	N/A	0.21
5	BBL	L-30	ASTORIA PARKS E/O SHORE BLVD.	034	HYD	SG/24"x24"	13'-0"	-0.25	12.67	15.48	12.28
6	BBH	02	45th ST. & PLANT	002	DC/TG	AT THE PLANT	9'-0"	-3.50	N/A	89.08	61.32
7	BBH	03	HAZEN ST. & 19th ST. AVE.	003	DC/TG	FO /18" DIA.	5'-6"	+4.00	7.45	2.16	1.54
8	BBH	06	108th ST. & DITMARS BLVD.	008	DC	FO,DP	4'-0"	+9.00	94.94	N/A	33.29
9	BBH	09	108th ST. & 43rd. AVE.	008	DC	FO,DP	5'-0"	+14.80	99.58	49.71	40.27
9 Subtotal											
1	HP	01	E.177th ST. E/O TIERNEY PL.	022	HYD.	S.G./18"x12"	9'-2"	-5.00	4.35	1.52	0.61
2	HP	02	SHORE DR. S/O PENNYFIELD AVE.	021	HYD.	S.G./30"x30"	8'-0"	-4.77	13.17	6.56	5.61
3	HP	03	CALHOUN AVE. S/O SCHURZ AVE.	019	HYD.	S.G./12"x12"	8'-0"	-2.88	2.71	1.84	1.30
4	HP	04	BRUSH AVE. & BRUCKNER BLVD.	016	HYD.	S.G./30"x30"	8'-10"	-4.50	9.84	4.18	3.18
5	HP	05	WHITE PL. RD. S/O RIVER AVE.	011	HYD.	S.G./18"x12"	26'-0"	-4.50	1.87	N/A	0.50
6	HP	06	WHITE PL. RD. & O'BRIEN AVE.	011	HYD.	S.G./2EA.72"x48"	8'-0"	-5.00	150.13	81.41	66.49
7	HP	08	TRUXTON ST. & OAKPOINT AVE.	025	HYD.	S.G./24"x24"	9'-0"	-2.92	15.27	6.86	5.30
8	HP	09	TIFFANY ST. & EAST BAY AVE.	002	HYD.	S.G.48"x36"	12'-0"	-3.60	52.54	15.41	11.94
9	HP	10	HUNTS POINT AVE. & RYAWA AVE.	003	HYD.	S.G./2EA.36"x30"	15'-0"	-3.65	56.38	18.01	15.58
10	HP	11	EMERSON & SCHURZ AVENUES	017	HYD.	S.G.18"x18"	16'-6"	-4.00	5.58	2.33	1.40
11	HP	12	ROBINSON & SCHURZ AVENUES	018	HYD.	S.G./12"x12"	4'-0"	-2.72	3.48	0.17	0.09
12	HP	13	METCALF AVE. & SOUNDVIEW PARK	009	HYD.	S.G./2EA.36"x30"	21'-0"	-5.00	51.37	44.07	21.63
13	HP	14	EDGEWATER PARK	026	TG.	F.O.			N/A	N/A	N/A
13 Subtotal											
1	JA	01	JFK AIRPORT	006	DC/TG.	F.O.	12'-0"	+1.00	N/A	N/A	53.95
2	JA	02	79th ST. N. CONDUIT AVE.	26W-005	HYD. MAN	S.G./36"x24" S.G./36"x48"	5'-0"	-0.21	23.14	N/A	2.82
3	JA	03	123rd. PLACE & 150th AVE.	003	HYD.	S.G./36"x48"	16'-3"	+3.15	40.92	14.20	11.06
4	JA	09	LINDEN BLVD. & SPRINGFIELD BLVD.	005	DC.	F.O.	22'-0"	+27.77	N/A	N/A	8.30
5	JA	14	124th ST. & N.CONDUIT AVE.	003a	HYD.	S.G./24"x18"	30'-0"	-1.35	N/A	3.70	2.69
5 Subtotal											
1	NC(Q)	Q-01	RUST ST. & 56th ST.	077	HYD.	S.G./24"x24"	16'-0"	+1.00	15.14	8.07	4.92
2	NC(B)	B-01	JOHNSON AVE. W/O PORTER AVE.	015	HYD.	S.G./2ea.48"x36"		-4.68	157.45	44.53	36.57
3	NC(B)	B-04	KENT AVE. & TAYLOR ST.	014	HYD.	S.G./48"x36"	12'-3"	-8.57	41.08	47.68	40.91
4	NC(B)	B-05	DIVISION AVE. W/O KENT AVE.	013	HYD.	S.G./48"x36"	12'-0"	-4.59	52.86	20.17	17.27
5	NC(B)	B-06	S.5th AVE. W/O KENT AVE.	012	HYD.	S.G./36"x24"	16'-6"	-2.59	20.95	15.99	11.98

1	RK	01	B.106th ST. & BEACH CHANNEL DR.	029	MECH.	S.G./2EA.40.75"x20	5'-6"	-6.00	103.98	13.89	10.99
1 Subtotal											
1	TI	09	LINDEN PL & 32nd AVE.	011	HYD.	F.O. 60"DIA.	15'-9"	+4.75	103.40	46.74	32.56
2	TI	10A	144th ST. & 7th AVE.	003	DC.	F.O./12"DIA.	5'-0"	+8.50	30.34	9.89	N/A
3	TI	13	15th DR. & WILLETS POINT BLVD.	023	HYD.	S.G./24"x18"	9'-0"	+24.65	12.78	3.87	2.81
4	TI	30	QUINCE AVE. & KISSENA BLVD.	010	MECH.	S.G./9"x33"	10'-0"	+1.88	5.45	5.27	2.10
5	TI	40	FRESH MEADOW LA. & PECK AVE.	010	HYD.	S.G./36"x28"	11'-6"	+19.05	24.31	7.56	5.00
6	TI	46	210 th ST. & LIE (N.S)	008	DC.	F.O./30"DIA.	12'-0"	+51.10	15.91	4.90	2.54
7	TI	47	218th ST & LIE (N.S)	008	DC.	F.O.	7'-6"	+69.40	12.48	0.80	0.61
8	TI	49	220th PL. & 46th AVE.	008	DC.	F.O./12"DIA.	6'-6"	+44.50	1.57	0.43	0.23
8 Subtotal											
1	WI(M)	02B	N/O E. 74th ST. & FDR DR.	003	HYD.	S.G./30"x24"			26.00	N/A	N/A
2	WI(M)	07	E.79th ST. & FDR DR.	008	HYD.	S.G./30"x24"	4'-4"	-2.14	22.27	11.98	8.00
3	WI(M)	23	E.106th ST. & FDR DR.	023	HYD.	S.G./30"x24"	15'-0"	-3.82	16.84	10.17	6.81
4	WI(M)	24	E.110th ST. & FDR DR.	024	HYD.	S.G./48"x36"	17'-0"	-4.57	38.28	14.63	10.70
5	WI(M)	38	E.135th ST. & E/O HARLEM R. DR.	038	HYD.	S.G./24"x24"	5'-0"	-4.30	15.36	13.38	10.63
6	WI(M)	45	W.147th ST. & IRT YARD	045	MAN.	S.G./18"x18"	7'-6"	-4.47	7.29	6.88	5.28
7	WI(M)	46	W.151st ST. & PLAYGROUND	046	HYD.	S.G./30"x24"	13'-0"	-3.50	19.36	11.37	10.20
8	WI(M)	51	N/S HARLEM R. DR. (W.167th ST.)	051	HYD.	S.G./18"x18"	3'-6"	+9.80	10.81	5.69	3.98
9	WI(M)	52	N/S HARLEM R. DR. (W.176th ST.)	052	HYD.	S.G./18"x18"	7'-0"	+43.88	8.32	6.20	3.94
10	WI(B)	53	BRUCKNER BLVD. & BROOK AVE.	068	HYD.	S.G./42"x42"	25'-0"	-7.42	248.67	62.39	52.64
11	WI(B)	58	MAJOR DEEGAN S/S 138th ST.	075	HYD.	S.G./30"x24"	11'-2"	-3.75	16.06	17.47	7.79
12	WI(B)	60	JEROME AVE. & McCOMBS DAM PARK	062	HYD.	S.G./42"x42"	9'-3"	-2.81	67.29	16.10	13.42
13	WI(B)	62	UNDERCLIFF & SEDGEWICK AVE.	060	HYD.	S.G./30"x24"	12'-8"	-3.83	16.36	36.24	22.66
14	WI(B)	67	E.192nd ST. W/O BAYLEY AVE.	056	HYD.	S.G./48"x36"	28'-0"	-3.55	57.85	49.05	36.38
15	WI(B)	68	E.149th ST. & EAST RIVER	072	HYD.	S.G./24"x24"	8'-0"	-3.00	13.6	9.14	8.27
15 Subtotal											
100 Total			*Original count of 28 Key Regulators temporaily included PR-35W while PR-13E and PR-06W were out of service for repair.								

Appendix 2.2.2: Table 2 - Sediments From Non-interceptor Assets 2023

Plant Name	Asset Type Cleaned	Tons Cleaned
26W	Aeration Tank 1 & 2	289.03
BB	Bowery Bay WRRF	10.69
HP	Plant Centrate & Scavenger Lines	45.00
OH	Head Degritter	21.30
WI	Wet Well	43.68
Total		**409.70**
CSO Name	**Asset Type Cleaned**	**Tons Removed**
Holding Tank	Paerdegat Facility	139.19
Total		**139.19**
Pump Station	**Asset Type Cleaned**	**Tons Cleaned**
Gowanus PS	Wet Well & Bar Screens	18.19
Rikers Island N & S PS's	Wet Well & Bar Screens	67.75
2nd Ave PS	Wet Well & Bar Screens	8.20
Total		**94.14**

Appendix 2.2.3: Intercepting Sewer Inspections 2023 – Pipe Rating Index and Ranking - Table 3

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
BB_E_19	2	3	4	3
BB_E_20	2	3	4	3
BB_E_4	2.12	3	4	3
BB_E_7	2.14	3	4	3
BB_E_7	2.17	3	4	3
JA_E_137	2.56	3.05	4	3
JA_W_51	2.67	0	4	4
JA_E_1	2	0	4	4
JA_E_10	2	0	4	4
JA_E_100	2	0	4	4
JA_E_101	2	0	4	4
JA_E_102	2	3	4	3
JA_E_103	2.67	3	4	3
JA_E_103	2.7	0	4	4
JA_E_103	2.69	0	4	4
JA_E_104	2.17	0	4	4
JA_E_104	2.4	3	4	3
JA_E_104	2.6	0	4	4
JA_E_105	2.14	0	4	4
JA_E_106	2.29	0	4	4
JA_E_106A	2.5	0	4	4
JA_E_107	2.2	0	4	4
JA_E_108	2.83	0	4	4
JA_E_109	2.67	0	4	4
JA_E_11	2	0	4	4
JA_E_110	2	0	4	4
JA_E_116	2.25	0	4	4
JA_E_117	2	0	4	4
JA_E_118	2.17	0	4	4
JA_E_119	2.33	0	4	4
JA_E_12	2.33	0	4	4
JA_E_120	2.4	0	4	4
JA_E_122	2	0	4	4
JA_E_123	2	0	4	4
JA_E_124	2.4	0	4	4
JA_E_125	2	0	4	4
JA_E_126	2.5	0	4	4
JA_E_127	2.29	3	4	3
JA_E_128	2.17	0	4	4
JA_E_129	2	0	4	4
JA_E_13	2	0	4	4
JA_E_130	2.63	0	4	4
JA_E_131	2.33	0	4	4
JA_E_132	2.2	2	4	4
JA_E_133	2	3	4	3
JA_E_134	2.22	3	4	3

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_E_135	2	3	4	3
JA_E_136	2.5	3	4	3
JA_E_138	1.75	0	4	4
JA_E_139	2.11	3	4	3
JA_E_140	2.44	3	4	3
JA_E_141	2.54	3	4	3
JA_E_142	2.33	0	4	4
JA_E_143	2.67	5	4	3
JA_E_145	3	0	3	4
JA_E_146	2	0	4	4
JA_E_148	2.5	0	4	4
JA_E_149	2	0	4	4
JA_E_150	2.14	0	4	4
JA_E_151	2.29	3	4	3
JA_E_152	2	3	4	3
JA_E_153	2.25	0	4	4
JA_E_154	2.57	0	4	4
JA_E_155	2.17	0	4	4
JA_E_156	2	0	4	4
JA_E_157	2	0	4	4
JA_E_157B	2	0	4	4
JA_E_158	2	0	4	4
JA_E_158B	2.25	0	4	4
JA_E_159	2	0	4	4
JA_E_159B	2	0	4	4
JA_E_16	2.4	0	4	4
JA_E_160	2	0	4	4
JA_E_160B	2	0	4	4
JA_E_161	2	0	4	4
JA_E_162	2	0	4	4
JA_E_163	2	0	4	4
JA_E_164	2	0	4	4
JA_E_165	2.4	0	4	4
JA_E_166	2	0	4	4
JA_E_167	2	0	4	4
JA_E_168	2.2	0	4	4
JA_E_169	2	0	4	4
JA_E_17	2	0	4	4
JA_E_170	2	0	4	4
JA_E_171	2	0	4	4
JA_E_172	2	0	4	4
JA_E_173	2.14	0	4	4
JA_E_174	2.33	0	4	4
JA_E_175	2	0	4	4
JA_E_176	2	0	4	4
JA_E_177	2.17	0	4	4
JA_E_178	2	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_E_179	2	0	4	4
JA_E_18	2.25	0	4	4
JA_E_180	2	0	4	4
JA_E_181	2.33	0	4	4
JA_E_182	2	0	4	4
JA_E_183	2	0	4	4
JA_E_184	2	0	4	4
JA_E_185	2	0	4	4
JA_E_186	2	0	4	4
JA_E_19	2.33	0	4	4
JA_E_2	2.63	0	4	4
JA_E_20	2	0	4	4
JA_E_21	2	0	4	4
JA_E_22	2.25	0	4	4
JA_E_23	2.2	0	4	4
JA_E_24	2	0	4	4
JA_E_25	2.8	0	4	4
JA_E_26	2	0	4	4
JA_E_27	2	0	4	4
JA_E_28	2	0	4	4
JA_E_29	2	0	4	4
JA_E_3	2.5	0	4	4
JA_E_4	2.5	0	4	4
JA_E_5	2.25	0	4	4
JA_E_50	2.5	0	4	4
JA_E_51	2	3	4	3
JA_E_52	2.2	3	4	3
JA_E_53	2	0	4	4
JA_E_54	2	0	4	4
JA_E_55	2.4	0	4	4
JA_E_56	2	0	4	4
JA_E_57	2	0	4	4
JA_E_57	2	0	4	4
JA_E_58	2	0	4	4
JA_E_58	2	0	4	4
JA_E_6	2	0	4	4
JA_E_68	2	0	4	4
JA_E_69	2	0	4	4
JA_E_7	2	0	4	4
JA_E_79_1	2	0	4	4
JA_E_79_10	2	0	4	4
JA_E_79_100	2	0	4	4
JA_E_79_101	2	0	4	4
JA_E_79_102	2	0	4	4
JA_E_79_103	2	0	4	4
JA_E_79_104	2	3	4	3
JA_E_79_105	2	3	4	3

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_E_79_106	2.2	3	4	3
JA_E_79_108	2	3	4	3
JA_E_79_108A	2	3	4	3
JA_E_79_109	2	3	4	3
JA_E_79_11	2	0	4	4
JA_E_79_110	2	3	4	3
JA_E_79_111	2	3	4	3
JA_E_79_112	2	3	4	3
JA_E_79_116	2	3	4	3
JA_E_79_117	2	3	4	3
JA_E_79_118	1.8	3	4	3
JA_E_79_119	2	3	4	3
JA_E_79_12	2	0	4	4
JA_E_79_120	2	3	4	3
JA_E_79_121	2	3	4	3
JA_E_79_122	2	3	4	3
JA_E_79_123	2	0	4	4
JA_E_79_124	2	0	4	4
JA_E_79_125	2	3	4	3
JA_E_79_126	2	0	4	4
JA_E_79_127	2	3	4	3
JA_E_79_128	2	3	4	3
JA_E_79_129	2	0	4	4
JA_E_79_13	2	0	4	4
JA_E_79_130	2	1	4	4
JA_E_79_131	2	0	4	4
JA_E_79_132	2	0	4	4
JA_E_79_133	2	0	4	4
JA_E_79_134	2	0	4	4
JA_E_79_135	2	0	4	4
JA_E_79_136	2	0	4	4
JA_E_79_136A	2	0	4	4
JA_E_79_137	2	0	4	4
JA_E_79_138	2	0	4	4
JA_E_79_139	2	0	4	4
JA_E_79_14	2	0	4	4
JA_E_79_140	2	0	4	4
JA_E_79_141	2	0	4	4
JA_E_79_142	2	0	4	4
JA_E_79_143	2	0	4	4
JA_E_79_15	2	0	4	4
JA_E_79_153	2	0	4	4
JA_E_79_154	2	0	4	4
JA_E_79_155	2	0	4	4
JA_E_79_156	2	0	4	4
JA_E_79_157	2	0	4	4
JA_E_79_158	1.8	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_E_79_159	2	0	4	4
JA_E_79_16	2	0	4	4
JA_E_79_160	2	0	4	4
JA_E_79_161	2.2	0	4	4
JA_E_79_17	2	0	4	4
JA_E_79_18	2	0	4	4
JA_E_79_2	2	0	4	4
JA_E_79_23	2	0	4	4
JA_E_79_24	2	0	4	4
JA_E_79_25	2	0	4	4
JA_E_79_26	2	0	4	4
JA_E_79_27	2	0	4	4
JA_E_79_29	2	0	4	4
JA_E_79_3	2	0	4	4
JA_E_79_30	2	0	4	4
JA_E_79_31	2	0	4	4
JA_E_79_32	2	0	4	4
JA_E_79_34	2	0	4	4
JA_E_79_35	2	0	4	4
JA_E_79_36	2	0	4	4
JA_E_79_37	2	0	4	4
JA_E_79_38	2	0	4	4
JA_E_79_39	2.2	0	4	4
JA_E_79_4	2	0	4	4
JA_E_79_40	2	0	4	4
JA_E_79_41	2	0	4	4
JA_E_79_42	2	0	4	4
JA_E_79_43	2	0	4	4
JA_E_79_44	2	0	4	4
JA_E_79_45	2	0	4	4
JA_E_79_46	2	0	4	4
JA_E_79_47	2	0	4	4
JA_E_79_48	2	0	4	4
JA_E_79_49	2	0	4	4
JA_E_79_49A	2	0	4	4
JA_E_79_5	2	0	4	4
JA_E_79_50	2	0	4	4
JA_E_79_52	2.2	0	4	4
JA_E_79_53	2.17	3	4	3
JA_E_79_54	2.2	0	4	4
JA_E_79_54	2	3	4	3
JA_E_79_55	2	0	4	4
JA_E_79_56	2.2	0	4	4
JA_E_79_57	2.5	0	4	4
JA_E_79_58	2.2	0	4	4
JA_E_79_59	2	0	4	4
JA_E_79_6	2	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_E_79_60	2.14	0	4	4
JA_E_79_61	2	0	4	4
JA_E_79_62	2	0	4	4
JA_E_79_63	2.13	0	4	4
JA_E_79_64	2	0	4	4
JA_E_79_65	2	0	4	4
JA_E_79_66	2	0	4	4
JA_E_79_67	2	0	4	4
JA_E_79_68	2	0	4	4
JA_E_79_69	2	0	4	4
JA_E_79_7	2	0	4	4
JA_E_79_8	2	0	4	4
JA_E_79_80	2.67	0	4	4
JA_E_79_81	2	0	4	4
JA_E_79_82	2.57	0	4	4
JA_E_79_83	2.17	0	4	4
JA_E_79_84	2.07	0	4	4
JA_E_79_85	2.17	0	4	4
JA_E_79_87	2	0	4	4
JA_E_79_88	2	0	4	4
JA_E_79_89	2.2	0	4	4
JA_E_79_9	2	0	4	4
JA_E_79_90	2	0	4	4
JA_E_79_91	2	0	4	4
JA_E_79_92	2	0	4	4
JA_E_79_93	2.2	0	4	4
JA_E_79_94	2	0	4	4
JA_E_79_95	2	0	4	4
JA_E_79_96	2	0	4	4
JA_E_79_97	2	0	4	4
JA_E_79_98	2	0	4	4
JA_E_79_99	2	0	4	4
JA_E_8	2	0	4	4
JA_E_82	2	0	4	4
JA_E_83	2	0	4	4
JA_E_84	2.14	0	4	4
JA_E_85	2	0	4	4
JA_E_86	2	0	4	4
JA_E_87	2	0	4	4
JA_E_88	2.2	0	4	4
JA_E_89	2.4	0	4	4
JA_E_9	2	0	4	4
JA_E_90	2	0	4	4
JA_E_91	2	0	4	4
JA_E_92	2	0	4	4
JA_E_93	2	0	4	4
JA_E_94	2	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_E_95	2	0	4	4
JA_E_96	2.33	0	4	4
JA_E_97	2.2	0	4	4
JA_E_98	2	0	4	4
JA_E_99	2	0	4	4
JA_W_13	2	0	4	4
JA_W_14	2	0	4	4
JA_W_15	2	0	4	4
JA_W_16	2	0	4	4
JA_W_17	2	0	4	4
JA_W_18	2	0	4	4
JA_W_19	2	0	4	4
JA_W_20	2.2	0	4	4
JA_W_21	2	0	4	4
JA_W_21_1A	3.5	0	3	4
JA_W_21_2	3	0	3	4
JA_W_25	2	0	4	4
JA_W_26	2	0	4	4
JA_W_27	2	0	4	4
JA_W_28	2	0	4	4
JA_W_29	2	1	4	4
JA_W_30	2	0	4	4
JA_W_37	2	0	4	4
JA_W_38	2	0	4	4
JA_W_39	2	0	4	4
JA_W_43	2.38	0	4	4
JA_W_44	2	0	4	4
JA_W_45	2.4	0	4	4
JA_W_46	2.2	0	4	4
JA_W_47	2.14	0	4	4
JA_W_48	2.14	0	4	4
JA_W_49	2.17	0	4	4
JA_W_50	2.29	0	4	4
JA_W_52	2.5	0	4	4
JA_W_53	2	0	4	4
JA_W_54	2	0	4	4
JA_W_55	2	0	4	4
JA_W_56	2.13	0	4	4
JA_W_57	2.5	0	4	4
JA_W_58	2.22	0	4	4
JA_W_59	2	0	4	4
JA_W_60	2.13	0	4	4
JA_W_61	2.22	0	4	4
JA_W_62	2.33	3	4	3
JA_W_63	2.36	3	4	3
JA_W_64	2	0	4	4
JA_W_65	2.13	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
JA_W_66	2	0	4	4
JA_W_67	2.14	0	4	4
JA_W_68	2.17	0	4	4
JA_W_69	2	0	4	4
JA_W_70	2	0	4	4
JA_W_71	2.25	0	4	4
JA_W_72	2.14	0	4	4
JA_W_73	2.22	0	4	4
JA_W_73A	2.67	0	4	4
JA_W_73B	2.33	0	4	4
JA_W_74	2.29	0	4	4
JA_W_75	2.3	0	4	4
JA_W_76	2	0	4	4
JA_W_77	2.5	0	4	4
JA_W_78	2.61	0	4	4
JA_W_79	2.33	0	4	4
JA_W_80	2.27	0	4	4
JA_W_81	2.71	0	4	4
JA_W_82	2.7	0	4	4
JA_W_83	2.44	3	4	3
JA_W_84	2.3	0	4	4
JA_W_85	2.88	0	4	4
JA_W_86	2.73	0	4	4
JA_W_89	2.56	0	4	4
JA_W_90	2.17	0	4	4
JA_W_91	2	0	4	4
JA_W_92	2	0	4	4
NCM_N_11	2	0	4	4
NCM_N_12	1.85	2.99	4	4
NCM_N_12	2.67	3.5	4	3
OB_W_50	2	0	4	4
OB_W_50	2.19	0	4	4
OB_W_50	2	0	4	4
PR_E_10	2.17	3	4	3
PR_E_11	2	0	4	4
PR_E_12	1.88	0	4	4
PR_E_13	1.6	0	4	4
PR_E_14	2	0	4	4
PR_E_14	2	0	4	4
PR_E_17_2	2	0	4	4
PR_E_17_3	2	0	4	4
PR_E_17_4	2	0	4	4
PR_E_17_5	2.57	0	4	4
PR_E_17_6	2	0	4	4
PR_E_22	4	0	4	4
PR_E_23	3.5	0	3	4
PR_E_23	4.17	0	5	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
PR_E_24	3.04	0	3	4
PR_E_25	2.45	0	4	4
PR_E_28	2.43	0	4	4
PR_E_29	2.17	0	4	4
PR_E_3	1.97	0	4	4
PR_E_30	2	0	4	4
PR_E_31	2	0	4	4
PR_E_32	2	0	4	4
PR_E_33	2	0	4	4
PR_E_34	2	0	4	4
PR_E_35	2	0	4	4
PR_E_36	2	0	4	4
PR_E_37	2	0	4	4
PR_E_38	2	0	4	4
PR_E_39	2.22	0	4	4
PR_E_4	2	0	4	4
PR_E_40	2.25	0	4	4
PR_E_41	2.33	0	4	4
PR_E_42	2	0	4	4
PR_E_43	2.25	0	4	4
PR_E_45	2	0	4	4
PR_E_46	2.2	0	4	4
PR_E_47	2	0	4	4
PR_E_48	2	0	4	4
PR_E_49	2	0	4	4
PR_E_5	2	0	4	4
PR_E_50	2.11	0	4	4
PR_E_51	2	0	4	4
PR_E_52	2	0	4	4
PR_E_53	2	0	4	4
PR_E_54	2	0	4	4
PR_E_55	2	0	4	4
PR_E_56	2	0	4	4
PR_E_57	2	0	4	4
PR_E_58	2.33	0	4	4
PR_E_59	2	0	4	4
PR_E_6	1.93	0	4	4
PR_E_60	2	0	4	4
PR_E_61	2	0	4	4
PR_E_62	2.33	0	4	4
PR_E_63	2	0	4	4
PR_E_64	2.13	3	4	3
PR_E_65	2	0	4	4
PR_E_66	2.08	3	4	3
PR_E_8	1.96	0	4	4
PR_E_9	2.03	0	4	4
PR_W_10	2	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
PR_W_11	2	0	4	4
PR_W_12	2	0	4	4
PR_W_13	2	0	4	4
PR_W_14	2.43	0	4	4
PR_W_15	2.17	5	4	3
PR_W_16	2.4	5	4	3
PR_W_17	4	0	4	4
PR_W_18	2.25	5	4	2
PR_W_19	1.88	5	4	2
PR_W_2	2.38	0	4	4
PR_W_2_1	4	0	4	4
PR_W_2_10	2	0	4	4
PR_W_2_11	0	0	4	4
PR_W_2_11A	0	0	4	4
PR_W_2_11B	0	0	4	4
PR_W_2_12	3	3	3	3
PR_W_2_2	0	0	4	4
PR_W_2_3	0	0	4	4
PR_W_2_4	0	0	4	4
PR_W_2_5	0	0	4	4
PR_W_2_7	2.17	0	4	4
PR_W_2_8	2.08	0	4	4
PR_W_2_9	2.29	0	4	4
PR_W_20	2.54	5	4	3
PR_W_21	2.79	5	4	3
PR_W_22	2	0	4	4
PR_W_23	2.11	0	4	4
PR_W_24	2	0	4	4
PR_W_25	2.25	0	4	4
PR_W_26	2.15	0	4	4
PR_W_27	2.91	5	4	3
PR_W_28	3	5	3	3
PR_W_29	2	0	4	3
PR_W_3	2	0	4	4
PR_W_30	1.92	0	4	4
PR_W_31	2.05	5	4	3
PR_W_32	2.03	0	4	4
PR_W_33	2	0	4	4
PR_W_34	2.42	0	4	4
PR_W_35	2	3	4	3
PR_W_4	2	0	4	4
PR_W_5	2	0	4	4
PR_W_6	2.13	0	4	4
PR_W_7	2.13	0	4	4
PR_W_8	2	0	4	4
PR_W_9	2	0	4	4
PRE03_PR_E_67	3	0	3	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
RK__W_42	2	3	4	3
RK_E_10	2.1	3	4	3
RK_E_100	2	0	4	4
RK_E_101	2.2	0	4	4
RK_E_102	2.25	0	4	4
RK_E_103	2.2	0	4	4
RK_E_104	2	3	4	3
RK_E_105	2	3	4	3
RK_E_106	2.14	3.14	4	2
RK_E_107	2.13	3.07	4	3
RK_E_108	2.29	3.07	4	3
RK_E_109	2.29	3	4	3
RK_E_11	0	0	4	4
RK_E_11			4	4
RK_E_110	2	3	4	3
RK_E_111	2	3.1	4	3
RK_E_112	2	0	4	4
RK_E_113	2.25	3	4	3
RK_E_114	2.25	3	4	3
RK_E_115	2.2	3	4	3
RK_E_116	2.5	3	4	3
RK_E_117	2.33	3	4	3
RK_E_118	2	3	4	3
RK_E_119	2	3	4	3
RK_E_12	2.17	3	4	3
RK_E_120	2.13	3	4	3
RK_E_121	2	0	4	4
RK_E_121A	2	0	4	4
RK_E_122	2.2	0	4	4
RK_E_123	2.4	3	4	3
RK_E_124	2.4	0	4	4
RK_E_125	2.25	0	4	4
RK_E_126	2	0	4	4
RK_E_127	2.25	0	4	4
RK_E_128	2.33	0	4	4
RK_E_13	2	3	4	3
RK_E_14	2	3	4	3
RK_E_15	2	3	4	3
RK_E_16	2	3	4	3
RK_E_17	2.07	3.02	4	3
RK_E_18	2	3	4	3
RK_E_19	2.25	3	4	3
RK_E_2	2	3	4	3
RK_E_20	2	3	4	3
RK_E_21	2	3	4	3
RK_E_22	2.2	3	4	3
RK_E_23	2.14	3	4	3

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
RK_E_24	2.17	3	4	3
RK_E_25	2	0	4	4
RK_E_26	2	3	4	3
RK_E_27	2	3	4	3
RK_E_28	2	3	4	3
RK_E_29	2	3	4	3
RK_E_3	2	0	4	4
RK_E_30	2	3	4	3
RK_E_31	2	3	4	3
RK_E_32	2	3	4	3
RK_E_33	2.2	3	4	3
RK_E_34	2.14	3	4	3
RK_E_35	2.2	3	4	3
RK_E_36	2	3	4	3
RK_E_37	2.17	3	4	3
RK_E_38	2.2	3	4	3
RK_E_39	2.25	3	4	3
RK_E_4	2.11	3	4	3
RK_E_40	2	3	4	3
RK_E_41	2	3	4	3
RK_E_42	2	3	4	3
RK_E_43	2.2	3	4	3
RK_E_44	2.17	3	4	3
RK_E_45	2	3	4	3
RK_E_46	2	0	4	4
RK_E_47	2	3	4	3
RK_E_48	2.17	3	4	3
RK_E_49	2	0	4	4
RK_E_5	2	3	4	3
RK_E_50	2	3	4	3
RK_E_51	2	3	4	3
RK_E_52	2.25	3	4	3
RK_E_53	2.25	0	4	4
RK_E_54	2.25	3	4	3
RK_E_55	2	3	4	3
RK_E_56	2	3	4	3
RK_E_57	2.17	3	4	3
RK_E_58	2.78	3.92	4	1
RK_E_59	2	5	4	1
RK_E_6	2.3	3	4	3
RK_E_60	2	3	4	3
RK_E_61	2	0	4	4
RK_E_62	2.29	0	4	4
RK_E_63	2.33	0	4	4
RK_E_64	2.25	0	4	4
RK_E_65	2.75	0	4	4
RK_E_66	2.4	0	4	4

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
RK_E_67	2	0	4	4
RK_E_68	2	0	4	4
RK_E_69	2	0	4	4
RK_E_7	2	3	4	3
RK_E_70	2.2	3	4	3
RK_E_71	2.2	3	4	3
RK_E_72	2	3.1	4	3
RK_E_73	2.25	3	4	3
RK_E_74	2	3	4	3
RK_E_75	2	3	4	3
RK_E_76	2	3	4	3
RK_E_77	2	3	4	3
RK_E_78	2	3.07	4	3
RK_E_79	2	3	4	3
RK_E_8	2	3	4	3
RK_E_80	2	3	4	3
RK_E_81	2.4	3	4	3
RK_E_82	2	3	4	3
RK_E_83	2.75	3	4	3
RK_E_84	2	3	4	3
RK_E_85	2	3	4	3
RK_E_86	2	3	4	3
RK_E_87	2	3	4	3
RK_E_88	2	3	4	3
RK_E_89	2	3	4	3
RK_E_9	2.11	3	4	3
RK_E_90	2.5	3	4	3
RK_E_90	2.31	5	4	1
RK_E_91	2.4	3	4	3
RK_E_92	2.2	3	4	3
RK_E_93	2	3	4	3
RK_E_94	2	3.1	4	3
RK_E_95	2.38	3	4	3
RK_E_96	2.67	3	4	3
RK_E_97	2.67	3.5	4	1
RK_E_98	2	0	4	4
RK_E_99	2	3	4	3
RK_W_1	2.82	0	4	4
RK_W_10	2	0	4	4
RK_W_11	2	0	4	4
RK_W_12	2	0	4	4
RK_W_13	2	0	4	4
RK_W_14	2	0	4	4
RK_W_15	2	0	4	4
RK_W_16	2	0	4	4
RK_W_17	2	0	4	4
RK_W_17A	2	0	4	4

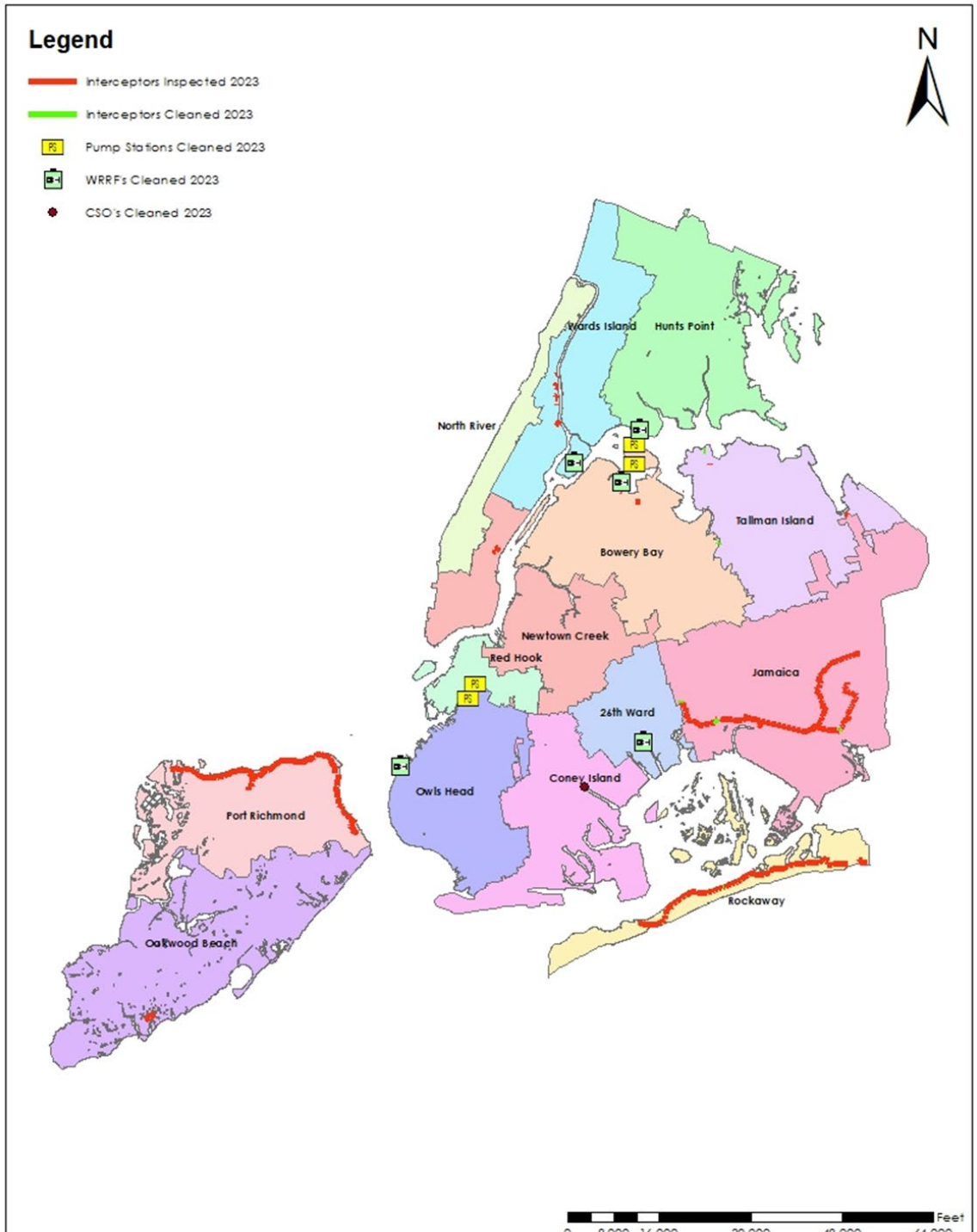
Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
RK_W_18	2.1	0	4	4
RK_W_19	2	0	4	4
RK_W_2	2.5	0	4	4
RK_W_20	2.36	0	4	4
RK_W_21	2	0	4	4
RK_W_22	2.44	0	4	4
RK_W_23	2	0	4	4
RK_W_24	2	0	4	4
RK_W_25	0	0	4	4
RK_W_26	0	0	4	4
RK_W_27	0	0	4	4
RK_W_28	0	0	4	3
RK_W_29	0	5	4	5
RK_W_3	2.88	0	4	4
RK_W_30	0	0	4	4
RK_W_31	2	0	4	4
RK_W_31A	0	0	4	4
RK_W_32	2	0	4	4
RK_W_33	0	0	4	4
RK_W_34	0	0	4	4
RK_W_35	0	0	4	4
RK_W_36	0	0	4	4
RK_W_36A	0	0	4	4
RK_W_37	0	0	4	4
RK_W_38	0	0	4	4
RK_W_39	2	0	4	4
RK_W_4	3	0	3	4
RK_W_40	0	3	4	3
RK_W_41	2	0	4	4
RK_W_43	2	3	4	3
RK_W_44	0	3	4	3
RK_W_45	0	0	4	4
RK_W_46	0	3	4	3
RK_W_47	0	3	4	3
RK_W_48	0	3	4	3
RK_W_49	2	3	4	3
RK_W_5	2.67	0	4	4
RK_W_51	0	3	4	3
RK_W_52	2	3	4	3
RK_W_53	1.67	3	4	3
RK_W_6	2.2	0	4	4
RK_W_7	2.23	0	4	4
RK_W_8	2	0	4	4
RK_W_9	2	0	4	4
TI_S_12	2	0	4	4
TI_S_13	2.2	0	4	4
TI_S_74_10	2	3	4	3

Pipeline segment ref:	O&M Pipe Rating	Structural Pipe Rating	O&M Rank	Structural Rank
TI_S_74_11	2	3	4	3
TI_S_74_2	2	0	4	4
TI_S_74_3	2	0	4	4
TI_S_74_4	2	0	4	4
TI_S_74_5	2	0	4	4
TI_S_74_6	2	0	4	4
TI_S_74_7	2	0	4	4
TI_S_74_8	2	0	4	4
TI_S_74_9	2	0	4	4
TI_W_4	2.44	3	4	3
TI_W_4	2.67	0	4	4
WIM_N_14	2	3	4	3
WIM_N_15	2	3	4	3
WIM_N_21	2	0	4	4
WIM_N_21	2.13	0	4	4
WIM_N_27	1.93	3	4	3
WIM_N_30	2	0	4	4
WIM_N_31	2.2	3	4	3
WIM_N_32	2.1	0	4	4
WIM_N_44B	2.67	0	4	4
WIM_N_26	2.1	0	4	4

Appendix 2.2.4: 2023 Asset Repair List

Asset Name	Date Inspected	Length (ft)	Defect	Structural Index	Comments	Final Decision	Corrective Action By
RK_E_106	4/17/2023	128	SRV/HSV	3.27	Try to include in PS-349	Line sewer	DDC
RK_E_97	4/18/2023	115	B	3.5	Included in PS-349	Line sewer	DDC
RK_E_90	4/18/2023	126	B	3	Try to include in PS-349	Line sewer	DDC
RK_E_58	4/20/2023	140	SRV	3.92	Try to include in PS-349	Line sewer	DDC
RK_E_59	4/20/2023	130	SRV	5	Try to include in PS-349	Line sewer	DDC
PR_W_18	5/26/2023	256	SRV	5	Create new project	Line sewer	DDC
PR_W_19	5/26/2023	275	SRV	5	Create new project	Line sewer	DDC

Appendix 2.2.5: Map 1 - 2023 BMP Interceptors and Local Sewers CCTV/SONAR, Pump Stations, Regulators and Interceptors/Local Sewers Cleaned Map


Legend
Interceptors Inspected 2023
Interceptors Cleaned 2023
Pump Stations Cleaned 2023
WRRFs Cleaned 2023
CSO's Cleaned 2023
N
Wards Island
Hunts Point
North River
Tallman Island
Bowery Bay
Newtown Creek
Red Hook
Jamaica
26th Ward
Owls Head
Coney Island
Rockaway
Port Richmond
Oakwood Beach
Feet

- Appendix 3.1: Critical Wet Weather Event Summary – CY2023
- Appendix 3.2: Estimation of Wet-Weather Capture

Appendix 3.1: CRITICAL WET WEATHER EVENT SUMMARY – CY 2023

26TH WARD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/3/2023	170	YES	178	173	172	N/A	1/3/2023	12:00 PM	1/3/2023	1:15 PM	181	173
1/25/2023-1/26/2023	170	NO	N/A	N/A	N/A	N/A	1/25/2023	9:30 PM	1/26/2023	12:15 AM	175	172
3/4/2023	170	NO	N/A	N/A	N/A	N/A	3/4/2023	2:30 AM	3/4/2023	7:00 AM	175	172
4/23/2023	170	NO	N/A	N/A	N/A	N/A	4/23/2023	12:30 AM	4/23/2023	12:30 AM	171	171
4/23/2023	170	YES	184	179	162	N/A	4/23/2023	1:30 AM	4/23/2023	5:00 AM	179	162
4/23/2023	170	YES	180	175	149	N/A	4/23/2023	6:45 AM	4/23/2023	12:00 PM	175	149
4/29/2023	170	YES	180	175	168	N/A	4/29/2023	2:45 AM	4/29/2023	4:15 AM	175	168
4/29/2023	170	YES	181	176	167	N/A	4/29/2023	6:00 AM	4/29/2023	9:30 AM	176	167
4/30/2023	170	NO	N/A	N/A	N/A	N/A	4/30/2023	4:00 PM	4/30/2023	6:30 PM	170	170
5/20/2023	170	YES	184	179	168	N/A	5/20/2023	3:00 PM	5/20/2023	4:00 PM	174	173
7/4/2023	170	YES	180	137	131	N/A	7/4/2023	12:45 PM	7/4/2023	1:00 PM	137	131
7/16/2023	170	YES	180	168	153	N/A	7/16/2023	11:15 AM	7/16/2023	1:15 PM	175	162
8/7/2023	170	YES	184	179	172	N/A	8/7/2023	6:45 AM	8/7/2023	7:30 AM	179	172
8/7/2023	170	YES	183	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8/13/2023	170	YES	184	179	149	N/A	8/13/2023	3:00 AM	8/13/2023	4:00 AM	179	149
8/18/2023	170	YES	185	180	168	N/A	8/18/2023	5:15 AM	8/18/2023	7:15 AM	180	168
8/18/2023	170	YES	184	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/10/2023	170	NO	N/A	N/A	N/A	N/A	9/10/2023	12:00 PM	9/10/2023	1:45 PM	189	177
9/10/2023	170	NO	N/A	N/A	N/A	N/A	9/10/2023	11:30 PM	9/11/2023	1:30 AM	185	178
9/18/2023	170	NO	N/A	N/A	N/A	N/A	9/18/2023	12:00 PM	9/18/2023	12:45 PM	174	172
9/23/2023	170	NO	N/A	N/A	N/A	N/A	9/23/2023	4:30 PM	9/23/2023	5:00 PM	177	176
9/24/2023	170	NO	N/A	N/A	N/A	N/A	9/24/2023	7:15 PM	9/24/2023	7:30 PM	172	172
9/28/2023	170	NO	N/A	N/A	N/A	N/A	9/28/2023	11:15 PM	9/29/2023	1:30 AM	185	177
9/29/2023	170	NO	N/A	N/A	N/A	N/A	9/29/2023	2:45 AM	9/29/2023	5:15 AM	173	171
9/29/2023	170	NO	N/A	N/A	N/A	N/A	9/29/2023	8:45 AM	9/29/2023	11:30 AM	172	171
9/29/2023	170	NO	N/A	N/A	N/A	N/A	9/29/2023	12:30 PM	9/29/2023	2:45 PM	173	171
10/7/2023	170	YES	181	176	170	N/A	10/7/2023	12:15 PM	10/7/2023	1:15 PM	176	170
10/14/2023	170	YES	182	180	179	N/A	10/14/2023	2:45 PM	10/14/2023	4:15 PM	180	179
10/20/2023	170	YES	184	179	160	N/A	10/20/2023	10:15 AM	10/20/2023	11:45 AM	179	160
10/30/2023	170	YES	181	176	143	N/A	10/30/2023	6:45 AM	10/30/2023	10:45 AM	176	143
11/22/2023	170	YES	181	176	171	N/A	11/22/2023	12:30 AM	11/23/2023	1:30 AM	176	171
11/22/2023	170	YES	180	175	165	N/A	11/22/2023	5:30 AM	11/22/2023	7:45 AM	175	165
12/10/2023	170	YES	180	175	161	N/A	12/10/2023	2:15 PM	12/10/2023	4:30 PM	175	161
12/10/2023	170	YES	180	175	167	N/A	12/10/2023	11:15 PM	12/11/2023	3:15 AM	175	167
12/18/2023	170	YES	181	176	167	N/A	12/18/2023	2:00 AM	12/18/2023	5:30 AM	176	167
12/18/2023	170	YES	180	175	169	N/A	12/18/2023	7:45 AM	12/18/2023	9:30 AM	175	169
12/28/2023	170	YES	184	179	169	N/A	12/28/2023	2:00 AM	12/28/2023	5:30 AM	179	169

BOWERY BAY - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	**WET WEATHER PLANT CAPACITY (MGD)**	**Did Plant Throttle? Yes/No**	**Flow at Start of Throttling (MGD)**	**Throttling Max Flow (MGD)**	**Throttling Avg Flow (MGD)**	**Bypass Item No.**	**Critical Event Start Date & Time**		**Critical Event End Date & Time**		**Critical Event Max Flow (MGD)**	**Critical Event Avg Flow (MGD)**
1/3/2023	300	YES	311	321	316	N/A	1/3/2023	12:00 PM	1/3/2023	1:45 PM	321	313
1/12/2023	300	NO	N/A	N/A	N/A	N/A	1/12/2023	8:00 PM	1/12/2023	9:00 PM	307	304
1/19/2023	300	NO	N/A	N/A	N/A	N/A	1/19/2023	4:30 PM	1/19/2023	6:30 PM	307	303
1/19/2023-1/20/2023	300	NO	N/A	N/A	N/A	N/A	1/19/2023	9:30 PM	1/20/2023	12:00 AM	341	312
1/22/2023-1/23/2023	300	NO	N/A	N/A	N/A	N/A	1/22/2023	9:00 PM	1/23/2023	3:15 AM	320	309
1/25/2023-1/26/2023	300	NO	N/A	N/A	N/A	N/A	1/25/2023	8:15 PM	1/26/2023	5:15 AM	338	311
3/4/2023	300	NO	N/A	N/A	N/A	N/A	3/4/2023	1:00 AM	3/4/2023	5:45 AM	314	307
3/13/2023	300	YES	309	320	306	N/A	3/13/2023	9:15 PM	3/14/2023	5:00 AM	320	308
4/22/2023	300	YES	312	312	116	N/A	4/22/2023	11:00 AM	4/22/2023	5:15 PM	312	116
4/22-23/ 2023	300	NO	N/A	N/A	N/A	N/A	4/22/2023	11:00 PM	4/23/2023	3:45 AM	310	305
4/23/2023	300	YES	308	307	305	N/A	4/23/2023	5:15 AM	4/23/2023	10:00 AM	307	305
4/29/2023	300	YES	317	313	310	N/A	4/29/2023	1:30 AM	4/29/2023	9:30 PM	323	312
4/30/2023	300	YES	316	316	304	N/A	4/30/2023	1:45 PM	4/30/2023	11:45 PM	320	308
5/20/2023	300	YES	318	317	301	N/A	5/20/2023	2:15 PM	5/20/2023	6:30 PM	319	304
7/2/2023	300	YES	307	308	277	N/A	7/2/2023	4:45 PM	7/2/2023	8:15 PM	308	277
7/4/2023	300	NO	N/A	N/A	N/A	N/A	7/4/2023	1:00 AM	7/4/2023	2:00 AM	316	310
7/9/2023	300	NO	N/A	N/A	N/A	N/A	7/9/2023	8:45 PM	7/9/2023	9:00 PM	300	300
7/16/2023	300	NO	N/A	N/A	N/A	N/A	7/16/2023	9:00 AM	7/16/2023	1:15 PM	322	314
7/25/2023	300	NO	N/A	N/A	N/A	N/A	7/25/2023	4:00 PM	7/25/2023	5:00 PM	306	303
8/7/2023	300	YES	304	314	295	N/A	8/7/2023	6:30 AM	8/7/2023	8:15 AM	314	295
8/10/2023	300	NO	N/A	N/A	N/A	N/A	8/10/2023	5:15 PM	8/10/2023	8:30 PM	339	310
8/13/2023	300	YES	310	321	315	N/A	8/13/2023	3:30 AM	8/13/2023	5:30 AM	321	311
8/15/2023	300	NO	N/A	N/A	N/A	N/A	8/15/2023	2:30 AM	8/15/2023	2:45 AM	314	309
8/15/2023	300	NO	N/A	N/A	N/A	N/A	8/15/2023	3:15 AM	8/15/2023	4:45 AM	307	302
8/16/2023	300	YES	313	326	311	N/A	8/16/2023	4:45 AM	8/16/2023	8:00 AM	326	311
8/18/2023	300	NO	N/A	N/A	N/A	N/A	8/18/2023	5:45 AM	8/18/2023	6:15 AM	333	324
8/18/2023	300	NO	N/A	N/A	N/A	N/A	8/18/2023	6:45 AM	8/18/2023	8:15 AM	310	305
8/26/2023	300	YES	321	330	304	N/A	8/26/2023	7:45 AM	8/26/2023	11:00 AM	330	304

BOWERY BAY - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	**WET WEATHER PLANT CAPACITY (MGD)**	**Did Plant Throttle? Yes/No**	**Flow at Start of Throttling (MGD)**	**Throttling Max Flow (MGD)**	**Throttling Avg Flow (MGD)**	**Bypass Item No.**	**Critical Event Start Date & Time**		**Critical Event End Date & Time**		**Critical Event Max Flow (MGD)**	**Critical Event Avg Flow (MGD)**
9/10/2023	300	NO	N/A	N/A	N/A	N/A	9/10/2023	11:45 AM	9/10/2023	1:00 PM	324	308
9/10/2023	300	YES	313	334	319	N/A	9/10/2023	10:30 PM	9/11/2023	2:30 AM	334	318
9/11/2023	300	NO	N/A	N/A	N/A	N/A	9/11/2023	6:45 PM	9/11/2023	7:45 PM	325	317
9/11/2023	300	NO	N/A	N/A	N/A	N/A	9/11/2023	8:15 PM	9/11/2023	9:45 PM	323	307
9/18/2023	300	NO	N/A	N/A	N/A	N/A	9/18/2023	6:45 AM	9/18/2023	12:15 PM	329	310
9/18/2023	300	NO	N/A	N/A	N/A	N/A	9/18/2023	12:45 PM	9/18/2023	1:30 PM	310	307
9/18/2023	300	NO	N/A	N/A	N/A	N/A	9/18/2023	7:00 PM	9/18/2023	8:15 PM	328	313
9/23/2023	300	NO	N/A	N/A	N/A	N/A	9/23/2023	11:30 AM	9/23/2023	2:00 PM	320	313
9/23/2023	300	NO	N/A	N/A	N/A	N/A	9/23/2023	2:30 PM	9/23/2023	9:15 PM	319	308
9/24/2023	300	NO	N/A	N/A	N/A	N/A	9/24/2023	8:30 AM	9/24/2023	11:30 AM	317	308
9/24/2023	300	NO	N/A	N/A	N/A	N/A	9/24/2023	2:30 PM	9/25/2023	0:00	358	312
9/28/2023	300	YES	306	316	212	N/A	9/28/2023	11:45 PM	9/29/2023	9:00 AM	316	212
10/7/2023	300	NO	N/A	N/A	N/A	N/A	10/7/2023	12:00 PM	10/7/2023	5:15 PM	317	312
10/14/2023	300	NO	N/A	N/A	N/A	N/A	10/14/2023	1:45 PM	10/14/2023	6:45 PM	314	308
10/20/2023	300	NO	N/A	N/A	N/A	N/A	10/20/2023	11:00 AM	10/20/2023	2:00 PM	308	304
	300	NO	N/A	N/A	N/A	N/A	10/20/2023	5:00 PM	10/20/2023	7:15 PM	310	305
10/21/2023	300	NO	N/A	N/A	N/A	N/A	10/21/2023	9:00 AM	10/21/2023	9:30 AM	309	305
10/29/2023	300	NO	N/A	N/A	N/A	N/A	10/29/2023	3:00 PM	10/29/2023	4:30 PM	303	302
10/30/2023	300	NO	N/A	N/A	N/A	N/A	10/30/2023	6:45 AM	10/30/2023	9:00 AM	314	306
11/21/2023	300	YES	316	316	308	N/A	11/21/2023	11:30 PM	11/22/2023	8:15 AM	318	308
12/3/2023	300	NO	N/A	N/A	N/A	N/A	12/3/2023	10:00 AM	12/3/2023	11:00 AM	306	304
12/10/2023	300	NO	N/A	N/A	N/A	N/A	12/10/2023	2:00 PM	12/10/2023	3:30 PM	314	310
12/10/2023-12/11/2023	300	NO	N/A	N/A	N/A	N/A	12/10/2023	9:45 PM	12/11/2023	5:00 AM	322	312
12/18/2023	300	YES	320	322	308	N/A	12/18/2023	12:45 AM	12/18/2023	4:00 PM	322	308
12/28/2023	300	YES	312	319	315	N/A	12/28/2023	12:30 AM	12/28/2023	5:30 AM	319	313

CONEY ISLAND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/23/2023	198	NO	N/A	N/A	N/A	N/A	1/26/2023	1:45 AM	1/26/2023	3:00 AM	221	221
4/23/2023	198	YES	198	211	201	N/A	4/23/2023	2:15 AM	4/23/2023	7:15 PM	211	201
4/29/2023	198	YES	198	202	200	N/A	4/29/2023	10:00 AM	4/30/2023	3:15 AM	202	200
4/30/2023	198	NO	N/A	N/A	N/A	N/A	4/30/2023	5:00 PM	4/30/2023	11:00 PM	222	205
5/20/2023	198	YES	198	198	198	N/A	5/20/2023	3:00 PM	5/20/2023	3:05 PM	198	198
7/4/2023	198	YES	204	200	183	N/A	7/4/2023	1:00 PM	7/5/2023	1:00 AM	200	183
7/9/2023	240	YES	240	151	139	N/A	7/9/2023	11:30 PM	7/10/2023	1:00 AM	151	139
7/16/2023	198	YES	201	200	182	N/A	7/16/2023	12:30 PM	7/17/2023	12:30 AM	200	182
7/25/2023	198	YES	212	204	195	N/A	7/25/2023	5:15 PM	7/25/2023	11:45 PM	204	195
8/7/2023	165	YES	195	195	187	N/A	8/7/2023	10:45 AM	8/7/2023	1:30 PM	195	187
8/18/2023	198	YES	219	219	195	N/A	8/18/2023	6:00 AM	8/18/2023	4:45 PM	219	195
8/25/2023	198	YES	200	200	171	N/A	8/25/2023	8:45 AM	8/25/2023	12:00 PM	200	171
9/10/2023	198	YES	207	209	195	N/A	9/10/2023	12:00 PM	9/11/2023	11:00 AM	209	195
9/11/2023	198	YES	206	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/18/2023	193	YES	201	212	186	N/A	9/18/2023	12:45 PM	9/19/2023	4:15 AM	212	186
9/23/2023	198	YES	201	208	198	N/A	9/23/2023	5:00 PM	9/24/2023	1:30 AM	208	198
9/24/2023	198	YES	205	207	182	N/A	9/24/2023	6:15 AM	9/25/2023	11:15 AM	207	182
9/25/2023	198	YES	205	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/28/2023	198	YES	205	207	186	N/A	9/28/2023	11:15 PM	9/29/2023	6:00 PM	207	186
10/7/2023	165	YES	170	170	168	N/A	10/7/2023	12:30 PM	10/7/2023	10:45 PM	170	168
10/14/2023	165	NO	N/A	N/A	N/A	N/A	10/14/2023	3:45 PM	10/15/2023	12:00 AM	171	168
10/20/2023	165	NO	N/A	N/A	N/A	N/A	10/20/2023	10:45 AM	10/20/2023	1:45 PM	169	167
10/20/2023-10/21/2023	165	YES	170	170	168	N/A	10/20/2023	6:15 PM	10/21/2023	4:15 AM	170	168
10/29/2023	165	NO	N/A	N/A	N/A	N/A	10/29/2023	4:00 PM	10/29/2023	4:30 PM	169	167
10/30/2023	165	NO	N/A	N/A	N/A	N/A	10/30/2023	8:00 AM	10/30/2023	5:30 PM	173	170
11/22/2023	165	NO	N/A	N/A	N/A	N/A	11/22/2023	12:00 AM	11/22/2023	2:30 PM	191	166
11/22/2023	165	NO	N/A	N/A	N/A	N/A	11/22/2023	7:00 PM	11/22/2023	9:00 PM	188	174
12/3/2023	165	YES	177	177	171	N/A	12/3/2023	10:45 AM	12/3/2023	8:15 PM	177	171
12/10/2023	165	YES	174	174	172	N/A	12/10/2023	2:30 PM	12/10/2023	8:00 PM	174	172
12/18/2023	175	Yes	178	201	188	N/A	12/18/2023	1:30 AM	12/18/2023	6:30 PM	201	188
12/18/2023-12/19/2023	175	Yes	178	192	188	N/A	12/18/2023	9:00 PM	12/19/2023	12:30 AM	201	188
12/28/2023	175	YES	185	193	185	N/A	12/28/2023	1:30 AM	12/28/2023	6:15 PM	193	184

HUNTS POINT - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/19/2023	400	NO	N/A	N/A	N/A	N/A	1/19/2023	10:00 PM	1/19/2023	11:30 PM	423	410
1/23/2023	400	NO	N/A	N/A	N/A	N/A	1/23/2023	12:45 AM	1/23/2023	2:15 AM	409	404
1/25/2023	400	NO	N/A	N/A	N/A	N/A	1/25/2023	8:15 PM	1/25/2023	11:00 PM	422	409
1/26/2023	400	NO	N/A	N/A	N/A	N/A	1/26/2023	1:45 AM	1/26/2023	5:15 AM	416	405
3/14/2023	400	YES	423	414	407	N/A	3/13/2023	10:30 PM	3/14/2023	3:30 AM	433	408
4/23/2023	400	YES	350	371	334	N/A	4/23/2023	6:45 AM	4/23/2023	8:45 AM	371	334
4/29/2023	400	YES	433	420	405	N/A	4/29/2023	5:00 AM	4/29/2023	11:00 AM	420	405
04/30/023	400	YES	425	407	403	N/A	4/30/2023	4:00 PM	4/30/2023	11:45 PM	407	403
5/1/2023	400	NO	N/A	N/A	N/A	N/A	5/1/2023	12:00 AM	5/1/2023	12:30 AM	418	414
7/9/2023	400	NO	N/A	N/A	N/A	N/A	7/9/2023	6:00 PM	7/9/2023	6:45 PM	402	401
7/9/2023	400	YES	436	398	382	N/A	7/9/2023	7:15 PM	7/9/2023	11:30 PM	398	382
7/16/2023	400	YES	410	403	388	N/A	7/16/2023	10:00 AM	7/16/2023	2:30 PM	404	390
7/27/2023	400	YES	430	393	375	N/A	7/27/2023	10:00 PM	7/27/2023	11:00 PM	393	375
8/7/2023	400	YES	430	394	386	N/A	8/7/2023	7:15 AM	8/7/2023	8:15 AM	394	386
8/13/2023	400	YES	425	418	313	N/A	8/13/2023	2:30 AM	8/13/2023	3:45 AM	418	313
8/15/2023	400	YES	445	438	421	N/A	8/15/2023	2:30 AM	8/15/2023	4:00 AM	438	421
8/16/2023	400	YES	420	413	365	N/A	8/16/2023	4:30 AM	8/16/2023	5:15 AM	413	365
8/18/2023	400	YES	435	428	379	N/A	8/18/2023	5:45 AM	8/18/2023	6:45 AM	428	379
8/25/2023	400	YES	420	413	402	N/A	8/25/2023	8:45 AM	8/25/2023	9:30 AM	413	402
8/26/2023	400	YES	420	413	304	N/A	8/26/2023	7:45 AM	8/26/2023	8:15 AM	413	304
9/10/2023	400	YES	422	422	247	N/A	9/10/2023	11:45 AM	9/10/2023	11:00 PM	422	247
9/11/2023	400	YES	420	420	381	N/A	9/11/2023	4:30 PM	9/11/2023	8:30 PM	420	381
9/18/2023	400	YES	420	420	391	N/A	9/18/2023	11:30 AM	9/18/2023	2:00 PM	420	391
9/23/2023	400	YES	425	408	400	N/A	9/23/2023	4:30 PM	9/23/2023	8:30 PM	408	400
9/24/2023	400	YES	420	420	343	N/A	9/24/2023	9:45 AM	9/24/2023	10:45 AM	420	343
9/29/2023	400	Yes	420	420	392	N/A	9/29/2023	8:15 AM	9/29/2023	4:30 PM	420	392
10/7/2023	400	YES	420	398	390	N/A	10/7/2023	12:30 PM	10/7/2023	2:00 PM	398	390
11/22/2023	400	YES	422	415	396	N/A	11/22/2023	2:45 AM	11/22/2023	9:15 AM	415	396
12/18/2023	400	YES	420	413	386	N/A	12/18/2023	1:00 AM	12/18/2023	7:00 AM	413	386
12/28/2023	400	YES	415	408	397	N/A	12/28/2023	2:00 AM	12/28/2023	5:30 AM	408	397

JAMAICA - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2023	200	NO	N/A	N/A	N/A	N/A	1/25/2023	10:00 PM	1/26/2023	12:15 AM	211	205
4/30/2023	200	YES	230	226	215	N/A	4/30/2023	5:30 PM	4/30/2023	11:00 PM	226	214
9/29/2023	200	YES	208	225	217	N/A	9/29/2023	2:30 AM	9/29/2023	5:45 AM	225	217
9/29/2023	200	YES	213	231	222	N/A	9/29/2023	6:15 AM	9/29/2023	6:15 PM	231	219
10/7/2023	200	NO	N/A	N/A	N/A	N/A	10/7/2023	1:00 PM	10/7/2023	4:30 PM	226	212
10/14/2023	200	NO	N/A	N/A	N/A	N/A	10/14/2023	3:00 PM	10/14/2023	4:30 PM	206	204
12/10/2023	200	NO	N/A	N/A	N/A	N/A	12/10/2023	3:00 PM	12/10/2023	4:00 PM	206	204
12/10/2023-12/11/2023	200	NO	N/A	N/A	N/A	N/A	12/10/2023	11:00 PM	12/11/2023	3:00 AM	220	210
12/18/2023	200	YES	222	222	216	N/A	12/18/2023	3:00 AM	12/18/2023	6:45 AM	222	213
12/18/2023	200	NO	N/A	N/A	N/A	N/A	12/18/2023	12:45 PM	12/18/2023	1:45 PM	205	201
12/28/2023	200	NO	N/A	N/A	N/A	N/A	12/28/2023	3:00 AM	12/28/2023	6:30 AM	226	216

NEWTOWN CREEK - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information							Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No (BQ)	CCT Flow at Start of B/Q Throttling	Did Plant Throttle? Yes/No (BQ)	CCT Flow at Start of MPS Throttling	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/3/2023	611	NO	612	NO	N/A	669	547	N/A	1/3/2023	11:45 AM	1/3/2023	12:00 PM	669	641
1/19/2023	611	NO	651	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1/25/2023-1/26/223	611	YES	623	YES	369	636	568	N/A	1/25/2023	8:00 PM	1/26/2023	3:30 AM	681	579
3/4/2023	611	YES	632	YES	258	N/A	N/A	N/A	3/4/2023	1:00 AM	3/4/2023	1:15 AM	622	612
3/13/2023	611	NO	635	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4/22/2023	611	YES	505	YES	245	515	495	N/A	4/22/2023	10:45 PM	4/23/2023	12:45 AM	515	495
4/29/2023	611	YES	609	YES	319	N/A	N/A	N/A	4/29/2023	11:00 PM	4/29/2023	4:00 PM	632	627
4/30/2023	611	YES	626	YES	285	N/A	N/A	N/A	4/30/2023	3:30 PM	5/1/2023	12:45 AM	568	548
6/14/2023	611	YES	534	YES	189	441	420	N/A	6/14/2023	8:00 PM	6/14/2023	9:00 PM	441	420
6/16/2023	611	YES	652	YES	282	563	410	N/A	6/16/2023	1:15 PM	6/16/2023	5:00 PM	563	410
7/2/2023	611	YES	600	YES	280	621	541	N/A	7/2/2023	6:00 PM	7/2/2023	10:45 PM	621	541
7/4/2023	611	YES	577	YES	216	487	448	N/A	7/4/2023	1:30 AM	7/4/2023	3:15 AM	487	448
7/4/2023	611	YES	610	YES	370	523	491	N/A	7/4/2023	12:15 PM	7/4/2023	2:15 PM	523	491
7/9/2023	611	YES	673	YES	341	668	528	N/A	7/9/2023	11:00 PM	7/10/2023	12:45 AM	668	528
7/14/2023	611	YES	592	YES	378	554	510	N/A	7/14/2023	11:45 PM	7/15/2023	12:45 AM	554	510
7/16/2023	611	YES	583	YES	378	575	507	N/A	7/16/2023	9:15 AM	7/16/2023	4:15 PM	575	507
7/25/2023	611	YES	660	YES	351	538	503	N/A	7/25/2023	4:15 PM	7/25/2023	7:15 PM	538	503
8/7/2023	611	YES	713	YES	344	713	521	N/A	8/7/2023	6:30 AM	8/7/2023	10:15 AM	713	521
8/10/2023	611	YES	510	YES	265	534	494	N/A	8/10/2023	4:15 PM	8/10/2023	9:00 PM	534	494
8/13/2023	611	YES	643	YES	342	643	530	N/A	8/13/2023	3:15 AM	8/13/2023	5:30 AM	643	530
8/15/2023	611	YES	633	YES	320	633	530	N/A	8/15/2023	2:00 AM	8/15/2023	4:15 AM	633	530
8/18/2023	611	YES	636	YES	390	636	534	N/A	8/18/2023	5:30 AM	8/18/2023	10:00 AM	636	534
8/25/2023	611	YES	720	YES	317	720	499	N/A	8/25/2023	7:45 AM	8/25/2023	11:30 AM	720	499
8/26/2023	611	YES	735	YES	337	735	605	N/A	8/26/2023	8:30 AM	8/26/2023	9:15 AM	735	605
9/10/2023	611	YES	727	YES	343	N/A	N/A	N/A	9/10/2023	11:00 PM	9/10/2023	11:30 PM	719	712
9/10/2023	611	YES	737	YES	328	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/11/2023	611	YES	N/A	YES	360	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/18/2023	611	YES	720	YES	314	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/18/2023	611	YES	672	YES	348	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/23/2023	611	YES	723	YES	360	N/A	N/A	N/A	9/23/2023	4:15 PM	9/23/2023	6:00 PM	737	724
9/24/2023	611	YES	758	YES	349	N/A	N/A	N/A	9/24/2023	9:00 AM	9/24/2023	9:15 AM	757	729
9/24/2023	611	YES	749	YES	333	N/A	N/A	N/A	9/24/2023	7:00 PM	9/24/2023	7:30 PM	737	723
9/28/2023	611	YES	542	YES	163	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/29/2023	611	YES	706	YES	292	N/A	N/A	N/A	9/29/2023	4:00 AM	9/29/2023	4:45 AM	718	711
9/29/2023	611	NO	N/A	NO	N/A	N/A	N/A	N/A	9/29/2023	6:45 AM	9/29/2023	7:15 AM	722	711

NEWTOWN CREEK - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information							Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No (BQ)	CCT Flow at Start of B/Q Throttling	Did Plant Throttle? Yes/No (BQ)	CCT Flow at Start of MPS Throttling	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
10/14/2023	611	YES	725	YES	360	705	680	N/A	10/14/2023	2:30 PM	10/14/2023	5:00 PM	705	683
10/20/2023	611	YES	723	YES	N/A	723	541	N/A	10/20/2023	10:15 AM	10/20/2023	10:30 AM	723	716
10/20/2023	611	YES	739	YES	N/A	755	710	N/A	10/20/2023	6:15 PM	10/20/2023	6:30 PM	755	747
10/30/2023	611	YES	738	YES	376	738	533	N/A	10/30/2023	6:45 AM	10/30/2023	8:15 AM	738	671
11/21/2023	611	YES	763	YES	368	763	690	N/A	11/21/2023	11:00 PM	11/22/2023	8:45 AM	763	695
12/1/2023	611	NO	N/A	NO	N/A	N/A	N/A	N/A	12/1/2023	7:45 PM	12/1/2023	9:00 PM	660	636
12/3/2023	611	NO	N/A	NO	N/A	N/A	N/A	N/A	12/3/2023	10:30 AM	12/3/2023	11:30 AM	686	644
12/10/2023	611	YES	602	YES	N/A	687	619	N/A	12/10/2023	2:30 PM	12/10/2023	4:00 PM	687	638
12/10/2023-12/11/2023	611	YES	744	YES	376	744	701	N/A	12/10/2023	9:15 PM	12/11/2023	4:15 AM	744	709
12/18/2023	611	YES	705	YES	387	756	708	N/A	12/18/2023	12:45 AM	12/18/2023	10:00 AM	756	710
12/18/2023	611	NO	N/A	NO	N/A	N/A	N/A	N/A	12/18/2023	1:30 PM	12/18/2023	2:15 PM	685	656
12/28/2023	611	YES	722	YES	370	743	714	N/A	12/28/2023	1:45 AM	12/28/2023	6:00 AM	743	718

NORTH RIVER - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/3/2023	340	YES	343	441	408	N/A	1/3/2023	12:00 PM	1/3/2023	2:30 PM	441	404
1/19/2023	340	NO	N/A	N/A	N/A	N/A	1/19/2023	4:00 PM	1/19/2023	4:45 PM	408	383
1/19/2023	340	NO	N/A	N/A	N/A	N/A	1/19/2023	6:15 PM	1/19/2023	4:45 PM	359	350
1/22/2023	340	NO	N/A	N/A	N/A	N/A	1/22/2023	9:00 PM	1/23/2023	10:15 PM	373	361
1/22/2023-1/23/2023	340	NO	N/A	N/A	N/A	N/A	1/22/2023	11:45 PM	1/23/2023	2:15 AM	448	402
1/25/2023	340	YES	343	435	407	N/A	1/25/2023	8:00 PM	1/26/2023	5:45 AM	435	406
3/4/2023	340	YES	350	329	307	N/A	3/4/2023	1:00 AM	3/4/2023	9:30 AM	342	309
4/23/2023	340	YES	342	358	325	N/A	4/23/2023	12:00 AM	4/23/2023	1:30 PM	500	407
4/29/2023	340	YES	344	342	319	N/A	4/29/2023	3:00 AM	4/29/2023	11:00 AM	342	319
4/29/2023	340	NO	N/A	N/A	N/A	N/A	4/29/2023	4:00 PM	4/29/2023	5:15 PM	346	342
4/30/2023	340	YES	360	360	322	N/A	4/30/2023	3:00 PM	4/30/2023	11:45 PM	360	325
5/1/2023	340	NO	N/A	N/A	N/A	N/A	5/1/2023	12:00 AM	5/1/2023	4:30 AM	417	401
5/20/2023	340	YES	290	437	311	N/A	5/20/2023	4:15 PM	5/20/2023	10:15 PM	437	311
7/9/2023	340	YES	354	312	277	N/A	7/9/2023	10:30 PM	7/9/2023	11:45 PM	312	277
7/16/2023	340	NO	N/A	N/A	N/A	N/A	7/16/2023	12:45 PM	7/16/2023	2:45 PM	352	346
8/18/2023	340	NO	N/A	N/A	N/A	N/A	8/18/2023	6:00 AM	8/18/2023	7:00 AM	357	351
9/9/2023	340	NO	N/A	N/A	N/A	N/A	9/9/2023	3:15 PM	9/9/2023	4:30 PM	429	396
9/10/2023	340	NO	N/A	N/A	N/A	N/A	9/10/2023	11:15 AM	9/10/2023	1:45 PM	468	439
9/10/23-9/11/2023	340	YES	337	N/A	N/A	N/A	9/10/2023	11:15 PM	9/11/2023	4:45 AM	476	431
9/11/2023	340	YES	342	N/A	N/A	N/A	9/11/2023	6:00 PM	9/11/2023	11:30 PM	473	445
9/18/2023	340	NO	N/A	N/A	N/A	N/A	9/18/2023	7:15 AM	9/18/2023	1:15 PM	457	427
9/18/2023	340	NO	N/A	N/A	N/A	N/A	9/18/2023	6:30 PM	9/18/2023	8:15 PM	462	424
9/23/2023	340	NO	N/A	N/A	N/A	N/A	9/23/2023	11:45 AM	9/23/2023	2:00 PM	348	344
9/23/2023	340	YES	355	N/A	N/A	N/A	9/23/2023	3:15 PM	9/23/2023	8:15 PM	457	436
9/24/2023	340	YES	346	N/A	N/A	N/A	9/24/2023	8:30 AM	9/24/2023	10:30 AM	451	394
9/24/2023	340	NO	N/A	N/A	N/A	N/A	9/24/2023	2:30 PM	9/24/2023	5:15 PM	363	350
9/24/2023	340	NO	N/A	N/A	N/A	N/A	9/24/2023	7:15 PM	9/24/2023	10:45 PM	457	426
9/29/2023	340	YES	351	N/A	N/A	N/A	9/29/2023	4:10 AM	9/29/2023	7:15 PM	374	353
10/30/2023	340	NO	N/A	N/A	N/A	N/A	10/30/2023	7:45 AM	10/30/2023	8:15 AM	364	353
11/22/2023	340	YES	343	395	348	N/A	11/22/2023	1:30 AM	11/22/2023	8:15 AM	395	348
12/10/2023- 12/11/2023	340	YES	344	346	324	N/A	12/10/2023	10:45 PM	12/11/2023	5:45 AM	346	324
12/18/2023	340	YES	348	364	317	N/A	12/18/2023	1:00 AM	12/18/2023	6:00 PM	364	319

OAKWOOD BEACH - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
4/30/2023	79.8	NO	N/A	N/A	N/A	N/A	4/30/2023	4:00 PM	4/30/2023	11:45 PM	105	94
7/18/2023	79.8	NO	N/A	N/A	N/A	N/A	7/18/2023	2:00 PM	7/18/2023	2:15 PM	84	82
9/10/2023 - 9/11/2023	79.8	NO	N/A	N/A	N/A	N/A	9/10/2023	11:30 PM	9/11/2023	12:45 AM	100	90
9/29/2023 - 9/30/2023	79.8	NO	N/A	N/A	N/A	N/A	9/29/2023	7:45 AM	9/30/2023	1:30 AM	104	95
12/18/2023	79.8	NO	N/A	N/A	N/A	N/A	12/18/2023	3:30 AM	12/18/2023	5:00 PM	104	99
12/28/2023	79.8	NO	N/A	N/A	N/A	N/A	12/28/2023	4:00 AM	12/28/2023	5:00 AM	82	81

OWLS HEAD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/3/2023	240	YES	240	240	240	N/A	1/3/2023	11:45 AM	1/3/2023	2:00 PM	240	240
1/6/2023	240	YES	241	241	240	N/A	1/6/2023	4:00 AM	1/6/2023	5:30 AM	241	240
1/12/2023	240	YES	240	242	241	N/A	1/12/2023	7:00 PM	1/12/2023	8:15 PM	242	241
1/19/2023	240	YES	240	243	241	N/A	1/19/2023	3:45 PM	1/19/2023	12:00 AM	243	241
1/22/2023	240	YES	242	242	241	N/A	1/22/2023	8:15 PM	1/23/2023	2:30 AM	242	241
1/25/2023	240	YES	242	244	243	N/A	1/25/2023	4:30 PM	1/25/2023	6:00 PM	244	232
1/25/2023-1/26/2023	240	YES	244	245	242	N/A	1/25/2023	7:45 PM	1/26/2023	4:15 AM	245	242
2/28/2023	240	YES	240	240	240	N/A	2/28/2023	12:15 PM	2/28/2023	1:00 PM	240	240
3/4/2023	240	YES	244	249	243	N/A	3/4/2023	12:30 AM	3/4/2023	6:45 AM	249	243
3/10/2023	240	YES	245	245	241	N/A	3/10/2023	10:00 PM	3/11/2023	3:45 AM	245	241
3/11/2023	240	YES	245	241	240	N/A	3/11/2023	6:00 AM	3/11/2023	8:00 AM	241	240
3/13/2023-3/14/2023	240	YES	246	245	239	N/A	3/13/2023	9:15 PM	3/14/2023	3:30 AM	245	240
4/22/2023	240	YES	240	242	237	N/A	4/22/2023	10:00 PM	4/23/2023	10:15 AM	242	237
4/29/2023	240	YES	245	242	240	N/A	4/29/2023	1:00 AM	4/29/2023	9:30 PM	243	241
4/30/2023	240	YES	244	244	242	N/A	4/30/2023	12:00 PM	4/30/2023	11:45 PM	244	242
5/1/2023	240	NO	N/A	N/A	N/A	N/A	5/1/2023	12:00 AM	5/1/2023	12:30 AM	242	241
5/20/2023	240	YES	246	246	236	N/A	5/20/023	1:30 PM	5/20/2023	7:45 PM	246	236
6/12/2023	180	YES	180	183	180	N/A	6/12/2023	8:15 PM	6/13/2023	12:30 AM	183	180
6/16/2023	180	YES	187	187	180	N/A	6/16/2023	2:15 PM	6/16/2023	6:45 PM	187	180
7/4/2023	240	NO	N/A	N/A	N/A	N/A	7/4/2023	1:00 AM	7/4/2023	2:00 AM	246	243
7/4/2023	240	YES	240	241	228	N/A	7/4/2023	12:00 PM	7/4/2023	3:45 PM	241	228
7/9/2023	240	YES	240	242	232	N/A	7/9/2023	11:00 PM	7/10/2023	1:00 AM	243	234
7/16/2023	240	YES	246	243	240	N/A	7/16/2023	9:15 AM	7/16/2023	3:00 PM	243	240
7/18/2023	240	NO	N/A	N/A	N/A	N/A	7/18/2023	2:00 PM	7/18/2023	3:00 PM	241	241
7/21/2023	180	YES	183	184	183	N/A	7/21/2023	7:00 AM	7/21/2023	9:45 AM	184	183
7/25/2023	180	YES	181	182	177	N/A	7/25/2023	4:00 PM	7/25/2023	8:45 PM	182	177
7/29/2023	180	YES	181	182	169	N/A	7/29/2023	8:15 PM	7/29/2023	11:30 PM	182	169

OWLS HEAD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
8/7/2023	180	YES	183	185	178	N/A	8/7/2023	6:00 AM	8/7/2023	11:00 AM	185	178
8/7/2023-8/8/2023	180	YES	184	184	179	N/A	8/7/2023	9:45 PM	8/8/2023	1:15 AM	184	179
8/10/2023	180	YES	181	189	182	N/A	8/10/2023	4:30 PM	8/10/2023	11:00 PM	189	182
8/13/2023	180	YES	183	186	183	N/A	8/13/2023	2:45 AM	8/13/2023	6:30 AM	186	183
8/15/2023	240	YES	242	242	238	N/A	8/15/2023	1:45 AM	8/15/2023	3:45 AM	242	238
8/16/2023	240	YES	242	237	233	N/A	8/16/2023	7:15 AM	8/16/2023	8:00 AM	237	233
8/18/2023	240	YES	244	242	233	N/A	8/18/2023	5:15 AM	8/18/2023	9:15 AM	242	233
8/25/2023	240	YES	240	242	232	N/A	8/25/2023	7:15 AM	8/25/2023	9:45 AM	242	232
9/10/2023	240	YES	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/10/2023	240	YES	242	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/11/2023	240	YES	242	N/A	N/A	N/A	9/11/2023	2:00 AM	9/11/2023	3:00 AM	242	241
9/11/2023	240	NO	N/A	N/A	N/A	N/A	9/11/2023	7:00 PM	9/11/2023	7:15 PM	242	242
9/11/2023	240	NO	N/A	N/A	N/A	N/A	9/11/2023	8:30 PM	9/11/2023	8:45 PM	242	242
9/11/2023	240	NO	N/A	N/A	N/A	N/A	9/11/2023	9:15 PM	9/11/2023	9:45 PM	241	241
9/18/2023	240	YES	243	N/A	N/A	N/A	9/18/2023	8:00 AM	9/18/2023	8:45 AM	242	241
9/18/2023	240	YES	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/23/2023	240	YES	240	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/24/2023	240	YES	242	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/24/2023	240	YES	245	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/25/2023	240	YES	244	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/28/2023	240	YES	241	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10/7/2023	180	YES	182	185	180	N/A	10/7/2023	2:00 PM	10/7/2023	7:00 PM	185	180
10/14/2023	180	Yes	184	185	178	N/A	10/14/2023	12:15 PM	10/14/2023	10:45 PM	185	178
10/20/2023	180	YES	180	184	179	N/A	10/20/2023	7:30 AM	10/20/2023	3:15 PM	184	179
10/20/2023	180	YES	185	185	179	N/A	10/20/2023	4:15 PM	10/20/2023	10:45 PM	185	179
10/21/2023	180	YES	181	182	181	N/A	10/21/2023	8:00 AM	10/21/2023	1:15 PM	182	181
10/29/2023	180	YES	181	183	181	N/A	10/29/2023	2:30 PM	10/29/2023	9:30 PM	183	181
10/30/2023	180	YES	185	185	178	N/A	10/30/2023	6:30 AM	10/30/2023	2:00 PM	185	178
11/21/2023	240	YES	241	244	234	N/A	11/21/2023	8:15 PM	11/21/2023	9:00 PM	244	234

OWLS HEAD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
11/21/2023- 11/22/2023	240	YES	240	243	241	N/A	11/21/2023	11:00 PM	11/22/2023	7:45 AM	243	241
11/26/2023- 11/27/2023	240	YES	241	241	237	N/A	11/26/2023	10:45 PM	11/27/2023	1:00 AM	241	237
12/1/2023	240	YES	240	241	238	N/A	12/1/2023	7:15 PM	12/1/2023	11:30 PM	241	238
12/3/2023	240	YES	240	242	241	N/A	12/3/2023	9:30 AM	12/3/2023	5:00 PM	242	241
12/10/2023	240	YES	241	243	241	N/A	12/10/2023	1:30 PM	12/10/2023	5:30 PM	243	241
12/10/2023- 12/11/2023	240	YES	244	244	241	N/A	12/10/2023	9:15 PM	12/11/2023	5:30 AM	244	241
12/18/2023	240	YES	245	245	242	N/A	12/18/2023	12:00 AM	12/18/2023	4:00 PM	245	242
12/27/2023-12/28/2023	240	YES	242	245	241	N/A	12/27/2023	11:45 PM	12/28/2023	8:15 AM	245	241

PORT RICHMOND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2023	120	NO	N/A	N/A	N/A	N/A	1/25/2023	11:00 PM	1/25/2023	11:30 PM	121	120
4/30/2023	120	YES	124	124	124	N/A	4/30/2023	3:00 PM	4/30/2023	11:45 PM	129	124
5/1/2023	120	NO	N/A	N/A	N/A	N/A	5/1/2023	12:00 AM	5/1/2023	1:00 AM	123	122
9/10/2023	90	NO	N/A	N/A	N/A	N/A	9/10/2023	11:00 PM	9/10/2023	11:45 PM	122	121
9/29/2023	90	YES	100.5	101	92	N/A	9/29/2023	6:15 AM	9/29/2023	4:45 PM	101	92
10/20/2023	120	NO	N/A	N/A	N/A	N/A	10/20/2023	6:45 PM	10/20/2023	9:00 PM	93	92
10/30/2023	120	NO	N/A	N/A	N/A	N/A	10/30/2023	7:00 AM	10/30/2023	8:45 AM	113	102
11/22/2023	90	YES	104	107	98	N/A	11/21/2023	11:00 PM	11/22/2023	8:30 AM	107	98
12/3/2023	90	NO	N/A	N/A	N/A	N/A	12/3/2023	10:15 AM	12/3/2023	4:00 PM	97	93
12/10/2023-12/11/2023	90	YES	98.4	102	97	N/A	12/10/2023	10:00 PM	12/11/2023	5:15 AM	102	97
12/18/2023	90	YES	103	115	101	N/A	12/18/2023	1:00 AM	12/18/2023	7:45 PM	115	101
12/28/2023	90	YES	100	100	95	N/A	12/28/2023	12:30 AM	12/28/2023	9:30 AM	100	95

RED HOOK - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2023-1/26/2023	120	NO	N/A	N/A	N/A	N/A	1/25/2023	8:00 PM	1/26/2023	4:00 AM	128	126
3/4/2023	120	Yes	126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4/23/2023	120	YES	128	128	123	N/A	4/23/2023	1:45 AM	4/23/2023	6:15 AM	128	123
4/23/2023	90	YES	95	117	95	N/A	4/23/2023	6:30 AM	4/23/2023	12:15 PM	117	95
4/29/2023	120	YES	126	126	124	N/A	4/29/2023	7:00 PM	4/30/2023	12:00 PM	126	124
4/30/2023	120	YES	126	128	124	N/A	4/30/2023	3:00 PM	4/30/2023	11:45 PM	128	124
5/20/2023	120	YES	127	127	125	N/A	5/20/2023	2:00 PM	5/20/2023	6:15 PM	127	125
7/2/2023	120	YES	126	125	104	N/A	7/2/2023	5:30 PM	7/2/2023	8:00 PM	125	104
7/4/2023	120	YES	130	128	105	N/A	7/4/2023	11:45 AM	7/4/2023	2:30 PM	128	105
7/16/2023	120	NO	N/A	N/A	N/A	N/A	7/16/2023	10:45 AM	7/16/2023	3:00 PM	125	124
7/25/2023	120	YES	127	124	100	N/A	7/25/2023	4:00 PM	7/25/2023	6:30 PM	124	100
8/7/2023	120	YES	123	123	113	N/A	8/7/2023	6:15 AM	8/7/2023	8:15 AM	123	113
8/10/2023	120	YES	129	129	121	N/A	8/10/2023	5:15 PM	8/10/2023	7:45 PM	129	121
8/13/2023	120	YES	129	129	109	N/A	8/13/2023	3:00 AM	8/13/2023	5:15 AM	129	109
8/15/2023	120	NO	N/A	N/A	N/A	N/A	8/15/2023	3:00 AM	8/15/2023	4:00 AM	127	126
8/18/2023	120	YES	127	127	109	N/A	8/18/2023	5:15 AM	8/18/2023	8:30 AM	127	109
8/25/2023	120	YES	128	128	107	N/A	8/25/2023	7:30 AM	8/25/2023	10:15 AM	128	107
9/10/2023	120	YES	123	N/A	N/A	N/A	9/10/2023	12:00 PM	9/10/2023	2:00 PM	123	122
9/10/2023	120	YES	122	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/11/2023	120	YES	129	N/A	N/A	N/A	9/11/2023	12:00 AM	9/11/2023	3:00 AM	123	123
9/11/2023	120	NO	N/A	N/A	N/A	N/A	9/11/2023	8:00 PM	9/11/2023	9:15 PM	128	126
9/18/2023	120	YES	124	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/18/2023	120	YES	126	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/23/2023	120	YES	124	N/A	N/A	N/A	9/23/2023	4:45 PM	9/23/2023	6:30 PM	122	121
9/24/2023	120	YES	122	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/24/2023	120	YES	125	N/A	N/A	N/A	9/24/2023	7:30 PM	9/24/2023	10:15 PM	123	122
9/29/2023	120	YES	124	N/A	N/A	N/A	9/29/2023	1:00 AM	9/29/2023	5:00 PM	128	125

RED HOOK - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	**WET WEATHER PLANT CAPACITY (MGD)**	**Did Plant Throttle? Yes/No**	**Flow at Start of Throttling (MGD)**	**Throttling Max Flow (MGD)**	**Throttling Avg Flow (MGD)**	**Bypass Item No.**	**Critical Event Start Date & Time**		**Critical Event End Date & Time**		**Critical Event Max Flow (MGD)**	**Critical Event Avg Flow (MGD)**
10/14/2023	120	NO	N/A	N/A	N/A	N/A	10/14/2023	2:45 PM	10/14/2023	5:15 PM	122	122
10/20/2023	120	YES	124	124	122	N/A	10/20/2023	5:30 PM	10/20/2023	7:30 PM	124	122
10/30/2023	120	YES	123	124	121	N/A	10/30/2023	6:30 AM	10/30/2023	9:45 AM	124	121
11/21/2023- 11/22/2023	120	YES	123	125	122	N/A	11/21/2023	11:00 PM	11/22/2023	8:30 AM	125	122
12/10/2023	120	YES	125	126	123	N/A	12/10/2023	2:15 PM	12/10/2023	5:00 PM	126	123
12/10/2023-12/11/2023	120	YES	124	126	124	N/A	12/10/2023	9:15 PM	12/11/2023	4:30 AM	126	124
12/18/2023	120	YES	125	128	124	N/A	12/18/2023	12:30 AM	12/18/2023	10:45 AM	128	124
12/28/2023	120	YES	122	125	123	N/A	12/28/2023	1:45 AM	12/28/2023	6:30 AM	125	123

ROCKAWAY - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event			
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time	Critical Event End Date & Time	Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)

TALLMAN ISLAND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information									Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Throttling Start Date & Time		Throttling End Date & Time		Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/19/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1/19/2023	10:15 PM	1/19/2023	10:45 PM	162	162
1/23/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1/23/2023	1:15 AM	1/23/2023	1:30 AM	161	161
1/25/2023	160	YES	1/25/2023	9:00 PM	1/26/2023	1:55 AM	168	173	165	N/A	1/25/2023	8:45 PM	1/25/2023	1:45 AM	173	165
1/26/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1/26/2023	3:00 AM	1/26/2023	3:45 AM	165	163
3/14/2023	160	YES	3/14/2023	1:15 AM	3/14/2023	2:45 AM	169	169	166	N/A	3/13/2023	11:30 PM	3/14/2023	2:45 AM	169	166
4/23/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4/23/2023	12:00 AM	4/23/2023	4:45 AM	170	168
4/23/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4/23/2023	7:15 AM	4/23/2023	9:00 AM	171	167
4/29/2023	160	YES	4/29/2023	7:05 AM	4/29/2023	11:00 AM	167	168	162	N/A	4/29/2023	6:30 AM	4/29/2023	11:00 AM	168	162
4/30/2023	160	YES	4/30/2023	4:37 PM	5/1/2023	12:30 AM	168	170	160	N/A	4/30/2023	4:00 PM	4/30/2023	11:45 PM	170	168
5/20/2023	160	YES	5/20/2023	4:05 PM	5/20/2023	6:40 PM	170	172	170	N/A	5/20/2023	2:00 PM	5/20/2023	6:30 PM	173	168
7/16/2023	160	YES	7/16/2023	1:30 PM	7/16/2023	2:30 PM	169	167	164	N/A	7/16/2023	10:45 AM	7/16/2023	2:30 PM	168	166
7/27/2023	160	YES	7/27/2023	10:37 PM	7/28/2023	12:13 AM	167	166	154	N/A	7/27/2023	10:30 PM	7/28/2023	12:15 AM	166	154
8/15/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8/15/2023	2:30 AM	8/15/2023	3:30 AM	168	166
8/18/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8/18/2023	5:45 AM	8/18/2023	8:15 AM	172	170
8/26/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8/26/2023	8:15 AM	8/26/2023	9:45 AM	169	167
9/10/2023	160	YES	9/10/2023	11:30 PM	9/11/2023	2:10 AM	168	N/A	N/A	N/A	9/10/2023	12:00 PM	9/10/2023	1:45 PM	168	166
9/11/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9/11/2023	12:00 AM	9/11/2023	2:00 AM	167	167
9/18/2023	160	YES	9/18/2023	12:15 PM	9/18/2023	1:52 PM	172	N/A	N/A	N/A	9/18/2023	11:45 AM	9/18/2023	1:30 PM	171	168
9/18/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9/18/2023	8:00 PM	9/18/2023	8:15 PM	166	163
9/23/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9/23/2023	5:00 PM	9/23/2023	6:45 PM	166	165
9/28/2023	160	YES	9/28/2023	11:50 PM	9/29/2023	6:30 PM	170	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/29/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9/29/2023	12:00 AM	9/29/2023	6:00 PM	172	166
10/7/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10/7/2023	12:00 PM	10/7/2023	3:30 PM	171	167
10/14/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10/14/2023	3:00 PM	10/14/2023	4:00 PM	161	161
10/21/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	10/21/2023	10:00 AM	10/21/2023	10:00 AM	162	162
11/21/2023	160	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	11/21/2023	8:15 PM	11/21/2023	9:00 PM	244	234
11/22/2023	160	YES	11/22/2023	4:00 AM	11/22/2023	8:55 AM	170	175	166	N/A	11/22/2023	3:30 AM	11/22/2023	9:00 AM	175	166
12/10/2023	160	YES	12/10/2023	3:00 PM	12/10/2023	4:15 PM	162	162	161	N/A	12/10/2023	3:00 PM	12/10/2023	4:15 PM	162	161
12/10/2023- 12/11/2023	160	YES	12/10/2023	11:30 PM	12/11/2023	4:15 AM	165	165	163	N/A	12/10/2023	11:00 PM	12/11/2023	4:15 AM	165	163
12/18/2023	160	YES	12/18/2023	2:10 AM	12/18/2023	9:30 AM	164	166	161	N/A	12/18/2023	1:45 AM	12/18/2023	9:30 AM	166	161
12/28/2023	160	YES	12/28/2023	2:35 AM	12/28/2023	7:00 AM	167	168	163	N/A	12/28/2023	2:30 AM	12/28/2023	7:00 AM	168	163

WARDS ISLAND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information							Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No (MGC)	CCT Flow at Start of MGC Throttling	Did Plant Throttle? Yes/No (MGC)	CCT Flow at Start of BQ Throttling	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/3/2023	500	NO	N/A	NO	N/A	N/A	N/A	N/A	1/3/2023	11:45 AM	1/3/2023	1:00 PM	559	539
1/19/2023	500	NO	N/A	NO	N/A	N/A	N/A	N/A	1/19/2023	4:15 PM	1/19/2023	4:45 PM	528	515
1/19/2023	500	NO	N/A	NO	N/A	N/A	N/A	N/A	1/19/2023	9:45 PM	1/19/2023	10:45 PM	523	515
1/25/2023	500	YES	503	YES	528	570	514	N/A	1/25/2023	7:45 PM	1/26/2023	3:45 AM	570	514
3/4/2023	550	NO	N/A	NO	N/A	N/A	N/A	N/A	3/4/2023	1:00 AM	3/4/2023	4:45 AM	616	616
4/22/2023	500	YES	592	YES	611	N/A	N/A	N/A	4/22/2023	11:15 PM	4/23/2023	5:30 AM	225	170
4/23/2023	500	NO	598	NO	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4/29/2023	416	NO	N/A	NO	N/A	N/A	N/A	N/A	4/29/2023	2:30 AM	4/29/2023	6:45 PM	496	248
4/29/2023	500	YES	496	YES	513	N/A	N/A	N/A	4/29/2023	10:15 PM	4/30/2023	1:45 PM	601	581
4/30/2023	500	NO	N/A	NO	613	N/A	N/A	N/A	4/29/2023	10:15 PM	4/30/2023	1:45 PM	601	581
5/1/2023	500	NO	N/A	NO	N/A	N/A	N/A	N/A	5/1/2023	12:00 AM	5/1/2023	12:15 AM	557	554
5/20/2023	500	YES	547	YES	547	547	473	N/A	5/20/2023	3:15 PM	5/20/2023	6:00 PM	547	473
6/2/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	6/2/2023	6:45 PM	6/2/2023	7:30 PM	540	493
6/26/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	6/26/2023	12:00 PM	6/26/2023	12:15 PM	507	487
6/27/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	6/27/2023	1:45 AM	6/27/2023	2:00 AM	513	489
7/9/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	7/9/2023	8:00 PM	7/9/2023	10:45 PM	583	569
7/16/2023	459	NO	550	NO	N/A	658	628	N/A	7/16/2023	11:00 AM	7/16/2023	2:15 PM	658	619
7/18/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	7/18/2023	1:00 PM	7/18/2023	2:00 PM	624	606
7/27/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	7/27/2023	10:00 PM	7/27/2023	11:00 PM	602	581
8/7/2023	459	YES	552	YES	555	552	476	N/A	8/7/2023	6:45 AM	8/7/2023	8:45 AM	552	491
8/15/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	8/15/2023	3:00 AM	8/15/2023	4:00 AM	583	568
8/26/2023	292	YES	469	YES	N/A	469	410	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8/30/2023	376	YES	461	YES	502	547	474	N/A	8/30/2023	10:00 AM	8/30/2023	10:45 AM	536	519
9/9/2023	459	YES	N/A	YES	600	N/A	N/A	N/A	9/9/2023	3:00 PM	9/9/2023	4:00 PM	567	562
9/10/2023-9/11/2023	459	YES	558	YES	539	N/A	N/A	N/A	9/10/2023	11:45 PM	9/11/2023	1:15 AM	587	574
9/11/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	9/11/2023	4:45 PM	9/11/2023	5:45 PM	580	566
9/18/2023	459	YES	491	YES	510	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9/23/2023	375	YES	N/A	YES	656	N/A	N/A	N/A	9/11/2023	4:45 PM	9/11/2023	5:45 PM	587	571
9/24/2023	375	NO	N/A	NO	N/A	N/A	N/A	N/A	9/24/2023	7:00 PM	9/24/2023	7:30 PM	573	562
9/29/2023	375	YES	544	YES	519	N/A	N/A	N/A	9/29/2023	8:30 AM	9/29/2023	9:45 AM	586	569
9/29/2023	375	NO	N/A	NO	N/A	N/A	N/A	N/A	9/29/2023	12:45 PM	9/29/2023	2:00 PM	567	559

WARDS ISLAND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information							Critical Wet Weather Event					
Storm Dates	**WET WEATHER PLANT CAPACITY (MGD)**	**Did Plant Throttle? Yes/No (MGC)**	**CCT Flow at Start of MGC Throttling**	**Did Plant Throttle? Yes/No (MGC)**	**CCT Flow at Start of BQ Throttling**	**Throttling Max Flow (MGD)**	**Throttling Avg Flow (MGD)**	**Bypass Item No.**	**Critical Event Start Date & Time**		**Critical Event End Date & Time**		**Critical Event Max Flow (MGD)**	**Critical Event Avg Flow (MGD)**
10/7/2023	375	NO	N/A	NO	N/A	N/A	N/A	N/A	10/7/2023	11:15 AM	10/7/2023	4:30 PM	548	472
10/14/2023	375	NO	N/A	NO	N/A	N/A	N/A	N/A	10/14/2023	1:30 PM	10/14/2023	6:30 PM	556	440
10/20/2023	375	NO	N/A	NO	N/A	N/A	N/A	N/A	10/20/2023	10:00 AM	10/20/2023	10:45 AM	511	500
10/20/2023	375	YES	545	YES	N/A	477	457	N/A	10/20/2023	5:45 PM	10/20/2023	6:45 PM	483	474
10/21/2023	375	YES	460	YES	542	527	437	N/A	10/21/2023	8:30 AM	10/21/2023	10:00 AM	527	460
10/29/2023	418	YES	594	YES	N/A	494	429	N/A	10/29/2023	12:45 PM	10/29/2023	1:45 PM	494	483
10/30/2023	375	No	N/A	No	631	519	491	N/A	10/30/2023	6:15 AM	10/30/2023	7:45 AM	519	495
11/21/2023	375	YES	504	YES	504	494	473	N/A	11/21/2023	11:15 PM	11/22/2023	9:30 AM	494	472
12/3/2023	500	YES	542	YES	N/A	557	535	N/A	12/3/2023	9:45 AM	12/3/2023	11:30 AM	557	527
12/10/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	12/10/2023	2:45 PM	12/10/2023	3:30 PM	525	495
12/10/2023 - 12/11/2023	459	YES	561	YES	N/A	586	538	N/A	12/10/2023	9:00 PM	12/11/2023	3:00 AM	586	539
12/18/2023	459	YES	562	YES	584	627	536	N/A	12/18/2023	12:45 AM	12/18/2023	9:45 AM	627	550
12/18/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	12/18/2023	10:45 AM	12/18/2023	3:15 PM	552	509
12/27/2023	459	NO	N/A	NO	N/A	N/A	N/A	N/A	12/27/2023	6:30 PM	12/27/2023	7:30 PM	708	566
12/27/2023 - 12/28/2023	459	YES	649	YES	649	649	621	N/A	12/27/2023	11:00 PM	12/28/2023	6:15 AM	649	571

Appendix 3.2: Estimation of Wet-Weather Capture

This section provides a description of analyses used to calculate the wet-weather capture of combined-sewage (CS) flow and associated floatables at the New York City (NYC) treatment facilities (referred to as Wastewater Resource Recovery Facilities, WRRFs) during calendar year (CY) 2023. Section 3.1 describes the difference between runoff capture and combined-sewage capture. Section 3.2 discusses the scenarios used to evaluate the capture. Section 3.3 summarizes the modeling approach: InfoWorks ICM is an advanced integrated catchment modeling software used to calculate flow volume capture for CY2023 at all drainage areas served wholly or partially by combined sewers. Section 3.4 describes the 2023 wet-weather combined-sewage percent capture results for these drainage areas. References are listed in Section 3.5.

The Environmental Protection Agency (EPA) issued the current guidance pertaining to the intent and calculation of “combined-sewage capture” in 1995. Prior to that time, a different parameter, known as “runoff capture”, was used to assess the operation of the collection/treatment system. As detailed in a subsequent section, runoff capture measured the ratio of runoff treated to runoff collected in a sewer system. For the NYC WRRFs, historically speaking, the runoff capture values were typically about 15 percentage points less than the corresponding CS capture values. The runoff capture remains a useful parameter in the calculation of floatables capture. CS capture has replaced runoff capture as the pertinent measure of flow-capture performance, and as such, runoff capture is no longer reported. However, runoff capture is used in the calculation of floatables capture.

Since 1998, capture of CS floatables has also been calculated and reported. Initially, the basis for this measurement was the floatables passing into combined sewers from the catch basins (see Figure 3-1), but because the catch basins themselves are considered part of the sewer system, an estimate of catch basin retention was added to the calculation of the floatables-capture. As a result, the basis for floatables capture is now what enters the catch basins.

Historically, capture of flow and floatables has been simulated and reported for three different scenarios. The first simulation scenario reflects actual operation of the collection/treatment system (in terms of the flow rates treated at a WRRF during wet weather) and the actual rainfall (and tides) affecting the system during the subject,

calendar-year period. The results of this simulation scenario indicate the actual capture performance for the period.

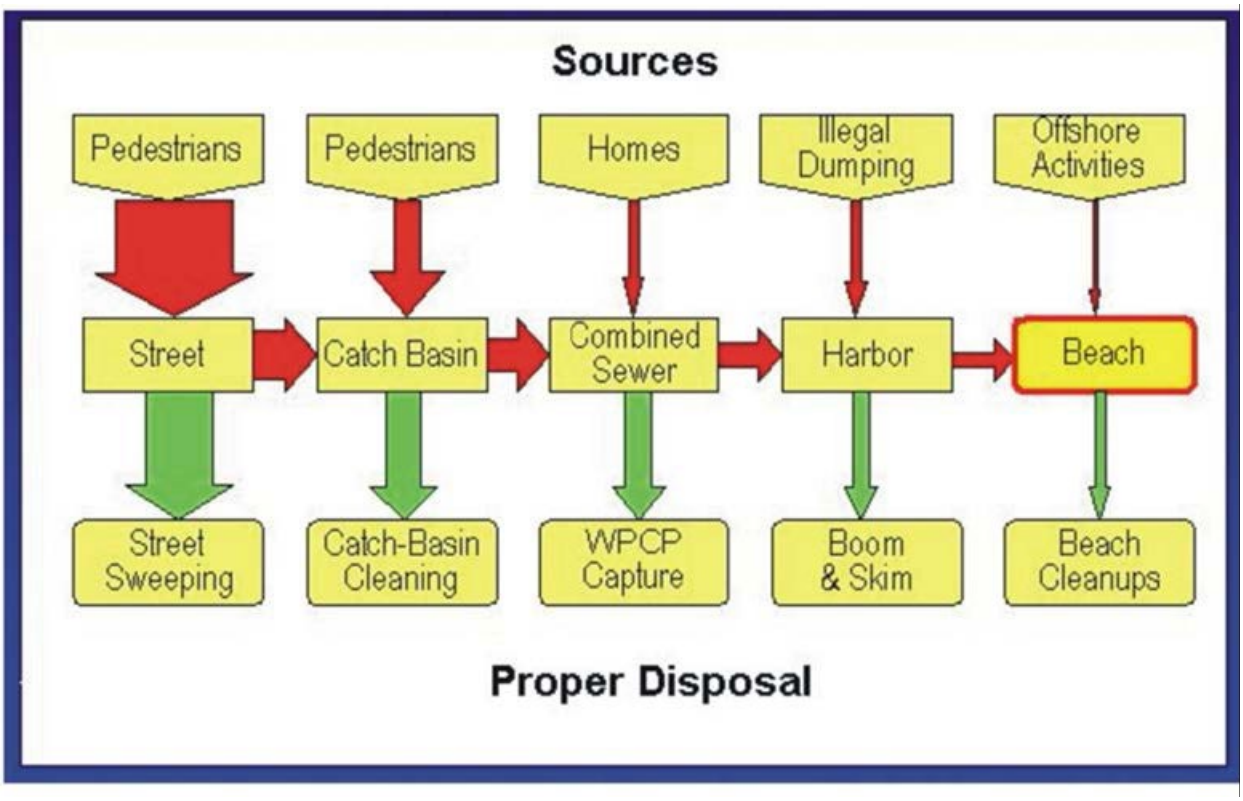


Figure 3-1. Sources and Fate of Floatables in New York City of New York DEP

The methodology for calculation of flow capture has evolved historically with the advent of improved modeling tools and increasing computing power. Initially, flow capture was estimated using the “Statistical Method” (Hydroscience, 1978), an approach relying on drainage area/runoff-coefficient information from a calibrated sewer-system rainfall-runoff model (such as the EPA’s Storm Water Management Model, SWMM), but which can be used without the complicated set-up and computational runtimes associated with those models. Finally, as part of the CSO Long Term Control Plan (LTCP) project, DEP adopted an InfoWorks modeling framework to support facility-planning analyses citywide. InfoWorks is a state-of-the-art hydrology and hydraulics linked model that will provide the most sophisticated and accurate representation of the NYC drainage areas. Although model set up and calibration do require extensive effort, advancements in computing have lessened run-time requirements so that the use of these models becomes reasonable for planning and design-level analyses.

For 2023, the percent-capture analyses utilize the InfoWorks modeling framework for all drainage areas wholly or partially served by combined sewers. Section 3.3 provides a more detailed discussion of the InfoWorks model.

InfoWorks models constructed for various WRRF drainage areas have undergone a major recalibration process in the 2009-11 period and the DEP had submitted a detailed report on this recalibration effort to New York State DEC in June 2012 along with additional calibration and validation being done as part of developing the CSO Long Term Control Plans (LTCPs). DEP adopted the updated models to support the capture calculations for CY2023. Table 3-1 shows the rainfall statistics for the current year precipitation conditions. Based on the model updates and the use of different standard rainfall conditions, the percent capture information presented in this report may not be directly comparable with those reported in previous calendar years.

For the CY2023 analysis, a new rainfall dataset from NOAA/NSSL called Quantitative Precipitation Estimates (QPE) was used instead of DEP or NOAA rain gauges, as have been used in the past. This decision was made for several reasons. First, the NOAA rain gauges in CPK, JFK, LGA, and EWR are often very far from the WRRFs model areas to which they are applied. Second, the DEP WRRF rain gauges frequently suffer from outages and other reporting issues, leading to incomplete or inaccurate datasets. Therefore, the new NOAA/NSSL QPE data was used, which is described below:

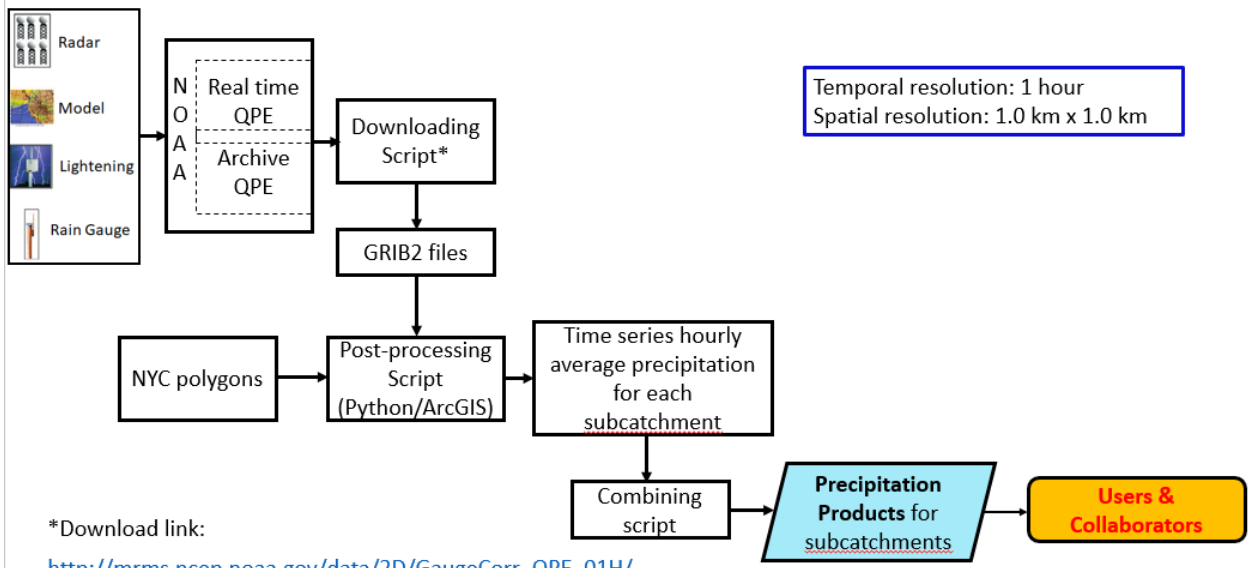
- The new NOAA/NSSL product provides spatially distributed, hourly estimates of precipitation is based on multiple radars, satellite and numerical weather prediction models, surface and upper air observations, lightning detection systems and rain gauges. In addition to hourly, QPE is available in other time increments (such as 3 hr, 6 hr, 12 hr, daily, 48 hr and 72 hr) and in spatial resolution of roughly 1 km x 1 km.

- Most common application of radar QPE data is to simulate or predict flash flood events using rainfall-runoff models [Willie, D. et al. 2017; Zhang et al. 2016; Rafieeinasab et al. 2015; Chen and Chandrasekar 2015].

- Validation of the high resolution radar QPE data was made against the ground-based precipitation data obtained from the NOAA stations rain gauge data: Central Park (CPK), Newark Airport (EWR), JFK Airport (JFK) and LaGuardia Airport (LGA).

- The high resolution and broad spatial coverage of the radar QPE data provides more realistic forcing at the time scales relevant to the CY2023 wet-weather capture modeling analysis.
- Processing methodology for NOAA/NSSL QPE data:

Processing Flowchart



*Download link:

http://mrms.ncep.noaa.gov/data/2D/GaugeCorr_QPE_01H/

http://mtarchive.geol.iastate.edu/2018/01/01/mrms/ncep/GaugeCorr_QPE_01H/

Table 3-1 Annual NYC Rainfall Statistics, 2023 [6]

Gage Location [1]	Period	Number of Storms Avg.	Precipitation (in)			Storm Intensity (in/hr)		Storm Duration (hour)		Delta [2] (hour)	
			Annual Total	Storm Avg.	Storm COV [3]	Avg.	COV [3]	Avg.	COV [3]	Avg.	COV [3]
26W	2023	102	54.51	0.53	1.53	0.0511	1.13	9.76	1.22	85.24	0.82
BB	2023	108	56.71	0.53	1.49	0.0497	1.06	9.81	1.20	81.40	0.78
CI	2023	99	57.41	0.58	1.48	0.0530	1.06	10.56	1.17	88.06	0.86
HP	2023	101	61.40	0.61	1.34	0.0541	1.04	11.14	1.04	86.68	0.81
JA	2023	98	55.09	0.56	1.53	0.0459	0.97	11.23	1.06	88.98	0.76
NC	2023	104	56.18	0.54	1.50	0.0464	1.04	10.62	1.01	84.55	0.74
NR	2023	104	55.14	0.53	1.48	0.0493	1.01	10.73	1.14	84.54	0.76
OH	2023	98	59.01	0.60	1.50	0.0531	1.03	11.08	1.16	89.05	0.84
PR	2023	99	54.48	0.55	1.26	0.0545	1.33	11.12	1.12	88.40	0.84
RH	2023	98	57.84	0.59	1.45	0.0504	1.03	11.01	1.07	89.23	0.98
TI	2023	99	57.98	0.59	1.35	0.0540	1.11	10.86	1.12	88.08	0.71
WI	2023	100	60.14	0.60	1.51	0.0534	1.09	11.45	1.07	87.55	0.75

[1] National Oceanic and Atmospheric Administration Data Center rain gauges

[2] Delta refers to time between storms midpoints

[3] Coefficient of Variation (average/standard deviation)

[4] Values reported as "Typical for NYC Metropolitan Area, circa 1950 through 1976" (from Hydroscience 1978)

[6] Statistics calculated using EPA's SYNOP package with inputs for interevent time of 4 hours and zero minimum rainfall depth

3.1 DEFINITIONS OF COMBINED-SEWAGE CAPTURE AND RUNOFF CAPTURE

Previous EPA guidance defined wet-weather capture at combined-sewer treatment facilities in terms of the ratio of runoff captured to the total runoff generated. This ratio, expressed as a percentage, is herein referred to as “runoff capture”. For the purposes of this study, the runoff capture is estimated as the ratio of total treated volume of runoff from combined-sewer areas (the sum of the runoff treated by the plant and the runoff treated by any off-line storage facilities) to the total volume of runoff generated from combined-sewer areas during wet weather. More recent EPA guidance (EPA 1995) suggests an alternate definition of capture in terms of both runoff and sanitary sewage. One of the Presumptive Approach criteria is:

> *“The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS [combined-sewer system] during precipitation events on a system-wide annual basis.”*

This definition of capture, herein referred to as “combined-sewage capture,” is the ratio of CS volume captured at the WRRF to the total runoff and sanitary sewage entering the combined-sewer system during wet-weather periods.

Figure 3-2 presents a schematic representation of both runoff capture and CS capture. With runoff capture, WRRF flow rates exceeding average diurnal (dry-weather) sanitary flows during wet-weather periods were assumed to represent captured runoff. In reality, the flow in the sewer system is a mixture of runoff and sanitary flow, and a portion of CSOs is sanitary in nature. The combined-sewage capture definition takes into account the sanitary flow already in the sewer system during wet weather, and hence is a more realistic measure of the capture at WRRFs during wet-weather periods.

In NYC, values for CS capture are typically about 15 percent points higher than those for runoff capture. EPA’s CSO guidance (EPA 1995) has established a target criterion of 85 percent CS capture for the presumptive approach to CSO control.

3.2 PERCENT CAPTURE EVALUATION

Wet-weather capture depends upon the particular weather patterns within the subject period, the state of a sewer system and wet-weather operation of the WPCPs. Capture values tend to increase when storm patterns produce sustained, low-level flows to the plant. Capture values also increase when sewer-system restrictions are eliminated and flows to the WPCP are maximized. If the interceptors and combined sewers are not surcharged, when the plant inflows reach 2XDDWF levels in certain drainage areas, those may provide some additional in-line storage for wet-weather flow and, as such, can increase the wet weather capture rate. Although it is important to record the actual capture achieved at WRRFs each year, it is also useful to isolate the effect of the uncontrollable, year-to-year rainfall variations from the controllable aspects related to

the operation and maintenance of the collection system and treatment plant. To address these issues, the model results presented herein represent

1. the “Actual” captures, reflecting the “state and operation of the collection/ treatment system” during the subject period, as well as the actual rainfall and tidal conditions during the subject period.

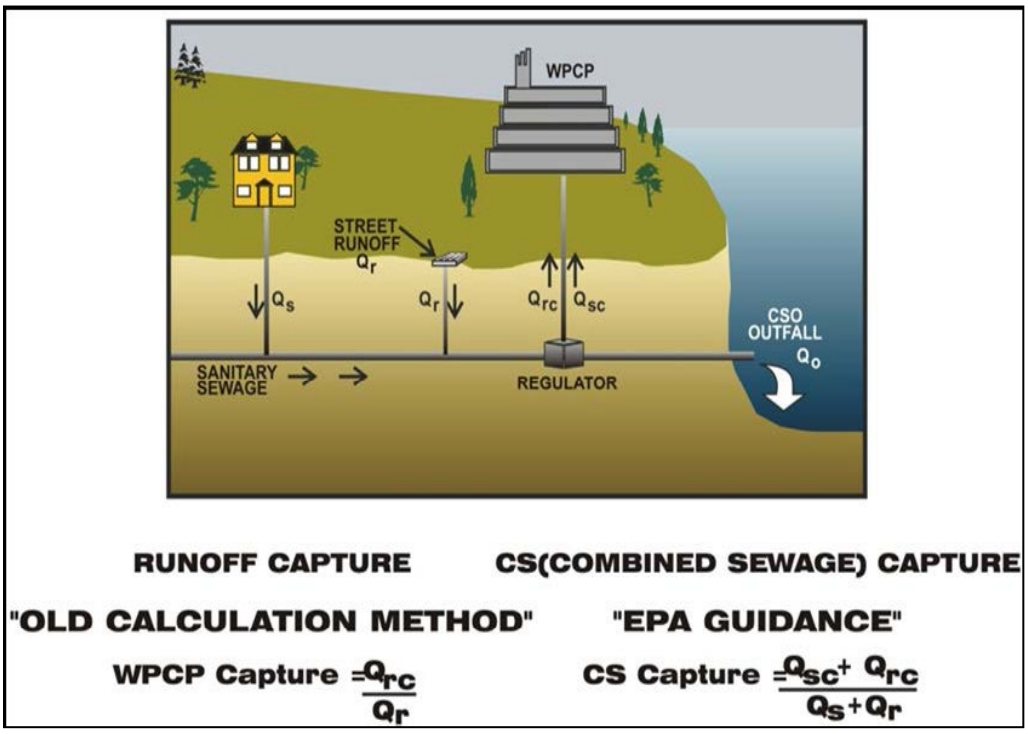


Figure 3-2. Wet Weather Flow Capture at WRRF

TOOLS TO CALCULATE WET-WEATHER FLOW CAPTURE

Although the definitions presented in Section 3.1 and the equations on Figure 3-2 are relatively simple, actual application to calculate CS capture can be rather complicated. Because the capture must be evaluated over a long-term (annual) period, and with hundreds of potential CSO outfalls City-wide, direct measurements of all parameters would be impractical. Furthermore, measurements of flow and rainfall distribution over a large geographical area have proved to be less than reliable. A more practical approach is to estimate the terms presented on Figure 3-2 using calibrated sewer-system models to simulate (instead of directly measuring through monitoring) system performance during the subject period. The following section describes the modeling approach applied for 2023 calculations, namely, InfoWorks ICM. As indicated earlier, InfoWorks was adopted for citywide use and has been calibrated for all service areas that are wholly or partially served by combined sewers.

InfoWorks Model

The InfoWorks model, distributed by Innovyze from the U.K., has been used in DEP projects since 2001. The model engine is a FORTRAN program, linked with a front interface that contains both relational databases of the sewer network and GIS databases of the geographic attributes such as latitude, longitude, and ground elevations. Based on comparative evaluations performed in 2002-03 by the DEP and its consultants, this interface appeared to offer several advantages over other commercial models such as easy interfacing with GIS for graphical and input/output data analysis and faster computational times for annual simulations. The model utilizes an implicit finite difference-based numerical solution technique to provide more stable modeling of key elements of the sewer systems. The model incorporates full Saint-Venant's equations for continuity and momentum for hydraulic routing and, as such, is well suited for modeling of the backwater effects and reverse flow, open channels, sewers, detention ponds, complex pipe connections and complex ancillary structures such as culverts, orifices and weirs.

Similar to other urban drainage models, the InfoWorks model calculates runoff volumes first using the same algorithms used in the SWMM model and routes the runoff over sub-areas (subcatchments) to generate runoff hydrographs. The hydrographs are then applied to the channel-sewer system for hydraulic routing. Dry weather flows (DWF) are added at the respective manholes for routing towards the treatment plant. Figure 3-3

presents a schematic of the InfoWorks model linkage and outputs used to calculate the wet-weather and runoff percent captures.

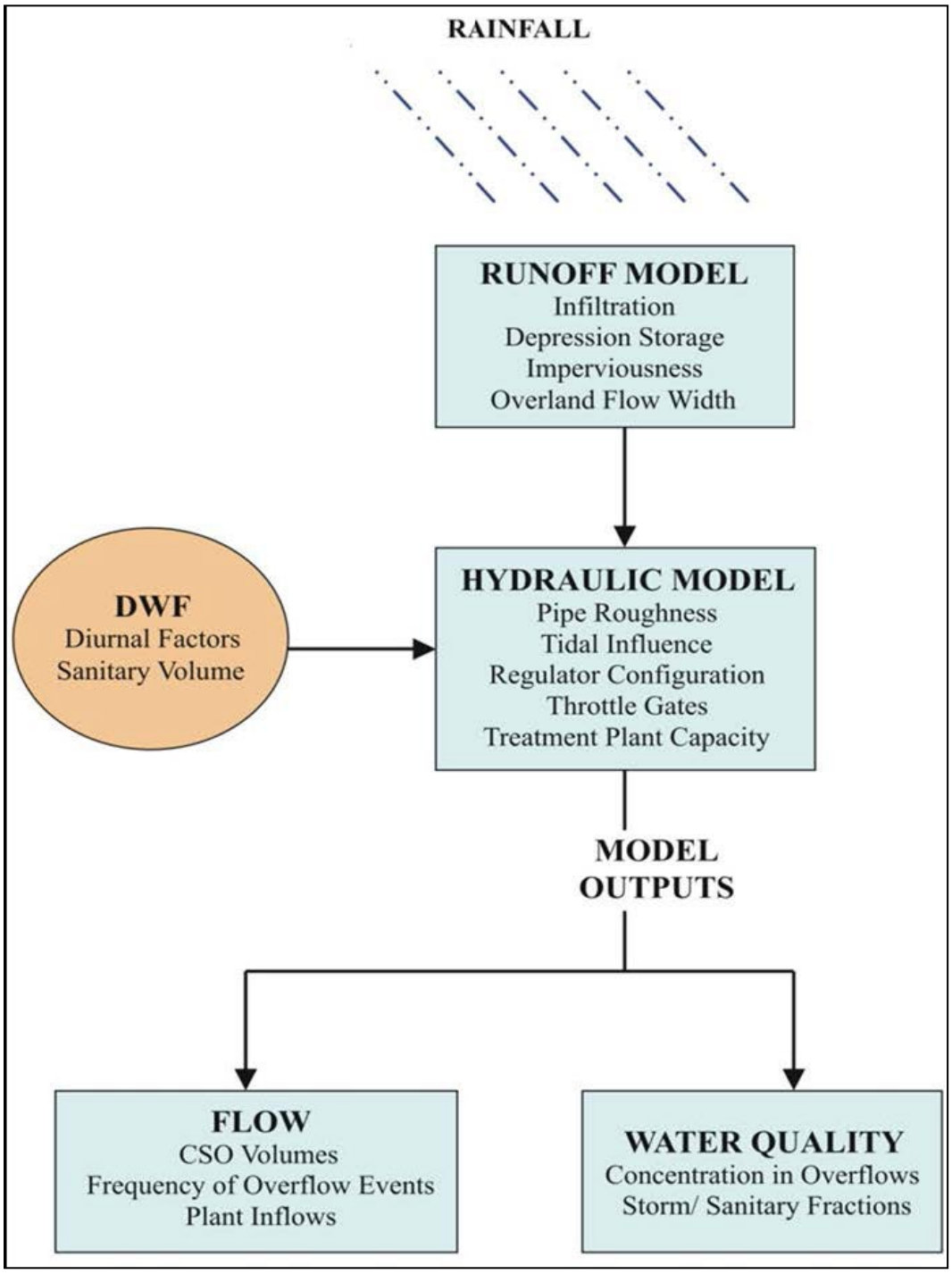


Figure 3-3. Schematic Representation of InfoWorks Model

The SWMM RUNOFF option has been chosen as the InfoWorks runoff simulation algorithm. Each WRRF drainage area was divided into component regulator drainage areas. All pipes larger than 48 inches were included in all WRRF models, and some pipes in the range of 12 to 42 inches in selected WRRF models that were expanded

based on local hydraulic conditions. The pipe network was used to further divide the regulator drainage area into smaller sub-catchments that drain to individual manholes. Each sub-catchment was then divided into impervious and pervious areas, based on geographical features including rooftops, driveways, roadways, lawns, parking lots, and parks/open spaces. An example representation of pipes, manholes and surface features is shown in Figure 3-4.

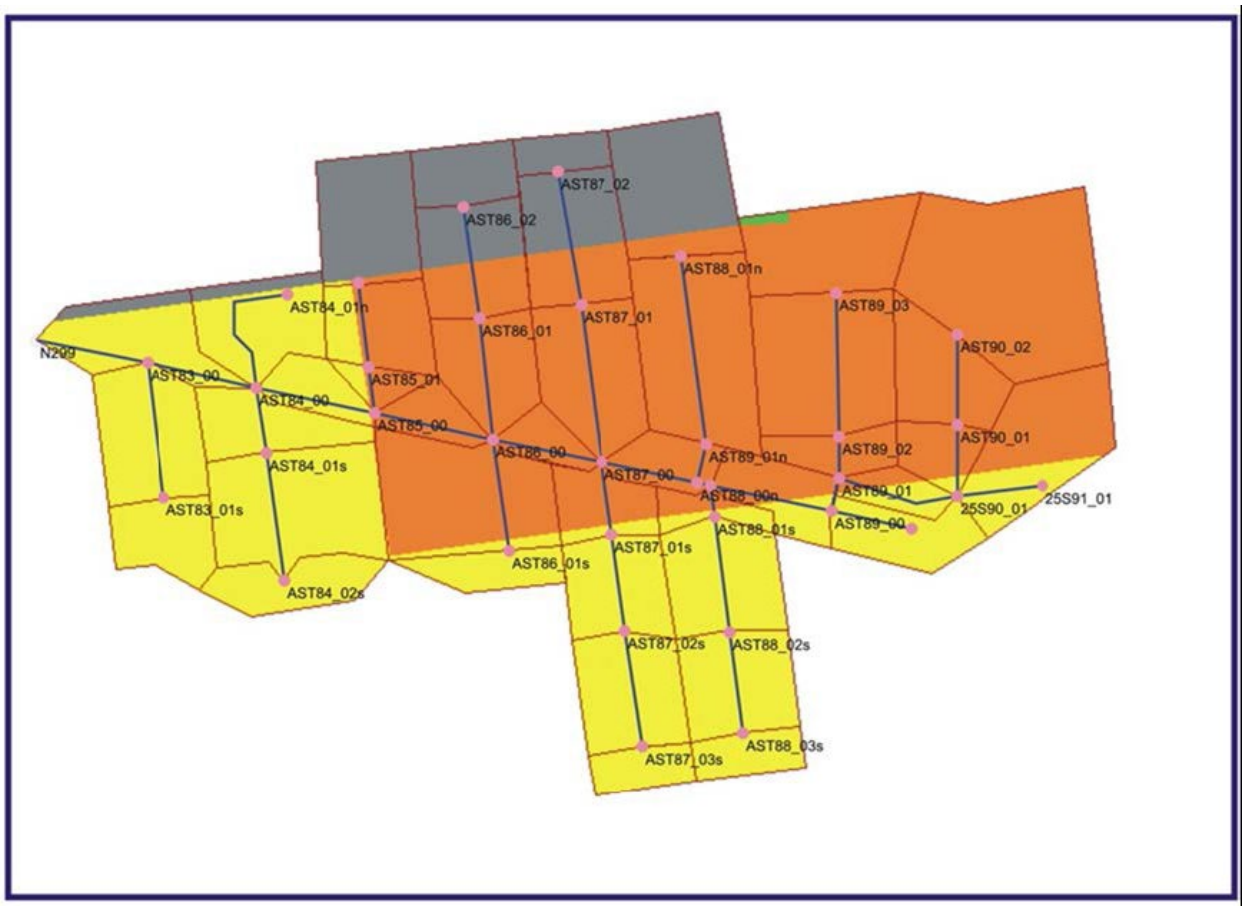


Figure 3-4. Geographical and Sewer System Data in InfoWorks Model

A major component of the 2011 InfoWorks model update was the satellite-imagery based imperviousness estimate. This process was well documented in the 2011 recalibration report submittal to the DEC. Although this estimate represents the total impervious area in each subcatchment, the flow monitoring performed by DEP confirmed that only a fraction of this area was contributing runoff directly to the sewer system. This fraction is referred to as the directly connected impervious area (DCIA) for each subcatchment, which is one of the calibration parameters. The DCIA, in essence, is equivalent to the runoff coefficient used in traditional sewer design principles with a standard rational approach. Hydrologic parameters included in the InfoWorks model for

impervious surfaces are: DCIA, depression storage (initial losses), and surface roughness.

Similarly, the pervious areas were represented with the same three parameters – only difference being that the pervious areas were divided into open surfaces (parks, cemeteries or large open areas) and non-open surfaces (pervious areas in residential, commercial, industrial landuses). Soil compaction due to several factors in these two distinct surfaces presents different runoff loss rates, which led to the explicit representation of open and non-open areas with different runoff coefficients in the InfoWorks models. Runoff is generated from each of these three surfaces within a subcatchment for a given rainfall intensity/volume. An example image and associated definition of pervious and impervious (complement of pervious areas) from the Newtown Creek WRRF drainage area is shown in Figure 3-5. The areas within red boundaries represent the catchment areas to two flow metering locations within this WRRF drainage area.

Figure 3-5. Landcover Definitions Using Remote Sensing Data

Monthly evaporation data was obtained from the Northeast Climate Center at Cornell University for all the four NOAA rain gage locations. This data was further processed

based on the geographical proximity of WRRF service areas and used to develop the inputs for evaporation rates in the model.

The InfoWorks model uses the SWMM's non-linear reservoir model to route the runoff through urban landscapes to the sewer entry-point (catch basin/manhole included in the model). Sub-catchments are modeled as idealized rectangular areas with the slope of a sub-basin perpendicular to the width. The routing is performed according to the equation:

$$Q = \frac{1.486}{n} W (d - d_s)^{\frac{5}{3}} S^{\frac{1}{2}}$$

where: Q is surface runoff (cfs);

W is width of sub-area (ft);

S is average slope of sub-area (ft/ft);

d is depth in the non-linear reservoir (ft);

d_s is the depression storage depth in the non-linear reservoir (ft); and

n is the Manning's roughness coefficients.

For hydraulic routing, the model uses the Saint-Venant equations to describe the conservation of mass and momentum:

$$\frac{\delta A}{\delta t} + \frac{\delta Q}{\delta x} = 0$$

$$\frac{\delta Q}{\delta t} + \frac{\delta}{\delta x}\left(\frac{Q^2}{A}\right) + gA\left(\cos\theta \frac{\delta g}{\delta x} - S_o + \frac{Q|Q|}{K^2}\right) = 0$$

with:

Q	Discharge (m^3/s)
A	Cross-sectional area (m^2)
g	Acceleration due to gravity (m/s^2)
2	Angle of bed to horizontal (º)
S_o	Bed slope
K	Conveyance

With the use of the Saint Venant equations, the following complex phenomena that occur in a sewer system can be dynamically characterized:

- Presence of sewer sediments
- Pump-station operations (variable, step-wise, etc.), along with wet-well controls
- Inverted siphon
- Bifurcations
- Regulator operations during tidal conditions
- Throttling at treatment plants during wet weather to limit inflows
- Behavior of in-line regulators
- Street and basement flooding
- Groundwater infiltration into combined and separately sewers.

Depending on the complexity of each WRRF drainage area, some or all of the above processes were modeled in InfoWorks. Available CSO and in-system flow and depth monitoring data compiled during development of waterbody-watershed facility planning studies and CSO LTCPs was used to update the sewer system models of the 12 WRRF drainage areas with combined sewers and the Rockaway WRRF service area with separate sewers. The system-wide calibration involved the use of flow and depth data compiled at several in-system locations, selected outfalls, DEP SCADA locations, and at the influent of a WRRF. The City has been using a grid-based radar rainfall data framework to characterize the spatial-temporal variability. Selected storms ranging in intensity and total volumes observed during the calibration period were used to calibrate the appropriate hydrologic (e.g., runoff coefficient (DCIA), depression storage, and roughness) and hydraulic (pipe roughness, pump operations, weir coefficients and gate controls) model parameters. Additional wet weather events (storms) were used to independently validate the model performance. DEP used a weight-of-evidence approach to assess the adequacy of model calibration including correlation plots between observed and modeled runoff volumes, flow rates, and water depths in sewers; and also the temporal comparisons of flows during wet events at various calibration points including the plant influent. Figure 3-6 illustrates the detailed calibration/validation approach that involves assessing correlations at different spatial scales and also using a variety of flow/depth monitoring data.

The input parameters necessary for InfoWorks application to compute percent capture include: (a) maximum WRRF capacity that can be varied on a monthly basis – represented in the form of a wet well elevation versus pump capacity curve; (b) precipitation at hourly or shorter intervals; (c) dry weather flow at each regulator and its diurnal pattern that can be varied on a monthly basis; (d) distribution of land uses within each subcatchment along with losses such as evaporation and depression storage; (e)

operation of throttling/sluice gates within a system; (f) tide conditions near the various outfalls within a system. Since the model accounts for surcharging and backups within sewers, such complex aspects as in-line storage are modeled accurately.

Tide data were developed from the three permanent tide gages maintained by NOAA near New York City – namely, King's Point, The Battery, and Sandy Hook. NOAA also publishes tidal correction factors in terms of differences in time and amplitude at several locations in the NY-NJ Harbor. The correction factors were tabulated for the locations of the waterbody near each or a set of outfalls, and then the data from the nearest NOAA station were used to develop the tidal boundary conditions for each or a set of outfalls within a drainage area.

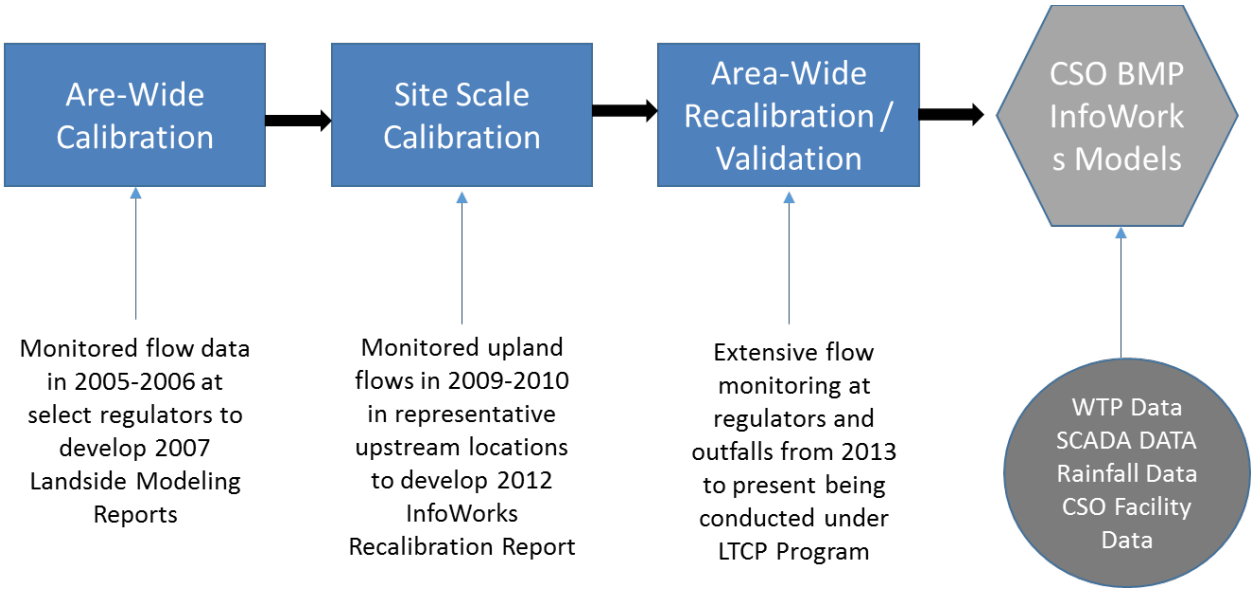


Figure 3-6. Comprehensive InfoWorks Model Calibration Approach

As a first step, the plant flow data at each WRRF was reviewed to develop the wet-well elevation versus pump discharge curves on a monthly basis. Appropriate dry weather flows and diurnal patterns were used for all regulators within the drainage area. The modeled and monitored plant flows were compared to confirm the adequacy of calibration of plant influent in the InfoWorks model for CY2023 conditions. If needed, the pump rating curves were adjusted to better match the monitored and modeled flows. Similarly, the rule curves associated with throttling gates, if appropriate, were modified to achieve better agreement between modeled and observed inflows at the plant. No other hydrologic or hydraulic model parameters were adjusted in the drainage area during this model application process. Specific hydraulic adjustments of the models have been made in select WRRF models to account for changes to the conveyance system, such as the operation of the Alley Creek, Flushing Creek, Paerdegat Basin and Spring Creek CSO retention facilities. The modeled inputs used in the InfoWorks model for all drainage areas with combined sewers are summarized in Table 3-2. Figure 3-7

shows an example correlation between measured and modeled inflows to the Bowery Bay WRRF, for CY2023.

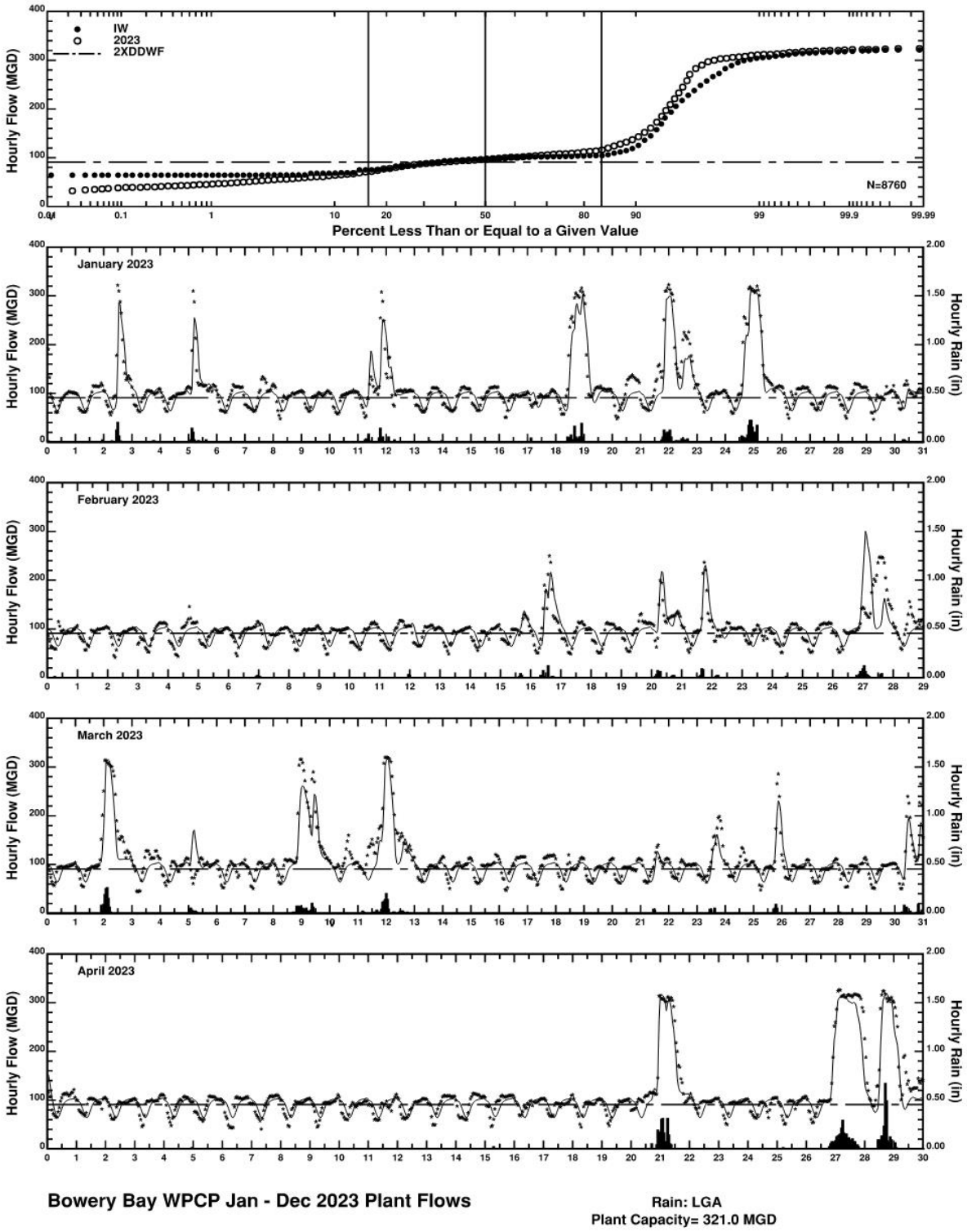


Figure 3-7. InfoWorks Sample Results 2023

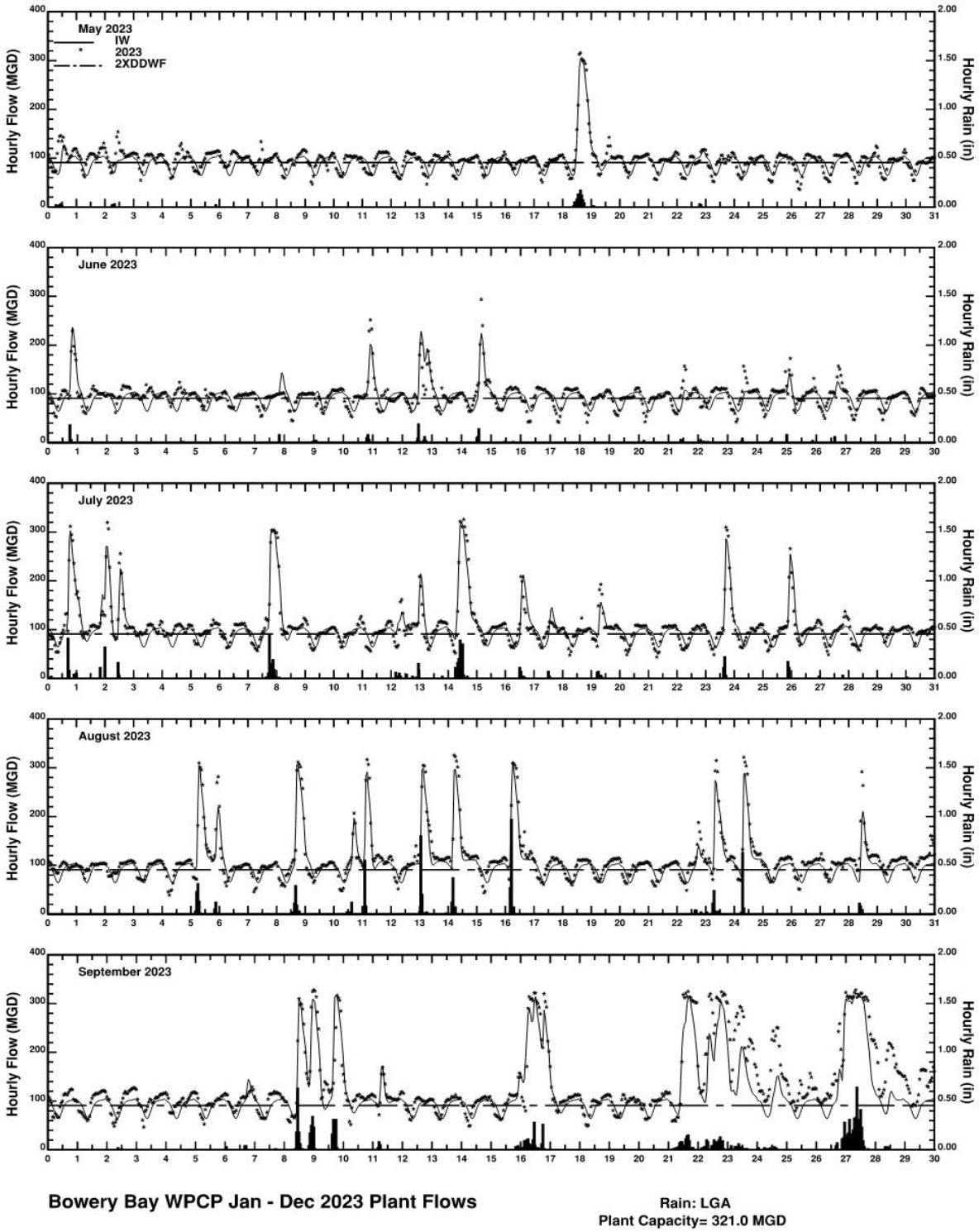


Figure 3-7. InfoWorks Sample Results 2023

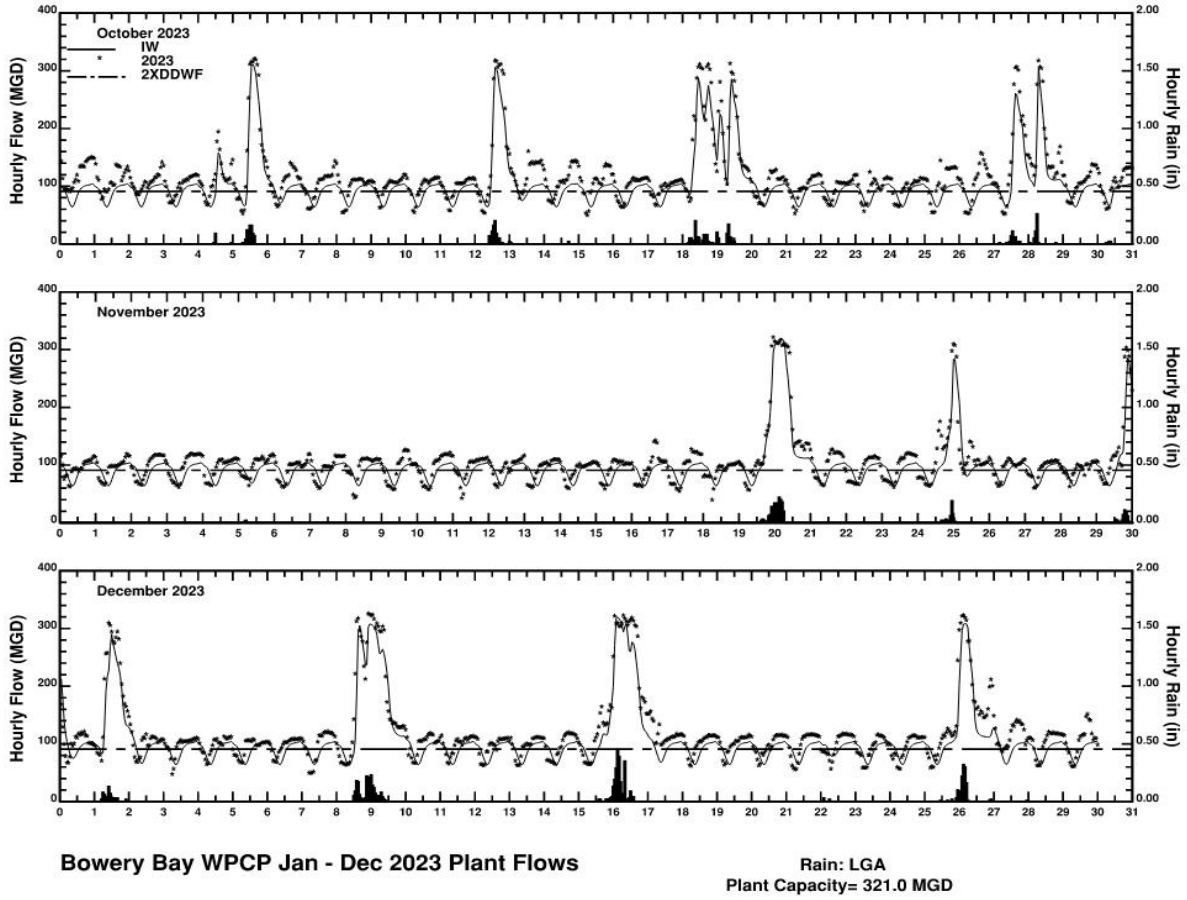


Figure 3-7. InfoWorks Sample Results 2023

COMBINED-SEWAGE CAPTURE RESULTS - 2023 FLOW VOLUME

Table 3-2 presents the results of the combined-sewage volume percent capture evaluation performed for CY2023. The InfoWorks models were used to analyze drainage areas for the two scenarios, as discussed in Section 3.2 - "Actual" refers to the actual conveyance/treatment system performance and rainfall in 2023.

As shown in Table 3-3, the “Actual” scenario capture of combined-sewage volume in 2023 averaged 76 percent citywide. Combined-sewage capture at individual, combined area WRRFs varied from a low at Owls Head (64 percent) to a high at North River (94 percent). Combined-sewage flow capture is not applicable at the separately sewered WPCPs (Oakwood Beach and Rockaway).

Table 3-2. As-Modeled WRRF Service Area Characteristics – CY 2023						
WRRF	**Total Drainage Area (acres)**	**Combined Sewage Drainage Area (acres)**	**Average Dry Weather Flow (MGD)**	**Design Dry Weather Flow (MGD)**	**Maximum Wet Weather Flow[(1)] (MGD)**	**Permitted Wet Weather Flow[(2)] (MGD)**
26W	5,787	4,358	40	85	179	170
BB	14,232	12,446	91	150	321	300
CI	6,779	6,070	82	110	220	220
HP	22,543	11,546	116	200	411	400
JA	26,421	5,451	73	100	206	200
NC	15,103	13,562	197	350	720	700
NR	5,572	4,448	100	170	357	340
OH	10,078	9,448	82	120	245	240
PR	11,541	3,575	25	60	126	120
RH	3,738	2,991	29	60	127	120
TI	18,314	8,721	51	80	170	160
WI	15,799	12,822	189	275	612	550
NYC CS Total	155,907	95,438	1,076	1,760	3,695	
Separate Areas						
RO	5,710	NA	19	45	63	90
OB[(3)]	10,779	NA	29	40	104	80
NYC overall	172,396	95,438	1,124	1,845	3,862	

(1) The maximum 99.9th percentile wet weather flows were used to set the peak pumping capacity to be used in the InfoWorks model.
(2) Permitted flow is max design flow, or twice design dry-weather flow (2xDDWF), except as noted.
(3) Certain statistics excluded for RO and OB because these areas are separately sewered.

Table 3-3. Combined-Sewage Capture Results – Flow Volume Calendar Year 2023	
WRRF	**Actual [1] (2023)**
26W	82%
BB	68%
CI	85%
HP	68%
JA	80%
NC	86%
NR	94%
OH	64%
PR	77%
RH	81%
TI	68%
WI	82%
NYC Avg. [2]	76%

Notes:
(1) The "actual" case capture results reflect the —state and operation of the collection/treatment system during the subject period, as well as the actual rainfall patterns during the subject period.
(2) Averages are combined sewage drainage-area weighted, and exclude separately (Oakwood Beach and Rockaway).

3.5 REFERENCES

Chen, H. and Chandrasekar, V. May 2015. The quantitative precipitation estimation system for Dallas–Fort Worth (DFW) urban remote sensing network, Journal of Hydrology, 531: 259-271.

DiToro, D.M. and Small, M.J., June 1977. Theory of Storage and Treatment Plant Overflows, Journal of the Environmental Division, ASCE, Vol. 102, NO. EE3.

Driscoll, E.D. et. al., November 1989. Analysis of Storm Event Characteristics for Selected Rainfall Gages Throughout the United States, prepared for the USEPA Office of Water.

HydroQual, Inc., June 1997. City-wide Floatables Plan, Prepared for the New York City Department of Environmental Protection.

HydroQual, Inc., January 1992. City-wide Floatables Study: Third Interim Report, Sources, Fate and Control of Floatable Materials: Preliminary Findings. Prepared for the New York City Department of Environmental Protection.

Hydroscience, Inc., March 1978. NYC 208 Study Task Report: Rainfall-Runoff and Statistical Receiving Water Models, (PCP Task 225), p110. Prepared for Hazen & Sawyer, Engineers on behalf of New York City Department of Environmental Protection.

Rafieeinasab, A., Norouzi, A., Seo, D-J and Nelson, B. May 2015. Improving high-resolution quantitative precipitation estimation via fusion of multiple radar-based precipitation products, Journal of hydrology, 531: 320-336

USEPA, August 1995. Combined-Sewer Overflows: Guidance for Long-Term Control Plan, p.2-11. EPA 832-B-95-002.

USEPA, May 1995. Combined-Sewer Overflows: Guidance for Nine Minimum Controls, p.1-4. EPA 832-B-95-003.

Willie, D. et al. 2017. Evaluation of Multisensor Quantitative Precipitation Estimation in Russian River Basin, Journal of Hydrologic Engineering, 22(5): E5016002, DOI: 10.1061/(ASCE)HE.1943-5584.0001422.

Zhang J. et al. April 2016. MULTI-RADAR MULTI-SENSOR (MRMS) QUANTITATIVE PRECIPITATION ESTIMATION, American Meteorological Society, 621-637, DOI:10.1175/BAMS-D-14-00174.1

https://www.nssl.noaa.gov/projects/mrms/

Appendix 4:

- Appendix 4.1: Table 1 - Wet Weather Operating Plan (WWOP) Submittal Schedule - WRRF's
- Appendix 4.2: Table 2 - Wet Weather Operating Plan (WWOP) Submittal Schedule - CSO Facilities

Appendix 4.1: TABLE 1 - WET WEATHER OPERATING PLAN (WWOP) SUBMITTAL SCHEDULE - WRRF'S

	Submittal Dates	
Facilities	**Original**	**Revisions**
WRRF		
Wards Island	July 2003	Sept. 2004, April 2007, Aug. 2007, June 2008 (submitted Sept. 2008), Dec. 2008, June 2009, Jan. 2011, Oct. 2014, Dec 2014, Dec 2022
North River	April 2004	July 2011, Dec. 2014, Dec 2022
Hunts Point	July 2003	Sept. 2004, April 2010, Aug. 2010, Dec. 2014, Dec 2022
26th Ward	July 2003	Sept. 2004, May 2007, Oct. 2007, Feb. 2009, Aug. 2009, July 2010, Dec. 2014, Oct-2015, Mar-2016, Dec 2022
Coney Island	April 2005	Dec. 2007, May 2010, Oct. 2010, Dec. 2014, Dec 2022
Owls Head	April 2005	Dec. 2007, Sept. 2008, Dec. 2008, Dec. 2014, Dec 2022
Newtown Creek	June 2003	April 2005, March 2009, April 2010, Oct. 2011, April 2013, Dec. 2014, Dec 2022
Red Hook	Feb. 2005	Dec. 2014, Dec 2022
Jamaica	April 2005	April 2007, June 2007, Dec. 2014, Dec 2022
Tallman Island	July 2003	Sept. 2004, May 2007, Oct. 2007, Aug. 2009, April 2010, July 2010, July 2011, Dec. 2014, Dec 2022
Bowery Bay	July 2003	Sept. 2004, March 2009, Dec. 2014, Mar. 2016, Apr. 2019 (addendum), Dec 2022
Rockaway	April 2005	Dec. 2007, Dec. 2014, Dec 2022
Oakwood Beach	April 2005	Dec. 2007, Dec. 2014, Dec 2022
Port Richmond	April 2005	Dec. 2007, Dec. 2014, Dec 2022

Appendix 4.2: TABLE 2 - WET WEATHER OPERATING PLAN (WWOP) SUBMITTAL SCHEDULE - CSO FACILITIES

	Submittal Dates	
Facilities	**Original**	**Revisions**
CSO FACILITIES		
Spring Creek	June 2003	May 2007, Oct. 2007, Feb. 2009, Aug. 2009, July 2010, Dec 2014, Dec 2022
Flushing Bay	Dec. 2003	May 2007, Oct. 2007, Aug. 2009,April 2010, July 2010, July 2011, Dec 2014, Dec 2022
Alley Creek	Dec. 2003	May 2007, Oct. 2007, Aug. 2009, April 2010, July 2010, July 2011, Dec 2014, Dec 2022
Peardegat Basin	Dec. 2003	May 2010, Oct. 2010, Dec 2014, Dec 2022

Appendix 5:

- Appendix 5.1 Dry Weather Raw Sewage Bypass Summary
  - Figure 1: Dry Weather Raw Sewage Bypass Graph (CY2018-2023)
  - Table 1: Dry Weather Bypassing CY'18-CY'23
  - Table 2: Dry Weather Raw Sewage Bypasses CY-2023 - Pump Station
  - Table 3: Dry Weather Raw Sewage Bypasses CY-2023 - Regulator
  - Table 4: Dry Weather Raw Sewage Bypasses CY-2023 - WRRF
  - Table 5: Dry Weather Raw Sewage Bypasses CY-2023 - Other Location
  - Table 6: Pump Station Bypassing Summary CY2023 by Location
  - Table 7: Pump Station Bypassing Summary CY2023 by Cause Code
  - Table 8: Regulator Bypassing Summary CY2023 by Location
  - Table 9: Regulator Bypassing Summary CY2023 by Cause Code
  - Table 10: WRRF Bypass Summary CY2023
  - Table 11: WWTP Bypassing Summary CY2023 by Cause Code
  - Table 12: Other Bypassing Summary CY2023 by Location
  - Table 13: Other Bypassing Summary CY2023 by Cause Code

Appendix 5.1: DRY WEATHER RAW SEWAGE BYPASS SUMMARY

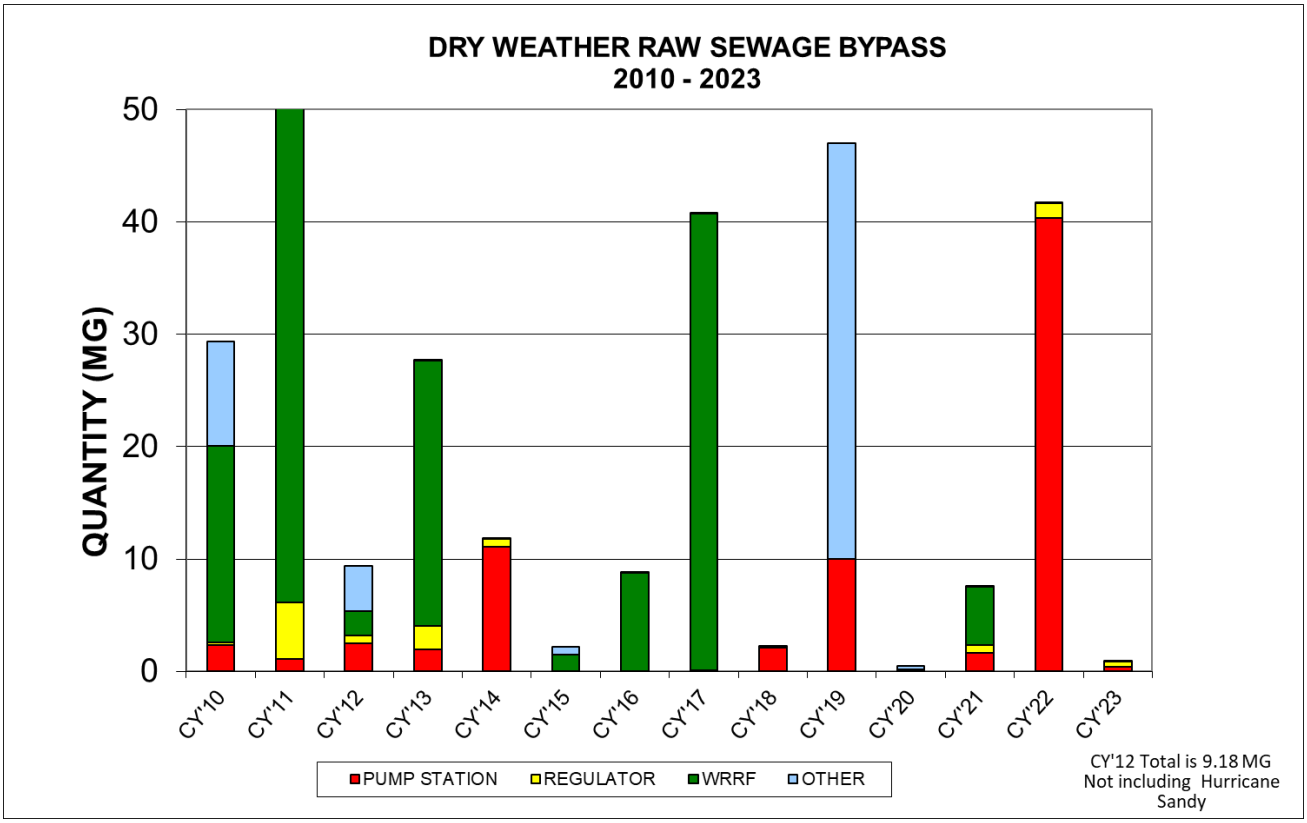


Figure 1: Dry Weather Raw Sewage Bypass Graph (CY2018-2023)

Table 1: Dry Weather Bypassing CY'18-CY'23

SOURCE	CY'18	CY'19	CY'20	CY'21	CY'22	CY'23
PUMP STATION	2.13	10.00	0.054	1.65	40.31	0.39
REGULATOR	0.013	0.0093	0.10	0.69	1.34	0.50
WWTP	0.00	0.00	0.00	5.16	0.00	0.00
OTHER	0.012	37.01	0.35	0.0027	0.10	0.0088
TOTAL	2.16	47.01	0.50	7.51	41.75	0.89

Table 2: Dry Weather Raw Sewage Bypasses CY-2023 - Pump Station

Years	# of Events	Total Bypass (MG)	Duration (Hrs)
CY2019	4	10.00	67.2
CY2020	3	0.05	5.5
CY2021	7	1.65	41.0
CY2022	8	40.31	718.9
CY2023	5	0.39	13.9

Table 3: Dry Weather Raw Sewage Bypasses CY-2023 – Regulator

Years	# of Events	Total Bypass (MG)	Duration (Hrs)
CY2019	3	0.01	5.92
CY2020	4	0.10	14.80
CY2021	6	0.69	33.05
CY2022	10	1.34	21.70
CY2023	6	0.50	33.75

Table 4: Dry Weather Raw Sewage Bypasses CY-2023 – WRRF

Years	# of Events	Total Bypass (MG)	Duration (Hrs)
CY2019 *	1	0.00	1.37
CY2020	0	0.00	0.00
CY2021 *	1	5.16	1.08
CY2022	0	0.00	0.00
CY2023	0	0.00	0.00

*In 2019, there was a Potential Raw Sewage Bypass at Jamaica, but it was not confirmed.

*In 2021, there was a Bypass during Wet Weather at Bowery Bay which is

Table 5: Dry Weather Raw Sewage Bypasses CY-2023 - Other Location

Years	# of Events	Total Bypass (MG)	Duration (Hrs)
CY2019	6	37.01	395.47
CY2020	4	0.35	59.25
CY2021 *	5	0.00	8.22
CY2022	1	0.10	6.30
CY2023	2	0.01	282.49

*In 2021, there were bypasses that occurred from private sewers which overflowed to DEP-owned catchbasins/outfalls which are included in the above totals. Some of these events had unknown amounts and end times; these are included in the # of events but the amount and duration are unknown.

Table 6: Pump Station Bypassing Summary CY2023 by Location

LOCATION	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
BB-Park Drive East PS	2	40%	0.070	18%	0.67	5%
HP-Conner Street PS	1	20%	0.30	77%	8.50	61%
HP-Hollers Avenue PS	2	40%	0.018	5%	4.75	34%
TOTAL	5	100%	0.39	100%	13.92	100%

Table 7: Pump Station Bypassing Summary CY2023 by Cause Code

CAUSE CODE	CODE DESC	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
4F	Mechanical Equipment Failure: Others	1	20%	0.30	77%	8.50	61%
7A	Rupture or Collapse: Pumping Station Force Main	4	80%	0.09	23%	5.42	39%
TOTAL		5	100%	0.39	100%	13.92	100%

Table 8: Regulator Bypassing Summary CY2023 by Location

LOCATION	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
OH-Reg. No. 10	1	17%	0.0026	1%	0.25	1%
NC-Reg. NCB-05A	2	33%	0.1455	29%	14.05	42%
NC-Reg. NCM-038	1	17%	0.25	50%	6.25	19%
WI-Reg. WIM-39	1	17%	0.084	17%	6.08	18%
NR-Reg. No. 36	1	17%	0.015	3%	7.12	21%
TOTAL	6	100%	0.50	100%	33.75	100%

Table 9: Regulator Bypassing Summary CY2023 by Cause Code

CAUSE CODE	CODE DESC	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
6A	Blockages: Regulator	3	50%	0.10	20%	13.45	40%
6C	Blockages: Branch Interceptor	3	50%	0.40	80%	20.30	60%
TOTAL		6	100%	0.50	100%	33.75	100%

Table 10: WRRF Bypass Summary CY2023

LOCATION	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
n/a	0	0%	0.00	0%	0.00	0%
TOTAL	0	0%	0.00	0%	0.00	0%

Table 11: WWTP Bypassing Summary CY2023 by Cause Code

CAUSE CODE	CODE DESC	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
n/a	n/a	0	0%	0.00	0%	0.00	0%
TOTAL		0	0%	0.00	0%	0.00	0%

Table 12: Other Bypassing Summary CY2023 by Location

LOCATION	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
Outfall PR-625	1	50%	0.0085	97%	4.22	1%
Outfall CI-639	1	50%	0.00029	3%	278.27	99%
TOTAL	2	100%	0.0088	100.00%	282.49	100.00%

Table 13: Other Bypassing Summary CY2023 by Cause Code

CAUSE CODE	CODE DESC	EVENTS	% EVENTS	MG	% MG	HOURS	% HOURS
6C	Blockages: Branch Interceptor	1	50%	0.00029	3%	278.27	99%
7B	Rupture or Collapse: Interceptor or Other Main	1	50%	0.0085	97%	4.22	1%
TOTAL		2	100%	0.01	100%	282.49	100%

Appendix 6:

- Appendix 6.1: Exhibit 1 – Letter to Industrial Users Amending Permits and Directives
- Appendix 6.2: Exhibit 2 – Trends in Metals Loadings to New York City WRRFs

Appendix 6.1: EXHIBIT 1 – LETTER TO INDUSTRIAL USERS AMENDING PERMITS AND DIRECTIVES

The City of New York
Department of Environmental Protection
59-17 Junction Boulevard
Flushing, New York
11373-5108

Christopher O. Ward
Commissioner

Alfonso R. Lopez, P.E.
Deputy Commissioner
Bureau of Wastewater Treatment
Tel. (718) 595-5050
(Fax (718) 595-6950
Alopez@dep.nyc.gov

September 1, 2004

Re: Industrial Wastewater Discharge Permit/Commissioner's Order and Directive Amendments

Certified Mail/Return Receipt Requested

Dear Industrial User:

This is to notify you that the New York City Department of Environmental Protection (DEP) is hereby amending the requirements of your Industrial Wastewater Discharge Permit/Commissioner's Order and Directive (Permit/Directive) as follows:

1. Your establishment is now required to hold its process wastewater and non-contact cooling water to the maximum extent practicable during heavy wet weather events.

The reason for this is that in New York City, combined sewers carry both wastewater and storm water to the City's Water Pollution Control Plants (WPCP). Combined Sewer Overflows (CSOs) can occur during heavy wet weather events, causing wastewater and storm water to be discharged to the receiving waters, without treatment at a WPCP, due to the inability of the WPCP to accept the increased flow. This has an adverse affect on New York City's waterways. DEP has made significant reductions in the size and frequency of CSO events within the City; however, this problem can still occur during heavy rainfall.

2. Part II, Section A of your Permit/Directive is hereby amended, raising the maximum civil and misdemeanor penalties from $1,000.00 to $10,000.00, as per an amendment to the New York City Administrative Code.

3. Part II, Section C (2) (c) is amended to require inclusion of the dates of analysis for each sample and the laboratory's sample identification for each sample in the laboratory report. Please see the amended Industrial User Self Monitoring Report Form and the Sample Laboratory Report Form enclosed for all information establishment is required to submit.

All other requirements of your Permit/Directive remain in effect.

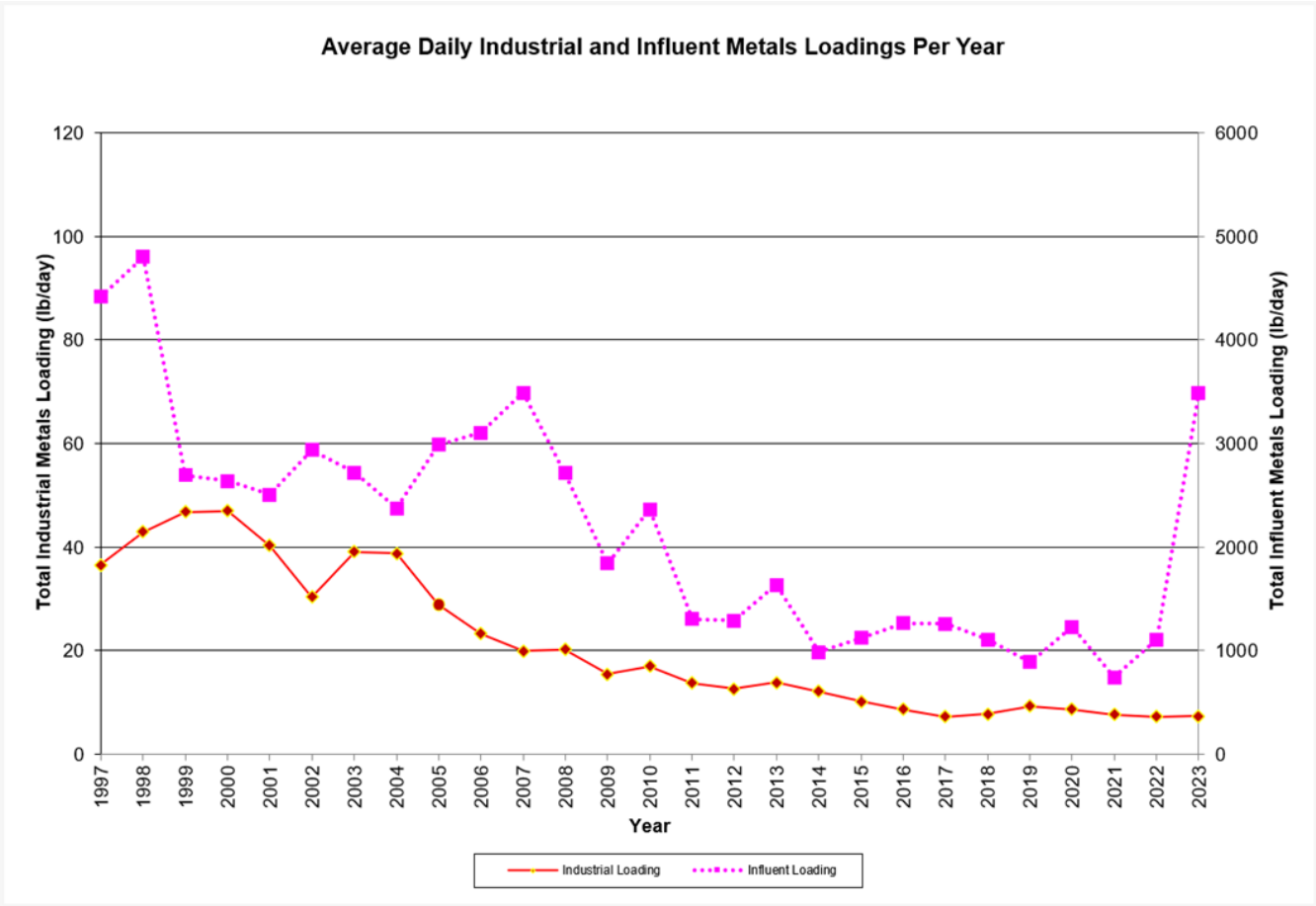
If you have any questions regarding this matter, please telephone Ms. Frances Leung at (718) 595-4763.

Sincerely,

Leslie Lipton, Esq., Chief
Division of Pollution Control and Monitoring

Enc. Industrial User Self Monitoring Report Form
Sample Laboratory Report Form

Appendix 6.2: EXHIBIT 2 – TRENDS IN METALS LOADINGS TO NEW YORK CITY WRRFS



Appendix 7:

Appendix 7.1: BWSO

Appendix 7.1.1: Table 7.1-A - CY2023 Catch Basin (CB) Survey & Cleaning

Borough	Total CB Inspections	Scheduled CB Cleanings	Complaint Based CB Cleaned	Total CB Cleaned
Bronx	9,188	5,071	628	5,699
Brooklyn	20,525	8,231	1,651	9,882
Manhattan	7,466	3,337	717	4,054
Queens	40,391	19,245	2,499	21,744
Staten Island	11,677	3,290	232	3,522
Total	**89,247**	**39,174**	**5,727**	**44,901**

Appendix 7.1.2: Table 7.1-B - CY2023 Catch Basin Hooding

Wastewater Resource Recovery Facility (WRRF) Drainage Area	Quantity
26th Ward	60
Bowery Bay	310
Coney Island	240
Hunts Point	163
Jamaica	545
Newtown Creek	344
North River	80
Oakwood Beach	183
Owls Head	160
Port Richmond	165
Red Hook	60
Rockaway	32
Tallman Island	302
Wards Island	192
Total	**2,836**

Appendix 7.2: BWT

Appendix 7.2.1:Table 7.2-A - City-Wide Floatable Material Recovery 2004-2022

	2004	2005	2006	2007	2008	2009	2010	2011	2012
No. Sites[1]									
FCP[2] Permanent	21.00	21.00	22.00	21.00	21.00	24.00	23.00	23.00	23.00
FCP Temporary[3]	2.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Other Sites	2.00	2.00	3.00	4.00	4.00	3.00	12.00	N/A	N/A
Total	25.00	25.00	26.00	27.00	27.00	29.00	36.00	24.00	24.00
Volume [cy][4]									
FCP Permanent	1,460.00	1,047.50	1,614.50	2,131.30	1,881.75	1,368.75	1774.50	1,988.25	1,384.00
FCP Temporary	2.00	3.00	18.00	25.50	18.25	1.00	5.00	1.50	9.00
Other Sites	32.00	80.25	70.50	151.50	136.50	207.50	523.00	N/A	N/A
Total	**1,494.00**	**1,130.75**	**1,703.00**	**2,308.30**	**2,036.50**	**1,577.25**	**2,302.50**	**1,989.75**	**1,393.00**

[1] Maximum number of sites operating during calendar year period.

[2] Floatables Containment Program.

[3] "Temporary" status refers to sites which do not have a permanent floatables containment installation - Gowanus Canal.

[4] Total volume of floatables retrieved from sites during period.

Appendix : No Appendices for 7.2.2: 7.2-B

Appendix 7.2.2: Table 7.2-C - City-Wide Floatable Material Recovery While Navigating to Containment Sites, 2022

Month-Year	FRESH CREEK	BERGEN BASIN	THURSTON BASIN	FLUSHING BAY I	FLUSHING BAY II	FLUSHING CREEK I	FLUSHING CREEK II	BRONX RIVER	CRYDERS LANE	HENDRIX CREEK	ENGLISH KILLS	CONEY ISLAND	GOWANUS CANAL
Jan-23	0	0	0	0	0	0	0	67	0	0	0	0	0
Feb-23	0	0	0	0	0	0	0	5	0	0	0	0	0
Mar-23	0	0	0	0	0	0	0	0	0	0	0	0	0
Apr-23	0	0	0	0	0	0	0	0	0	0	0	0	0
May-23	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-23	0	0	0	0	0	0	0	6	0	0	0	0	0
Jul-23	0	0	0	0	0	0	0	36	0	0	0	0	0
Aug-23	0	0	0	0	0	0	0	48	0	0	0	0	0
Sep-23	0	0	0	0	0	0	0	31	0	0	0	0	0
Oct-23	0	35	0	0	0	0	0	37	0	0	0	0	0
Nov-23	0	0	0	0	0	0	0	15	0	0	0	0	0
Dec-23	0	0	0	0	0	0	0	22	0	0	0	0	0
2023 Total	**0**	**35**	**0**	**0**	**0**	**0**	**0**	**267**	**0**	**0**	**0**	**0**	**0**

Month-Year	MASPETH CREEK	BOWERY BAY	BUSHWICK INLET	EAST BRANCH	HUNTS POINT		OWLS HEAD	WALLABOUT I	WALLABOUT II	WESTCHESTER CREEK	CLASON POINT	OUTSIDE CONTAINMENT (1)	2023 Total
Jan-23	0	0	0	0	0		0	0	0	0	0	5.25	**72.25**
Feb-23	0	0	0	0	0		0	0	0	**0**	**0**	0.02	**5.02**
Mar-23	0	0	0	0	0		0	0	0	**0**	**0**	0.01	**0.01**
Apr-23	0	0	0	0	0		0	0	0	**0**	**0**	1	**1**
May-23	0	0	0	0	0		0	0	0	**0**	**0**	0	**0**
Jun-23	0	0	0	0	0		0	0	0	**0**	**0**	0.475	**6.475**
Jul-23	0	0	0	0	0		0	0	0	0	**0**	0.296	**36.296**
Aug-23	0	0	0	0	0		0	0	0	0	**0**	7.111	**55.111**
Sep-23	0	0	0	0	0		0	0	0	0	**0**	0.222	**31.222**
Oct-23	0	0	0	0	0		0	0	0	**0**	**0**	0.149	**72.149**
Nov-23	0	0	0	0	0		0	0	0	**0**	**0**	0.297	**15.297**
Dec-23	0	0	0	0	0		0	0	0	**0**	**0**	3.148	**25.148**
2023 Total	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**17.978**	**319.978**

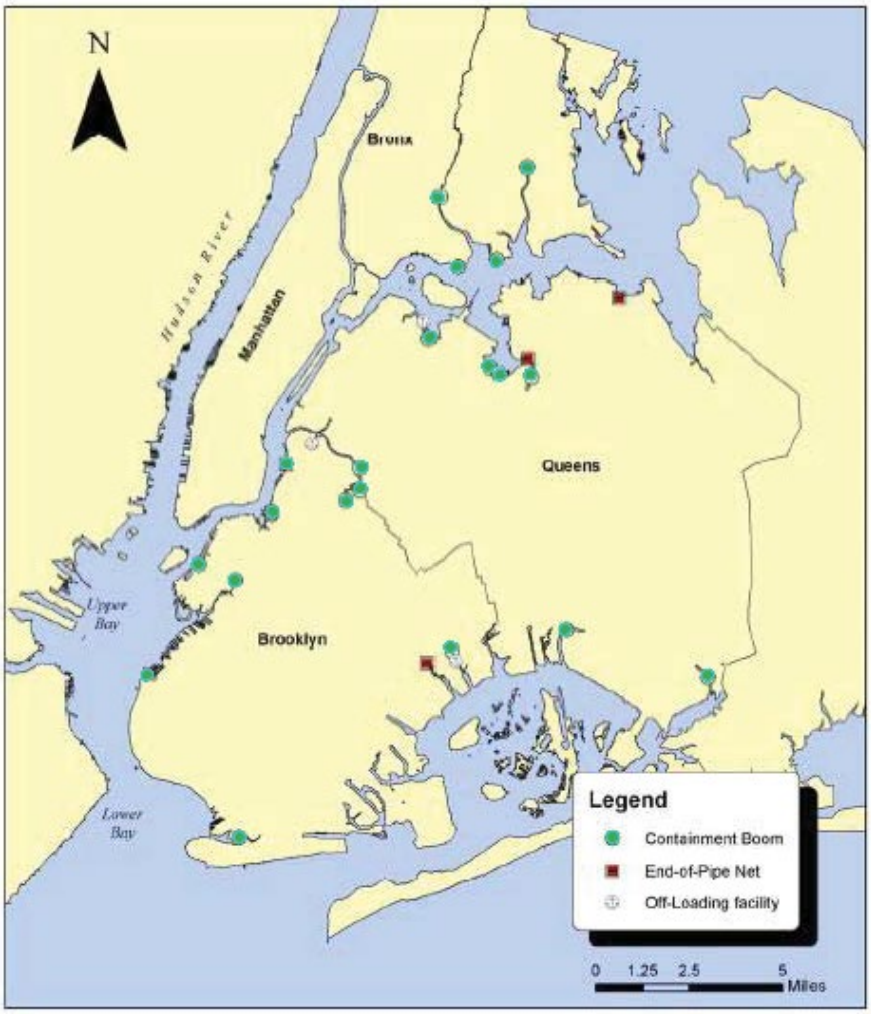
(1) See next page for skimming activities en route to CSO containment site.

Table 7.2D NYCDEP C SO FLOATABLES REMOVAL PROGRAM VIA SKIMMER VESSELS
COLLECTION SUMMARY (CUBIC YARDS)

MONTH	ZONE I	ZONE II/III	ZONE IV	TOTAL
January	0	0.08	72.17	72.25
February	0	0.02	5	5.02
March	0	0	0.01	0.01
April	0	1	0	1
May	0	0	0	0
June	0.1	0.125	6.25	6.475
July	0	0.148	36.148	36.296
August	4	0.111	51	55.111
September	0	0.222	31	31.222
October	35	0.149	37	72.149
November	0	0.297	15	15.297
December	0	3.148	22	25.148
2023 TOTAL YTD	**39.1**	**5.3**	**275.578**	**319.978**

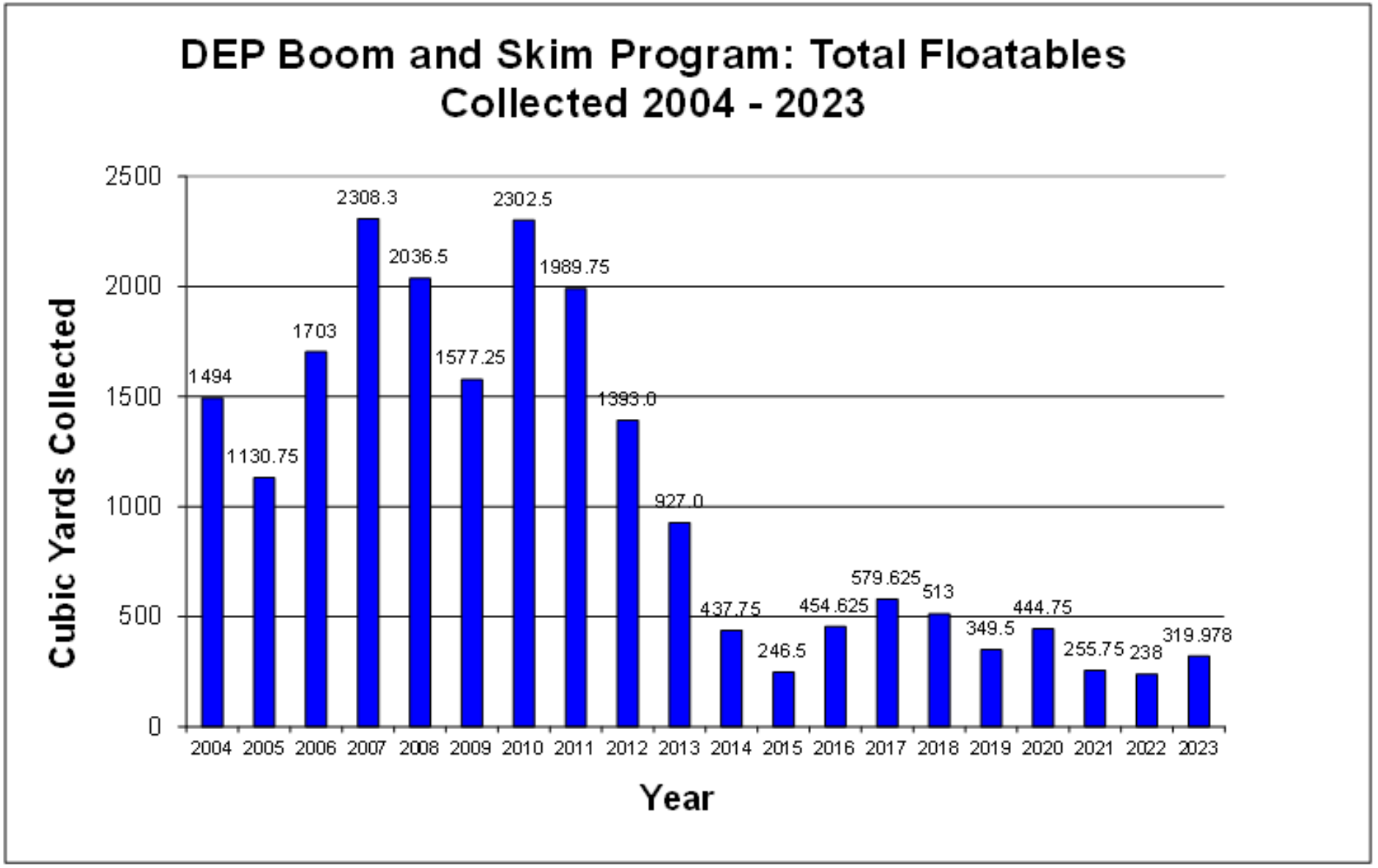
ZONE I	ZONE II/III	ZONE IV
	CONEY ISLAND	BOWERY BAY
FRESH CREEK	OWLS HEAD	FLUSHING BAY I
HENDRIX CREEK	GOWANUS CANAL	FLUSHING BAY II
BERGEN BASIN	WALLABOUT I	FLUSHING CREEK I
THURSTON BASIN	WALLABOUT II	FLUSHING CREEK II
GRAVESEND BAY	BUSHWICK INLET	WESTCHESTER CREEK
SHEEPSHEAD BAY	UPPER NY BAY	CLASON POINT
JAMAICA BAY	MASPETH CREEK	BRONX RIVER
Shellbank Basin	EAST BRANCH	HUNTS POINT

Appendix 7.2.3: Figure 7.2-E - Floatables Booming, Netting, and Offloading Sites

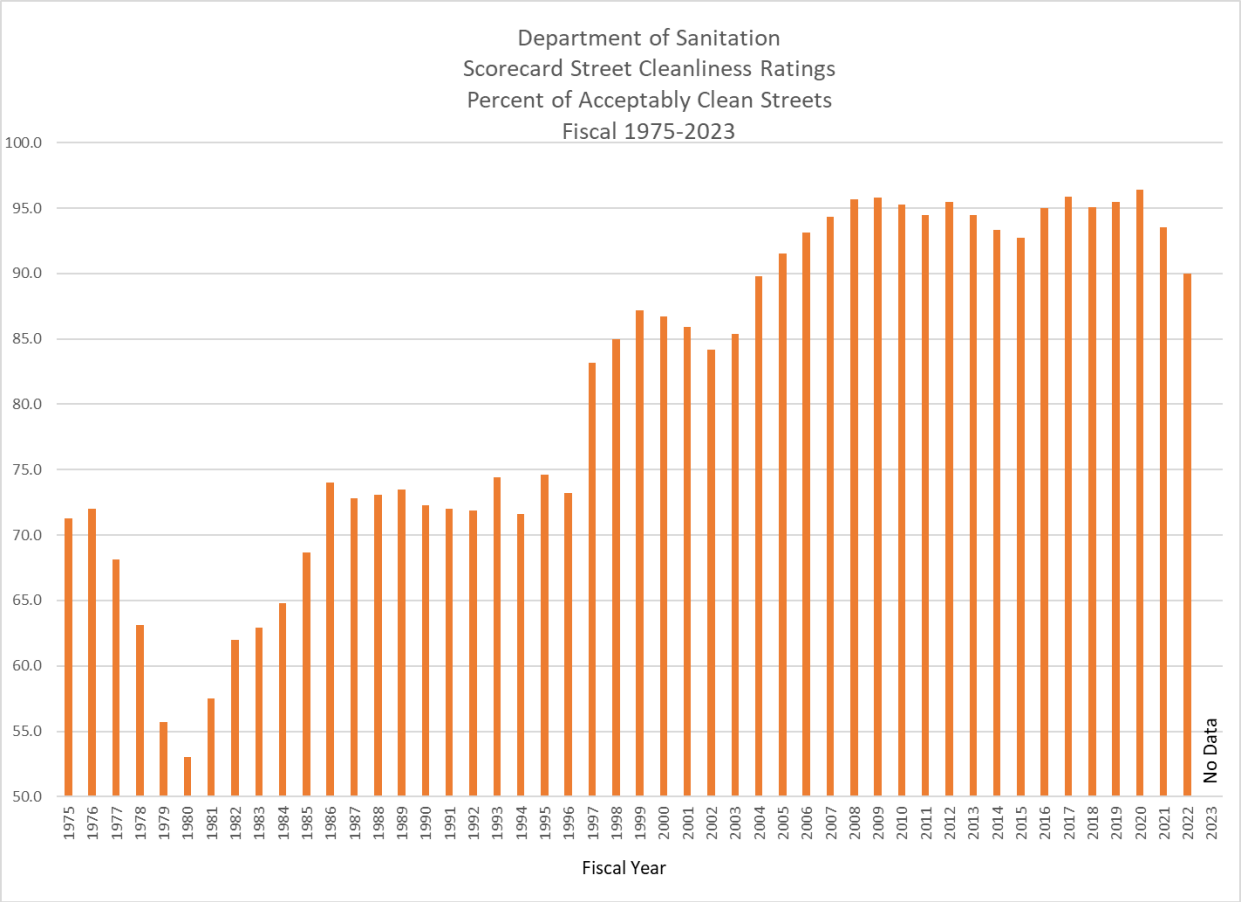


1200 MacArthur Boulevard Mahwah, New Jersey 07430 (201) 529-5151 F:(201) 529-5728	Figure 7-2 Floatables Booming, Netting and Offloading Sites	DEP
	Annual Report on Best Management Practices for CSO's	

Appendix 7.2.4: Figure 7.2-F - City-Wide Floatables Material Recovery 2004-2023


DEP Boom and Skim Program: Total Floatables Collected 2004 - 2023
Cubic Yards Collected
2500
2000
1500
1000
500
0
1494
1130.75
1703
2308.3
2036.5
1577.25
2302.5
1989.75
1393.0
927.0
437.75
246.5
454.625
579.625
513
349.5
444.75
255.75
238
319.978
2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023
Year

Appendix 7.2.5: Figure 7.2-G - NYC DSNY Scorecard Fiscal 1975 - 2023



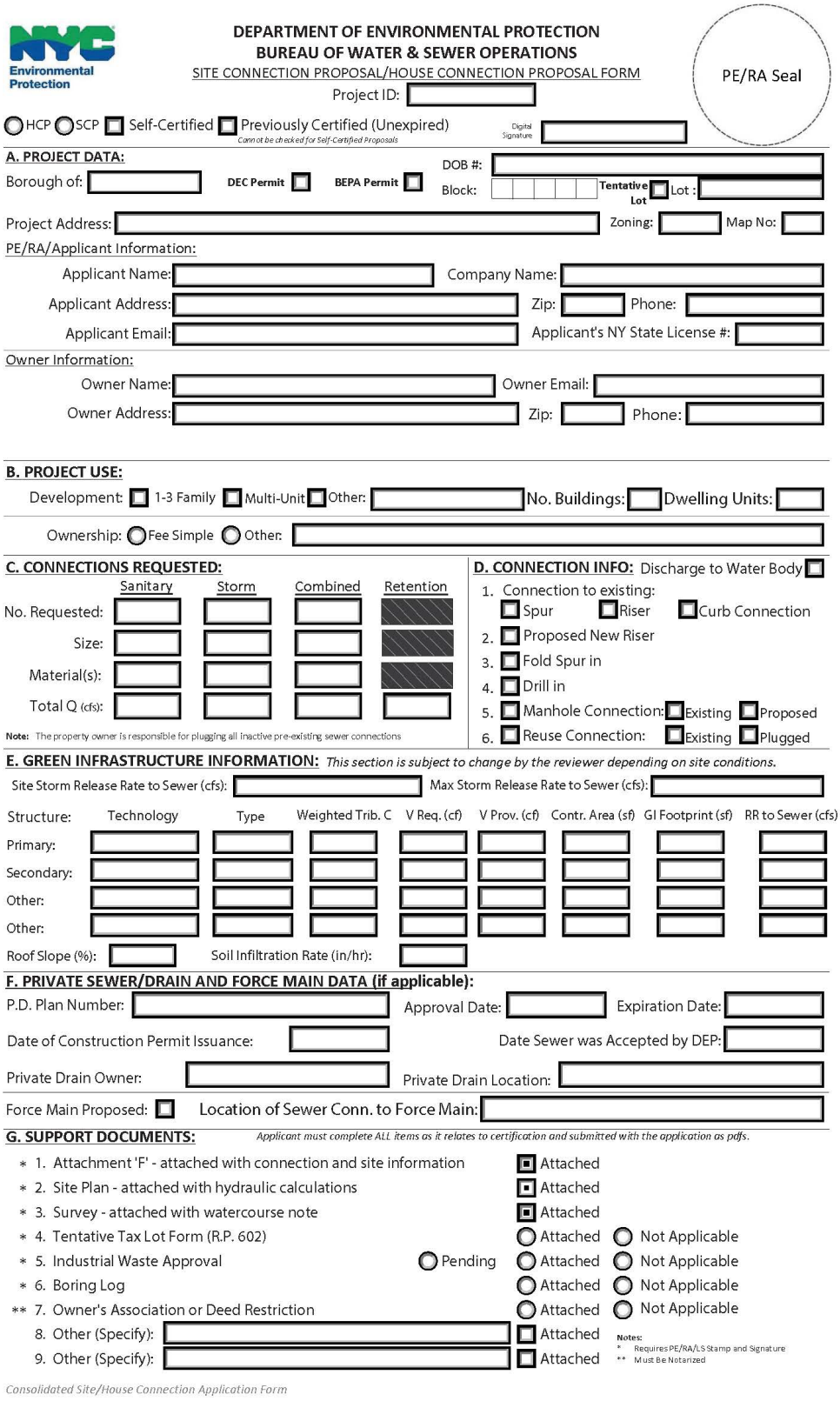
Appendix 8: NO APPENDICES FOR BMP NO. 8

Appendix 9: NO APPENDICES FOR BMP NO. 9

Appendix 10: NO APPENDICES FOR BMP NO. 10

Appendix 11: NO APPENDICES FOR BMP NO. 11

Appendix 12: SITE CONNECTION PROPOSAL FORM



DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER & SEWER OPERATIONS
SITE CONNECTION PROPOSAL/HOUSE CONNECTION PROPOSAL FORM

Project ID:

PE/RA Seal

HCP SCP Self-Certified Previously Certified (Unexpired)
Cannot be checked for Self-Certified Proposals

Digital Signature:

A. PROJECT DATA:

Borough of: DEC Permit BEPA Permit DOB #:

Block: Tentative Lot Lot :

Project Address: Zoning: Map No:

PE/RA/Applicant Information:

Applicant Name: Company Name:

Applicant Address: Zip: Phone:

Applicant Email: Applicant's NY State License #:

Owner Information:

Owner Name: Owner Email:

Owner Address: Zip: Phone:

B. PROJECT USE:

Development: 1-3 Family Multi-Unit Other: No. Buildings: Dwelling Units:

Ownership: Fee Simple Other:

C. CONNECTIONS REQUESTED:

	Sanitary	Storm	Combined	Retention
No. Requested:				
Size:				
Material(s):				
Total Q (cfs):				

Note: The property owner is responsible for plugging all inactive pre-existing sewer connections

D. CONNECTION INFO: Discharge to Water Body

1. Connection to existing: Spur Riser Curb Connection
2. Proposed New Riser
3. Fold Spur in
4. Drill in
5. Manhole Connection: Existing Proposed
6. Reuse Connection: Existing Plugged

E. GREEN INFRASTRUCTURE INFORMATION: *This section is subject to change by the reviewer depending on site conditions.*

Site Storm Release Rate to Sewer (cfs): Max Storm Release Rate to Sewer (cfs):

Structure:	Technology	Type	Weighted Trib. C	V Req. (cf)	V Prov. (cf)	Contr. Area (sf)	GI Footprint (sf)	RR to Sewer (cfs)
Primary:								
Secondary:								
Other:								
Other:								

Roof Slope (%): Soil Infiltration Rate (in/hr):

F. PRIVATE SEWER/DRAIN AND FORCE MAIN DATA (if applicable):

P.D. Plan Number: Approval Date: Expiration Date:

Date of Construction Permit Issuance: Date Sewer was Accepted by DEP:

Private Drain Owner: Private Drain Location:

Force Main Proposed: Location of Sewer Conn. to Force Main:

G. SUPPORT DOCUMENTS: *Applicant must complete ALL items as it relates to certification and submitted with the application as pdfs.*

* 1. Attachment 'F' - attached with connection and site information		Attached	
* 2. Site Plan - attached with hydraulic calculations		Attached	
* 3. Survey - attached with watercourse note		Attached	
* 4. Tentative Tax Lot Form (R.P. 602)		Attached	Not Applicable
* 5. Industrial Waste Approval	Pending	Attached	Not Applicable
* 6. Boring Log		Attached	Not Applicable
** 7. Owner's Association or Deed Restriction		Attached	Not Applicable
8. Other (Specify):		Attached	
9. Other (Specify):		Attached	

Notes:
* Requires PE/RA/LS Stamp and Signature
** Must Be Notarized

Consolidated Site/House Connection Application Form

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER & SEWER OPERATIONS
SITE CONNECTION PROPOSAL/HOUSE CONNECTION PROPOSAL FORM

H. SEWER INFORMATION: *This section to be completed by PE/RA for Self-Certified Applications OR DEP Staff for standard applications.*

Total Site Area (sq ft): Application Fee Amount:

1. There ◯ IS ◯ IS NOT a sanitary sewer fronting the property available for connections. Size: ◯ Public ◯ Private
2. There ◯ IS ◯ IS NOT a storm sewer fronting the property available for connections. Size: ◯ Public ◯ Private
3. There ◯ IS ◯ IS NOT a combined sewer fronting the property available for connections. Size: ◯ Public ◯ Private

4. Distance from the property line to nearest allowable sewer or drain:

	Distance:	If Connecting to Sewer Not Fronting Property: Location:
a) Sanitary		
b) Storm		
c) Combined		

5. Sanitary Discharge Tributary to:

		Owner	Location
Pumping Station: ☐	◯ Public ◯ Private		

I. CERTIFICATION, RESTRICTIONS, SPECIAL CONDITIONS (FOR DEP USE ONLY):

Conditions:

Notes:

B W S O
S T A M P S

THE FOLLOWING SECTION IS TO BE COMPLETED FOR SELF-CERTIFIED APPLICATIONS ONLY

STATEMENTS AND SIGNATURES

Complete the appropriate sections and sign below. All professionals must affix their seal.

APPLICANT

IDENTIFICATION OF RESPONSIBILITIES

I hereby state that the above information is correct and complete to the best of my knowledge and is in compliance with all applicable Administrative Code Provisions and all Department Rules, Regulations, and Directives, except where noted. Falsification of any statement is a misdemeanor under section 26-124 of the Administrative Code and is punishable by a fine or imprisonment, or both. It is unlawful to give to a city employee, or for a city employee to accept, any benefit, monetary or otherwise, either as a gratuity for properly performing the job or in exchange for consideration. Violation is punishable by imprisonment or fine, or both.

Name of Applicant

Signature Date

PE/RA Seal

OWNER

I hereby state that I have authorized the applicant to perform the work specified herein, and agree to indemnify and save harmless to the fullest extent permitted by law, the City of New York, the New York City Water Board, and the New York Municipal Water Finance Authority (hereinafter collectively called "the City") and their, respective officers, representatives, agencies, contractors, servants and employees from and against any and all claims, suits, actions, proceedings, and losses ("claims and losses") that may arise from the construction, maintenance, operation, or use of any connection to the City Sewer System that I or my contractor connect to the City Sewer System from the subject site.

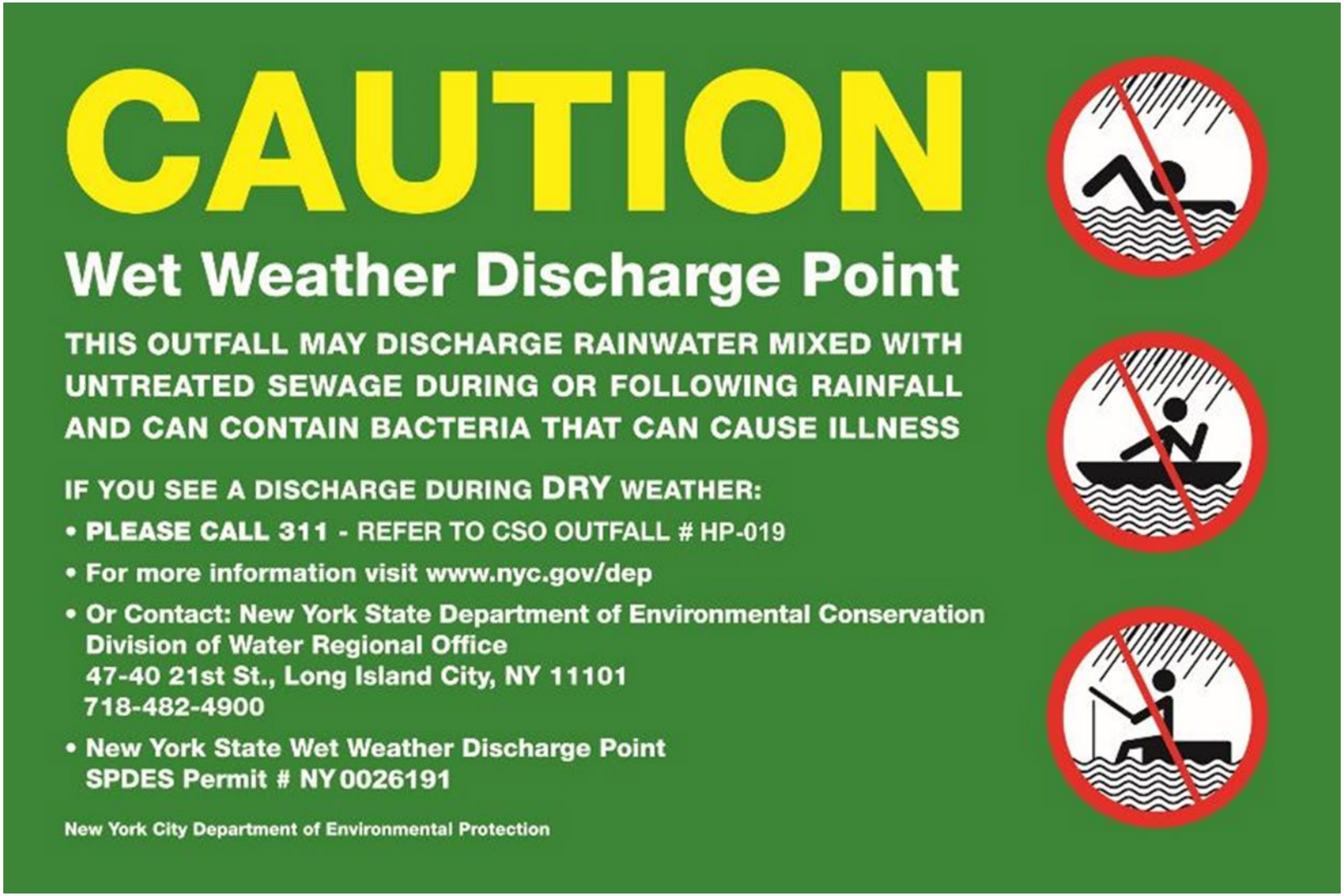
Name of Owner

Signature Date

Appendix 13:

- Appendix 13.1: CSO Sign Sample
- Appendix 13.2: Table: List of installed CSO Signs
- Appendix 13.3: New York City 2023 Beach Surveillance and Monitoring Program

Appendix 13.1: CSO SIGN SAMPLE



Appendix 13.2: TABLE: LIST OF INSTALLED CSO SIGNS

No	OUTFALLID	OUTFALL LOCATION	CONTRIBUTORS	STATUS/COMMENTS
1	**WI - 001**	**Wards Island W.P.C.P. Outfall**		Installed
2	WIM-002	EAST RIVER & E. 73rd STREET	REG #1	Installed
3	WIM-003	EAST RIVER & E. 74th STREET	REG #2A, 2B	Installed
4	WIM-004	EAST RIVER & E. 75th STREET	REG #3	Installed
5	WIM-005	EAST RIVER & E. 76th STREET	REG #4	Installed
6	WIM-006	EAST RIVER & E. 77th STREET	REG #5	Installed
7	WIM-007	EAST RIVER & E. 78th STREET	REG #6	Installed
8	WIM-008	EAST RIVER & E. 79th STREET	REG #7	Installed
9	WIM-009	EAST RIVER & E. 83rd STREET	REG #8	Installed
10	WIM-010	EAST RIVER & E. 84th STREET	REG #9	Installed
11	WIM-011	EAST RIVER & E. 86th STREET	REG #10	Installed
12	WIM-012	EAST RIVER & E. 89th STREET	REG #11	Installed
13	WIM-013	EAST RIVER & E. 90th STREET	REG #12	Installed
14	WIM-014	EAST RIVER & E. 91st STREET	REG #13	Installed
15	WIM-015	EAST RIVER & E. 92nd STREET	REG #14	Installed
16	WIM-016	EAST RIVER & E. 95th STREET	REG #15	Installed
17	WIM-017	EAST RIVER & E. 96th STREET	REG #16	Installed
18	WIM-018	EAST RIVER & E. 100th STREET	REG #17	Installed
19	WIM-019	EAST RIVER & E. 101st STREET	REG #18	Installed
20	WIM-020	EAST RIVER & E. 103rd STREET	REG #20	Installed
21	WIM-021	EAST RIVER & E. 104th STREET	REG #21	Installed
22	WIM-022	EAST RIVER & E. 105th STREET	REG #22	Installed
23	WIM-023	EAST RIVER & E. 106th STREET	REG #23	Installed
24	WIM-024	EAST RIVER & E. 110th STREET	REG #24	Installed
25	WIM-025	EAST RIVER & E. 114th STREET	REG #25	Installed
26	WIM-026	EAST RIVER & E. 115th STREET	REG #26	Installed
27	WIM-027	EAST RIVER & E. 116th STREET	REG #27	Installed

28	WIM-030	EAST RIVER & E. 119th STREET	REG #30	Installed
29	WIM-031	EAST RIVER & E. 120th STREET	REG #31	Installed
30	WIM-032	EAST RIVER & E. 121st STREET	REG #32	Installed
31	WIM-033	EAST RIVER & E. 122nd STREET	REG #33	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
32	WIM-034	EAST RIVER & E. 124th STREET	REG #34	Installed
33	WIM-035	EAST RIVER & E. 125th STREET	REG #35	Installed
34	WIM-036	HARLEM RIVER & E. 129th STREET	REG #36	Installed
35	WIM-037	HARLEM RIVER & E. 130th STREET	REG #37	Installed
36	WIM-038	HARLEM RIVER & E. 135th STREET	REG #38	Installed
37	WIM-039	HARLEM RIVER & W. 140th STREET	REG #39	Installed
38	WIM-040	HARLEM RIVER & W. 141st STREET	REG #40	Installed
39	WIM-041	HARLEM RIVER & W. 142nd STREET	REG #41	Installed
40	WIM-042	HARLEM RIVER & W. 143rd STREET	REG #42	Installed
41	WIM-043	EAST RIVER & E. 102nd STREET	REG #19	Installed
42	WIM-044	HARLEM RIVER & W. 145th STREET	REG #44	Installed
43	WIM-045	HARLEM RIVER & W. 149th STREET	REG #45	Installed
44	WIM-046	HARLEM RIVER & W. 151st STREET	REG #46	Installed
45	WIM-047	HARLEM RIVER & W. 154th STREET	REG #47	Installed
46	WIM-048	HARLEM RIVER & W. 155th STREET	REG #48	Installed
47	WIM-050	HARLEM RIVER & W. 156th STREET	REG #50	Installed
48	WIM-051	HARLEM RIVER & W. 167th STREET	REG #51	Installed
49	WIM-052	HARLEM RIVER & W. 176th STREET	REG #52	Installed
50	WIB-053	HUDSON RIVER & W. 256th STREET	REG #R-3	Installed
51	WIB-054	HUDSON RIVER & W. 248th STREET	REG #R-2	Installed
52	WIB-055	HUDSON RIVER & W. 236th STREET	REG #R-1	Installed
53	WIB-056	HARLEM RIVER & W. 192nd STREET	REG #67	Installed
54	WIB-057	HARLEM RIVER & LANDING ROAD	REG #66	Installed
55	WIB-058	HARLEM RIVER & W. 178th STREET	REG #65	Installed
56	WIB-059	HARLEM RIVER & W. 176th STREET	REG #64	Installed

57	WIB-060	HARLEM RIVER & UNDER HIGH BRIDGE	REG #62	Installed
58	WIB-061	HARLEM RIVER & W. 167th STREET	REG #61	Installed
59	WIB-062	HARLEM RIVER & JEROME AVENUE	REG #60, 60A	Installed
60	WIB-063	HARLEM RIVER & S/O MCCOMBS DAM BRIDGE	REG #72	Installed
61	WIB-064	HARLEM RIVER & E. 149th STREET	REG #59	Installed
62	WIB-065	HARLEM RIVER & PARK AVENUE	REG #57	Installed
63	WIB-066	HARLEM RIVER & THIRD AVENUE BRIDGE	REG #56	Installed
64	WIB-067	HARLEM RIVER & LINCOLN AVENUE	REG #55	Installed
65	WIB-068	BRONX KILL & BROOK AVENUE	REG #53, 54	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
66	WIB-069	BRONX KILL & CYPRESS AVENUE	REG #71	Installed
67	WIB-070	EAST RIVER & E. 134th STREET	REG #70	Installed
68	WIB-071	EAST RIVER & E. 138th STREET	REG #69	Installed
69	WIB-072	EAST RIVER & E. 149th STREET	REG #68	Installed
70	WIB-073	BRONX KILL & SAINT ANN'S AVENUE	REG #73	Installed
71	WIB-075	HARLEM RIVER & E. 138th STREET	REG #58	Installed
72	WIB-076	HARLEM RIVER & BRADLEY TERRACE	REG #MH-1	Installed
73	WIB-077	HARLEM RIVER & TEUNISSEN PLACE	REG #MH-2	Installed
74	WIB-078	HARLEM RIVER & W. BROADWAY BRIDGE	REG #MH-3	Installed
75	WIB-079	HUDSON RIVER & W. 261st STREET (MT. ST. VINCENT)	REG #R-4	Installed
76	**NR - 001**	**North River W.P.C.P. Outfall**		Installed
77	NR-002	HUDSON RIVER & W. 152nd STREET	REG #N-20,21,21A,21B	Installed
78	NR-003	HUDSON RIVER & W. 158th STREET	REG #N-19	Installed
79	NR-004	HUDSON RIVER & W. 171st STREET	REG #N-18	Installed
80	NR-005	HUDSON RIVER & W. 190th STREET	REG #N-17	Installed
81	NR-006	HUDSON RIVER & DYCKMAN STREET	REG #N-16	Installed
82	NR-007	HARLEM RIVER & W. 218th STREET	REG #N-15	Installed
83	NR-008	HARLEM RIVER & W. 216th STREET	REG #N-14	Installed
84	NR-009	HARLEM RIVER & W. 215th STREET	REG #N-13	Installed
85	NR-010	HARLEM RIVER & W. 211th STREET	REG #N-10, N-11, N-12	Installed

86	NR-011	HARLEM RIVER & W. 209th STREET	REG #N-9	Installed
87	NR-012	HARLEM RIVER & W. 207th STREET	REG #N-7	Installed
88	NR-013	HARLEM RIVER & W. 206th STREET	REG #N-6	Installed
89	NR-014	HARLEM RIVER & W. 205th STREET	REG #N-5	Installed
90	NR-016	HARLEM RIVER & W. 203rd STREET	REG #N-4	Installed
91	NR-017	HARLEM RIVER & W. 201st STREET	REG #N-3	Installed
92	NR-018	HARLEM RIVER & HIGHBRIDGE PARK	REG #N-1	Installed
93	NR-019	HUDSON RIVER & BANK STREET	REG #N-56	Installed
94	NR-020	HUDSON RIVER & JANE STREET	REG #N-55	Installed
95	NR-021	HUDSON RIVER & GANSEVOORT STREET	REG #N-54	Installed
96	NR-022	HUDSON RIVER & S/O W. 17th STREET	REG #N-51	Installed
97	NR-023	HUDSON RIVER & W. 18th STREET	REG #N-50	Installed
98	NR-024	HUDSON RIVER & W. 21st STREET	REG #N-48, N-49	Installed
99	NR-025	HUDSON RIVER & W. 24th STREET	REG #N-47	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
100	NR-026	HUDSON RIVER & W. 26th STREET	REG #N-46	Installed
101	NR-027	HUDSON RIVER & W. 30th STREET	REG #N-45	Installed
102	*NR-028*	*HUDSON RIVER & W. 36th STREET*	*REG #N-43*	*WAIVER*
103	NR-029	HUDSON RIVER & W. 40th STREET	REG #N-42	Installed
104	NR-030	HUDSON RIVER & W. 43rd STREET	REG #N-39, N-40	Installed
105	NR-031	HUDSON RIVER & W. 44th STREET	REG #N-38	Installed
106	NR-032	HUDSON RIVER & W. 46th STREET	REG #N-36, N-37	Installed
107	NR-033	HUDSON RIVER & W. 48th STREET	REG #N-33, N-34	Installed
108	NR-034	HUDSON RIVER & W. 50th STREET	REG #N-32	Installed
109	NR-035	HUDSON RIVER & W. 56th STREET	REG #N-31	Installed
110	NR-036	HUDSON RIVER & W. 59th STREET	REG #N-30	Installed
111	NR-037	HUDSON RIVER & W. 72nd STREET	REG #N-29	Installed
112	NR-038	HUDSON RIVER & W. 80th STREET	REG #N-28	Installed
113	NR-039	HUDSON RIVER & W. 91st STREET	REG #N-27	Installed
114	NR-040	HUDSON RIVER & W. 96th STREET	REG #N-26, N-26A	Installed

115	NR-041	HUDSON RIVER & W. 108th STREET	REG #N-25	Installed
116	NR-042	HUDSON RIVER & W. 115th STREET	REG #N-24	Installed
117	NR-043	HUDSON RIVER & SAINT CLAIR PL	REG #N-23	Installed
118	NR-044	HUDSON RIVER & W. 138th STREET	REG #N-22	Installed
119	NR-045	HARLEM RIVER & ACADEMY STREET	REG #N-2	Installed
120	NR-046	HUDSON RIVER & W. 66th STREET	REG #N-29A	Installed
121	NR-047	HUDSON RIVER & W. 47th STREET	REG #N-35	Installed
122	NR-048	HUDSON RIVER & W. 42nd STREET	REG #N-40, N-41	Installed
123	NR-049	HUDSON RIVER & W. 14th STREET	REG #N-52	Installed
124	NR-050	HUDSON RIVER & BLOOMFIELD STREET	REG #N-53	Installed
125	NR-051	HUDSON RIVER & W. 49th STREET	N/A	Installed
126	NR-052	HUDSON RIVER & W. 34th STREET	REG #N-44	Installed
127	NR-055	HARLEM RIVER & W. 207th STREET	REG #N-7, N-8	Installed
128	NR-056	HUDSON RIVER & W. 142nd STREET	REG #N-22A	Installed
129	**HP - 001**	**Hunt's Point W.P.C.P. Outfall**		Installed
130	HP-002	EAST RIVER & TIFFANY STREET	REG #9, 9A	Installed
131	HP-003	EAST RIVER & FARRAGUT STREET	REG #10	Installed
132	HP-004	BRONX RIVER & WEST FARM ROAD	CSO-28, 28A	Installed
133	HP-005	HUTCHINSON RIVER & HOLLERS AVENUE PS	HOLLERS AVENUE P.S.	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
134	HP-006	HUTCHINSON RIVER & BARTOW AVENUE	CO-OP CITY SO PS, ELY AVE PS	Installed
135	HP-007	BRONX RIVER & E. 177th STREET	CSO-27, 27A	Installed
136	HP-008	BRONX RIVER & LAFAYETTE AVENUE	CSO-26	Installed
137	HP-009	BRONX RIVER & METCALF AVENUE	REG #13	Installed
138	HP-010	BRONX RIVER & LACOMBE AVENUE	CSO-25	Installed
139	HP-011	EAST RIVER & WHITE PLAINS ROAD	REG #5, 6, 7	Installed
140	HP-012	WESTCHESTER CREEK & LAFAYETTE AVENUE	CSO-23A	Installed
141	HP-013	PUGSLEY'S CREEK & NEWMAN AVENUE	CSO-24	Installed
142	HP-014	WESTCHESTER CREEK & EAST TREMONT AVENUE	CSO-29, 29A	Installed
143	HP-015	WESTCHESTER CREEK & LATTING STREET	CSO-22	Installed

144	HP-016	WESTCHESTER CREEK & BRUCKNER EXPWY	REG #4	Installed
145	HP-017	EAST RIVER & EMERSON AVENUE	REG #11	Installed
146	HP-018	EAST RIVER & ROBINSON AVENUE	REG #12	Installed
147	HP-019	EAST RIVER & CALHOUN AVENUE	REG #3	Installed
148	HP-020	EAST RIVER & THROGS NECK BLVD	REG #2A	Installed
149	HP-021	EAST RIVER & PENNYFIELD AVENUE	REG #2	Installed
150	HP-022	EASTCHESTER BAY & E 177th STREET	REG #1	Installed
151	HP-023	HUTCHINSON RIVER & CONNER STREET	REG #15, CONNOR ST.PS	Installed
152	HP-024	HUTCHINSON RIVER & E 233rd STREET	REG #15A	Installed
153	HP-025	EAST RIVER & TRUXTON STREET	REG #8	Installed
154	HP-026	WEIR CREEK & ELLESWORTH AVENUE	REG #14	Installed
155	HP-028	EASTCHESTER BAY & OUTLOOK AVENUE	CSO-20	Installed
156	HP-029	EASTCHESTER BAY & WATT AVENUE	CSO-21	Installed
157	HP-031	HUTCHINSON RIVER & BELLAMY LOOP	CSO-32, CO-OP CITY N. P.S.	Installed
158	HP-032	EAST RIVER & RIKERS ISLAND NORTH	RIKER'S ISLAND N. P.S.	Installed
159	HP-033	WESTCHESTER CREEK & S/O BRUCKNER BLVD, E/O ZEREGA AVE	CSO-23	Installed
160	HP-034	WESTCHESTER CREEK & NEWBOLD AVENUE (CITY ISLAND)	COMMERCE AVENUE P.S.	Installed
161	HP-036	LONG ISLAND SOUND & SCHOFIELD STREET	CITY ISLAND P.S.	Installed
162	*HP-037*	*SHORE ROAD LAGOON & ORCHARD BEACH*	*ORCHARD BEACH P.S.*	*WAIVER*
163	HP-039	EAST RIVER & N/O HUNTS POINT AVE	HUNT'S PONT MARKET P.S.	Installed
164	**NC - 001**	**Newtown Creek W.P.C.P. Outfall**		Installed
165	NCB-002	WHALE CREEK & WWTP OVERFLOW	WWTP OVERFLOW	Installed
166	NCB-003	EAST RIVER & GREENPOINT AVENUE	REG #B-11	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
167	NCB-004	EAST RIVER & QUAY STREET	REG #B-10	Installed
168	NCM-005	EAST RIVER & E. 63rd STREET	REG #M-51	Installed
169	NCB-006	EAST RIVER & N. 12th STREET	REG #B-9	Installed
170	NCB-007	EAST RIVER & N. 5th STREET	REG #B-8	Installed
171	NCB-008	EAST RIVER & METROPOLITAN AVENUE	REG #B-7	Installed
172	NCB-010	EAST RIVER & GRAND STREET	REG #B-6A	Installed

173	NCM-011	EAST RIVER & E. 48th STREET	REG #M-47A	Installed
174	NCB-012	EAST RIVER & S. 5th STREET	REG #B-6	Installed
175	NCB-013	WALLABOUT CHANNEL & DIVISION AVENUE	REG #B-5	Installed
176	NCB-014	WALLABOUT CHANNEL & KENT AVENUE	REG #B-3, B-4	Installed
177	NCB-015	ENGLISH KILLS & JOHNSON AVENUE	REG #B-1	Installed
178	*NCM-016*	*EAST RIVER & E. 46th STREET*	*REG #M-46*	*WAIVER*
179	NCM-017	EAST RIVER & E. 42nd STREET	REG #M-45A	Installed
180	NCM-018	EAST RIVER & E. 41st STREET	REG #M-45	Installed
181	NCB-019	NEWTOWN CREEK & METROPOLITAN AVENUE	REG #B-2	Installed
182	NCM-020	EAST RIVER & E. HOUSTON STREET	REG #M-31	Installed
183	NCB-021	NEWTOWN CREEK & MCGUINNESS BOULEVARD	CSO next to B-17	Installed
184	NCB-022	NEWTOWN CREEK & MCGUINNESS BOULEVARD	REG #B-17	Installed
185	NCB-023	NEWTOWN CREEK & FRANKLIN STREET	REG #B-16	Installed
186	NCB-024	EAST RIVER & DUPONT STREET	REG #B-15	Installed
187	NCB-025	EAST RIVER & FREEMAN STREET	REG #B-14	Installed
188	NCB-026	EAST RIVER & GREEN STREET	REG #B-13	Installed
189	NCB-027	EAST RIVER & HURON STREET	REG #B-12	Installed
190	NCM-028	EAST RIVER & DELANCEY STREET	REG #M-28	Installed
191	NCQ-029	NEWTOWN CREEK & 43rd STREET	REG #Q-2	Installed
192	NCM-030	EAST RIVER & E. 71st STREET	REG #M-51C	Installed
193	NCM-031	EAST RIVER & E. 70th STREET	REG #M-51A, M-15B	Installed
194	NCM-032	EAST RIVER & E. 61st STREET	REG #M-50	Installed
195	NCM-033	EAST RIVER & E. 57th STREET	REG #M-49	Installed
196	NCM-034	EAST RIVER & E. 54th STREET	REG #M-48	Installed
197	NCM-035	EAST RIVER & E. 53rd STREET	REG #M-48A	Installed
198	NCM-036	EAST RIVER & E. 49th STREET	REG #M-47	Installed
199	NCM-037	EAST RIVER & E. 41st STREET	REG #M-44	Installed
200	NCM-038	EAST RIVER & E. 38th STREET	REG #M-43B	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
201	NCM-039	EAST RIVER & E. 37th STREET	REG #M-43A	Installed

202	NCM-040	EAST RIVER & E. 36th STREET	REG #M-43	Installed
203	NCM-041	EAST RIVER & E. 33rd STREET	REG #M-42	Installed
204	NCM-042	EAST RIVER & BROOME STREET	REG #M-27	Installed
205	NCM-043	EAST RIVER & E. 30th STREET	REG #M-41	Installed
206	*NCM-044*	*EAST RIVER & E. 29th STREET*	*REG #M-41A*	*WAIVER*
207	*NCM-045*	*EAST RIVER & E. 26th STREET*	*REG #M-40*	*WAIVER*
208	NCM-046	EAST RIVER & E. 24th STREET	REG #M-39, M-39A	Installed
209	NCM-047	EAST RIVER & E. 23rd STREET	REG #M-38B	Installed
210	NCM-048	EAST RIVER & E. 21st STREET	REG #M-38	Installed
211	NCM-049	EAST RIVER & E. 18th STREET	REG #M-37	Installed
212	NCM-051	EAST RIVER & OLD SLIP	REG #M-12	Installed
213	NCM-052	EAST RIVER & E. 14th STREET	REG #M-36	Installed
214	NCM-053	EAST RIVER & E. 11th STREET	REG #M-35	Installed
215	NCM-054	EAST RIVER & E. 8th STREET	REG #M-34	Installed
216	NCM-055	NEWTOWN CREEK & E. 6th STREET	REG #M-33	Installed
217	NCM-056	EAST RIVER & E. 3rd STREET	REG #M-32	Installed
218	NCM-057	EAST RIVER & STANTON STREET	REG #M-30	Installed
219	NCM-058	EAST RIVER & RIVINGTON STREET	REG #M-29	Installed
220	NCM-059	EAST RIVER & S/O GRAND STREET	REG #M-26	Installed
221	NCM-060	EAST RIVER & S/O CORLEARS HOOK PARK	REG #M-25	Installed
222	NCM-061	EAST RIVER & JACKSON STREET	REG #M-23	Installed
223	NCM-062	EAST RIVER & GOUVERNEUR SLIP E.	REG #M-22	Installed
224	NCM-063	EAST RIVER & JEFFERSON STREET	REG #M-21	Installed
225	NCM-064	EAST RIVER & MARKET SLIP	REG #M-20	Installed
226	NCM-065	EAST RIVER & S/O CATHERINE STREET	REG #M-18	Installed
227	NCM-066	EAST RIVER & ROBERT WAGNER SR. PLACE	REG #M-17	Installed
228	NCM-067	EAST RIVER & MAIDEN LANE	REG #M-13	Installed
229	NCM-068	EAST RIVER & COENTIES SLIP	REG #M-11	Installed
230	NCM-069	EAST RIVER & BROAD STREET	REG #M-10	Installed
231	*NCM-070*	*HUDSON RIVER & BATTERY PLACE*	*REG #M-9*	*WAIVER*

232	*NCM-071*	*HUDSON RIVER & RECTOR STREET*	*REG #M-6, M-7*	*WAIVER*
233	*NCM-072*	*HUDSON RIVER & VESEY STREET*	*REG #M-5*	*WAIVER*
234	*NCM-073*	*HUDSON RIVER & DUANE STREET*	*REG #M-4*	*WAIVER*
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
235	NCM-074	HUDSON RIVER & VESTRY STREET	REG #M-3	Installed
236	NCM-075	HUDSON RIVER & WATTS STREET	REG #M-2	Installed
237	NCM-076	HUDSON RIVER & CLARKSON STREET	REG #M-1	Installed
238	NCQ-077	MASPETH CREEK & 49th STREET	REG #Q-1	Installed
239	NCM-078	EAST RIVER & N/O DOVER STREET	REG #M-16	Installed
240	NCM-080	HUDSON RIVER & N/O VANDAM STREET	REG #TG-2	Installed
241	NCM-081	HUDSON RIVER & N/O CHARLES STREET	REG #TG-1	Installed
242	NCB-082	EAST RIVER & S. 8th STREET	REG #B-5A	Installed
243	NCB-083	NEWTOWN CREEK & METROPOLITAN/SCOTT AVENUE	N/A	Installed
244	NCM-087	EAST RIVER & E 22nd STREET	REG #M-38A	Installed
245	**RH - 001**	**Red Hook W.P.C.P. Outfall**		Installed
246	RH-002	EAST RIVER & HUDSON AVENUE	REG #R-21A	Installed
247	RH-003	EAST RIVER & HUDSON AVENUE	REG #R-21	Installed
248	RH-005	EAST RIVER & GOLD STREET	REG #R-20A	Installed
249	RH-006	EAST RIVER & PEARL STREET	REG #R-19A	Installed
250	RH-007	EAST RIVER & ADAMS STREET	REG #R-19	Installed
251	RH-008	EAST RIVER & WASHINGTON STREET	REG #R-18A	Installed
252	RH-009	EAST RIVER & MAIN STREET	REG #R-18	Installed
253	RH-010	EAST RIVER & ORANGE STREET	REG #R-16	Installed
254	RH-011	EAST RIVER & MONTAGUE STREET	REG #R-15	Installed
255	RH-012	EAST RIVER & CADMAN PLAZA	REG #R-17	Installed
256	RH-013	EAST RIVER & JORALEMON STREET	REG #R-14	Installed
257	RH-014	EAST RIVER & ATLANTIC AVENUE	REG #R-13	Installed
258	RH-016	EAST RIVER & AMITY STREET	REG #R-12	Installed
259	RH-018	EAST RIVER & KANE STREET	REG #R-11	Installed
260	RH-019	BUTTERMILK CHANNEL & HAMILTON AVENUE	REG #R-9	Installed

261	RH-020	BUTTERMILK CHANNEL & DEGRAW STREET	REG #R-10	Installed
262	RH-021	BUTTERMILK CHANNEL & SACKETT STREET	REG #R-9A	Installed
263	RH-022	ATLANTIC BASIN & BOWNE STREET	REG #R-8	Installed
264	RH-023	ATLANTIC BASIN & COMMERCE STREET	REG #R-7	Installed
265	RH-024	ATLANTIC BASIN & VERONA STREET	REG #R-6	Installed
266	RH-025	ATLANTIC BASIN & PIONEER STREET	REG #R-5	Installed
267	RH-028	BUTTERMILK CHANNEL & WOLCOTT STREET	REG #R-2	Installed
268	RH-029	UPPER NEW YORK BAY & VAN BRUNT STREET	REG #R-1, VAN BLANT ST. PS	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
269	RH-030	GOWANUS CANAL & HICKS STREET	CSO-2	Installed
270	RH-031	GOWANUS CANAL & CREAMER STREET	BOND-LORRAINE SWR RELIEF	Installed
271	RH-033	GOWANUS CANAL & DOUGLASS STREET (E)	REG #R-25	Installed
272	RH-034	HEAD OF GOWANUS CANAL	GOWANUS PS	Installed
273	RH-035	GOWANUS CANAL & BOND STREET	CSO-3, BOND-LORR SWR REL.	Installed
274	RH-036	GOWANUS CANAL & PRESIDENT STREET	REG #R-22	Installed
275	RH-037	GOWANUS CANAL & SACKETT STREET	REG #R-23	Installed
276	RH-038	GOWANUS CANAL & DEGRAW STREET	REG #R-24	Installed
277	RH-040	EAST RIVER & NAVY YARD	REG #R-26	Installed
278	**TI - 001**	**Tallman Island W.P.C.P. Outfall**		Installed
279	TI-003	POWELL'S COVE & N/O 7th AVENUE	REG #10A, 10B	Installed
280	TI-004	EAST RIVER & 151st STREET	REG #11	Installed
281	TI-005	EAST RIVER & 154th STREET	REG #12	Installed
282	TI-006	LITTLE NECK BAY & 24th AVENUE	24 AVENUE P.S.	Installed
283	TI-007	ALLEY CREEK & NORTHERN BLVD	OLD DOUG P.S.	Installed
284	TI-008	ALLEY CREEK & 46th AVENUE	REG #46, 47, 48, 49	Installed
285	*TI-009*	*LITTLE NECK BASIN & DOUG. BAY P.S.*	*DOUG BAY P.S.*	*WAIVER*
286	TI-010	FLUSHING RIVER & ROOSEVELT AVENUE	REG #30, 31, 40, 44	Installed
287	TI-011	FLUSHING BAY & 32nd AVENUE	REG #9, 51, 52, 53, 54	Installed
288	TI-012	FLUSHING BAY & 29th AVENUE	122ND STREET P.S.	Installed
289	TI-014	FLUSHING BAY & 23rd AVENUE	REG #7	Installed

290	TI-015	FLUSHING BAY & 22nd AVENUE	REG #6	Installed
291	TI-016	FLUSHING BAY & 20th AVENUE	REG #5	Installed
292	TI-017	FLUSHING BAY & 15th AVENUE	REG #4	Installed
293	TI-018	FLUSHING BAY & 14th AVENUE	REG #3	Installed
294	TI-019	EAST RIVER & 9th AVENUE	REG #2	Installed
295	TI-020	EAST RIVER & COLLEGE PLACE	REG #1	Installed
296	TI-022	FLUSHING RIVER & 40th ROAD	REG #55, 56, 57, 58	Installed
297	TI-023	LITTLE BAY & CRYDERS LANE	REG #13, CLEARVIEW P.S.	Installed
298	TI-024	ALLEY POND & 61st AVENUE	NEW DOUG P.S.	Installed
299	TI-025	ALLEY CREEK (W) & 400' SOUTH OF LIRR BRIDGE	Alley Creek CSO Storage Facility	Installed
300	**BB - 001**	**Bowery Bay W.P.C.P. Outfall**		Installed
301	BB-002	RIKER'S ISLAND CHANNEL & 45th STREET	REG #2	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
302	BB-003	BOWERY BAY & HAZEN STREET	REG #3	Installed
303	BB-004	DUTCH KILLS & BORDEN AVENUE	REG #L-3, L-41	Installed
304	BB-005	BOWERY BAY & E/O 81st STREET	REG #4	Installed
305	BB-006	FLUSHING BAY & W/O MARINA (114th STREET)	REG #10, 12, 13	Installed
306	BB-007	FLUSHING BAY & 27th AVENUE	REG #5	Installed
307	BB-008	FLUSHING BAY & 31st DR (108th STREET)	REG #6, 7, 8, 9	Installed
308	BB-009	DUTCH KILLS & HUNTERS POINT AVE.	REG #L-3B, L-37,L-38,L-41,L-3A	Installed
309	BB-010	DUTCH KILLS & QUEENS-MIDTOWN EXPWY	REG #L-3C	Installed
310	BB-011	NEWTOWN CREEK & GREENPOINT AVENUE	REG #L-1	Installed
311	BB-012	NEWTOWN CREEK & 35th STREET	REG #L-2	Installed
312	BB-013	NEWTOWN CREEK & 11th STREET	REG #L-8	Installed
313	BB-014	NEWTOWN CREEK & VERNON BLVD	REG #L-9	Installed
314	BB-015	NEWTOWN CREEK & 5th STREET	REG #L-10	Installed
315	BB-016	EAST RIVER & 51st AVENUE	REG #L-11	Installed
316	BB-017	EAST RIVER & 50th AVENUE	REG #L-12	Installed
317	BB-018	EAST RIVER & 49th AVENUE	REG #L-12A	Installed
318	BB-021	EAST RIVER & 47th AVENUE	REG #L-15	Installed

319	BB-022	EAST RIVER & 5th STREET	REG #L-16	Installed
320	BB-023	EAST RIVER & 44th DRIVE	REG #L-17	Installed
321	BB-024	EAST RIVER & 43rd AVENUE	REG #L-18	Installed
322	BB-025	EAST RIVER & 41st AVENUE	REG #L-19	Installed
323	BB-026	DUTCH KILLS & BETW. 28th & 29th STREET	REG #L-4, L-39, L-40, L-42	Installed
324	BB-027	EAST RIVER & 38th AVENUE	REG #L-20	Installed
325	BB-028	EAST RIVER & 37th AVENUE	REG #L-21	Installed
326	BB-029	EAST RIVER & BROADWAY	REG #L-22	Installed
327	BB-030	EAST RIVER & 30th ROAD	REG #L-23	Installed
328	BB-032	EAST RIVER & MAIN AVENUE	REG #L-29, L-29A, MH-15	Installed
329	BB-033	EAST RIVER & 27th AVENUE	REG #L-27	Installed
330	BB-034	EAST RIVER & HOYT AVENUE	REG #L-30	Installed
331	BB-035	EAST RIVER & DITMARS BLVD	REG #L-31	Installed
332	BB-036	EAST RIVER & 21st AVENUE	REG #L-32	Installed
333	BB-037	EAST RIVER & 20th AVENUE	REG #L-33	Installed
334	BB-040	DUTCH KILLS & 49th AVENUE	REG #L-5	Installed
335	BB-041	LUYSTER CREEK & 19th AVENUE	REG #1	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
336	BB-042	DUTCH KILLS & W/O 27th STREET	REG #L-6	Installed
337	BB-043	NEWTOWN CREEK & 11th STREET	REG #L-7	Installed
338	BB-045	EAST RIVER & 9th STREET	REG #L-25	Installed
339	BB-046	EAST RIVER & 3rd STREET	REG #L-26	Installed
340	BB-047	EAST RIVER & ASTORIA BLVD	REG #L-28	Installed
341	BB-049	NEWTOWN CREEK & 21st STREET	N/A	Installed
342	BB-053	HELL GATE & 20th AVENUE	N/A	Installed
343	**26W - 001**	**26th Ward W.P.C.P. Outfall**		Installed
344	26W-002	HENDRIX CREEK & PLANT BYPASS	PLANT BYPASS	Installed
345	26W-003	FRESH CREEK BASIN & WILLIAMS AVENUE	REG #2	Installed
346	26W-004	HENDRIX CREEK & HENDRIX STREET	REG #1	Installed
347	26W-005	SPRING CREEK & SPRING CREEK AUXILIARY WWTP	REG #3, JAM REG #2	Installed

348	**CI - 001**	**Coney Island W.P.C.P. Outfall**		Installed
349	**CI - 002**	**Coney Island W.P.C.P. Outfall**		Installed
350	CI-004	PAERDEGAT BASIN & FLATLANDS AVENUE	TG #5	Installed
351	CI-005	PAERDEGAT BASIN & FLATLANDS AVENUE	REG #1, 2, 3, 4	Installed
352	CI-006	PAERDEGAT BASIN & RALPH AVENUE	REG #6	Installed
353	**OH - 001**	**Owls Head W.P.C.P. Outfall**		Installed
354	OH-002	UPPER NEW YORK BAY & 64th STREET	REG #6A, 6B, 6C	Installed
355	OH-003	UPPER NEW YORK BAY & 49th STREET	REG #7A, 7B, 7C	Installed
356	*OH-004*	*UPPER NEW YORK BAY & 43rd STREET*	*REG #7D, 19th ST. PS*	*WAIVER*
357	OH-005	GOWANUS CANAL & CARROLL STREET	3rd AVE SEWER RELIEF	Installed
358	OH-006	GOWANUS CANAL & 19th STREET (N0RTH SIDE)	3rd AVE SEWER RELIEF	Installed
359	OH-007	GOWANUS CANAL & 2nd AVENUE	2nd AVENUE P.S.	Installed
360	OH-015	GRAVESEND BAY & 17th AVENUE	REG #9A, 9B, 9C	Installed
361	OH-017	UPPER NEW YORK BAY & 92nd STREET	REG #1	Installed
362	OH-018	UPPER NEW YORK BAY & 79th STREET	REG #2, 3	Installed
363	OH-019	UPPER NEW YORK BAY & 71st STREET	REG #4	Installed
364	OH-020	UPPER NEW YORK BAY & BAY RIDGE AVENUE	REG #5	Installed
365	OH-021	CONEY ISLAND CREEK & W 15th STREET	REG #10, 11, AVE.V P.S.	Installed
366	OH-022	GOWANUS BAY & 32nd STREET (Bush Terminal Complex)	2nd AVE SEWER RELIEF	Installed
367	OH-024	GOWANUS CANAL & 23rd STREET	3rd AVE SEWER RELIEF	Installed
368	***Jam - 001***	***Jamaica W.P.C.P. Outfall***		***WAIVER***
369	JAM-003	BERGEN BASIN & 123rd STREET	REG #3	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
370	JAM-003A	BERGEN BASIN & 123rd STREET	REG #14	Installed
371	JAM-005	HEAD OF THURSTON BASIN & JFK AIRPORT	REG #6, 7, 8, 9	Installed
372	JAM-006	HEAD OF BERGEN BASIN & JFK AIRPORT	REG #1, 4, 10, SECONDARY PLANT EFFLUENT	Installed
373	JAM-007	HEAD OF THURSTON BASIN & JFK AIRPORT (NEXT TO JA-005)	REG #6, 7, 8, 9	Installed
374	**Roc - 001**	**Rockaway W.P.C.P. Outfall**		Installed
375	ROC-003	JAMAICA BAY & PLANT BYPASS	PLANT BYPASS	Installed
376	ROC-009	JAMAICA BAY & BEACH 98th STREET	REG #D-6	Installed

377	ROC-014	JAMAICA BAY & BEACH 91st STREET	REG #D-2	Installed
378	ROC-016	NORTON BASIN & BAYSWATER AVENUE	BAYSWATER P.S.	Installed
379	ROC-017	BANNISTER CREEK & BEACH 3rd STREET	SEAGIRT AVE. P.S.	Installed
380	ROC-029	JAMAICA BAY & BEACH 106 STREET	REG #1, 2	Installed
381	ROC-031	MOTT BASIN & REDFERN AVENUE	NAMEOKE P.S.	Installed
382	ROC-032	JAMAICA BAY & BEACH 98th STREET	REG #D-7,D-8,D-9,D-10,D-11	Installed
383	ROC-033	JAMAICA BAY & BEACH 106th STREET	REG #D-12	Installed
384	**OB - 001**	**Oakwood Beach W.P.C.P. Outfall**		Installed
385	OB-001A	LOWER NEW YORK BAY & PLANT BYPASS	PLANT BYPASS	Installed
386	**PR - 001**	**Port Richmond W.P.C.P. Outfall**		Installed
387	PR-002	KILL VAN KULL & E/O TAYLOR STREET	REG #R-34	Installed
388	PR-003	KILL VAN KULL & BROADWAY	REG #R-33	Installed
389	PR-004	KILL VAN KULL & BARD AVENUE	REG #R-29	Installed
390	PR-005	KILL VAN KULL & W/O KISSEL AVENUE	REG #R-28	Installed
391	PR-006	KILL VAN KULL & CLINTON AVENUE	REG #R-23	Installed
392	PR-007	KILL VAN KULL & SAILOR SNUG HARBOR	REG #R-27	Installed
393	PR-008	KILL VAN KULL & FRANKLIN AVENUE	REG #R-21	Installed
394	PR-009	KILL VAN KULL & JERSEY STREET	REG #R-20	Installed
395	PR-010	UPPER NEW YORK BAY & ST. PETERS PLACE	REG #R-19	Installed
396	PR-011	UPPER NEW YORK BAY & HAMILTON AVENUE	REG #R-18	Installed
397	PR-013	UPPER NEW YORK BAY & VICTORY BLVD.	REG #R-17	Installed
398	PR-014	UPPER NEW YORK BAY & BALTIC STREET	REG #R-15	Installed
399	PR-015	UPPER NEW YORK BAY & S/O DOCK STREET	REG #R-11	Installed
400	PR-016	UPPER NEW YORK BAY & MARINE HOSPITAL	REG #R-10	Installed
401	PR-017	UPPER NEW YORK BAY & NORWOOD AVENUE	REG #R-9	Installed
402	PR-018	UPPER NEW YORK BAY & N/O CAMDEN STREET	REG #R-8	Installed
No	**OUTFALLID**	**OUTFALL LOCATION**	**CONTRIBUTORS**	**STATUS/COMMENTS**
403	PR-019	UPPER NEW YORK BAY & S/O LYNHURST AVENUE	REG #R-7	Installed
404	PR-020	UPPER NEW YORK BAY & N/O SYLVA LANE	REG #R-5	Installed
405	PR-021	UPPER NEW YORK BAY & HYLAN BOULEVARD	REG #R-4	Installed

406	PR-023	UPPER NEW YORK BAY & NAUTILUS STREET	REG #R-3	Installed
407	PR-023A	UPPER NEW YORK BAY & NAUTILUS STREET	REG #R-2	Installed
408	PR-023B	UPPER NEW YORK BAY & NAUTILUS STREET	REG #R-1	Installed
409	PR-024	NEWARK BAY & W/O HOLLAND AVENUE	REG #R-1W	Installed
410	PR-025	NEWARK BAY & SOUTH AVENUE	REG #R-2W	Installed
411	PR-026	NEWARK BAY & HARBOR ROAD	REG #R-3W	Installed
412	PR-027	NEWARK BAY & UNION AVENUE	REG #R-4W	Installed
413	PR-028	NEWARK BAY & HOUSEMAN AVENUE	REG #R-5W	Installed
414	PR-029	NEWARK BAY & NICHOLAS STREET	REG #R-6W	Installed
415	PR-030	UPPER NEW YORK BAY & SYLVATON TER..	REG #R-6	Installed
416	PR-031	UPPER NEW YORK BAY & CANAL STREET	REG #13	Installed
417	PR-032	UPPER NEW YORK BAY & VICTORY BOULEVARD	REG #16	Installed
418	PR-033	KILL VAN KULL & ELIZABETH AVENUE	REG #R-31	Installed
419	PR-034	KILL VAN KULL & BEMENT AVENUE	REG #R-32	Installed
420	PR-035	KILL VAN KULL & BODINE STREET	REG #R-35	Installed
421	PR-036	BODINE CREEK & RECTOR STREET	REG #R-36	Installed
422	PR-037	KILL VAN KULL & RICHMOND AVENUE	REG #R-37	Installed

Appendix 13.3: New York City 2023 Beach Surveillance and Monitoring Program

New York City

2023

Beach Surveillance and Monitoring Program

NYC Health

Table of Contents

List of Tables & Figures

SECTION 1

INTRODUCTION

In accordance with the New York City Administrative Code §18-131(c)(4), this annual report summarizes the 2023 New York City Beach Surveillance and Monitoring Program for beaches permitted by the Department of Health and Mental Hygiene (the "Department"). This law requires that the Health Commissioner "forward a combined report of the dates and results of all inspections of all beaches and the dates and reasons for any advisory or closure, and such other information deemed appropriate by the Commissioner of Health and Mental Hygiene, for the Friday proceeding the last Monday of May until the Friday after the first Monday of September of each year, to the mayor, the public advocate and the speaker of the council."

With the principal goal of protecting ocean beachgoers from potential health and safety hazards, the Department closely monitors and conducts surveillance of permitted beaches in New York City. Under the regulatory directive and authority of both Article 167 of the New York City Health Code (Article 167) and Subpart 6-2 of the New York State Sanitary Code (Subpart 6-2), the Department administers the Beach Surveillance and Monitoring Program for all beaches operating within the City and with a permit issued by the Department. Program responsibilities include beach monitoring and surveillance, public notification and communication, and safety inspections.

The City's beaches function as an important recreational resource for residents and visitors. As shown in Figure 1 (page 2) and Table 1 (page 3), there are eight public beaches operated by the New York City Department of Parks and Recreation (NYC Parks) and 17 privately operated beaches and one privately operated freshwater lake within New York City.

FIGURE 1: NEW YORK CITY PERMITTED BEACHES

TABLE 1: NEW YORK CITY PERMITTED BEACHES AND WATERBODY IDENTIFICATION

Borough	Beaches	Water body
Brooklyn	*Public:* Coney Island, Manhattan Beach *Private:* Sea Gate 42nd*, Sea Gate Beach Club*, Gerritsen/Kiddie Beach, Kingsborough Community College	Lower New York Harbor
Bronx	*Public:* Orchard Beach *Private:* American Turner, Danish American Beach Club, The Strand, White Cross Fishing Club, Morris Yacht Club, Schuyler Hill Civic Association, Trinity Danish, Locust Point Yacht Club, West Fordham Street Association	Eastchester Bay, Western Long Island Sound
Queens	*Public:* Rockaway Beach *Private:* Breezy Point 219**, Breezy Point Reid**	Atlantic Ocean
	Private: Douglaston Manor, Whitestone Booster Civic Association	Western Long Island Sound
Staten Island	*Public:* South Beach, Midland Beach, Cedar Grove Beach, Wolfe's Pond Beach	Lower New York Bay
	Private: Staten Island YMCA	Freshwater Lake

*Sea Gate 42nd and Sea Gate Beach Club operate under one permit; the Department performs water quality sampling at both locations.
**Breezy Point 219 and Breezy Point Reid operate under one permit; the Department performs water quality sampling at both locations.

1.1 Public Risk Communication

The Department continued public notification and risk communication during the beach season, using easy-to-interpret signs shown in Figure 2 for beach closures and advsories in 2023.

FIGURE 2: BEACH ADVISORY AND CLOSURE SIGNS

"Know Before You Go," a free texting service introduced in 2014, was continued for the 2023 beach season. The service enables subscribers to make informed decisions before they go to a public beach. Through this service, users can check whether the beach is open or closed or if there are any advisories due to wet weather conditions or water quality concerns. Subscribers simply text "BEACH" to 55676 to learn the status of any of the eight public beaches in New York City. This tool also can be used by the Department to deliver notifications of high priority water quality advisories or closures, as well as safety-related messages, such as warnings for high rip currents, closures for extreme weather, and whether beaches are open or closed for the season. For example, the Department issued the following notification to all enrolled users:

> NYC Beach: Beaches open for swimming May 27! For beach status, reply with a beach name or with "LOOK" to find a beach near you, or go to maps.nyc.gov/beach.

At the end of the 2022 season, the texting service had 14,240 English-language subscribers and 626 Spanish-language subscribers. By the close of the 2023 beach season, there were 14,907 English-language subscribers and 626 Spanish-language subscribers.

SECTION 2

BACKGROUND INFORMATION

2.1 Water Quality Criteria

Under the New York State Sanitary Code §6-2.15, Article §167.13 of the New York City Health Code and the Federal Beaches Environmental Assessment and Coastal Health Act of 2000 (BEACH), enterococci, bacteria that live in the intestinal tracks of warm-blooded animals, are the indicator organism mandated for evaluating the microbiological quality of marine (saline) recreational beach water.

Under the New York State Sanitary Code and the New York City Health Code, enterococci concentrations for a single sample of saline water may not exceed 104 enterococci per 100 milliliter (mL) (61 enterococci per 100 mL for freshwater), and the geometric mean of five or more samples during a 30-day period may not exceed 35 enterococci per 100 mL (33 enterococci per 100 mL for freshwater). The geometric mean and single sample maximum are determined by analyzing samples for the presence and quantification of enterococci using the IDEXX Enterolert test method, a New York State ELAP certified method, as described in Standard Methods for the Examination of Water and Wastewater SM-9230D-2013. Water quality is measured in most probable number per 100 mL of water (MPN/100mL), an estimate of the number of bacteria in a water sample.

In November 2012, the Environmental Protection Agency (EPA) released revised Recreational Water Quality Criteria (RWQC). The revised criteria use a geometric mean and a statistical threshold value to indicate whether waters designated for primary contact recreation use are protective of human health. The 2012 revised criteria for marine waters are a 30-day geometric mean of 35 enterococci per 100 mL and a statistical threshold value of 130 enterococci per 100 mL; the statistical threshold value is one where no more than 10% of samples within 30 days shall exceed the criteria. The EPA also introduced a Beach Action Value (BAV) of 70 enterococci per 100 mL to be used as a precautionary notification threshold for beach management, replacing earlier guidance that provided single sample maximum values. These water quality criteria have been adopted by the New York State Department of Environmental Conservation (DEC) and became effective November 1, 2019. The New York State Department of Health (NYSDOH), however, has not yet promulgated equivalent bathing beach water quality standards in the State Sanitary Code, which is required before local beach programs can implement them.

2.2 Rainfall Events

Preemptive rainfall thresholds have been developed for New York City beaches through statistical modeling of historical precipitation and water quality data. These thresholds are used as a management tool to provide a quick and reliable indication of water quality conditions. Because the majority of the city has combined stormwater and sewer conveyance systems, high levels of precipitation, greater than the rainfall thresholds, cause an excess of stormwater, which combines with the wastewater in the sewage systems. This combination can bypass the treatment system and flow into local waterbodies. This process, known as Combined Sewer Overflow (CSO), poses a public health threat to nearby beaches. When preemptive rainfall thresholds are met, as defined in Table 2, a public notification or advisory takes effect for the predetermined duration.

TABLE 2: NEW YORK CITY PREEMPTIVE RAINFALL THRESHOLDS

Beach (Borough)	Rainfall Threshold (within 24 hours)	Duration of Advisory
South Beach, Midland Beach, Cedar Grove Beach (Staten Island) Manhattan Beach, Kingsborough Community College (Brooklyn)	1.5 – 2.5 inches	12 hours
	> 2.5 inches	24 hours
Orchard Beach (Brooklyn)	> 2.5 inches	24 hours
Coney Island (Brooklyn)	> 2.5 inches	12 hours
Gerritsen/Kiddie Beach (Brooklyn) Whitestone Booster Civic Association (Queens)	0.3 - 0.6 inches	18 hours
	> 0.6 inches	40 hours
American Turner, Danish American Beach Club, The Strand, White Cross Fishing Club, Morris Yacht Club, Schuyler Hill Civic Association, Trinity Danish, Locust Point Yacht Club, West Fordham Street Association (Bronx)	0.6 – 2.5 inches	36 hours
	> 2.5 inches	48 hours
Douglaston Manor (Queens)	0.3 – 0.6 inches	30 hours
	> 0.6 – 2.5 inches	60 hours
	> 2.5 inches	72 hours

2.3 Beach Classifications

There are three swimming classifications for New York City beaches, which are determined by assessing water quality, rainfall and pollution events; onsite sanitary surveys; and/or historical information. Beaches, except those specifically restricted under Article §167.05, are classified as follows:

Class A: Open for Swimming and Wading. Beaches may be classified as open and approved for swimming and wading when *all* of the following conditions are met:

1. Beach water quality is in accordance with standards defined under Article §167.13.
2. Sanitary and safety surveys are satisfactory in accordance with Article §167.25.
3. The epidemiological history is satisfactory to the Department, i.e., no repeated complaints or reports of illness/injury received from the public or from owners/operators of city beaches.

Class B: Advisory – Not Recommended for Swimming and Wading. Beaches may be classified as "Not Recommended for Swimming and Wading," resulting in notifications to the public that swimming should be avoided to prevent contracting a swimming-related illness, when *one or more* of the following conditions exists:

1. Rainfall events exceed the preemptive rainfall thresholds.
2. A water quality sample exceeds the water quality standard or a beach notification threshold. The notification should remain in effect until resampling indicates that the beach water quality standard and/or notification thresholds are being met.
3. An onsite sanitary survey or investigation reveals the presence of floatable debris, medical/infectious waste, toxic contaminants, petroleum products, other contamination, or evidence of sewage and wastewater discharge.

Class C: Closed – Temporarily Restricted for Swimming and Wading: Beaches may be classified as "Temporarily Restricted for Swimming and Wading" when *one or more* of the following conditions exists:

1. Sampling by bacteriological testing that finds beach water quality exceeding the statutory water quality standard for marine water beaches.
2. Epidemiological data indicates a significant incidence of related illnesses or repeated complaints/reports of illness/injury received from beach patrons.
3. A sanitary and safety survey or an investigation reveals the presence of potentially hazardous amounts of floatable debris, medical/infectious waste, toxic contaminants, petroleum products or other contaminants on the beach, or there is evidence of sewage and wastewater discharges in sufficient quantities that will adversely affect the quality of the beach water.
4. Any other environmental factors determined to be a public health or safety hazard by the Department are present.

2.4 Beach Monitoring and Surveillance

Starting one month before the beach season, the Department monitors and samples each beach weekly, except for Rockaway and Breezy Point beaches which are sampled biweekly. In addition to routine water quality monitoring, the Department monitors daily regional wet weather conditions and occasional wastewater treatment plant bypasses, operational upsets, and spills through interagency communication and cooperation. This information can be used to assess and make beach status determinations.

During a sample event, a routine onsite sanitary survey inspection is performed to identify any existing and/or potential sources of pollution that are likely to affect beach water quality. Water samples are collected at representative points on the beach by wading into the water to a point where water depth is three feet and submerging the bottle to 18 inches below the water surface. At larger beaches, such as Coney Island and Rockaway Beach, samples are taken at more locations to ensure adequate representation and reliable results. Sea Gate and Breezy Point are permitted beaches where samples are taken at two separate locations for representative results. The collected samples are delivered to the Department's Public Health Laboratory for analysis. The analytical and processing turnaround time for enterococci using the current Enterolert methods is at least 24 hours.

The water quality of the samples analyzed is reviewed and assessed for conformance to applicable standards. If the regulatory limit for enterococci is exceeded or conditions exist that may pose a threat to the health and/or safety of the public, the Department either conducts immediate re-sampling, issues an advisory and conducts re-sampling, or closes the beach and conducts re-sampling. The determining factors for additional sampling may include proximity to suspected pollution sources, the extent of pollution, beach use, historical water quality data, and other health risk factors.

2.5 Public Notification and Risk Communication

When beach status changes based upon evaluation and assessment of beach water quality as specified above, the Department notifies the public through on-site beach signage, website postings, 311 non-emergency government service hotline, Notify NYC, "Know Before You Go" texting service, and Department press releases when necessary. Beach operators are notified by phone, email or text as to the necessary onsite postings. The specific notification procedures and requirements are as follows:

Onsite Signage: When notified by the Department, the permittee is required to post or remove the advisory or closure signs in designated areas visible to beach users, such as beach entrances, bulletin boards, comfort stations or the general vicinity of the common swimming areas.

"Know Before You Go" Texting Service: The "Know Before You Go" texting service number was updated in 2023. Subscribers text "BEACH" to 55676 to learn the beach status for any of the eight public beaches in New York City.

Website Postings: The Department has developed an easily accessible website with up-to-date information for all permitted beaches: www.nyc.gov/health/beach. The website contains background information on the beach program, explains the causes and sources of surface water pollution, and summarizes the beach classification system. A map of all city beaches visually indicates the respective status (open, closed, or advisory) for all beaches and provides the most recent sample results, along with all year-to-date samples results for that beach.

Notify NYC: When notified by the Department of status changes relating to public beaches, the Office of Emergency Management will share this information with members of the public who have signed up for Notify NYC status information via Twitter, RSS feed, e-mail and SMS.

311: The 311 telephone operators monitor the Department's website for updates on advisory or closure information, as described above, and convey that information to 311 callers. The public can also report a swimming-related illness via 311.

NYC Press Release: Press releases are disseminated to various types of media (newspaper, radio, website, television), as well as elected officials.

2.6 Inspections

The Department conducts annual safety inspections and complaint inspections at bathing beaches to assure there is adequate lifeguard coverage for open beaches; that all staff, especially lifeguards and supervisors, have proper certifications; all required life-saving equipment is available, including rescue tubes, spine boards, first aid kits, and resuscitation equipment; and proper signage is posted on site. The inspections also evaluate beach facility cleanliness and safety. Direct observations of conditions are supplemented by interviews with lifeguards and other personnel.

SECTION 3

FINDINGS

3.1 Water Quality and Illness Reporting

Routine water quality monitoring was performed at 25 permitted beaches. Between April and September 2023 over 1,400 samples were collected and analyzed from these beaches.

In 2023, the Department received a water quality and ecological complaint for Cedar Grove beach. Several dead seabirds were observed there by patrons and lifeguards, who reported a foul smell and brown water. Upon investigation by the Department, an unusual number of dead bottom-dwelling marine animals, such as large snails, crabs, mussels, and oysters, were found on shore. The issue was reported to the New York State Department of Environmental Conservation, as well as to the United States Coast Guard. The Department did not receive any specific illness complaints due to contaminated water quality.

Water quality sample results, including 30-day geometric mean and daily averages and any associated criteria exceedances can be found in Appendix A (pages 12 to 18). Advisories and closures issued by the Department throughout the season are summarized in Appendix B (pages 19 to 22).

All private beaches had an average exceedance rate of 15.3%. Among them, Douglaston Manor had the highest single sample exceedance rate (31.8%), followed by several beaches with exceedance rates between 20%-30% (Whitestone Booster Civic Association, White Cross Fishing Club, American Turner, and Gerritsen/Kiddie Beach). Public beaches had an average exceedance rate of 7.5%. Among public beaches, Cedar Grove had the highest single sample exceedance rate (16.7%).

3.2 Public Notification for Advisories and Closures

Six of the eight public beaches were issued at least one swimming advisory notice during the 2023 bathing season due to water quality exceedance. This resulted in a total of 69 advisory notices, which ranged in length from 1 to 33 days. There was a total of nine closure days due to air quality issues, or shark sightings. The length of each beach closure did not exceed more than one day.

Due to poor air quality and low visibility because of smoke from wildfires in Canada, all eight public beaches were closed for swimming on Thursday, June 8th. Rockaway Beach was closed for one day on Tuesday, August 8th following a shark attack on Beach 59th street. The beach reopened the following day, Wednesday, August 9th.

Of the seventeen private beaches in New York City, sixteen were open in 2023. Twelve private beaches were issued at least one swimming advisory notice during the bathing season. This resulted in a total of 554 advisory notices with lengths ranging from 1 to 74 days. White Cross Fishing Club had the largest total number of advisory days, with a total of 74. Across all private beaches, there were a total of 32 closure days due to water quality exceedances. Whitestone Booster Civic Association had the largest number of closure days with a total of 15. The length of each beach closure ranged from 2 to 15 days. Public notification details can be found in Appendix B (pages 19 to 22).

3.3 Inspections

During the 2023 beach season, inspections of all open 24 public and private beaches were successfully conducted by the Department. Three beaches were cited for violations at the time of inspection as indicated in Appendix C. Disrepair of parts of the boardwalk was observed during the inspection of Coney Island Beach. Additionally, some toilet facilities were not properly maintained at Rockaway Beach and Orchard Beach.

APPENDIX A: 2023 WATER QUALITY RESULTS AND EXCEEDANCE

Table A1-1: Brooklyn Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day geomean limit: 35 MPN/100mL, Daily average limit: 104 MPN/100mL

Date of Week Ending	CONEY ISLAND BEACH (public)		MANHATTAN BEACH (public)		GERRITSEN/ KIDDIE BEACH (private)		KINGSBOROUGH COMMUNITY COLLEGE** (private)		SEA GATE 42ND (private)		SEA GATE BEACH CLUB (private)	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
4/29/2023	14	15	40	69	18	20			18	20	10	10
5/6/2023	16	22	63	106	38	82			76	323	27	93
5/13/2023	14	10	45	47	24	10	10	10	52	35	26	27
5/20/2023	13	10	39	69	19	10	21	49	34.5	10	29	83
5/27/2023	12	10	38	49	18	17	16	10	27	10	25	10
6/3/2023	11	10	31	17	18	28	14	10	25	13	25	10
6/10/2023	10	10	22	28	12	10			13	13	18	17
6/17/2023	10	17	28	75	14	24			11	10	16	17
6/24/2023	11	13	23	10	14	10			11	13	12	10
7/1/2023	11	10	18	10	14	13			11	10	12	10
7/8/2023	11	12	20	24	24	135			13	24	13	20
*7/15/2023**	13	29	19	17	45	305			12	10	12	10
7/22/2023	16	42	13	10	38	20			16	41	14	34
7/29/2023	19	76	13	10	38	10			16	13	15	13
8/5/2023	19	10	15	20	37	10			17	13	15	10
*8/12/2023**	25	13	13	17	62	3153			17	24	18	52
8/19/2023	25	64	13	13	45	38			17	10	19	13
*8/26/2023**	21	10	13	10	41	10			13	10	16	13
9/2/2023	19	12	13	10	92	600			12	10	15	10
9/9/2023	20	15	11	10	101	17						

* Mid-week sample results the week of 7/15/2023 at Gerritsen/Kiddie Beach resulted in water quality concerns, see appendix B for description.

* Mid-week sample results the weeks of 8/12/2023 and 8/26/2023 at Coney Island Beach resulted in water quality concerns, see appendix B for description.

** Kingsborough Community College did not open for the 2023 season.

Values highlighted in red indicate exceedance of recreational water quality criteria.

Table A1-2: Bronx Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day geomean limit: 35 MPN/100mL, Daily average limit: 104 MPN/100mLmL

Date of Week Ending	ORCHARD BEACH (public)		AMERICAN TURNER (private)		DANISH AMERICAN BEACH CLUB (private)		LOCUST POINT YACHT CLUB (private)		THE STRAND (private)		MORRIS YACHT AND BEACH CLUB (private)		SCHUYLER HILL CIVIC ASSOC. (private)		TRINITY DANISH (private)		WEST FORDHAM STREET ASSOC. (private)		WHITE CROSS FISHING CLUB (private)	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
4/29/2023	10	10	16	20	10	10	10	10	14	17	10	10	10	10	16	20	10	10	10	10
5/6/2023	30	90	20	27	21	44	24	60	31	70	30	98	33	115	24	41	51	267	13	17
5/13/2023	22	13	23	38	31	66	19	13	34.9	45	21	10	22	10	22	28	30	10	14	27
5/20/2023	18	10	18	10	24	13	20	51	26	10	17	10	38	598	18	10	22	10	13	10
5/27/2023	16	10	19	24	23	24	18	13	22	13	16	10	29	10	16	10	19	10	14	24
6/3/2023	16	10	19	20	23	10	18	10	21	10	16	10	29	10	15	10	20	13	14	10
6/10/2023	10	10	17	17	22	42	15	24	16	24	10	10	19	13	13	24	10	10	14	13
6/17/2023	10	13	17	50	22	67	19	45	13	17	10	10	20	13	12	20	10	10	18	94
6/24/2023	11	13	32	221	27	46	23	82	21	104	10	13	11	10	20	122	11	17	32	152
7/1/2023	12	17	34	35	32	53	26	35	21	17	11	17	12	20	29	68	12	17	42	97
7/8/2023	13	17	36	10	36	20	30	20	29	34	12	10	15	20	43	42	12	10	56	10
*7/15/2023**	13	10	28	10	30	17	28	20	25	17	15	169	14	10	62	35	14	27	49	34
7/22/2023	14	20	30	48	28	61	29	49	32	64	16	17	17	49	49	17	15	13	53	296
7/29/2023	15	39	18	24	22	13	20	10	20	10	15	10	17	10	33	13	14	10	37	27
8/5/2023	16	20	36	1575	34	419	18	13	26	55	16	27	17	24	32	104	13	10	55	766
8/12/2023	15	10	36	10	32	17	20	27	25	35	20	38	17	20	30	20	15	34	61	20
8/19/2023	17	28	119	4335	96	3678	39	667	73	3323	21	65	42	1128	58	3964	17	41	158	3389
8/26/2023	15	10	97	17	99	61	33	20	83	95	20	10	31	10	67	38	17	17	108	20
*9/2/2023**	20	13	173	311	169	194	36	17	130	99	21	13	40	38	104	250	18	17	163	193
9/9/2023	20	10			93	17					18	10	35	10	75	10	18	10		
9/16/2023					155	277					21	91	47	93			23	86		
9/23/2023																	18	10		

* Mid-week sample result on 7/15/2023 at Trinity Danish Beach resulted in a water quality exceedance, see appendix B for description.

* Mid-week sample result on 9/2/2023 at Orchard Beach resulted in a water quality exceedance, see appendix B for description.

Values highlighted in red indicate exceedance of recreational water quality criteria.

Table A1-3: Queens Beaches Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day geomean limit: 35 MPN/100mL, Daily Average limit: 104 MPN/100mL

Date of Week Ending	ROCKAWAY BEACH (Public)		BREEZY POINT 219 (Private)		BREEZY POINT REID AVE (Private)		WHITESTONE BOOSTER CIVIC ASSOCIATION (Private)		DOUGLASTON MANOR ASSOCIATION (Private)	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
4/29/2023							10	10	10	10
5/6/2023	11	11	10	10	20	20	70	500	38	153
5/13/2023							56	152	25	10
5/20/2023	10	10	10	10	14	10	36	10	21	13
5/27/2023							28	10	26	67
6/3/2023	10	10	10	10	13	10	31	20	26	10
6/10/2023							20	64	30	293
6/17/2023	10	10	10	10	10	10	25	113	55	215
6/24/2023							41	158	55	13
7/1/2023	10	10	10	10	10	10	65	191	47	38
7/8/2023							93	64	30	10
7/15/2023*	10	10	10	10	10	10	67	10	58	1095
7/22/2023							62	45	31	10
7/29/2023	12	26	10	10	13	20	49	42	30	10
8/5/2023							41	49	34	59
8/12/2023	12	10	10	10	13	10	44	82	62	200
8/19/2023*							68	2468	105	31
8/26/2023	12	10	19	74	13	10	104	67	98	74
9/2/2023							133	137	148	207
9/9/2023	11	14							110	10
9/16/2023									97	104

* Mid-week sample result the week of 7/15/2023 at Whitestone Booster resulted in a water quality exceedance, see appendix B for description.

* Mid-week sample result the week of 8/19/2023 at Douglaston Manor resulted in a water quality exceedance, see appendix B for description.

Values highlighted in red indicate exceedance of recreational water quality criteria.

Table A1-4: Staten Island Beaches and Lake Water Quality Results

Enterococci 30 Day Geometric Mean/Daily Average (MPN/100mL)

Water Quality Standards: 30 day Geomean limit: 35 MPN/100mL, Daily Average limit: 104 MPN/100mL

Date of Week Ending	SOUTH BEACH (Public)		MIDLAND BEACH (Public)		CEDAR GROVE BEACH (Public)		WOLFE'S POND BEACH (Public)		SI YMCA** (Private Freshwater Lake)	
	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily	30 Day	Daily
4/29/2023	18	20	25	27	16	20	10	10		
5/6/2023	52	167	43	88	42	113	17	38		
5/13/2023	34	17	26	10	26	10	14	10		
5/20/2023	25	10	21	10	21	10	13	10		
5/27/2023	21	10	18	10	18	10	16	45		
6/3/2023	18	10	15	10	17	17	16	10		
6/10/2023	11	10	10	10	11	10	13	10		
6/17/2023	11	35	10	13	11	13	13	10		
6/24/2023	11	10	11	13	11	10	16	42		
7/1/2023	11	10	12	20	12	17	13	10		
*7/8/2023**	23	70	20	88	19	71	18	72		
7/15/2023	21	20	21	23	24	90	20	46		
*7/22/2023**	26	17	28	59	40	144	22	17		
7/29/2023	27	13	27	10	42	13	18	10		
*8/5/2023**	21	10	26	17	33	10	22	34		
*8/12/2023**	46	2737	31	10	29	10	23	48		
*8/19/2023**	44	109	28	24	29	34	22	35		
8/26/2023	41	10	21	10	22	43	22	17		
9/2/2023	47	31	21	10	23	17	31	64		
9/9/2023	55	55	19	10	22	13	32	68		

* Mid-week sample results the weeks of 7/8/2023, 7/22/2023, and 8/19/2023 at South Beach resulted in a water quality exceedance, see appendix B for description.
* Mid-week sample results the weeks of 8/5/2023 and 8/12/2023 at Cedar Grove Beach resulted in a water quality exceedance, see appendix B for description.
* Mid-week sample results the week of 8/12/2023 at Midland Beach resulted in a water quality exceedance, see appendix B for description.
** Staten Island YMCA did not open for the 2023 season.
Values highlighted in red indicate exceedance of recreational water quality criteria.

Table A2-1: 2023 Summary of Beach Samples and Single-Sample Exceedances

Beach	Sample Location	Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104
ALL Beaches TOTAL		1464	178	12.2%
Public Beaches TOTAL		586	44	7.5%
Private Beaches TOTAL		878	134	15.3%

Table A2-2: 2023 Public Beaches Samples and Single-Sample Exceedances

Beach	Sample Location		Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104 (Location)	% of Sample Exceed 104 (Beach)
CEDAR GROVE	CEDAR GROVE	Left	22	4	18.2%	*16.7%*
	CEDAR GROVE	Center	22	4	18.2%	
	CEDAR GROVE	Right	22	3	13.6%	
CONEY ISLAND	CONEY ISLAND BR. 15TH - 6TH	Center	20	0	0.0%	*4.0%*
	CONEY ISLAND BR. 6TH - OCEAN PKWY	Center	20	0	0.0%	
	CONEY ISLAND OCEAN PKWY - WEST 8TH	Center	21	0	0.0%	
	CONEY ISLAND WEST 8TH - PIER	Center	22	4	18.2%	
	CONEY ISLAND WEST 16TH - WEST 27TH	Center	22	1	4.5%	
	CONEY ISLAND WEST 28TH - WEST 37TH	Center	21	0	0.0%	
MANHATTAN BEACH	MANHATTAN BEACH	Left	20	2	10.0%	*10.0%*
	MANHATTAN BEACH	Center	20	3	15.0%	
	MANHATTAN BEACH	Right	20	1	5.0%	
MIDLAND BEACH	MIDLAND BEACH	Left	21	3	14.3%	*9.5%*
	MIDLAND BEACH	Center	21	2	9.5%	
	MIDLAND BEACH	Right	21	1	4.8%	
ORCHARD BEACH	ORCHARD BEACH	Left	21	1	4.8%	*4.8%*
	ORCHARD BEACH	Center	21	2	9.5%	
	ORCHARD BEACH	Right	21	0	0.0%	
ROCKAWAY BEACH	ROCKAWAY BEACH 9TH - 13TH	Center	10	0	0.0%	*0.0%*
	ROCKAWAY BEACH 15TH - 22TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 23RD - 59TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 59TH - 80TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 80TH - 95TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 95TH - 116TH	Center	10	0	0.0%	
	ROCKAWAY BEACH 116TH - 126TH	Center	9	0	0.0%	
	ROCKAWAY BEACH 126TH - 149TH	Center	10	0	0.0%	
SOUTH BEACH	SOUTH BEACH	Left	23	1	4.3%	*15.9%*
	SOUTH BEACH	Center	23	4	17.4%	
	SOUTH BEACH	Right	23	6	26.1%	
WOLFE'S POND BEACH	WOLFE'S POND BEACH	Left	20	1	5.0%	*3.3%*
	WOLFE'S POND BEACH	Center	20	1	5.0%	
	WOLFE'S POND BEACH	Right	20	0	0.0%	
Public Beaches (Locations) Total			586	44	7.5%	

Table A2-3: 2023 Private Beaches Samples and Single-Sample Exceedances

Beach	Sample Location		Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104 (Location)	% of Sample Exceed 104 (Beach)
AMERICAN TURNER	AMERICAN TURNER	Left	19	4	21.1%	*22.8%*
	AMERICAN TURNER	Center	19	5	26.3%	
	AMERICAN TURNER	Right	19	4	21.1%	
BREEZY POINT 219	BREEZY POINT 219	Center	9	0	0.0%	*0.0%*
BREEZY POINT REID	BREEZY POINT REID AVE	Center	9	0	0.0%	*0.0%*
DANISH AMERICAN BEACH CLUB	DANISH AMERICAN BEACH CLUB	Left	21	3	14.3%	*19.0%*
	DANISH AMERICAN BEACH CLUB	Center	21	3	14.3%	
	DANISH AMERICAN BEACH CLUB	Right	21	6	28.6%	
DOUGLASTON MANOR ASSOCIATION	DOUGLASTON MANOR ASSOCIATION	Left	22	8	36.4%	*31.8%*
	DOUGLASTON MANOR ASSOCIATION	Center	22	6	27.3%	
	DOUGLASTON MANOR ASSOCIATION	Right	22	7	31.8%	
GERRITSEN/KIDDIE BEACH	GERRITSEN/KIDDIE BEACH	Left	21	5	23.8%	*22.2%*
	GERRITSEN/KIDDIE BEACH	Center	21	4	19.0%	
	GERRITSEN/KIDDIE BEACH	Right	21	5	23.8%	
KINGSBOROUGH COMMUNITY COLLEGE	KINGSBOROUGH COMMUNITY COLLEGE	Left	4	0	0.0%	*0.0%*
	KINGSBOROUGH COMMUNITY COLLEGE	Center	4	0	0.0%	
	KINGSBOROUGH COMMUNITY COLLEGE	Right	4	0	0.0%	
LOCUST POINT YACHT CLUB	LOCUST POINT YACHT CLUB	Left	19	1	5.3%	*8.8%*
	LOCUST POINT YACHT CLUB	Center	19	1	5.3%	
	LOCUST POINT YACHT CLUB	Right	19	3	15.8%	
THE STRAND	THE STRAND	Left	19	4	21.1%	*14.0%*
	THE STRAND	Center	19	1	5.3%	
	THE STRAND	Right	19	3	15.8%	
MORRIS YACHT AND BEACH CLUB	MORRIS YACHT AND BEACH CLUB	Left	21	1	4.8%	*6.3%*
	MORRIS YACHT AND BEACH CLUB	Center	21	1	4.8%	
	MORRIS YACHT AND BEACH CLUB	Right	21	2	9.5%	
SCHUYLER HILL CIVIC ASSOCIATION	SCHUYLER HILL CIVIC ASSOCIATION	Left	21	1	4.8%	*9.5%*
	SCHUYLER HILL CIVIC ASSOCIATION	Center	21	2	9.5%	
	SCHUYLER HILL CIVIC ASSOCIATION	Right	21	3	14.3%	
SEA GATE 42ND	SEA GATE 42ND	Left	19	1	5.3%	*5.3%*
	SEA GATE 42ND	Center	19	1	5.3%	
	SEA GATE 42ND	Right	19	1	5.3%	
SEA GATE BEACH CLUB	SEA GATE BEACH CLUB	Left	19	0	0.0%	*3.6%*
	SEA GATE BEACH CLUB	Center	19	1	5.3%	
	SEA GATE BEACH CLUB	Right	18	1	5.6%	
TRINITY DANISH	TRINITY DANISH	Left	21	3	14.3%	*17.5%*
	TRINITY DANISH	Center	21	3	14.3%	
	TRINITY DANISH	Right	21	5	23.8%	
WEST FORDHAM STREET ASSOCIATION	WEST FORDHAM STREET ASSOCIATION	Left	22	1	4.5%	*4.5%*
	WEST FORDHAM STREET ASSOCIATION	Center	22	1	4.5%	
	WEST FORDHAM STREET ASSOCIATION	Right	22	1	4.5%	

Beach	Sample Location		Total # of Samples	# of Sample Exceed 104	% of Sample Exceed 104 (Location)	% of Sample Exceed 104 (Beach)
WHITE CROSS FISHING CLUB	WHITE CROSS FISHING CLUB	Left	19	6	31.6%	*26.3%*
	WHITE CROSS FISHING CLUB	Center	19	4	21.1%	
	WHITE CROSS FISHING CLUB	Right	19	5	26.3%	
WHITESTONE BOOSTER CIVIC ASSOCIATION	WHITESTONE BOOSTER CIVIC ASSOCIATION	Left	20	5	25.0%	*28.3%*
	WHITESTONE BOOSTER CIVIC ASSOCIATION	Center	20	5	25.0%	
	WHITESTONE BOOSTER CIVIC ASSOCIATION	Right	20	7	35.0%	
Private Beaches (Locations) Total			**878**	**134**	**15.3%**	

Table A2-4: 2023 Private Freshwater Lake Samples and Single-Sample Exceedances

Beach	Sample Location		Total # of Samples	# of Sample Exceed 61	% of Sample Exceed 61 (Location)	% of Sample Exceed 61 (Lake)
Staten Island YMCA	Staten Island YMCA	Left	0	0	0.00%	0.00%
	Staten Island YMCA	Center	0	0	0.00%	
	Staten Island YMCA	Right	0	0	0.00%	
Private Freshwater Lake (Locations) Total			**0**	**0**	0.00%	

APPENDIX B: 2023 ADVISORIES AND CLOSURES

Table B-1: Summary of Beach Advisories and Closure

Beach	Types	Reason	Start Date	End Date**	Beach Open Days	# of Beach-Specific Days	Notification (Beach Specific Days)		
							Advisory	Closure	Total
NYC ALL Beaches (N=25)*	Advisory or Closure	Enterococci Exceedance, Rainfall Event, Air Quality, Shark Sighting	5/27/2023	9/10/2023	**1,850**	**664**	**623**	**41**	**664**

*One private beach did not open for 2023 season.

** Several private beaches closed for the season on 9/4/2023.

Table B-2: Public Beaches Advisories and Closures

Beach	Types	Reason	Start Date	End Date	Beach Open Days	# of Beach-Specific Days	Notification (Beach Specific Days)		
							Advisory	Closure	Total
CEDAR GROVE	Closure	Other - Air Quality	06/08/2023	06/08/2023	87	1	19	1	20
	Advisory	Enterococci Exceedance	07/19/2023	08/04/2023		17			
	Advisory	Enterococci Exceedance	08/09/2023	08/10/2023		2			
CONEY ISLAND	Closure	Other - Air Quality	06/08/2023	06/08/2023	102	1	4	1	5
	Advisory	Enterococci Exceedance	08/09/2023	08/10/2023		2			
	Advisory	Enterococci Exceedance	08/23/2023	08/24/2023		2			
MANHATTAN BEACH	Advisory	Enterococci Exceedance	05/27/2023	05/31/2023	101	5	5	1	6
	Closure	Other - Air Quality	06/08/2023	06/08/2023		1			
MIDLAND BEACH	Closure	Other - Air Quality	06/08/2023	06/08/2023	104	1	2	1	3
	Advisory	Enterococci Exceedance	08/09/2023	08/10/2023		2			
ROCKAWAY BEACH	Closure	Other - Air Quality	06/08/2023	06/08/2023	105	1	0	2	2
	Closure	Other – Shark Sighting	08/08/2023	08/08/2023		1			
ORCHARD BEACH	Closure	Other - Air Quality	06/08/2023	06/08/2023	104	1	2	1	3
	Advisory	Enterococci Exceedance	08/31/2023	09/01/2023		2			
SOUTH BEACH	Closure	Other - Air Quality	06/08/2023	06/08/2023	69	1	37	1	38
	Advisory	Enterococci Exceedance	07/07/2023	07/08/2023		2			
	Advisory	Enterococci Exceedance	07/19/2023	07/20/2023		2			
	Advisory	Enterococci Exceedance	08/09/2023	09/10/2023		33			
WOLFE'S POND PARK	Closure	Other - Air Quality	06/08/2023	06/08/2023	106	1	0	1	1
Public Beaches Total					**778**	**78**	**69**	**9**	**78**

Table B-3: Private Beaches Advisories and Closures

Beach	Types	Reason	Start Date	End Date	Beach Open Days	# of Beach-Specific Days	Notification (Beach Specific Days)		
							Warning	Closure	Total
AMERICAN TURNER	Advisory	Enterococci Exceedance	06/23/2023	06/28/2023	53	6	48	0	48
	Advisory	Rainfall Event	07/03/2023	07/04/2023		2			
	Warning	Enterococci Exceedance	07/08/2023	07/12/2023		5			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Enterococci Exceedance	08/03/2023	09/04/2023		33			
BREEZY POINT 219					101	0	0	0	0
BREEZY POINT REID					101	0	0	0	0
DANISH AMERICAN BEACH CLUB	Warning	Rainfall Event	07/03/2023	07/04/2023	62	2	45	0	45
	Warning	Enterococci Exceedance	07/08/2023	07/12/2023		5			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Enterococci Exceedance	08/03/2023	08/09/2023		7			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	09/10/2023		25			
DOUGLASTON MANOR ASSOCIATION	Closure	Enterococci Exceedance	06/08/2023	06/14/2023	31	7	66	10	76
	Warning	Enterococci Exceedance	06/15/2023	06/22/2023		8			
	Warning	Enterococci Exceedance	06/23/2023	07/07/2023		15			
	Warning	Rainfall Event	07/10/2023	07/11/2023		2			
	Warning	Enterococci Exceedance	07/13/2023	07/19/2023		7			
	Warning	Rainfall Event	07/26/2023	07/26/2023		1			
	Warning	Rainfall Event	07/28/2023	07/28/2023		1			
	Warning	Rainfall Event	08/07/2023	08/09/2023		3			
	Warning	Enterococci Exceedance	08/10/2023	08/16/2023		7			
	Closure	Enterococci Exceedance	08/17/2023	08/18/2023		2			
	Warning	Enterococci Exceedance	08/19/2023	09/10/2023		23			
GERRITSEN/KIDDIE BEACH	Warning	Rainfall Event	07/04/2023	07/04/2023	40	1	60	7	67
	Warning	Enterococci Exceedance	07/07/2023	07/11/2023		5			
	Closure	Enterococci Exceedance	07/12/2023	07/18/2023		7			
	Warning	Enterococci Exceedance	07/19/2023	09/10/2023		54			
KINGSBOROUGH COMMUNITY COLLEGE					0	0	0	0	0

Beach	Types	Reason	Start Date	End Date	Beach Open Days	# of Beach-Specific Days	Notification (Beach Specific Days)		
							Warning	Closure	Total
LOCUST POINT YACHT CLUB	Warning	Rainfall Event	07/03/2023	07/04/2023	76	2	25	0	25
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Rainfall Event	08/07/2023	08/08/2023		2			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	08/23/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Enterococci Exceedance	08/31/2023	09/04/2023		5			
THE STRAND	Warning	Enterococci Exceedance	06/23/2023	06/28/2023	65	6	36	0	36
	Warning	Rainfall Event	07/03/2023	07/04/2023		2			
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Rainfall Event	08/07/2023	08/08/2023		2			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	09/04/2023		19			
MORRIS YACHT AND BEACH CLUB	Warning	Rainfall Event	07/03/2023	07/04/2023	85	2	22	0	22
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Enterococci Exceedance	07/13/2023	07/19/2023		7			
	Warning	Rainfall Event	08/07/2023	08/08/2023		2			
	Warning	Rainfall Event	08/13/2023	08/19/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Rainfall Event	09/10/2023	09/10/2023		1			
SCHUYLER HILL CIVIC ASSOCIATION	Warning	Rainfall Event	07/03/2023	07/04/2023	76	2	31	0	31
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Rainfall Event	08/07/2023	08/08/2023		2			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	08/23/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Enterococci Exceedance	08/31/2023	09/10/2023		11			
SEAGATE 42nd					101	0	0	0	0
SEAGATE BEACH CLUB					101	0	0	0	0

Beach	Types	Reason	Start Date	End Date	Beach Open Days	# of Beach-Specific Days	Notification (Beach Specific Days)		
							Warning	Closure	Total
TRINITY DANISH YOUNG PEOPLE'S SOCIETY	Warning	Enterococci Exceedance	06/23/2023	06/28/2023	44	6	63	0	63
	Warning	Rainfall Event	07/03/2023	07/04/2023		2			
	Warning	Enterococci Exceedance	07/08/2023	07/26/2023		19			
	Warning	Enterococci Exceedance	08/03/2023	08/09/2023		7			
	Warning	Rainfall Event	08/13/2023	08/16/2023		4			
	Warning	Enterococci Exceedance	08/17/2023	09/10/2023		25			
WEST FORDHAM STREET ASSOCIATION	Warning	Rainfall Event	07/03/2023	07/04/2023	90	2	17	0	17
	Warning	Rainfall Event	07/10/2023	07/10/2023		1			
	Warning	Rainfall Event	07/16/2023	07/17/2023		2			
	Warning	Rainfall Event	08/07/2023	08/08/2023		2			
	Warning	Rainfall Event	08/13/2023	08/19/2023		7			
	Warning	Rainfall Event	08/26/2023	08/27/2023		2			
	Warning	Rainfall Event	09/10/2023	09/10/2023		1			
WHITE CROSS FISHING CLUB	Warning	Enterococci Exceedance	06/23/2023	09/04/2023	27	74	74	0	74
WHITESTONE BOOSTER CIVIC ASSOCIATION	Warning	Enterococci Exceedance	06/15/2023	06/22/2023	19	8	67	15	82
	Closure	Enterococci Exceedance	06/23/2023	07/07/2023		15			
	Warning	Enterococci Exceedance	07/08/2023	09/04/2023		59			
Private Beaches TOTAL					**1,072**	**586**	**554**	**32**	**586**

APPENDIX C: 2023 INSPECTION SUMMARY

Table C-1: Inspection Non-Compliance Summary*

Beach Name	General Violations**	
	167.31(a)	167.09(a)(13)
CONEY ISLAND BEACH		√
ROCKAWAY BEACH	√	
ORCHARD BEACH	√	

*All other beaches were in full compliance of the regulations at the time of inspection.

*** General Violations:

§167.09(a)(13) Numerous areas of boardwalk in disrepair (broken planks/nails).

§167.31(a) Toilet facility not properly maintained

Appendix 14:

Appendix 14.1: TABLE – CSO DISCHARGE SUMMARY FOR CY 2023 CHECKLIST

			Pre-WWFP		CY2022 - QPE		CY2023 - QPE	
WWTPs	**Waterbody**	**CSO Outfalls**	**CSO Events (Count)**	**Annual CSO Volume (MGY)**	**CSO Events (Count)**	**Annual CSO Volume (MGY)**	**CSO Events (Count)**	**Annual CSO Volume (MGY)**
26th Ward		**ALL**	**23**	**628**		**173**		**1,030**
26th Ward	HC	26-003	47	494	15	97	20	443
26th Ward	HC	26-004	16	36	24	45	33	152
26th Ward	HC	26-005	5	98	2	30	5	435
Bowery Bay		**ALL**	**33**	**6,041**		**2,674**		**4,382**
Bowery Bay	OW	BB-002	NA	988	74	145	74	206
Bowery Bay	OW	BB-003	NA	54	47	23	46	49

Bowery Bay	OW	BB-005	NA	1,520	54	257	66	515
Bowery Bay	FB	BB-006L	NA	1,434	27	134	33	331
Bowery Bay	FB	BB-006U	NA		60	542	64	885
Bowery Bay	FB	BB-007	NA	3	65	131	66	170
Bowery Bay	FB	BB-008	NA	534	62	854	65	1,093
Bowery Bay	NC	BB-004	NA	0	1	0	2	0
Bowery Bay	NC	BB-041	NA	126	83	63	80	104
Bowery Bay	NC	BB-009	35	35	38	28	44	65
Bowery Bay	NC	BB-010	16	2	6	0	10	1
Bowery Bay	NC	BB-011	24	3	18	1	29	2
Bowery Bay	NC	BB-012	NA	0	3	0	4	0
Bowery Bay	NC	BB-013	44	39	41	12	55	23

Bowery Bay	NC	BB-014	35	3	26	1	48	3
Bowery Bay	NC	BB-015	39	3	35	1	54	2
Bowery Bay	OW	BB-016 (BB-057)	NA	2	30	1	42	2
Bowery Bay	OW	BB-017	NA	2	25	1	39	2
Bowery Bay	OW	BB-018	NA	2	19	0	33	1
Bowery Bay	OW	BB-021	NA	31	38	13	46	27
Bowery Bay	OW	BB-022	NA	2	28	0	45	1
Bowery Bay	OW	BB-023	NA	27	32	10	46	22
Bowery Bay	OW	BB-024	NA	97	34	19	49	43
Bowery Bay	OW	BB-025	NA	18	34	5	46	11
Bowery Bay	NC	BB-026	47	187	42	84	49	159
Bowery Bay	OW	BB-027	NA	8	32	3	43	6

Bowery Bay	OW	BB-028	NA	456	46	107	50	224
Bowery Bay	OW	BB-029	NA	180	35	47	50	102
Bowery Bay	OW	BB-030	NA	19	68	18	77	34
Bowery Bay	OW	BB-032	NA	3	16	1	26	2
Bowery Bay	OW	BB-033	NA	9	30	3	41	7
Bowery Bay	OW	BB-034	NA	223	94	153	85	258
Bowery Bay	OW	BB-035	NA	4	39	2	51	5
Bowery Bay	OW	BB-036	NA	10	36	5	50	9
Bowery Bay	OW	BB-037	NA	1	6	0	10	1
Bowery Bay	NC	BB-040	21	1	21	1	29	2
Bowery Bay	NC	BB-042	29	2	29	1	45	3
Bowery Bay	OW	BB-043	40	14	40	6	53	13

Bowery Bay	OW	BB-045	NA	0	0	0	1	0
Bowery Bay	NC	BB-049	NA					
Bowery Bay	NC	BB-053	NA					
Coney Island		**ALL**	**61**	**2,749**		**267**		**1,167**
Coney Island	PB	CI-004	61	1,210				
Coney Island	PB	CI-005	61	973				
Coney Island	PB	CI-006	NA	566				
Coney Island	PB	Tank Bypass	NA		3	19	7	211
Coney Island	PB	Tank Overflow	NA		8	248	15	956
Hunts Point		**ALL**	**29**	**4,199**		**2,290**		**4,169**
Hunts Point	OW	HP-002	NA	119	46	47	61	80
Hunts Point	OW	HP-003	NA	359	39	138	50	268

Hunts Point	BR	HP-004	56	100	21	28	32	41
Hunts Point	HR	HP-005	NA	0	2	0	1	0
Hunts Point	NR	HP-006	NA	0	0	0	0	0
Hunts Point	BR	HP-007	21	88	13	46	18	75
Hunts Point	BR	HP-008	17	4	4	4	10	4
Hunts Point	BR	HP-009	51	814	44	298	53	547
Hunts Point	BR	HP-010	1	1	2	1	2	2
Hunts Point	OW	HP-011	NA	828	56	252	59	468
Hunts Point	WC	HP-012	NA	27	10	30	18	70
Hunts Point	WC	HP-013	54	144	23	146	29	309
Hunts Point	WC	HP-014	NA	516	43	389	54	715
Hunts Point	WC	HP-015	NA	0	4	3	3	2

Hunts Point	WC	HP-016	24	72	33	58	44	116
Hunts Point	OW	HP-017	NA	35	42	43	49	80
Hunts Point	OW	HP-018	NA	2	29	3	38	7
Hunts Point	OW	HP-019	NA	18	41	13	56	26
Hunts Point	OW	HP-020	NA	0	12	1	18	0
Hunts Point	OW	HP-021	NA	298	52	237	57	381
Hunts Point	OW	HP-022	NA	31	33	28	44	55
Hunts Point	HR	HP-023	NA	115	48	137	59	242
Hunts Point	HR	HP-024	NA	254	44	172	54	318
Hunts Point	OW	HP-025	NA	130	67	103	64	162
Hunts Point	OW	HP-026	NA	79	24	64	35	122
Hunts Point	OW	HP-027	NA	0				

Hunts Point	OW	HP-028	NA	0				
Hunts Point	OW	HP-029	NA	4	27	9	38	19
Hunts Point	OW	HP-030	NA	0				
Hunts Point	HR	HP-031	NA	83	39	17	52	31
Hunts Point	OW	HP-032	NA	0				
Hunts Point	WC	HP-033	5	78	5	21	10	29
Hunts Point	WC	HP-034	NA	0				
Hunts Point	OW	HP-036	NA	0				
Hunts Point	OW	HP-037	NA	0				
Hunts Point	OW	HP-038	NA	0				
Hunts Point	OW	HP-039	NA					
Jamaica		**ALL**	**55**	**1,557**		**679**		**1,495**

Jamaica	BB	JA-003	47	319	59	390	54	728
Jamaica	BB	JA-003A	57	300	27	81	37	226
Jamaica	TB	JA-005	55	908	30	110	33	341
Jamaica	TB	JA-007			71	98	74	195
Jamaica	TB	JA-006	61	30	17	0	25	4.2
Newtown Creek		**ALL**	**49**	**2,974**		**1,910**		**3,709**
Newtown Creek	NC	NC-002	NA					
Newtown Creek	OW	NC-003	NA	1	5	0	8	1
Newtown Creek	OW	NC-004	NA	18	35	11	43	21
Newtown Creek	OW	NC-005	NA	79	35	25	43	51
Newtown Creek	OW	NC-006	NA	104	15	49	17	113
Newtown Creek	OW	NC-007	NA	9	27	5	31	9
Newtown Creek	OW	NC-008	NA	27	29	13	32	27
Newtown Creek	OW	NC-009	NA	0				

Newtown Creek	OW	NC-010	NA	0	0	0	1	0
Newtown Creek	OW	NC-011	NA	0	0	0	1	0
Newtown Creek	OW	NC-012	NA	27	21	20	25	48
Newtown Creek	OW	NC-013	NA	42	28	38	34	94
Newtown Creek	OW	NC-014	NA	337	34	472	36	934
Newtown Creek	NC	NC-015	33	308	29	159	32	321
Newtown Creek	OW	NC-016	NA	4	5	1	10	3
Newtown Creek	OW	NC-017	NA	0	3	0	4	1
Newtown Creek	OW	NC-018	NA	14	36	7	37	12
Newtown Creek	NC	NC-019	NA	0	15	2	19	3
Newtown Creek	OW	NC-020	NA	4	11	3	13	8
Newtown Creek	NC	NC-021	NA	0	1	0	3	0

Newtown Creek	NC	NC-022	42	8	25	5	30	9
Newtown Creek	OW	NC-024	NA	0	0	0	1	0
Newtown Creek	OW	NC-025	NA	1	5	0	8	1
Newtown Creek	OW	NC-026	NA	0	4	0	5	0
Newtown Creek	OW	NC-027	NA	24	27	7	33	19
Newtown Creek	OW	NC-028	NA	0	0	0	0	0
Newtown Creek	NC	NC-029	48	18	47	15	48	26
Newtown Creek	OW	NC-030	NA	0	2	0	8	0
Newtown Creek	OW	NC-031	NA	1	15	1	20	4
Newtown Creek	OW	NC-032	NA	6	2	1	7	4
Newtown Creek	OW	NC-033	NA	1	3	0	4	0
Newtown Creek	OW	NC-034	NA	0	4	0	8	2

Newtown Creek	OW	NC-035	NA	5	9	1	15	3
Newtown Creek	OW	NC-036	NA	81	10	28	16	86
Newtown Creek	OW	NC-037	NA	0	1	0	3	4
Newtown Creek	OW	NC-038	NA	9	11	3	16	10
Newtown Creek	OW	NC-039	NA	5	2	1	7	1
Newtown Creek	OW	NC-040	NA	1	1	0	1	0
Newtown Creek	OW	NC-041	NA	45	12	10	17	27
Newtown Creek	OW	NC-042	NA	0	4	0	6	2
Newtown Creek	OW	NC-043	NA	4	8	1	16	4
Newtown Creek	OW	NC-044	NA	1	2	0	1	0
Newtown Creek	OW	NC-045	NA	34	12	8	17	22
Newtown Creek	OW	NC-046	NA	13	18	7	26	16

Newtown Creek	OW	NC-047	NA	1	1	0	0	0
Newtown Creek	OW	NC-048	NA	24	10	3	12	6
Newtown Creek	OW	NC-049	NA	26	7	8	12	17
Newtown Creek	OW	NC-050 (NCM-065)	NA	53	16	14	22	33
Newtown Creek	OW	NC-051	NA	0	6	1	7	1
Newtown Creek	OW	NC-052	NA	41	17	16	20	27
Newtown Creek	OW	NC-053	NA	3	4	3	7	10
Newtown Creek	OW	NC-054	NA	3	5	1	7	5
Newtown Creek	OW	NC-055	NA	2	10	1	12	1
Newtown Creek	OW	NC-056	NA	72	25	15	25	26
Newtown Creek	OW	NC-057	NA	11	6	2	12	5
Newtown Creek	OW	NC-058	NA	37	19	8	23	16

Newtown Creek	OW	NC-059	NA	44	17	5	21	8
Newtown Creek	OW	NC-060	NA	4	3	0	7	1
Newtown Creek	OW	NC-061	NA	2	10	1	15	3
Newtown Creek	OW	NC-062	NA	17	35	8	36	14
Newtown Creek	OW	NC-063	NA	45	7	5	13	16
Newtown Creek	OW	NC-064	NA	9	11	3	15	9
Newtown Creek	OW	NC-065	NA	0	1	0	4	1
Newtown Creek	OW	NC-066	NA	38	5	2	10	6
Newtown Creek	OW	NC-067	NA	6	5	2	10	6
Newtown Creek	OW	NC-068	NA	0	1	0	3	0
Newtown Creek	OW	NC-069	NA	8	5	3	11	10
Newtown Creek	OW	NC-070	NA	1	13	2	18	5

Newtown Creek	OW	NC-071	NA	10	12	3	17	7
Newtown Creek	OW	NC-072	NA	9	8	4	14	10
Newtown Creek	OW	NC-073	NA	29	16	12	23	30
Newtown Creek	OW	NC-074	NA	13	9	5	14	11
Newtown Creek	OW	NC-075	NA	81	18	35	20	86
Newtown Creek	OW	NC-076	NA	292	40	124	40	242
Newtown Creek	NC	NC-077	49	262	63	424	55	640
Newtown Creek	OW	NC-078	NA	11	2	0	5	2
Newtown Creek	OW	NC-080	NA	2	10	0	15	1
Newtown Creek	OW	NC-081	NA	2	11	0	14	1
Newtown Creek	OW	NC-082	NA	0	5	0	8	1
Newtown Creek	NC	NC-083	71	586	52	309	53	561

Newtown Creek	OW	NC-087	NA	1	3	1	6	4
North River		**ALL**		**806**		**170**		**570**
North River	OW	NR-002	NA	54	38	17	55	32
North River	OW	NR-003	NA	9	4	1	6	6
North River	OW	NR-004	NA	7	3	1	5	5
North River	OW	NR-005	NA	0	0	0	0	0
North River	OW	NR-006	NA	76	16	15	18	46
North River	OW	NR-007	NA	2	3	0	7	1
North River	OW	NR-008	NA	27	34	12	37	23
North River	OW	NR-009	NA	3	16	1	18	2
North River	OW	NR-010	NA	14	12	3	15	10
North River	OW	NR-011	NA	3	6	0	9	2

North River	OW	NR-012	NA	2	4	0	8	1
North River	OW	NR-013	NA	1	4	0	8	1
North River	OW	NR-014	NA	3	5	0	9	2
North River	OW	NR-016	NA	3	5	0	9	2
North River	OW	NR-017	NA	67	17	13	18	32
North River	OW	NR-018	NA	0	0	0	1	0
North River	OW	NR-019	NA	5	13	1	17	4
North River	OW	NR-020	NA	18	16	5	18	13
North River	OW	NR-021	NA	6	9	1	14	4
North River	OW	NR-022	NA	16	10	2	14	8
North River	OW	NR-023	NA	41	6	5	10	26
North River	OW	NR-024	NA	18	9	3	13	11

North River	OW	NR-025	NA	19	9	3	12	11
North River	OW	NR-026	NA	26	19	6	20	17
North River	OW	NR-027	NA	72	9	29	13	107
North River	OW	NR-028	NA	13	5	1	8	3
North River	OW	NR-029	NA	7	5	1	11	5
North River	OW	NR-030	NA	3	5	0	8	2
North River	OW	NR-031	NA	4	5	1	9	3
North River	OW	NR-032	NA	2	4	0	5	2
North River	OW	NR-033	NA	24	5	5	8	29
North River	OW	NR-034	NA	8	13	2	18	5
North River	OW	NR-035	NA	10	14	2	18	8
North River	OW	NR-036	NA	20	12	3	16	12

North River	OW	NR-037	NA	1	1	0	2	3
North River	OW	NR-038	NA	6	3	1	5	6
North River	OW	NR-039	NA	0	0	0	0	0
North River	OW	NR-040	NA	33	5	4	10	23
North River	OW	NR-041	NA	3	3	0	5	1
North River	OW	NR-042	NA	4	6	1	9	2
North River	OW	NR-043	NA	132	16	16	18	61
North River	OW	NR-044	NA	2	4	0	5	1
North River	OW	NR-045	NA	17	9	4	11	14
North River	OW	NR-046	NA	8	6	2	11	6
North River	OW	NR-047	NA	0	0	0	1	0
North River	OW	NR-048	NA	4	11	1	14	4

North River	OW	NR-049	NA	14	15	3	17	11
North River	OW	NR-050	NA	0	0	0	4	0
North River	OW	NR-051	NA	0				
North River	OW	NR-052	NA	2	2	0	5	2
North River	OW	NR-055	NA	1	4	0	9	1
North River	OW	NR-056	NA	0				
Owls Head		**ALL**	**30**	**2,790**		**2,590**		**4,238**
Owls Head	OW	OH-002	NA	413	43	366	44	636
Owls Head	OW	OH-003	NA	397	97	335	108	502
Owls Head	OW	OH-004	NA	1	12	3	18	15
Owls Head	GC	OH-005	5	1	1	1	5	5
Owls Head	GC	OH-006	33	13	35	18	45	38

Owls Head	GC	OH-007	47	69	58	61	57	117
Owls Head	OW	OH-015	NA	1,140	80	1,190	67	1,760
Owls Head	OW	OH-017	NA	235	44	418	46	733
Owls Head	OW	OH-018	NA	163	42	92	46	198
Owls Head	OW	OH-019	NA	42	38	27	40	45
Owls Head	OW	OH-020	NA	1	25	1	33	3
Owls Head	OW	OH-021	NA	292	22	50	24	134
Owls Head	GC	OH-022	NA	0				
Owls Head	GC	OH-024	35	23	36	28	46	53
Owls Head	GC	OH-025	NA					
Owls Head	GC	OH-026	NA					
Port Richmond		**ALL**		**550**		**540**		**856**

Port Richmond	OW	PR-002	NA	0	0	0	0	0
Port Richmond	OW	PR-003	NA	0	0	0	0	0
Port Richmond	OW	PR-004	NA	0	0	0	0	0
Port Richmond	OW	PR-005	NA	0	1	0	2	0
Port Richmond	OW	PR-006	NA	6	23	4	25	8
Port Richmond	OW	PR-007	NA	0	0	0	0	0
Port Richmond	OW	PR-008	NA	0	0	0	0	0
Port Richmond	OW	PR-009	NA	0	0	0	0	0
Port Richmond	OW	PR-010	NA	0	5	0	9	1
Port Richmond	OW	PR-011	NA	0	1	0	2	0
Port Richmond	OW	PR-013	NA	28	42	35	43	62
Port Richmond	OW	PR-014	NA	23	55	30	58	48

Port Richmond	OW	PR-015	NA	1	15	1	20	2
Port Richmond	OW	PR-016	NA	0	32	1	37	2
Port Richmond	OW	PR-017	NA	12	54	11	53	19
Port Richmond	OW	PR-018	NA	3	54	3	51	4
Port Richmond	OW	PR-019	NA	26	56	61	53	92
Port Richmond	OW	PR-020	NA	2	57	28	55	34
Port Richmond	OW	PR-021	NA	0	53	8	48	10
Port Richmond	OW	PR-023	NA	0	41	34	43	59
Port Richmond	OW	PR-023A	NA	76				
Port Richmond	OW	PR-023B	NA					
Port Richmond	OW	PR-024	NA	0	0	0	0	0
Port Richmond	OW	PR-025	NA	0	0	0	0	0

Port Richmond	OW	PR-026	NA	1	3	0	6	1
Port Richmond	OW	PR-027	NA	1	5	0	13	1
Port Richmond	OW	PR-028	NA	10	34	10	40	18
Port Richmond	OW	PR-029	NA	217	55	141	53	236
Port Richmond	OW	PR-030	NA	0	57	9	54	11
Port Richmond	OW	PR-031	NA	139	56	160	54	244
Port Richmond	OW	PR-032	NA	0	24	1	30	1
Port Richmond	OW	PR-033	NA	0	0	0	0	0
Port Richmond	OW	PR-034	NA	0	0	0	0	0
Port Richmond	OW	PR-035	NA	0	0	0	0	0
Port Richmond	OW	PR-036	NA	0	0	0	0	0
Port Richmond	OW	PR-037	NA	4	16	1	20	3

Red Hook		**ALL**		**670**		**537**		**1,105**
Red Hook	OW	RH-002	NA	0	0	0	0	0
Red Hook	OW	RH-003	NA	0	9	1	17	2
Red Hook	OW	RH-005	NA	153	46	113	48	285
Red Hook	OW	RH-006	NA	8	27	6	37	15
Red Hook	OW	RH-007	NA	1	22	1	30	3
Red Hook	OW	RH-008	NA	2	26	2	36	7
Red Hook	OW	RH-009	NA	2	26	2	28	5
Red Hook	OW	RH-010	NA	0	3	0	5	0
Red Hook	OW	RH-011	NA	3	22	3	33	8
Red Hook	OW	RH-012	NA	8	22	7	31	20
Red Hook	OW	RH-013	NA	0	3	0	8	1
Red Hook	OW	RH-014	NA	20	52	31	53	51
Red Hook	OW	RH-016	NA	18	42	37	44	72
Red Hook	OW	RH-018	NA	4	32	11	42	20
Red Hook	OW	RH-019	NA	13	46	18	47	27
Red Hook	OW	RH-020	NA	0	19	1	20	2
Red Hook	OW	RH-021	NA	0	44	16	44	26
Red Hook	OW	RH-022	NA	2	38	8	35	9

Red Hook	OW	RH-023	NA	2	43	7	37	8
Red Hook	OW	RH-024	NA	2	39	7	40	9
Red Hook	OW	RH-025	NA	5	36	13	37	16
Red Hook	OW	RH-028	NA	97	24	34	34	53
Red Hook	OW	RH-029	NA	2	18	1	24	4
Red Hook	GC	RH-030	NA	18	39	45	43	80
Red Hook	GC	RH-030 A	NA					
Red Hook	GC	RH-031	NA	35	37	42	41	79
Red Hook	GC	RH-033	NA	0	4	0	11	1
Red Hook	GC	RH-034	NA	121	48	100	53	228
Red Hook	GC	RH-035	NA	111	31	11	37	25
Red Hook	GC	RH-036	NA	2	13	1	22	3
Red Hook	GC	RH-037	NA	1	4	0	13	1
Red Hook	GC	RH-038	NA	1	5	0	17	2
Red Hook	OW	RH-040	NA	37	33	17	42	43
Tallman Island		**ALL**	**45**	**2,369**		**1,518**		**2,496**
Tallman Island	OW	TI-003	NA	127	84	121	76	152
Tallman Island	OW	TI-004	NA	10	17	3	23	6

Tallman Island	OW	TI-005	NA	0	1	0	0	0
Tallman Island	AC	TI-006	NA	0	0	0	0	0
Tallman Island	AC	TI-007	NA	0	2	0	2	0
Tallman Island	AC	TI-008	38	59	0	0	0	0
Tallman Island	AC	TI-009	NA	0				
Tallman Island	FB	TI-010	73	1,580	57	541	57	1,172
Tallman Island	FC	TI-011	54	332	72	450	57	540
Tallman Island	FC	TI-012	NA	0	0	0	0	0
Tallman Island	FB	TI-013	NA	0	0	0	0	0
Tallman Island	FB	TI-014	32	2	49	14	51	20
Tallman Island	FB	TI-015	29	1	34	3	38	6
Tallman Island	FB	TI-016	45	28	62	38	57	52

Tallman Island	FB	TI-017	NA	0	32	3	38	5
Tallman Island	FB	TI-018	34	2	46	6	48	9
Tallman Island	FB	TI-022	55	30	85	91	65	120
Tallman Island	OW	TI-023	NA	198	47	105	50	165
Tallman Island	AC	TI-024	NA	0	0	0	0	0
Tallman Island	AC	TI-025	NA	0	24	143	30	247
Wards Island		**ALL**		**4,108**		**2,169**		**3,662**
Wards Island	OW	WI-002	NA	11	52	6	65	9
Wards Island	OW	WI-003	NA	115	55	75	68	134
Wards Island	OW	WI-004	NA	12	49	5	61	8
Wards Island	OW	WI-005	NA	10	41	4	52	6
Wards Island	OW	WI-006	NA	12	46	5	54	6

Wards Island	OW	WI-007	NA	11	41	4	50	6
Wards Island	OW	WI-008	NA	224	55	126	66	205
Wards Island	OW	WI-009	NA	0	1	0	1	0
Wards Island	OW	WI-010	NA	0	0	0	0	0
Wards Island	OW	WI-011	NA	3	19	2	22	5
Wards Island	OW	WI-012	NA	41	26	13	31	17
Wards Island	OW	WI-013	NA	1	22	0	23	0
Wards Island	OW	WI-014	NA	1	20	0	15	0
Wards Island	OW	WI-015	NA	14	20	4	16	4
Wards Island	OW	WI-016	NA	30	35	14	44	20
Wards Island	OW	WI-017	NA	17	20	5	19	5
Wards Island	OW	WI-018	NA	1	22	0	11	0

Wards Island	OW	WI-019	NA	1	20	0	13	0
Wards Island	OW	WI-020	NA	0				
Wards Island	OW	WI-021	NA	1	17	0	11	0
Wards Island	OW	WI-022	NA	1	18	0	14	0
Wards Island	OW	WI-023	NA	79	45	35	36	51
Wards Island	OW	WI-024	NA	100	21	36	16	41
Wards Island	OW	WI-025	NA	35	54	23	57	37
Wards Island	OW	WI-026	NA	1	17	0	9	0
Wards Island	OW	WI-027	NA	1	15	0	9	0
Wards Island	OW	WI-030	NA	2	20	0	12	0
Wards Island	OW	WI-031	NA	5	20	2	15	3
Wards Island	OW	WI-032	NA	0	18	0	8	0

Wards Island	OW	WI-033	NA	4	22	2	20	3
Wards Island	OW	WI-034	NA	1	20	1	15	0
Wards Island	OW	WI-035	NA	8	23	4	19	6
Wards Island	OW	WI-036	NA	3	43	1	58	1
Wards Island	OW	WI-037	NA	9	20	4	19	5
Wards Island	OW	WI-038	NA	39	23	15	25	22
Wards Island	OW	WI-039	NA	3	24	2	25	2
Wards Island	OW	WI-040	NA	3	27	1	24	2
Wards Island	OW	WI-041	NA	13	30	5	36	7
Wards Island	OW	WI-042	NA	3	21	1	25	1
Wards Island	OW	WI-043	NA	7	20	2	15	1
Wards Island	OW	WI-044	NA	6	29	2	31	3

Wards Island	OW	WI-045	NA	63	48	32	59	53
Wards Island	OW	WI-046	NA	158	51	114	64	177
Wards Island	OW	WI-047	NA	23	52	16	63	25
Wards Island	OW	WI-048	NA	13	52	10	64	15
Wards Island	OW	WI-050	NA	69	45	13	58	22
Wards Island	OW	WI-051	NA	21	35	16	49	31
Wards Island	OW	WI-052	NA	48	52	36	67	64
Wards Island	OW	WI-053	NA	30	75	48	74	73
Wards Island	OW	WI-054	NA	28	52	29	64	54
Wards Island	OW	WI-055	NA	9	59	17	66	27
Wards Island	OW	WI-056	NA	1,543	56	662	57	1,064
Wards Island	OW	WI-057	NA	179	56	114	65	187

Wards Island	OW	WI-058	NA	50	40	27	51	53
Wards Island	OW	WI-059	NA	5	23	6	29	13
Wards Island	OW	WI-060	NA	228	38	229	46	449
Wards Island	OW	WI-061	NA	2	15	3	17	10
Wards Island	OW	WI-062	NA	175	39	85	43	148
Wards Island	OW	WI-063	NA	13	37	5	44	11
Wards Island	OW	WI-064	NA	43	29	16	34	33
Wards Island	OW	WI-065	NA	5	19	1	18	1
Wards Island	OW	WI-066	NA	2	14	1	18	2
Wards Island	OW	WI-067	NA	13	23	5	22	13
Wards Island	OW	WI-068	NA	222	30	32	41	84
Wards Island	OW	WI-069	NA	0	1	0	2	0

Wards Island	OW	WI-070	NA	11	32	6	33	13
Wards Island	OW	WI-071	NA	29	26	11	32	25
Wards Island	OW	WI-072	NA	46	30	24	39	48
Wards Island	OW	WI-073	NA	11	19	0	11	0
Wards Island	OW	WI-074	NA	0				
Wards Island	OW	WI-075	NA	123	34	57	39	108
Wards Island	OW	WI-076	NA	43	52	53	54	80
Wards Island	OW	WI-077	NA	77	51	71	60	124
Wards Island	OW	WI-078	NA	0	49	28	53	45
Wards Island	OW	WI-079	NA	0				

Appendix 15:

- Table 15-1: Key Regulators with Potential CSO Discharges outside the Period of a Critical Wet Weather Event, January through December 2023
- Appendix 15.1 CY2023 Key Regulators Monitoring Report Summary
- Appendix 15.2 CY2023 Non-Key Regulator Monitoring Reports
- Appendix 15.3 CY2023 Summary of the Status of All Telemetered Regulators.

TABLE 15.1 KEY REGULATORS WITH POTENTIAL CSO DISCHARGES OUTSIDE THE PERIOD OF A CRITICAL WET WEATHER EVENT, JANUARY THROUGH DECEMBER 2023

Key Regulator	2023 Number of Occurrences													Total Duration (hours)	Analysis Category
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	To Date		
26W-01	0	1	1	1	0	0	0	2	4	0	0	0	9	10.25	B
26W-02	*	*	*	*	*	*	*	*	*	*	*	*	0	0.00	B*
BBH-02	1	0	0	1	0	0	3	2	1	0	0	0	8	6.25	B
BBH-06	2	0	0	1	0	0	0	9	3	0	0	0	15	66.25	C
BBL-04	6	0	0	2	0	3	5	7	5	5	2	5	40	35.25	C
BBL-22	0	0	1	1	1	0	6	2	2	0	0	3	16	17.00	C
HP-05	1	1	1	3	1	0	5	8	4	5	0	4	33	106.50	C
HP-10	*	*	*	*	*	*	*	*	*	*	*	*	0	0.00	B*
HP-13	*	*	*	*	*	*	*	*	*	*	*	*	0	0.00	A
JA-03	0	0	1	1	0	0	0	0	0	0	0	0	2	3.00	B
NCB-01	4	0	1	1	1	0	2	6	4	4	0	1	24	38.75	C
NCB-04	*	*	*	*	*	*	*	*	*	*	*	*	0	0.00	B*
NCM-47	1	0	0	2	1	0	0	2	0	1	0	2	9	14.25	B
NR-16	1	0	1	2	0	0	6	5	3	3	0	3	24	20.00	C
NR-23	0	0	0	2	0	0	5	5	2	1	0	2	17	16.50	C
NR-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
OH-01	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
OH-06	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
PR-06W	*	*	*	*	*	*	*	*	*	*	*	*	0	0.00	B*
PR-13E	*	*	*	*	*	*	*	*	*	*	*	*	0	0.00	B*
RH-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
RH-20	0	0	0	0	0	0	1	0	0	0	0	0	1	0.25	B
TI-09	3	0	3	3	1	0	3	7	6	5	2	5	38	75.25	C
TI-10A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
WIB-53	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
WIB-67	2	0	1	2	0	0	5	4	2	5	1	1	23	37.00	C
WIM-23	2	0	0	1	0	0	6	4	2	4	0	1	20	13.50	C
Count**	10	2	8	14	5	1	11	13	12	9	3	10			

**Count of regulators with at least one event

Analysis Categories

A. Key Regulators that may be influenced by planned capital improvements (Projects are currently in design or construction that may result in CSO reductions and additional wet weather capture);

B. Key Regulators averaging one or fewer potential discharge outside the period of a critical wet weather event per month

C. All other Key Regulators with an average of more than one potential discharge outside the period of a critical wet weather event per month

APPENDIX: 15.1 KEY REGULATOR MONITORING REPORT SUMMARY CY 2023

CY2023 Key Regulator Monitoring Report

Regulator 26W-01	Potential CSO Discharges Outside the						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Feb-23	1	2/28/23 2:00 PM	2/28/23 4:45 PM	2.75	79	112	170	N/A	N/A	N/A	N/A
Mar-23	1	3/4/23 1:45 AM	3/4/23 5:00 AM	3.25	162	162	170	3/4/23 2:30 AM	3/4/23 7:00 AM	175	172
Apr-23	1a	4/22/23 11:15 PM	4/23/23 12:15 AM	1.00	147	168	170	4/23/23 12:30 AM	4/23/23 12:30 AM	171	171
	1b	4/23/23 6:45 AM	4/23/23 8:15 AM	1.50	169	169					
Aug-23	1	8/15/23 2:15 AM	8/15/23 3:00 AM	0.75	66	160	170	N/A	N/A	N/A	N/A
	2	8/18/23 5:00 AM	8/18/23 5:00 AM	0.00*	121	121	170	8/18/23 6:00 AM	8/18/23 7:00 AM	173	172
Sep-23	1	9/10/23 11:30 AM	9/10/23 11:45 AM	0.25	137	167	170	9/10/23 12:00 PM	9/10/23 1:45 PM	189	177
	2	9/10/23 11:00 PM	9/10/23 11:15 PM	0.25	156	162	170	9/10/23 11:30 PM	9/11/23 1:30 AM	185	178
	3	9/18/23 11:45 AM	9/18/23 11:45 AM	0.00*	164	164	170	9/18/23 12:00 PM	9/18/23 12:45 PM	171	168***
	4	9/29/23 11:45 AM	9/29/23 12:15 PM	0.50	168	168	170	9/29/23 12:30 PM	9/29/23 2:45 PM	173	171

CY2023 Key Regulator Monitoring Report

Regulator 26W-02	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator 26W-02 had a sensor malfunction; no reportable data for CY2023											

Regulator BBH-02	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1a	1/19/23 9:45 PM	1/19/23 10:30 PM	0.75	311	314	300	1/19/23 12:00 PM	1/19/23 1:45 PM	307	303
	1b	1/19/23 11:00 PM	1/19/23 11:30 PM	0.50	311	311					
Apr-23	1	4/23/23 4:15 AM	4/23/23 5:00 AM	0.75	298	298	300	4/22/23 11:00 PM	4/23/23 4:00 AM	310	305
Jul-23	1a	7/9/23 7:30 PM	7/9/23 8:30 PM	1.00	299	299	300	7/9/23 8:45 PM	7/9/23 9:00 PM	300	300
	1b	7/9/23 9:15 PM	7/9/23 11:15 PM	2.00	299	299					
	2	7/16/23 1:30 PM	7/16/23 2:00 PM	0.50	299	299	300	7/16/23 9:00 AM	7/16/23 1:15 PM	322	314
	3	7/25/23 5:15 PM	7/25/23 5:30 PM	0.25	297	297	300	7/25/23 4:00 PM	7/25/23 5:00 PM	306	303
Aug-23	1	8/15/23 2:15 AM	8/15/23 2:15 AM	0.00*	253	253	300	8/15/23 2:30 AM	8/15/23 3:30 AM	314	309
	2	8/18/23 5:30 AM	8/18/23 5:30 AM	0.00*	272	272	300	8/18/23 5:45 AM	8/18/23 6:45 AM	333	324
Sep-23	1	9/10/23 1:15 PM	9/10/23 1:45 PM	0.50	298	298	300	9/10/23 11:45 PM	9/10/23 1:00 PM	324	308

Regulator BBH-06	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1	1/3/23 11:45 AM	1/3/23 11:45 AM	0.00*	238	238	300	1/3/23 12:00 PM	1/3/23 1:45 PM	321	313
	2	1/25/23 7:30 PM	1/25/23 8:00 PM	0.50	228	279	300	1/25/23 8:15 PM	1/26/23 5:15 AM	338	311
Apr-23	1	4/23/23 4:15 AM	4/23/23 4:30 AM	0.25	298	298	300	4/22/23 11:00 PM	4/23/23 4:00 AM	310	305
Aug-23	1a	8/10/23 8:45 PM	8/10/23 8:45 PM	0.00*	294	294	300	8/10/23 5:15 PM	8/10/23 8:00 PM	339	312
	1b	8/10/23 9:30 PM	8/11/23 12:30 AM	3.00	267	267					
	2a	8/13/23 2:45 AM	8/13/23 3:15 AM	0.50	100	283	300	8/13/23 3:30 AM	8/13/23 5:30 AM	321	311
	2b	8/13/23 5:45 AM	8/13/23 7:45 AM	2.00	297	297					
	3	8/13/23 8:00 AM	8/13/23 9:00 AM	1.00	145	145	300	N/A	N/A	N/A	N/A
	4a	8/15/23 2:15 AM	8/15/23 2:15 AM	0.00*	253	253	300	8/15/23 2:30 AM	8/15/23 4:45 AM	314	309
	4b	8/15/23 5:00 AM	8/15/23 10:15 AM	5.25	296	296					
	5a	8/16/23 4:30 AM	8/16/23 4:30 AM	0.00*	143	143	300	8/16/23 4:45 AM	8/16/23 5:30 AM	326	311
	5b	8/16/23 8:15 AM	8/16/23 8:15 AM	0.00*	298	298					
	5c	8/16/23 9:00 AM	8/16/23 9:45 AM	0.75	290	290		8/16/23 5:00 AM	8/16/23 8:00 AM	326	316
	5d	8/16/23 10:00 AM	8/16/23 1:00 PM	3.00	253	253					
	6a	8/18/23 5:00 AM	8/18/23 5:30 AM	0.50	92	272	300	8/18/23 5:45 AM	8/18/23 7:30 AM	333	324
	6b	8/18/23 9:00 AM	8/18/23 10:15 AM	1.25	298	298					
	6c	8/18/23 10:45 AM	8/18/23 11:15 AM	0.50	267	267					
	6d	8/18/23 12:00 PM	8/18/23 6:15 PM	6.25	160	209					
	7	8/24/23 4:45 PM	8/24/23 10:00 PM	5.25	106	188	300	N/A	N/A	N/A	N/A
	8a	8/25/23 10:15 AM	8/25/23 12:30 PM	2.25	296	296	300	8/26/23 8:00 AM	8/26/23 11:00 AM	330	315
	8b	8/25/23 12:45 PM	8/26/23 7:30 AM	18.75	195	195					
	8c	8/26/23 11:15 AM	8/26/23 5:30 PM	6.25	289	289					
	9	8/30/23 10:15 AM	8/30/23 2:30 PM	4.25	140	288	300	N/A	N/A	N/A	N/A
Sep-23	1	9/9/23 3:15 PM	9/9/23 4:00 PM	0.75	114	116	300	N/A	N/A	N/A	N/A
	2a	9/10/23 11:30 AM	9/10/23 11:30 AM	0.00*	277	277	300	9/10/23 11:45 AM	9/10/23 1:00 PM	324	308
	2b	9/10/23 9:45 PM	9/10/23 10:15 PM	0.50	173	294		9/10/23 10:30 PM	9/11/23 2:30 AM	334	321
	3a	9/11/23 5:45 PM	9/11/23 6:30 PM	0.75	193	246	300	9/11/23 6:45 PM	9/11/23 9:45 PM	325	311
	3b	9/11/23 10:00 PM	9/12/23 12:45 AM	2.75	299	299					

Regulator BBL-04	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1	1/3/23 11:15 AM	1/3/23 11:45 AM	0.50	103	238	300	1/3/23 12:00 PM	1/3/23 1:45 PM	321	313
	2	1/6/23 3:15 AM	1/6/23 4:00 AM	0.75	138	277	300	N/A	N/A	N/A	N/A
	3	1/12/23 6:30 PM	1/12/23 7:00 PM	0.50	99	167	300	1/12/23 8:00 PM	1/12/23 9:00 PM	307	304
	4	1/19/23 3:45 PM	1/19/23 4:15 PM	0.50	243	297	300	1/19/23 9:30 PM	1/20/23 12:00 AM	341	312
	5	1/22/23 8:15 PM	1/22/23 8:45 PM	0.50	205	298	300	1/22/23 9:00 PM	1/23/23 3:15 AM	320	309
	6	1/25/23 7:15 PM	1/25/23 8:00 PM	0.75	227	279	300	1/25/23 8:15 PM	1/26/23 5:15 AM	338	311
Apr-23	1a	4/22/23 10:15 PM	4/22/23 10:45 PM	0.50	108	176	300	4/22/23 11:00 PM	4/23/23 4:00 AM	310	305
	1b	4/23/23 4:15 AM	4/23/23 5:15 AM	1.00	298	299					
	2	4/30/23 1:30 PM	4/30/23 1:30 PM	0.00*	289	289	300	4/30/23 1:45 PM	4/30/23 11:45 PM	320	308
Jun-23	1	6/2/23 6:45 PM	6/2/23 8:00 PM	1.25	161	226	300	N/A	N/A	N/A	N/A
	2	6/12/23 8:15 PM	6/12/23 8:45 PM	0.50	147	199	300	N/A	N/A	N/A	N/A
	3	6/16/23 2:30 PM	6/16/23 3:00 PM	0.50	159	198	300	N/A	N/A	N/A	N/A
Jul-23	1a	7/9/23 7:30 PM	7/9/23 8:30 PM	1.00	299	299	300	7/9/23 7:00 PM	7/9/23 7:15 PM	300	300
	1b	7/9/23 9:15 PM	7/9/23 11:30 PM	2.25	299	299					
	2	7/14/23 11:30 PM	7/15/23 1:00 AM	1.50	195	195	300	N/A	N/A	N/A	N/A
	3	7/16/23 1:30 PM	7/16/23 2:30 PM	1.00	299	299	300	7/16/23 9:00 AM	7/16/23 1:15 PM	322	314
	4	7/21/23 5:30 AM	7/21/23 6:00 AM	0.50	162	178	300	N/A	N/A	N/A	N/A
	5	7/25/23 5:15 PM	7/25/23 5:30 PM	0.25	297	297	300	7/25/23 4:00 PM	7/25/23 5:00 PM	306	303
Aug-23	1	8/7/23 9:15 PM	8/7/23 10:00 PM	0.75	161	230	300	N/A	N/A	N/A	N/A
	2a	8/10/23 5:00 PM	8/10/23 5:00 PM	0.00*	199	199	300	8/10/23 5:15 PM	8/10/23 8:00 PM	339	312
	2b	8/10/23 8:45 PM	8/10/23 9:15 PM	0.50	294	294					
	3	8/13/23 2:45 AM	8/13/23 3:15 AM	0.50	100	283	300	8/13/23 3:30 AM	8/13/23 5:30 AM	321	311
	4	8/15/23 1:45 AM	8/15/23 2:15 AM	0.50	101	253	300	8/15/23 2:30 AM	8/15/23 4:45 AM	314	309
	5	8/18/23 5:00 AM	8/18/23 5:30 AM	0.50	92	272	300	8/18/23 5:45 AM	8/18/23 7:30 AM	333	324
	6	8/25/23 7:30 AM	8/25/23 8:00 AM	0.50	71	229	300	8/25/23 8:15 AM	8/25/23 10:00 AM	320	311
	7	8/30/23 10:15 AM	8/30/23 11:00 AM	0.75	140	288	300	N/A	N/A	N/A	N/A
Sep-23	1a	9/10/23 11:00 AM	9/10/23 11:30 AM	0.50	110	277	300	9/10/23 11:45 AM	9/10/23 1:00 PM	324	308
	1b	9/10/23 9:45 PM	9/10/23 10:15 PM	0.50	173	294					
	2	9/11/23 6:30 PM	9/11/23 6:30 PM	0.00*	246	246	300	9/11/23 6:45 PM	9/11/23 7:45 PM	325	317
	3a	9/18/23 6:00 AM	9/18/23 6:00 AM	0.00*	277	277	300	9/18/23 6:45 AM	9/18/23 2:00 PM	329	311
	3b	9/18/23 6:30 AM	9/18/23 6:30 AM	0.00*	294	294					
	3c	9/18/23 6:15 PM	9/18/23 6:45 PM	0.50	187	242					
	4a	9/24/23 8:00 AM	9/24/23 8:15 AM	0.25	241	241	300	9/24/23 8:30 AM	9/24/23 11:30 AM	317	308
	4b	9/24/23 1:45 PM	9/24/23 2:15 PM	0.50	255	290		9/24/23 2:30 PM	9/25/23 12:00 AM	358	312
	5	9/29/23 9:15 AM	9/29/23 4:15 PM	7.00	205	216	300	N/A	N/A	N/A	N/A
Oct-23	1	10/7/23 11:00 AM	10/7/23 11:30 AM	0.50	249	279	300	10/7/23 12:00 PM	10/7/23 5:15 PM	317	312
	2	10/14/23 1:15 PM	10/14/23 1:30 PM	0.25	291	299	300	10/14/23 1:45 PM	10/14/23 6:45 PM	314	308
	3	10/20/23 9:30 AM	10/20/23 10:45 AM	1.25	248	298	300	10/20/23 11:00 AM	10/20/23 2:00 PM	308	304
	4a	10/21/23 8:00 AM	10/21/23 8:45 AM	0.75	198	281	300	10/21/23 9:00 AM	10/21/23 9:30 AM	309	305
	4b	10/21/23 9:45 AM	10/21/23 9:45 AM	0.00	298	298					
	5	10/30/23 6:15 AM	10/30/23 6:30 AM	0.25	283	294	300	10/30/23 6:45 AM	10/30/23 9:00 AM	314	306
Nov-23	1	11/21/23 9:45 PM	11/21/23 9:45 PM	0.00*	279	279	300	11/21/23 10:00 PM	11/22/23 9:00 AM	318.00	308.00
	2	11/26/23 11:00 PM	11/26/23 11:15 PM	0.25	294	297	300	11/26/23 11:30 PM	11/27/23 1:00 AM	306.00	304.00
Dec-23	1	12/1/23 6:45 PM	12/1/23 9:30 PM	2.75	254	299	300	N/A	N/A	N/A	N/A
	2a	12/3/23 9:30 AM	12/3/23 9:45 AM	0.25	280	293	300	12/3/23 10:00 AM	12/3/23 11:00 AM	306	304
	2b	12/3/23 11:15 AM	12/3/23 11:30 AM	0.25	299	299					
	3a	12/10/23 3:45 PM	12/10/23 4:00 PM	0.25	298	298	300	12/10/23 2:00 PM	12/10/23 3:30 PM	314	310
	3b	12/10/23 9:00 PM	12/10/23 9:30 PM	0.50	272	297		12/10/23 9:45 PM	12/11/23 2:45 AM	322	317
	3c	12/11/23 3:00 AM	12/11/23 3:00 AM	0.00	297	297					
	4	12/18/23 12:30 AM	12/18/23 12:30 AM	0.00	283	283	300	12/18/23 12:45 AM	12/18/23 4:00 PM	322	308
	5	12/28/23 5:45 AM	12/28/23 5:45 AM	0.00	291	291	300	12/28/23 12:30 AM	12/28/23 5:30 AM	319	313

CY2023 Key Regulator Monitoring Report

Regulator BBL-22	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Mar-23	1	3/4/23 1:30 AM	3/4/23 3:30 AM	2.00	161	206	300	N/A	N/A	N/A	N/A
Apr-23	1	4/23/23 4:15 AM	4/23/23 4:45 AM	0.50	298	298	300	4/22/23 11:00 PM	4/23/23 4:00 AM	310	305
May-23	1	5/20/23 1:45 PM	5/20/23 2:00 PM	0.25	280	291	300	5/20/23 2:15 PM	5/20/23 5:00 PM	319	309
Jul-23	1	7/4/23 11:45 AM	7/4/23 12:45 PM	1.00	247	252	300	7/4/23 1:00 AM	7/4/23 2:00 AM	316	310
	2	7/9/23 7:30 PM	7/9/23 8:30 PM	1.00	299	299	300	7/9/23 7:00 PM	7/9/23 7:15 PM	300	300
	3	7/14/23 11:45 PM	7/15/23 12:45 AM	1.00	190	190	300	N/A	N/A	N/A	N/A
	4	7/16/23 1:30 PM	7/16/23 2:15 PM	0.75	299	299	300	7/16/23 9:00 AM	7/16/23 1:15 PM	322	314
	5	7/18/23 12:30 PM	7/18/23 1:15 PM	0.75	200	200	300	N/A	N/A	N/A	N/A
	6	7/21/23 5:45 AM	7/21/23 6:15 AM	0.50	170	181	300	N/A	N/A	N/A	N/A
Aug-23	1	8/15/23 2:00 AM	8/15/23 2:15 AM	0.25	147	253	300	8/15/23 2:30 AM	8/15/23 4:45 AM	314	309
	2	8/18/23 5:15 AM	8/18/23 5:30 AM	0.25	165	272	300	8/18/23 5:45 AM	8/18/23 6:00 AM	333	324
Sep-23	1	9/10/23 11:00 AM	9/10/23 11:30 AM	0.50	110	277	300	9/10/23 11:45 AM	9/10/23 1:00 PM	324	308
	2a	9/29/23 12:30 AM	9/29/23 4:30 AM	4.00	213	225	300	N/A	N/A	N/A	N/A
	2b	9/29/23 1:15 PM	9/29/23 3:30 PM	2.25	213	213					
Dec-23	1	12/1/23 7:00 PM	12/1/23 7:45 PM	0.75	284	296	300	N/A	N/A	N/A	N/A
	2	12/3/23 9:15 AM	12/3/23 9:45 AM	0.50	267	293	300	12/3/23 10:00 AM	12/3/23 11:00 AM	306	304
	3a	12/10/23 1:45 PM	12/10/23 1:45 PM	0.00	286	286	300	12/10/23 2:00 PM	12/10/23 3:30 PM	314	310
	3b	12/10/23 8:45 PM	12/10/23 9:30 PM	0.75	256	297		12/10/23 9:45 PM	12/11/23 2:45 AM	322	317

CY2023 Key Regulator Monitoring Report

Regulator HP-05	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1a	1/19/23 1:15 PM	1/19/23 1:45 PM	0.50	248	258	400	1/19/23 10:00 PM	1/19/23 11:30 PM	423	410
	1b	1/19/23 3:15 PM	1/19/23 6:45 PM	3.50	231	379					
	1c	1/20/23 12:45 AM	1/20/23 1:15 AM	0.50	321	321					
Feb-23	1	2/17/23 3:00 PM	2/17/23 4:00 PM	1.00	250	250	400	N/A	N/A	N/A	N/A
Mar-23	1	3/4/23 1:45 AM	3/4/23 6:15 AM	4.50	375	389	400	N/A	N/A	N/A	N/A
Apr-23	1a	4/23/23 2:30 AM	4/23/23 6:00 AM	3.50	366	366	400	4/23/23 6:45 AM	4/23/23 8:45 AM	371**	334***
	1b	4/23/23 9:00 AM	4/23/23 9:30 AM	0.50	390	390					
	2	4/29/23 11:15 AM	4/30/23 2:30 AM	15.25	398	399	400	4/29/23 5:00 AM	4/29/23 11:00 AM	420	405
	3	4/30/23 3:45 PM	4/30/23 3:45 PM	0.00*	396	396	400	4/30/23 4:00 PM	4/30/23 11:00 PM	407	403
May-23	1	5/20/23 3:30 PM	5/20/23 7:15 PM	3.75	362	391	400	N/A	N/A	N/A	N/A
Jul-23	1	7/9/23 11:45 PM	7/10/23 12:30 AM	0.75	303	303	400	7/9/23 7:15 PM	7/9/23 11:30 PM	398**	382***
	2	7/14/23 8:30 AM	7/14/23 1:15 PM	4.75	348	348	400	N/A	N/A	N/A	N/A
	3	7/16/23 2:45 PM	7/16/23 5:15 PM	2.50	340	340	400	7/16/23 10:00 AM	7/16/23 2:30 PM	404	390***
	4	7/18/23 3:00 PM	7/18/23 7:15 PM	4.25	283	283	400	N/A	N/A	N/A	N/A
	5	7/27/23 11:15 PM	7/27/23 11:45 PM	0.50	327	327	400	7/27/23 10:00 PM	7/27/23 11:00 PM	393**	375***
Aug-23	1	8/7/23 8:30 AM	8/7/23 9:30 AM	1.00	368	368	400	8/7/23 7:15 AM	8/7/23 8:15 AM	394**	386***
	2	8/13/23 4:00 AM	8/13/23 5:00 AM	1.00	388	388	400	N/A	N/A	N/A	N/A
	3	8/15/23 4:15 AM	8/15/23 5:45 AM	1.50	390	390	400	8/15/23 3:00 AM	8/15/23 4:00 AM	427	416
	4a	8/16/23 4:15 AM	8/16/23 4:15 AM	0.00*	226	226	400	8/16/23 4:30 AM	8/16/23 5:15 AM	413	365***
	4b	8/16/23 5:30 AM	8/16/23 6:45 AM	1.25	380	380					
	5a	8/18/23 5:30 AM	8/18/23 5:30 AM	0.00*	279	279	400	8/18/23 5:45 AM	8/18/23 6:45 AM	428	379***
	5b	8/18/23 7:00 AM	8/18/23 8:00 AM	1.00	361	394					
	6	8/25/23 10:00 AM	8/25/23 10:00 AM	0.00*	393	393	400	8/25/23 9:00 AM	8/25/23 9:15 AM	413	407
	7a	8/26/23 8:30 AM	8/26/23 11:15 AM	2.75	250	250	400	N/A	N/A	N/A	N/A
	7b	8/26/23 11:00 PM	8/26/23 11:30 PM	0.50	195	195					
	8	8/30/23 3:00 PM	8/30/23 3:45 PM	0.75	150	150	400	N/A	N/A	N/A	N/A
Sep-23	1	9/11/23 12:30 AM	9/11/23 3:30 AM	3.00	388	388	400	9/10/23 11:30 PM	9/11/23 12:15 AM	455	449
	2	9/18/23 6:15 PM	9/18/23 8:45 PM	2.50	185	359	400	N/A	N/A	N/A	N/A
	3a	9/29/23 2:30 AM	9/29/23 3:15 AM	0.75	396	396	400	9/29/23 3:30 AM	9/29/23 4:30 AM	414	411
	3b	9/29/23 4:45 AM	9/29/23 6:00 AM	1.25	396	396					
	4a	9/29/23 4:45 PM	9/29/23 6:45 PM	2.00	390	390	400	9/29/23 11:00 AM	9/29/23 4:30 PM	416	406
	4b	9/30/23 3:45 AM	9/30/23 5:00 AM	1.25	219	219					
Oct-23	1	10/7/23 12:15 PM	10/7/23 12:15 PM	0.00	367	367	400	10/7/23 12:30 PM	10/7/23 2:00 PM	402	393
	2	10/14/23 3:45 PM	10/14/23 4:15 PM	0.50	322	326	400	N/A	N/A	N/A	N/A
	3	10/21/23 9:15 AM	10/21/23 10:30 AM	1.25	364	364	400	N/A	N/A	N/A	N/A
	4	10/29/23 3:00 PM	10/29/23 5:15 PM	2.25	356	356	400	N/A	N/A	N/A	N/A
	5	10/30/23 6:30 AM	10/30/23 8:30 AM	2.00	282	387	400	N/A	N/A	N/A	N/A
Dec-23	1	12/1/23 9:00 PM	12/1/23 9:45 PM	0.75	332	332	400	N/A	N/A	N/A	N/A
	2a	12/10/23 3:00 PM	12/10/23 4:30 PM	1.50	352	352	400	N/A	N/A	N/A	N/A
	2b	12/11/23 2:45 AM	12/11/23 3:30 AM	0.75	378	378					
	3	12/18/23 8:30 AM	12/18/23 12:00 PM	3.50	398	398	400	12/18/23 7:45 AM	12/18/23 8:15 AM	402	401
	4	12/28/23 5:45 AM	12/28/23 7:30 AM	1.75	379	379	400	12/28/23 2:00 AM	12/28/23 5:30 AM	408	398

CY2023 Key Regulator Monitoring Report

Regulator HP-10	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator HP-10 had a sensor malfunction; no reportable data for CY2023											

CY2023 Key Regulator Monitoring Report

Regulator HP-13	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator HP-13 had a sensor malfunction; no reportable data for CY2023											

CY2023 Key Regulator Monitoring Report

Regulator JA-03	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Mar-23	1	3/4/23 1:45 AM	3/4/23 2:30 AM	0.75	154	176	200	N/A	N/A	N/A	N/A
Apr-23	1	4/30/23 3:00 PM	4/30/23 5:15 PM	2.25	180	193	200	4/30/23 5:30 PM	4/30/23 11:00 PM	226	214

CY2023 Key Regulator Monitoring Report

Regulator NCB-01	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1a	1/3/23 11:30 AM	1/3/23 11:30 AM	0.00*	398	398	611	1/3/23 11:45 AM	1/3/23 12:00 PM	669	641
	1b	1/3/23 12:15 PM	1/3/23 12:45 PM	0.50	570	570					
	2a	1/19/23 4:15 PM	1/19/23 5:45 PM	1.50	474	550	611	N/A	N/A	N/A	N/A
	2b	1/19/23 9:45 PM	1/19/23 11:15 PM	1.50	569	586					
	3	1/22/23 8:30 PM	1/23/23 1:45 AM	5.25	447	570	611	N/A	N/A	N/A	N/A
	4a	1/25/23 7:45 PM	1/25/23 7:45 PM	0.00*	539	539	611	1/25/23 8:00 PM	1/26/23 3:30 AM	681	579***
	4b	1/26/23 3:45 AM	1/26/23 4:00 AM	0.25	593	593					
Mar-23	1	3/13/23 11:00 PM	3/14/23 3:45 AM	4.75	523	523	611	N/A	N/A	N/A	N/A
Apr-23	1a	4/29/23 2:30 AM	4/29/23 10:45 AM	8.25	565	601	611	4/29/23 11:00 AM	4/29/23 4:00 PM	632	627
	1b	4/29/23 4:15 PM	4/29/23 9:15 PM	5.00	606	606					
	1c	4/30/23 1:30 PM	4/30/23 3:15 PM	1.75	533	586		4/30/23 3:30 PM	5/1/23 12:45 AM	568**	548***
May-23	1	5/20/23 1:30 PM	5/20/23 4:45 PM	3.25	409	539	611	N/A	N/A	N/A	N/A
Jul-23	1	7/2/23 5:45 PM	7/2/23 5:45 PM	0.00*	519	519	611	7/2/23 6:00 PM	7/2/23 10:45 PM	621	541***
	2	7/9/23 6:45 PM	7/9/23 7:30 PM	0.75	271	404	611	7/9/23 11:00 PM	7/10/23 12:45 AM	668	528***
Aug-23	1	8/7/23 6:15 AM	8/7/23 6:15 AM	0.00*	397	397	611	N/A	N/A	N/A	N/A
	2	8/13/23 2:45 AM	8/13/23 3:00 AM	0.25	428	511	611	8/13/23 3:15 AM	8/13/23 3:30 AM	643	581***
	3a	8/16/23 4:15 AM	8/16/23 5:15 AM	1.00	255	544	611	N/A	N/A	N/A	N/A
	3b	8/16/23 5:45 AM	8/16/23 7:30 AM	1.75	572	586					
	4	8/18/23 5:15 AM	8/18/23 5:15 AM	0.00*	307	307	611	N/A	N/A	N/A	N/A
	5	8/25/23 7:30 AM	8/25/23 7:30 AM	0.00*	379	379	611	N/A	N/A	N/A	N/A
	6	8/26/23 8:00 AM	8/26/23 8:15 AM	0.25	445	480	611	N/A	N/A	N/A	N/A
Sep-23	1	9/10/23 11:15 AM	9/10/23 11:30 AM	0.25	324	403	611	9/10/23 12:00 PM	9/10/23 2:00 PM	727	664
	2	9/18/23 6:15 PM	9/18/23 6:30 PM	0.25	408	480	611	9/18/23 6:45 PM	9/18/23 7:00 PM	672	648
	3	9/24/23 6:30 PM	9/24/23 6:30 PM	0.00*	603	603	611	9/24/23 6:45 PM	9/24/23 9:15 PM	749	678
	4	9/28/23 11:30 PM	9/28/23 11:30 PM	0.00*	524	524	611	9/29/23 12:30 AM	9/29/23 8:00 AM	722	677
Oct-23	1a	10/7/23 12:30 PM	10/7/23 1:00 PM	0.50	501	548	611	N/A	N/A	N/A	N/A
	1b	10/7/23 2:15 PM	10/7/23 3:45 PM	1.50	456	581					
	2	10/14/23 1:30 PM	10/14/23 1:30 PM	0.00*	583	583	611	10/14/23 1:45 PM	10/14/23 5:00 PM	705	680
	3	10/20/23 10:00 AM	10/20/23 10:00 AM	0.00*	559	559	611	10/20/23 10:15 AM	10/20/23 11:15 AM	723	664
	4	10/30/23 6:30 AM	10/30/23 6:30 AM	0.00*	479	479	611	10/30/23 6:45 AM	10/30/23 8:15 AM	738	671
Dec-23	1a	12/10/23 2:15 PM	12/10/23 2:15 PM	0.00*	602	602	611	12/10/23 2:30 PM	12/10/23 2:30 PM	612	612
	1b	12/10/23 2:45 PM	12/10/23 3:00 PM	0.25	610	610	611	12/10/23 3:15 PM	12/10/23 4:00 PM	687	658

CY2023 Key Regulator Monitoring Report

Regulator NCB-04	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator NCB-04 had a sensor malfunction; no reportable data for CY2023											

CY2023 Key Regulator Monitoring Report

Regulator NCM-47	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1	1/23/23 12:30 AM	1/23/23 1:00 AM	0.50	531	570	611	N/A	N/A	N/A	N/A
Apr-23	1a	4/29/23 5:30 AM	4/29/23 8:00 AM	2.50	576	576	611	4/29/23 11:00 AM	4/29/23 4:00 PM	632	627
	1b	4/29/23 8:45 AM	4/29/23 10:45 AM	2.00	547	601					
	1c	4/29/23 4:15 PM	4/29/23 6:45 PM	2.50	606	606					
	2	4/30/23 3:15 PM	4/30/23 3:15 PM	0.00*	577	577	611	4/30/23 3:30 PM	5/1/23 12:45 AM	568**	548***
May-23	1	5/20/23 3:30 PM	5/20/23 4:15 PM	0.75	526	526	611	N/A	N/A	N/A	N/A
Aug-23	1	8/13/23 2:45 AM	8/13/23 2:45 AM	0.00*	428	428	611	N/A	N/A	N/A	N/A
	2	8/16/23 4:00 AM	8/16/23 4:45 AM	0.75	163	438	611	N/A	N/A	N/A	N/A
Oct-23	1	10/21/23 8:00 AM	10/21/23 8:30 AM	0.50	314	415	611	N/A	N/A	N/A	N/A
Dec-23	1	12/11/23 8:45 AM	12/11/23 9:15 AM	0.50	452	452	611	12/10/23 9:15 PM	12/11/23 4:00 AM	744	707
	2	12/28/23 12:45 AM	12/28/23 1:30 AM	0.75	498	605	611	12/28/23 1:45 AM	12/28/23 6:00 AM	743	718

CY2023 Key Regulator Monitoring Report

Regulator NR-16	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1	1/3/23 11:15 AM	1/3/23 11:45 AM	0.50	126	339	340	1/3/23 12:00 PM	1/3/23 2:30 PM	441	404
Mar-23	1	3/4/23 1:15 AM	3/4/23 1:30 AM	0.25	337	337	340	3/4/23 1:45 AM	3/4/23 2:00 AM	342	309***
Apr-23	1	4/22/23 10:00 PM	4/22/23 11:00 PM	1.00	194	255	340	4/23/23 2:00 AM	4/23/23 1:30 PM	358	325***
	2a	4/29/23 11:15 AM	4/29/23 3:45 PM	4.50	316	318	340	4/29/23 3:00 AM	4/29/23 11:00 AM	342	319***
	2b	4/29/23 5:30 PM	4/29/23 6:15 PM	0.75	318	319					
Jul-23	1	7/4/23 12:15 PM	7/4/23 12:45 PM	0.50	180	184	340	N/A	N/A	N/A	N/A
	2a	7/9/23 8:45 PM	7/9/23 9:45 PM	1.00	277	326	340	7/9/23 10:00 PM	7/9/23 11:45 PM	340	340
	2b	7/9/23 10:15 PM	7/9/23 10:15 PM	0.00*	326	326					
	3	7/14/23 8:15 AM	7/14/23 8:45 AM	0.50	236	238	340	N/A	N/A	N/A	N/A
	4	7/16/23 12:30 PM	7/16/23 12:30 PM	0.00*	339	339	340	7/16/23 12:45 PM	7/16/23 2:45 PM	352	346
	5	7/25/23 4:00 PM	7/25/23 4:30 PM	0.50	213	237	340	N/A	N/A	N/A	N/A
	6	7/27/23 9:30 PM	7/27/23 10:00 PM	0.50	213	288	340	N/A	N/A	N/A	N/A
Aug-23	1	8/7/23 7:00 AM	8/7/23 7:30 AM	0.50	325	325	340	N/A	N/A	N/A	N/A
	2	8/13/23 2:45 AM	8/13/23 3:15 AM	0.50	243	288	340	N/A	N/A	N/A	N/A
	3	8/16/23 3:45 AM	8/16/23 4:30 AM	0.75	187	258	340	N/A	N/A	N/A	N/A
	4	8/18/23 5:15 AM	8/18/23 5:45 AM	0.50	231	315	340	8/18/23 6:00 AM	8/18/23 7:00 AM	357	351
	5	8/25/23 7:00 AM	8/25/23 7:30 AM	0.50	200	271	340	N/A	N/A	N/A	N/A
Sep-23	1	9/10/23 10:45 AM	9/10/23 11:00 AM	0.25	190	278	340	9/10/23 11:15 AM	9/10/23 1:45 PM	468	436
	2	9/18/23 6:00 PM	9/18/23 6:15 PM	0.25	198	221	340	9/18/23 6:30 PM	9/18/23 8:15 PM	462	424
	3	9/29/23 3:45 AM	9/29/23 4:00 AM	0.25	272	274	340	9/29/23 4:15 AM	9/29/23 4:30 AM	354	361
Oct-23	1	10/21/23 8:45 AM	10/21/23 9:15 AM	0.50	256	269	340	N/A	N/A	N/A	N/A
	2	10/29/23 12:30 PM	10/29/23 1:00 PM	0.50	185	209	340	N/A	N/A	N/A	N/A
	3	10/30/23 6:15 AM	10/30/23 6:45 AM	0.50	283	286	340	10/30/23 7:45 AM	10/30/23 8:15 AM	364	353
Dec-23	1	12/10/23 8:45 PM	12/10/23 9:30 PM	0.75	233	284	340	12/10/23 10:45 PM	12/11/23 5:45 AM	346	329***
	2	12/18/23 8:15 AM	12/18/23 8:30 AM	0.25	332	332	340	12/18/23 1:00 AM	12/18/23 8:00 AM	364	338***
	3	12/28/23 1:30 AM	12/28/23 5:15 AM	3.75	309	325	340	N/A	N/A	N/A	N/A

CY2023 Key Regulator Monitoring Report

Regulator NR-23	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Apr-23	1	4/22/23 10:00 PM	4/22/23 11:00 PM	1.00	148	327	340	4/23/23 12:00 AM	4/23/23 1:30 PM	500	407
	2a	4/29/23 11:15 AM	4/29/23 3:45 PM	4.50	316	318	340	4/29/23 3:00 AM	4/29/23 11:00 AM	342	319***
	2b	4/29/23 5:30 PM	4/29/23 6:15 PM	0.75	318	319					
Jul-23	1	7/9/23 9:15 PM	7/9/23 9:45 PM	0.50	297	326	340	7/9/23 10:00 PM	7/9/23 10:00 PM	340	340
	2	7/14/23 8:15 AM	7/14/23 8:45 AM	0.50	236	238	340	N/A	N/A	N/A	N/A
	3a	7/16/23 8:30 AM	7/16/23 9:00 AM	0.50	182	265	340	7/16/23 12:45 PM	7/16/23 2:45 PM	352	346
	3b	7/16/23 12:30 PM	7/16/23 12:30 PM	0.00*	339	339					
	4	7/18/23 12:45 PM	7/18/23 1:15 PM	0.50	218	222	340	N/A	N/A	N/A	N/A
	5	7/27/23 10:00 PM	7/27/23 10:45 PM	0.75	288	288	340	N/A	N/A	N/A	N/A
Aug-23	1	8/7/23 7:00 AM	8/7/23 7:30 AM	0.50	325	325	340	N/A	N/A	N/A	N/A
	2	8/13/23 2:45 AM	8/13/23 3:15 AM	0.50	243	288	340	N/A	N/A	N/A	N/A
	3	8/15/23 1:45 AM	8/15/23 2:30 AM	0.75	219	288	340	N/A	N/A	N/A	N/A
	4	8/16/23 3:45 AM	8/16/23 4:45 AM	1.00	187	276	340	N/A	N/A	N/A	N/A
	5	8/26/23 7:15 AM	8/26/23 8:00 AM	0.75	179	243	340	N/A	N/A	N/A	N/A
Sep-23	1	9/9/23 3:00 PM	9/9/23 3:00 PM	0.00*	273	273	340	9/9/23 3:15 PM	9/9/23 4:30 PM	429	396
	2	9/10/23 11:00 AM	9/10/23 11:00 AM	0.00*	278	278	340	9/10/23 11:15 AM	9/10/23 1:45 PM	468	436
Oct-23	1	10/21/23 8:15 AM	10/21/23 8:45 AM	0.50	227	256	340	N/A	N/A	N/A	N/A
Dec-23	1	12/18/23 8:15 AM	12/18/23 8:15 AM	0.00*	332	332	340	12/18/23 1:00 AM	12/18/23 8:00 AM	364	338***
	2	12/28/23 2:00 AM	12/28/23 5:00 AM	3.00	319	325	340	N/A	N/A	N/A	N/A

Regulator NR-33	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
NR-33 has had no potential discharges outside the period of a critical wet weather event.											

Regulator OH-01	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
OH-01 has had no potential discharges outside the period of a critical wet weather event.											

Regulator OH-06	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
OH-06 has had no potential discharges outside the period of a critical wet weather event.											

CY2023 Key Regulator Monitoring Report

Regulator PR-06W	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator PR-06W had a sensor malfunction; no reportable data for CY2023											

CY2023 Key Regulator Monitoring Report

Regulator PR-13E	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator PR-13E had a sensor malfunction; no reportable data for CY2023											

Regulator RH-02	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
RH-02 has had no potential discharges outside the period of a critical wet weather event.											

Regulator RH-20	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jul-23	1	7/16/23 10:15 AM	7/16/23 10:30 AM	0.25	109	114	120	7/16/23 10:45 AM	7/16/23 3:00 PM	125	124

CY2023 Key Regulator Monitoring Report

Regulator TI-09	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1a	1/19/23 4:45 PM	1/19/23 7:00 PM	2.25	135	143	160	1/19/23 10:15 PM	1/19/23 10:45 PM	162	162
	1b	1/19/23 9:00 PM	1/19/23 10:00 PM	1.00	131	159					
	1c	1/19/23 11:00 PM	1/20/23 12:00 AM	1.00	158	158					
	2a	1/22/23 9:30 PM	1/23/23 1:00 AM	3.50	140	159	160	1/23/23 1:15 AM	1/23/23 1:30 AM	161	161
	2b	1/23/23 1:45 AM	1/23/23 2:45 AM	1.00	156	156					
	3a	1/25/23 8:00 PM	1/25/23 8:30 PM	0.50	144	159	160	1/25/23 8:45 PM	1/26/23 1:45 AM	173	165
	3b	1/26/23 2:00 AM	1/26/23 4:30 AM	2.50	156	165					
Mar-23	1a	3/4/23 1:00 AM	3/4/23 2:00 AM	1.00	121	159	160	3/4/23 2:15 AM	3/4/23 5:30 AM	169	167
	1b	3/4/23 5:45 AM	3/4/23 6:30 AM	0.75	158	158					
	2	3/10/23 10:45 PM	3/11/23 1:15 AM	2.50	128	136	160	N/A	N/A	N/A	N/A
	3a	3/13/23 10:15 PM	3/13/23 11:15 PM	1.00	135	157	160	3/13/23 11:30 PM	3/14/23 2:45 AM	169	166
	3b	3/14/23 3:00 AM	3/14/23 3:45 AM	0.75	157	157					
Apr-23	1a	4/22/23 11:15 PM	4/22/23 11:30 PM	0.25	113	134	160	4/23/23 12:00 AM	4/23/23 4:45 AM	170	168
	1b	4/23/23 5:00 AM	4/23/23 5:45 AM	0.75	155	155					
	1c	4/23/23 6:45 AM	4/23/23 7:00 AM	0.25	139	153		4/23/23 7:15 AM	4/23/23 9:00 AM	171	167
	1d	4/23/23 9:15 AM	4/23/23 11:15 AM	2.00	159	159					
	2a	4/29/23 2:45 AM	4/29/23 6:00 AM	3.25	134	152	160	4/29/23 6:15 AM	4/29/23 11:00 AM	170	163
	2b	4/29/23 11:15 AM	4/29/23 3:00 PM	3.75	150	156					
	2c	4/29/23 4:45 PM	4/29/23 10:00 PM	5.25	157	159					
	3a	4/30/23 1:45 PM	4/30/23 2:15 PM	0.50	143	143	160	4/30/23 3:45 PM	4/30/23 11:45 PM	170	168
	3b	4/30/23 2:45 PM	4/30/23 3:30 PM	0.75	141	154					
May-23	1	5/20/23 12:45 PM	5/20/23 1:45 PM	1.00	103	150	160	5/20/23 2:00 PM	5/20/23 6:30 PM	173	168
Jul-23	1	7/2/23 6:15 PM	7/2/23 7:45 PM	1.50	78	143	160	N/A	N/A	N/A	N/A
	2	7/16/23 2:45 PM	7/16/23 3:00 PM	0.25	151	151	160	7/16/23 10:45 AM	7/16/23 2:30 PM	168	166
	3	7/27/23 10:15 PM	7/27/23 10:15 PM	0.00*	98	98	160	7/27/23 10:30 PM	7/28/23 12:15 AM	166	154***
Aug-23	1a	8/7/23 7:30 AM	8/7/23 7:45 AM	0.25	140	145	160	8/7/23 8:00 AM	8/7/23 8:15 AM	166	163
	1b	8/7/23 8:30 AM	8/7/23 8:45 AM	0.25	121	150					
	2a	8/10/23 5:30 PM	8/10/23 5:45 PM	0.25	150	152	160	8/10/23 6:00 PM	8/10/23 6:00 PM	161	161
	2b	8/10/23 6:15 PM	8/10/23 7:00 PM	0.75	159	159					
	3a	8/13/23 3:00 AM	8/13/23 4:00 AM	1.00	58	153	160	8/13/23 4:15 AM	8/13/23 4:15 AM	160	160
	3b	8/13/23 4:30 AM	8/13/23 4:45 AM	0.25	148	149					
	4a	8/15/23 2:15 AM	8/15/23 2:15 AM	0.00*	108	108	160	8/15/23 2:30 AM	8/15/23 4:00 AM	170	167
	4b	8/15/23 4:15 AM	8/15/23 4:15 AM	0.00*	159	159					
	5a	8/16/23 4:45 AM	8/16/23 6:00 AM	1.25	106	153	160	N/A	N/A	N/A	N/A
	5b	8/16/23 6:30 AM	8/16/23 8:00 AM	1.50	145	147					
	6a	8/18/23 5:30 AM	8/18/23 5:30 AM	0.00*	115	115	160	8/18/23 5:45 AM	8/18/23 8:15 AM	172	170
	6b	8/18/23 8:30 AM	8/18/23 8:45 AM	0.25	147	147					
	7a	8/26/23 7:45 AM	8/26/23 8:00 AM	0.25	69	113	160	8/26/23 8:15 AM	8/26/23 9:45 AM	169	167
	7b	8/26/23 10:00 AM	8/26/23 10:30 AM	0.50	156	156					
Sep-23	1	9/10/23 11:30 AM	9/10/23 11:45 AM	0.25	118	142	160	9/10/23 12:00 PM	9/10/23 1:45 PM	168	166
	2	9/10/23 11:00 PM	9/10/23 11:15 PM	0.25	116	129	160	9/10/23 11:30 PM	9/11/23 2:15 AM	168	165
	3a	9/18/23 11:30 AM	9/18/23 11:30 AM	0.00*	151	151	160	9/18/23 11:45 AM	9/18/23 2:00 PM	171	168
	3b	9/18/23 8:30 PM	9/18/23 8:30 PM	0.00*	154	154		9/18/23 8:00 PM	9/18/23 8:15 PM	166	163
	4	9/23/23 4:15 PM	9/23/23 4:45 PM	0.50	144	159	160	9/23/23 5:00 PM	9/23/23 6:45 PM	166	165
	5	9/24/23 6:45 PM	9/24/23 10:45 PM	4.00	136	155	160	N/A	N/A	N/A	N/A
	6	9/28/23 11:15 PM	9/28/23 11:30 PM	0.25	125	141	160	9/28/23 11:45 PM	9/29/23 6:30 PM	172	165
	1a	10/7/23 11:00 AM	10/7/23 11:45 AM	0.75	104	149	160	10/7/23 12:00 PM	10/7/23 3:30 PM	171	167
	1b	10/7/23 3:45 PM	10/7/23 5:00 PM	1.25	158	158					

CY2023 Key Regulator Monitoring Report

Regulator TI-09	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Oct-23	2a	10/14/23 2:00 PM	10/14/23 2:45 PM	0.75	132	154	160	10/14/23 3:00 PM	10/14/23 4:00 PM	161	161
	2b	10/14/23 4:15 PM	10/14/23 5:15 PM	1.00	156	156					
	3	10/20/23 10:45 AM	10/20/23 1:00 PM	2.25	121	145	160	N/A	N/A	N/A	N/A
	4a	10/21/23 8:45 AM	10/21/23 9:45 AM	1.00	117	156	160	10/21/23 10:00 AM	10/21/23 10:00 AM	162	162
	4b	10/21/23 10:15 AM	10/21/23 12:00 PM	1.75	158	158					
	5	10/30/23 7:00 AM	10/30/23 8:45 AM	1.75	139	157	160	N/A	N/A	N/A	N/A
Nov-23	1a	11/21/23 10:30 PM	11/22/23 12:30 AM	2.00	92	158	160	11/22/23 1:15 AM	11/22/23 1:45 AM	160	160
	1b	11/22/23 1:00 AM	11/22/23 1:00 AM	0.00*	159	159					
	1c	11/22/23 2:00 AM	11/22/23 3:15 AM	1.25	158	159					
	2	11/26/23 10:30 PM	11/27/23 12:00 AM	1.50	86	135	160	11/27/23 12:15 AM	11/27/23 12:45 AM	166	165
Dec-23	1	12/1/23 7:45 PM	12/1/23 10:15 PM	2.50	127	151	160	N/A	N/A	N/A	N/A
	2	12/3/23 9:30 AM	12/3/23 12:45 PM	3.25	134	150	160	N/A	N/A	N/A	N/A
	3a	12/10/23 2:15 PM	12/10/23 2:45 PM	0.50	132	152	160	12/10/23 3:00 PM	12/10/23 4:15 PM	162	161
	3b	12/10/23 4:30 PM	12/10/23 4:45 PM	0.25	149	149					
	3c	12/10/23 9:15 PM	12/10/23 9:45 PM	0.50	120	148		12/10/23 10:00 PM	12/11/23 4:15 AM	165	162
	4a	12/18/23 1:30 AM	12/18/23 1:45 AM	0.25	142	153	160	12/18/23 2:00 AM	12/18/23 9:30 AM	166	162
	4b	12/18/23 9:45 AM	12/18/23 10:00 AM	0.25	154	154					
	4c	12/18/23 12:15 PM	12/18/23 3:15 PM	3.00	131	151					
	5	12/28/23 1:45 AM	12/28/23 2:15 AM	0.50	136	155	160	12/28/23 2:30 AM	12/28/23 7:00 AM	167	163

CY2023 Key Regulator Monitoring Report

Regulator TI-10A	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator TI-10A has had no potential discharges outside the period of a critical wet weather event.											

Regulator WIB-53	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Regulator WIB-53 has had no potential discharges outside the period of a critical wet weather event.											

CY2023 Key Regulator Monitoring Report

Regulator WIB-67	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1	1/4/23 1:15 PM	1/4/23 6:30 PM	5.25	199	209	500	1/3/23 11:45 AM	1/3/23 1:00 PM	569	539
	2a	1/13/23 3:30 AM	1/13/23 4:30 AM	1.00	237	237	500	N/A	N/A	N/A	N/A
	2b	1/13/23 9:00 AM	1/13/23 9:30 AM	0.50	226	226					
Mar-23	1	3/26/23 7:00 PM	3/26/23 7:30 PM	0.50	202	203	500	N/A	N/A	N/A	N/A
Apr-23	1	4/29/23 9:15 PM	4/29/23 10:00 PM	0.75	257	340	416	4/29/23 2:30 AM	4/29/23 6:45 PM	601	554
	2	4/30/23 4:15 PM	4/30/23 11:00 PM	6.75	259	282	416	4/29/23 10:15 PM	4/30/23 1:45 PM	601	557
Jul-23	1a	7/4/23 1:45 AM	7/4/23 1:45 AM	0.00*	482	482	500	7/4/23 2:00 AM	7/4/23 2:00 AM	544	544
	1b	7/4/23 2:15 AM	7/4/23 2:30 AM	0.25	483	452					
	2a	7/9/23 7:00 PM	7/9/23 7:30 PM	0.50	391	487	500	7/9/23 7:45 PM	7/9/23 11:15 PM	583	562
	2b	7/10/23 6:45 AM	7/10/23 8:15 AM	1.50	269	281					
	3	7/14/23 8:15 AM	7/14/23 8:45 AM	0.50	375	472	500	7/14/23 9:00 AM	7/14/23 9:00 AM	520	520
	4	7/18/23 2:30 PM	7/18/23 3:00 PM	0.50	452	452	500	7/18/23 12:45 PM	7/18/23 2:15 PM	624	583
	5a	7/25/23 4:15 PM	7/25/23 4:45 PM	0.50	293	410	459	7/25/23 5:00 PM	7/25/23 5:00 PM	468	468
	5b	7/25/23 5:15 PM	7/25/23 7:15 PM	2.00	453	453					
Aug-23	1	8/15/23 2:15 AM	8/15/23 2:30 AM	0.25	397	459	500	8/15/23 2:45 AM	8/15/23 4:00 AM	583	560
	2	8/15/23 5:30 PM	8/15/23 6:00 PM	0.50	205	206	500	N/A	N/A	N/A	N/A
	3	8/16/23 3:45 AM	8/16/23 4:30 AM	0.75	383	489	500	8/16/23 4:45 AM	8/16/23 5:15 AM	518	507
	4	8/19/23 12:30 AM	8/19/23 1:30 AM	1.00	205	244	500	N/A	N/A	N/A	N/A
Sep-23	1	9/10/23 11:30 AM	9/10/23 12:15 PM	0.75	296	296	459	N/A	N/A	N/A	N/A
	2a	9/12/23 11:30 PM	9/13/23 12:00 AM	0.50	263	263	459	N/A	N/A	N/A	N/A
	2b	9/13/23 12:45 AM	9/13/23 1:15 AM	0.50	233	233					
Oct-23	1	10/7/23 7:30 PM	10/7/23 10:30 PM	3.00	280	280	375	10/7/23 11:15 AM	10/7/23 4:30 PM	548	472
	2a	10/20/23 9:00 AM	10/20/23 9:45 AM	0.75	252	346	375	10/20/23 10:00 AM	10/20/23 12:45 PM	511	451
	2b	10/20/23 1:00 PM	10/20/23 2:30 PM	1.50	371	371					
	2d	10/20/23 8:30 PM	10/20/23 8:30 PM	0.00*	352	352		10/20/23 4:15 PM	10/20/23 8:15 PM	483	429
	3a	10/21/23 5:00 PM	10/21/23 5:45 PM	0.75	241	254	375	10/21/23 11:30 AM	10/21/23 11:45 AM	377	377
	3b	10/21/23 6:15 PM	10/21/23 7:15 PM	1.00	251	251					
	4	10/29/23 2:00 PM	10/29/23 2:30 PM	0.50	414	413	418	10/29/23 12:45 PM	10/29/23 1:45 PM	494	483
	5a	10/30/23 3:15 PM	10/30/23 3:45 PM	0.50	227	227	418	10/30/23 6:15 AM	10/30/23 7:45 AM	519	495
	5b	10/30/23 4:30 PM	10/30/23 5:15 PM	0.75	211	226					
Nov-23	1	11/22/23 11:00 AM	11/22/23 12:30 PM	1.50	367	367	375	11/21/23 11:15 PM	11/22/23 10:45 AM	494	466
Dec-23	1a	12/10/23 2:30 PM	12/10/23 2:30 PM	0.00*	421	421	459	12/10/23 2:45 PM	12/10/23 3:30 PM	525	495
	1b	12/10/23 3:45 PM	12/10/23 5:45 PM	2.00	455	371					

CY2023 Key Regulator Monitoring Report

Regulator WIM-23	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-23	1	1/19/23 3:45 PM	1/19/23 4:00 PM	0.25	463	497	500	1/19/23 4:15 PM	1/19/23 4:45 PM	528	515
	2	1/25/23 7:30 PM	1/25/23 7:30 PM	0.00*	448	448	500	1/25/23 7:45 PM	1/26/23 3:45 AM	570	514
Apr-23	1	4/23/23 6:45 AM	4/23/23 8:45 AM	2.00	214	214	416	N/A	N/A	N/A	N/A
Jul-23	1	7/2/23 7:00 PM	7/2/23 8:15 PM	1.25	303	314	500	N/A	N/A	N/A	N/A
	2a	7/4/23 1:00 AM	7/4/23 1:45 AM	0.75	294	482	500	7/4/23 2:00 AM	7/4/23 2:00 AM	544	544
	2b	7/4/23 2:15 AM	7/4/23 2:15 AM	0.00*	483	483					
	2c	7/4/23 11:45 AM	7/4/23 1:45 PM	2.00	300	372					
	3	7/9/23 11:30 PM	7/9/23 11:30 PM	0.00*	490	490	500	7/9/23 7:45 PM	7/9/23 11:15 PM	583	562
	4	7/15/23 11:30 PM	7/16/23 12:15 AM	0.75	285	285	500	N/A	N/A	N/A	N/A
	5	7/16/23 3:00 PM	7/16/23 3:15 PM	0.25	468	453	500	7/16/23 11:00 AM	7/16/23 2:45 PM	658	606
	6	7/27/23 11:30 PM	7/27/23 11:30 PM	0.00*	450	450	459	7/27/23 9:45 PM	7/27/23 11:15 PM	602	561
Aug-23	1	8/13/23 2:45 AM	8/13/23 2:45 AM	0.00*	431	431	500	8/13/23 3:00 AM	8/13/23 3:30 AM	517	510
	2	8/15/23 4:15 AM	8/15/23 4:15 AM	0.00*	488	488	500	8/15/23 3:30 AM	8/15/23 4:00 AM	583	568
	3a	8/16/23 4:00 AM	8/16/23 4:30 AM	0.50	459	489	500	8/16/23 4:45 AM	8/16/23 5:15 AM	518	507
	3b	8/16/23 5:30 AM	8/16/23 5:45 AM	0.25	369	447					
	4	8/18/23 6:15 AM	8/18/23 6:30 AM	0.25	495	495	500	N/A	N/A	N/A	N/A
Sep-23	1	9/10/23 11:15 AM	9/10/23 12:30 PM	1.25	306	306	500	N/A	N/A	N/A	N/A
	2a	9/18/23 6:30 PM	9/18/23 6:45 PM	0.25	382	441	459	9/18/23 7:00 PM	9/18/23 7:30 PM	501	484
	2b	9/18/23 7:45 PM	9/18/23 7:45 PM	0.00*	449	449					
Oct-23	1	10/14/23 10:15 AM	10/14/23 1:15 PM	3.00	216	368	375	10/14/23 1:30 PM	10/14/23 4:45 PM	556	483
	2	10/21/23 8:15 AM	10/21/23 8:15 AM	0.00*	351	351	375	10/21/23 8:30 AM	10/21/23 10:45 AM	527	449
	3a	10/29/23 12:30 PM	10/29/23 12:30 PM	0.00*	327	327	418	10/29/23 12:45 PM	10/29/23 1:45 PM	494	483
	3b	10/29/23 2:00 PM	10/29/23 2:30 PM	0.50	414	413					
	4	10/30/23 5:45 AM	10/30/23 5:45 AM	0.00*	330	330	418	10/30/23 6:00 AM	10/30/23 8:15 AM	519	481
Dec-23	1	12/18/23 10:00 AM	12/18/23 10:15 AM	0.25	449	455	459	12/18/23 12:45 AM	12/18/23 9:45 AM	627	552

APPENDIX: 15.2 NON-KEY REGULATOR MONITORING REPORT SUMMARY CY 2023

CY2023 Non-Key Regulator Monitoring Report

Regulators:	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
There were no reportable events for Non-Key Regulators during the CY2023 monitoring period.											

NOTES:

*	Potential CSO Discharge Duration was less than the 15-minute reportable interval.
**	"WWTP Event Maximum Flow" values reported with two asterisks (**) had a maximum flow during the critical wet weather event that was less than the wet weather flow requirement ("WWTP Event Capacity"), see below:
***	"WWTP Event Average Flow" values reported with three asterisks (***) had an average flow during the critical wet weather event that was less than the wet weather flow requirement ("WWTP Event Capacity"). These events were reported in the Wet Weather Quarterly Report submittal.
****	Sensor malfunction caused no reading or a reading equal to the regulator setpoint for the entire year.

APPENDIX: 15.3 ALL REGULATOR STATUS CY 2023

Status of All Telemetered Regulators with Potential CSO Discharges Outside of a Critical Wet Weather Event

No.	WWTP	Reg No.	Outfall SPDES No.	Key Regulator	2015 BMP Report Original Category	2016 BMP Report Updated Category	2017 BMP Report Updated Category	2018 BMP Report Updated Category	2019 BMP Report Updated Category	2020 BMP Report Updated Category	2021 BMP Report Updated Category	2022 BMP Report Updated Category	2023 BMP Report Updated Category (Current)	Monitoring Status in 2022 BMP Report	Additional Notes
1	26W	01	004	Key	A	A	A	A	A	A	A	B	B	monthly monitoring (key)	Capital Improvements: 5th PST construction at 26W - Oct 2021 (COMPLETE)
2	26W	02	003	Key	A	A	A	A	A	A	A	B*	B*	monthly monitoring (key) (*sensor malfunction)	Capital Improvements: Phase 2 HLSS in Fresh Creek - Sept 2021 (COMPLETE) & 5th PST construction at 26W - Oct 2021 (COMPLETE)
3	26W	03	005		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
1	BBL	L-04	026	Key	A	A	A	A	C	C	C	C	C	monthly monitoring (key) LTCP consideration	Capital Improvements: Bending Weirs Installed (Complete) LTCP recommends diverting this flow to an expanded Borden Ave Pump Station
2	BBL	L-21	028		A	A	A	A	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
3	BBL	L-22	029	Key	A	A	A	A	C	B	B	B	C	monthly monitoring (key) LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
4	BBL	L-23	030		A	A	A	A	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
5	BBL	L-30	034		A	A	A	A	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
6	BBH	02	002	Key	A	A	A	A	B	B	B	B	B	monthly monitoring (key)	Key regulator that averaged one or fewer events per month
7	BBH	03	003		A	A	A	A	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
8	BBH	06	008	Key	A	A	A	A	C	C	C	C	C	monthly monitoring (key) LTCP consideration	FB LTCP recommends a CSO Storage Tunnel for outfalls BB-006 & BB-008
9	BBH	09	008		A	A	A	A	C	C	C	C	C	LTCP consideration	FB LTCP recommends a CSO Storage Tunnel for outfalls BB-006 & BB-008
1	HP	01	022		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
2	HP	02	023		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
3	HP	03	019		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
4	HP	04	016		C	C	A	A	A	A	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
5	HP	05	011	Key	A	A	A	A	A	A	A	A	C	monthly monitoring (key) LTCP consideration	Bronx River LTCP recommended modifications to this regulator to mitigate floatables
6	HP	06	011		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
7	HP	08	025		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
8	HP	09	002		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
9	HP	10	003	Key	C	C	C	C	C	B	B	B*	B*	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Waters LTCP
10	HP	11	017		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
11	HP	12	018		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
12	HP	13	009	Key	B	C	C	C	C	C	A	A	A*	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Bronx River LTCP recommended weir modification and parallel sewer at this regulator
13	HP	14	026		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
1	JA	01	006		D	D	D	D	D	D	D	D	D	12-month analysis once equipment available	Absence of power to operate telemetry
2	JA	02	26W-005		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
3	JA	03	003	Key	A	A	A	A	A	A	B	B*	B	monthly monitoring (key) (*sensor malfunction)	Capital Improvements: installation of bending weirs, parallel interceptor, & new lateral sanitary sewer - (June 2020)
4	JA	09	005		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
5	JA	14	003a		A	A	A	A	A	A	B	B	B	no further monitoring	Capital Improvements: installation of bending weirs, parallel interceptor, & new lateral sanitary sewer - (June 2020)

Status of All Telemetered Regulators with Potential CSO Discharges Outside of a Critical Wet Weather Event

No.	WWTP	Reg No.	Outfall SPDES No.	Key Regulator	2015 BMP Report Original Category	2016 BMP Report Updated Category	2017 BMP Report Updated Category	2018 BMP Report Updated Category	2019 BMP Report Updated Category	2020 BMP Report Updated Category	2021 BMP Report Updated Category	2022 BMP Report Updated Category	2023 BMP Report Updated Category (Current)	Monitoring Status in 2022 BMP Report	Additional Notes
1	NC(Q)	Q-01	077		A	A	A	C	C	C	C	C	C	LTCP consideration	Capital Improvements: Bending Weirs (Completed) Newtown Creek LTCP recommends storage tunnel for outfalls NC-077,NC-015, & NC-083
2	NC(B)	B-01	015	Key	A	A	A	C	C	C	C	C	C	monthly monitoring (key) LTCP consideration	Capital Improvements: Bending Weirs (Completed) Newtown Creek LTCP recommends storage tunnel for outfalls NC-077,NC-015, & NC-083
3	NC(B)	B-04	014	Key	B	C	C	C	C	C	C	C*	C*	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Water LTCP
4	NC(B)	B-05	013		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Water LTCP
5	NC(B)	B-06	012		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
6	NC(B)	B-09	006		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
7	NC(M)	M-01	076		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
8	NC(M)	M-02	075		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
9	NC(M)	M-10	069		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
10	NC(M)	M-16	078		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
11	NC(M)	M-17	066		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
12	NC(M)	M-19	050		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
13	NC(M)	M-21	063		D	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
14	NC(M)	M-36	052		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
15	NC(M)	M-37	049		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
16	NC(M)	M-40	045		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
17	NC(M)	M-42	041		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
18	NC(M)	M-44	037		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
19	NC(M)	M-47	036	Key	B	B	B	C	B	C	C	B	B	monthly monitoring (key)	Was evaluated under the Citywide / Open Waters LTCP
20	NC(M)	M-50	032		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
1	NR	N-03	017		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
2	NR	N-16	006	Key	B	C	B / C	C	C	C	B	C	C	monthly monitoring (key) LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
3	NR	N-18	004		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
4	NR	N-23	043	Key	B	B	B	C	C	B	B	B	C	monthly monitoring (key) LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
5	NR	N-26	040		B	B	B	B	B	B	B	B	B	no further monitoring	Citywide / Open Waters LTCP recommended regulator optimization Non-key regulator that averaged one or fewer events per month
6	NR	N-28	038		B	B	B	B	B	B	B	B	B	no further monitoring	Citywide / Open Waters LTCP recommended regulator optimization Non-key regulator that averaged one or fewer events per month
7	NR	N-29A	046		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP. LTCP recommended modifications to this regulator structure.
8	NR	N-33	033	Key	B	B	B	B	B	B	B	B	B	monthly monitoring (key)	Key regulator that averaged one or fewer events per month
9	NR	N-45	027		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
10	NR	N-50	023		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
1	OH	01	017	Key	C	B / C	B / C	B	C	B	B	B*	B	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Waters LTCP
2	OH	03	018		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
3	OH	04	019		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
4	OH	06	002	Key	C	C	B / C	B	B	B	B	B*	B	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Water LTCP
5	OH	07	003		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Water LTCP
6	OH	10			A	C	C	C	C	C	C	C	C	LTCP consideration	
7	OH	11			A	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
8	OH	7D	004		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
9	OH	9A	015		A	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
10	OH	9B	015		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month

Status of All Telemetered Regulators with Potential CSO Discharges Outside of a Critical Wet Weather Event

No.	WWTP	Reg No.	Outfall SPDES No.	Key Regulator	2015 BMP Report Original Category	2016 BMP Report Updated Category	2017 BMP Report Updated Category	2018 BMP Report Updated Category	2019 BMP Report Updated Category	2020 BMP Report Updated Category	2021 BMP Report Updated Category	2022 BMP Report Updated Category	2023 BMP Report Updated Category (Current)	Monitoring Status in 2022 BMP Report	Additional Notes
1	PR	R-13E	031	Key	C	C	C	C	C	C	C	C*	C*	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Water LTCP
2	PR	R-35W	035		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
3	PR	R-06W	029	Key	C	C	C	C	C	C	C	C*	C*	monthly monitoring (key) LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Water LTCP
1	RH	R-02	018	Key	B	B	B	B	B	B	B	B	B	monthly monitoring (key)	Key regulator that averaged one or fewer events per month
2	RH	R-20	004	Key	B	B	B	B	B	B	B	B	B	monthly monitoring (key)	Key regulator that averaged one or fewer events per month
3	RH	R-21	003		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
1	RK	01	029		B	B	B	B	B	B	B	B	B	no further monitoring	Non-key regulator that averaged one or fewer events per month
1	TI	09	011	Key	A	C	B / C	C	C	C	C	C	C	monthly monitoring (key) LTCP consideration	Flushing Creek LTCP recommends floatables control and disinfection of outfalls TI-010 & TI-011
2	TI	10A	003	Key	B	B	B	B	B	B	B	B	B	monthly monitoring (key)	Key regulator that averaged one or fewer events per month
3	TI	13	023		C	C	C	C	C	C	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Water LTCP. LTCP recommnded project was to install bending weir at this regulator.
4	TI	30	010		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
5	TI	40	010		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
6	TI	46	008		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
7	TI	47	008		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
8	TI	49	008		E	E	E	E	E	E	E	E	E	no further monitoring	Does not directly discharge to a waterbody
1	WI(M)	02B	003		A	A	A	A	A	A	*	*	*	LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Waters LTCP
2	WI(M)	07	008		A	A	A	A	A	A	*	*	*	LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Waters LTCP
3	WI(M)	23	023	Key	A	A	A	A	A	B	B	C	C	monthly monitoring (key)	Was evaluated under the Citywide / Open Waters LTCP
4	WI(M)	24	024		A	A	A	A	A	A	B	B	B	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
5	WI(M)	38	038		A	A	A	A	A	A	B	B	B	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
6	WI(M)	45	045		A	A	A	A	A	A	*	*	*	LTCP consideration (*sensor malfunction)	Was evaluated under the Citywide / Open Waters LTCP
7	WI(M)	46	046		A	A	A	A	A	A	B	B	B	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
8	WI(M)	51	051		A	A	A	A	A	A	B	B	B	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
9	WI(M)	52	052		A	A	A	A	A	A	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
10	WI(B)	53	068	Key	A	A	A	A	A	B	B	B	B	monthly monitoring (key)	Was evaluated under the Citywide / Open Waters LTCP
11	WI(B)	58	075		A	A	A	A	A	A	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
12	WI(B)	60	062		A	A	A	A	A	A	B	B	B	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
13	WI(B)	62	060		A	A	A	A	A	A	C	C	C	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP
14	WI(B)	66	057		E	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	removed from list of telemetered regulators
15	WI(B)	67	056	Key	A	A	A	A	A	B	B	C	C	monthly monitoring (key)	Was evaluated under the Citywide / Open Waters LTCP. LTCP recommended daylighting of flow from Tibbetts Brook that will reduce CSO discharges from this regulator.
16	WI(B)	68	072		A	A	A	A	A	A	B	B	B	LTCP consideration	Was evaluated under the Citywide / Open Waters LTCP

Category	Definition
A	Current or future capital improvements potentially render collected data unrepresentative of future conditions
B	Averaged one or fewer potential discharges outside the period of a critical wet weather event per month
C	Averaged two or more potential discharges outside the period of a critical wet weather event per month
D	Data collection issue / data not reported
E	Telemetered regulator that does not directly discharge to a waterbody

Environmental Protection

14 WASTEWATER TREATMENT PLANTS' SPDES PERMITS

COMBINED SEWER OVERFLOWS

BEST MANAGEMENT PRACTICES

ANNUAL REPORT

ATTACHMENT A

Summary of preventive and corrective maintenance performed during 2023 on all regulators tributary to each treatment plant.

CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF WASTEWATER TREATMENT

May 2023

Contents

26TH Ward							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
26W-01	01/12/23						
26W-01	02/05/23						
26W-01	03/09/23						
26W-01	04/22/23						
26W-01	05/17/23				X		Call out: Tide Gate #4 leaks
26W-01	06/11/23						
26W-01	07/23/23						
26W-01	08/08/23						NO LEAKS
26W-01	09/03/23						
26W-01	10/03/23						
26W-01	11/05/23						
26W-01	12/08/23						Cleaned around deck, removed debris around gates.
26W-02	01/12/23						Under construction. Cleaned location.
26W-02	02/05/23						Under construction
26W-02	03/09/23						Under construction
26W-02	04/22/23						
26W-02	05/20/23						Under Construction
26W-02	06/11/23						Under Construction
26W-02	07/23/23		X				PM Tide Gates 8S, 7S, 6S, 5S : exercised , greased,
26W-02	08/08/23		X				PM Tide Gates 8N, 7N, 6N, 5N, 4N.
26W-02	09/03/23						
26W-02	10/03/23						Full entry: repaired the leak in the channel (cemented the hole).
26W-02	11/05/23						
26W-02	11/23/23		X				Pm Tide Gates #6, #7, #8
26W-02	12/08/23						Cleaned around deck, removed debris around gates.
26W-02A	01/12/23						
26W-02A	02/05/23						
26W-02A	03/09/23						
26W-02A	04/22/23						
26W-02A	05/20/23						
26W-02A	06/11/23						
26W-02A	07/23/23						

26W-02A	08/12/23						
26W-02A	09/03/23						
26W-02A	10/03/23						
26W-02A	11/05/23						Need to be flushed
26W-02A	12/08/23						
26W-03	01/12/23						
26W-03	02/05/23						
26W-03	03/09/23						
26W-03	04/22/23						
26W-03	05/20/23						
26W-03	06/11/23						
26W-03	07/23/23						
26W-03	08/08/23						
26W-03	09/03/23						
26W-03	10/03/23						
26W-03	11/05/23						
26W-03	12/08/23						

Bowery Bay Low Level							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	CI Runs	ACTIONS TAKEN
BBL1	01/14/23		x	x			full entry,greased and exercised tide gate & removed debris from TG chamber
BBL1	02/12/23		x				full entry, greased & exercised tide gate
BBL1	03/15/23		x				full entry, greased & exercised tide gate
BBL1	04/11/23		x				full entry, greased & exercised tide gate
BBL1	05/10/23		x				exercised tide gate
BBL1	06/11/23		x				full entry,greased and exercised tide gate & removed debris from diversion
BBL1	07/07/23						
BBL1	08/08/23		x				full entry, greased & exercised tide gate
BBL1	09/04/23		x				full entry, greased & exercised tide gate
BBL1	10/05/23		x				full enrty,greased and exercised tide gate & removed debris from diversion
BBL1	11/04/23		x				full entry, greased & exercised tide gate
BBL1	12/04/23		x				full entry, greased & exercised tide gate
BBL2	01/14/23		N/A	N/A			
BBL2	02/12/23		N/A	N/A			
BBL2	03/15/23		N/A	N/A			
BBL2	04/11/23		N/A	N/A			
BBL2	05/10/23		N/A	N/A			
BBL2	06/11/23		N/A	N/A			
BBL2	07/07/23		N/A	N/A			
BBL2	08/08/23		N/A	N/A			
BBL2	09/04/23		N/A	N/A			
BBL2	10/05/23		N/A	N/A			
BBL2	11/04/23		N/A	N/A			
BBL2	12/04/23		N/A	N/A			removed debris from diversion
BBL3	01/14/23		x				full entry inspection,greased and exercised tide gate
BBL3	02/12/23		x				full entry, greased & exercised tide gate
BBL3	03/15/23		x				full entry, greased & exercised tide gate
BBL3	04/02/23		x				full entry, greased & exercised tide gate
BBL3	05/10/23		x				full entry, greased & exercised tide gate
BBL3	06/25/23		x				full entry, greased & exercised tide gate
BBL3	07/07/23		x				full entry, greased & exercised tide gate
BBL3	08/08/23		x				full entry, greased & exercised tide gate
BBL3	09/04/23		x				full entry, greased & exercised tide gate
BBL3	10/05/23		x				full entry, greased & exercised tide gate
BBL3	11/04/23		x				full entry, greased & exercised tide gate
BBL3	12/04/23		x				full entry, greased & exercised tide gate
BBL3A	01/14/23		N/A	N/A			
BBL3A	02/12/23		N/A	N/A			
BBL3A	03/16/23		N/A	N/A			
BBL3A	03/18/23		N/A	N/A			
BBL3A	04/02/23		N/A	N/A			
BBL3A	05/10/23		N/A	N/A			

BBL3A	06/11/23		N/A	N/A			
BBL3A	07/07/23		N/A	N/A			
BBL3A	08/08/23		N/A	N/A			
BBL3A	N/A		N/A	N/A			no access from 9/23-12/23 b/c of ongoing construction at Borden Ave PS
BBL3B	01/15/23		x				full entry inspection,greased and exercised tide gate
BBL3B	02/12/23		x				full entry, greased & exercised tide gate
BBL3B	03/18/23						
BBL3B	04/11/23						
BBL3B	05/28/23		x				full entry, greased & exercised tide gate
BBL3B	06/11/23						
BBL3B	07/08/23						
BBL3B	08/27/23		x				full entry, greased & exercised tide gate
BBL3B	09/04/23		x				full entry, greased & exercised tide gate
BBL3B	10/30/23						
BBL3B	11/04/23						
BBL3B	12/24/23						
BBL3C	01/14/23		x	x			full entry inspection,greased,exercised tide gate & removed debris from TG chamber
BBL3C	02/12/23		x				full entry, greased & exercised tide gate
BBL3C	03/16/23		x				full entry, greased & exercised tide gate
BBL3C	04/02/23		x				full entry, greased & exercised tide gate
BBL3C	05/10/23		x	x			full entry inspection,greased,exercised tide gate & removed debris from TG chamber
BBL3C	06/11/23		x	x			full entry inspection,greased,exercised tide gate & removed debris from TG chamber
BBL3C	07/07/23						
BBL3C	08/08/23		x				full entry, greased & exercised tide gate
BBL3C	09/04/23		x				full entry, greased & exercised tide gate
BBL3C	10/05/23		x				full entry, greased & exercised tide gate
BBL3C	11/04/23		x				full entry, greased & exercised tide gate
BBL3C	12/04/23		x				full entry, greased & exercised tide gate
BBL4	01/14/23						
BBL4	02/12/23		x				full entry, greased & exercised tide gate
BBL4	03/15/23		x				full entry, greased & exercised tide gate
BBL4	04/11/23						
BBL4	05/10/23						full entry to weir room inspection
BBL4	06/11/23		x	x			full entry, greased & exercised tide gate, removed debris from TG chamber
BBL4	07/07/23						
BBL4	08/08/23						full entry to weir room inspection
BBL4	09/04/23						
BBL4	10/05/23						full entry to weir room inspection
BBL4	11/04/23						full entry to weir room inspection
BBL4	12/04/23						
BBL5	01/14/23		x				exercised tide gate
BBL5	02/12/23		x				full entry,exercised tide gate
BBL5	03/15/23		x				exercised tide gate

BBL5	04/02/23		x				exercised tide gate, removed rags from diversion
BBL5	05/10/23		x				exercised tide gate, removed debris from chamber
BBL5	06/11/23		x				full entry,greased & exercised tide gate
BBL5	07/07/23		x				exercised tide gate
BBL5	08/08/23		x				full entry, greased & exercised tide gate
BBL5	09/04/23		x				full entry, greased & exercised tide gate
BBL5	10/05/23		x				exercised tide gate
BBL5	11/04/23		x				exercised tide gate
BBL5	12/04/23		x				full entry, greased & exercised tide gate
BBL6	01/14/23		x				exercised tide gate
BBL6	02/12/23		x				full entry, exercised tide gate
BBL6	03/15/23		x				exercised tide gate
BBL6	04/02/23		x				exercised tide gate
BBL6	05/10/23		x				exercised tide gate
BBL6	06/25/23		x				exercised tide gate
BBL6	07/07/23		x				exercised tide gate
BBL6	08/08/23		x				exercised tide gate
BBL6	09/04/23						
BBL6	10/05/23		x				exercised tide gate
BBL6	11/04/23		x				exercised tide gate
BBL6	12/04/23		x				exercised tide gate
BBL7	01/14/23						
BBL7	01/16/23		x				full entry inspection,exercised tide gate
BBL7	02/12/23		x				full entry, greased & exercised tide gate
BBL7	03/15/23		x				full entry, greased & exercised tide gate
BBL7	04/11/23						
BBL7	05/10/23						
BBL7	06/25/23						
BBL7	07/07/23						
BBL7	08/08/23		x				full entry, greased tide gate
BBL7	09/06/23		x				full entry, greased & exercised tide gate
BBL7	10/05/23		x				full entry, greased tide gate
BBL7	11/04/23		x				full entry, greased & exercised tide gate
BBL7	12/04/23						
BBL8	01/14/23		x				full entry inspection,greased tide gate
BBL8	02/12/23		x				full entry, greased & exercised tide gate
BBL8	03/15/23		x				full entry, greased & exercised tide gate
BBL8	04/11/23		x				full entry, greased tide gate
BBL8	05/10/23			x			full entry, removed debris from chamber
BBL8	06/25/23		x				full entry, greased & exercised tide gate
BBL8	07/07/23						
BBL8	08/08/23						
BBL8	09/06/23						

BBL8	09/07/23						
BBL8	10/05/23						
BBL8	11/04/23		x				exercised tide gate
BBL8	12/04/23						
BBL9	01/15/23		x				full entry inspection,greased and exercised tide gate
BBL9	02/12/23		x				full entry, greased tide gate
BBL9	03/15/23		x				exercised tide gate
BBL9	04/11/23		x				full entry inspection,greased and exercised tide gate
BBL9	05/11/23		x				exercised tide gate
BBL9	06/25/23		x				full entry inspection,greased and exercised tide gate
BBL9	07/07/23						
BBL9	07/08/23		x				full entry inspection, greased and exercised tide gate
BBL9	08/27/23						
BBL9	09/06/23		x				exercised tide gate
BBL9	10/05/23						
BBL9	11/07/23		x				full entry, greased and exercised tide gate
BBL9	12/05/23		x				exercised tide gate
BBL10	01/15/23		x				exercised tide gate
BBL10	02/12/23		x				full entry, greased & exercised tide gate
BBL10	03/16/23		x				exercised tide gate
BBL10	04/11/23		x				full entry, exercised tide gate
BBL10	05/11/23						
BBL10	06/25/23						
BBL10	07/08/23		x				full entry, greased & exercised tide gate
BBL10	08/27/23		x				exercised tide gate
BBL10	09/06/23						
BBL10	10/26/23						
BBL10	11/07/23						
BBL10	12/05/23		x				exercised tide gate
BBL11	01/15/23		x				exercised tide gate
BBL11	02/25/23		x				exercised tide gate
BBL11	03/16/23		x				exercised tide gate
BBL11	04/12/23		x				full entry exercised tide gate
BBL11	05/11/23		x				exercised tide gate
BBL11	06/26/23						
BBL11	07/08/23						
BBL11	08/27/23						
BBL11	09/06/23		x				exercised tide gate
BBL11	10/26/23						
BBL11	11/07/23		x				exercised tide gate
BBL11	12/05/23						
BBL12	01/15/23		x				exercised tide gate
BBL12	02/25/23		x				exercised tide gate

BBL12	03/16/23		x				exercised tide gate
BBL12	04/12/23		x				exercised tide gate
BBL12	05/11/23		x				exercised tide gate
BBL12	06/26/23		x				exercised tide gate
BBL12	07/08/23		x				exercised tide gate
BBL12	08/27/23		x				exercised tide gate
BBL12	09/06/23		x				exercised tide gate
BBL12	10/26/23		x				exercised tide gate
BBL12	11/07/23	x	x				removed partial blockage from regulator, exercised tide gate
BBL12	12/05/23		x				exercised tide gate
BBL12A	01/15/23						removed partial blockage in diversion with boat hook
BBL12A	01/18/23		x				exercised tide gate,removed partial blockage from diversion with boat hook
BBL12A	02/25/23						TG chamber filled with water from construction site
BBL12A	03/16/23						TG chamber filled with water from construction site
BBL12A	04/12/23						TG chamber filled with water from construction site
BBL12A	05/11/23						
BBL12A	06/26/23		x				exercised tide gate, removed partial blockage from diversion with boat hook
BBL12A	07/08/23		x				exercised tide gate
BBL12A	08/27/23		x				exercised tide gate
BBL12A	09/06/23		x				exercised tide gate
BBL12A	10/26/23		x				exercised tide gate
BBL12A	11/07/23		x				exercised tide gate, removed partial blockage from diversion with boat hook
BBL12A	12/05/23		x				exercised tide gate
BBL15	01/15/23		x				full entry inspection,greased and exercised tide gate
BBL15	02/25/23						
BBL15	03/23/23		x				full entry, greased tide gate
BBL15	04/12/23						
BBL15	05/11/23		x				exercised tide gate
BBL15	06/26/23		x				full entry inspection, greased and exercised tide gate
BBL15	07/08/23						
BBL15	08/27/23						
BBL15	09/07/23		x				full entry, greased tide gate
BBL15	10/26/23						
BBL15	11/18/23						
BBL15	12/05/23		x				full entry inspection, greased and exercised tide gate
BBL16	01/15/23		x				exercised tide gate
BBL16	02/25/23		x				exercised tide gate
BBL16	03/16/23		x				exercised tide gate & removed partial blockage from diversion
BBL16	04/12/23		x				full entry, exercised tide gate
BBL16	05/11/23		x				exercised tide gate
BBL16	06/26/23		x				exercised tide gate
BBL16	07/08/23		x				exercised tide gate
BBL16	08/27/23						

BBL16	09/07/23						
BBL16	10/26/23						
BBL16	11/18/23						
BBL16	12/05/23						
BBL17	01/16/23		x				full entry inspection,greased tide gate
BBL17	02/25/23						
BBL17	03/23/23						
BBL17	04/12/23						
BBL17	05/11/23		x				full entry inspection, greased tide gate
BBL17	06/26/23						
BBL17	07/08/23						
BBL17	08/20/23						
BBL17	09/07/23						
BBL17	10/26/23						
BBL17	11/18/23		x				full entry greased and exercised tide gate
BBL17	12/06/23		x				full entry greased and exercised tide gate
BBL18	01/28/23						
BBL18	02/27/23						
BBL18	03/23/23						
BBL18	04/15/23						
BBL18	05/24/23						
BBL18	06/26/23						
BBL18	07/09/23						
BBL18	08/27/23						
BBL18	09/26/23						
BBL18	10/26/23						
BBL18	11/18/23						
BBL18	12/06/23						
BBL19	01/16/23		x				full entry inspection,greased tide gate
BBL19	02/25/23						
BBL19	03/23/23		x				full entry inspection, greased tide gate
BBL19	04/12/23		x				full entry inspection, greased tide gate
BBL19	05/24/23		x				full entry inspection, greased tide gate
BBL19	06/26/23						
BBL19	07/09/23		x				full entry, greased and exercised tide gate
BBL19	08/27/23						
BBL19	09/07/23		x				full entry inspection, greased tide gate
BBL19	10/30/23						
BBL19	11/18/23						
BBL19	12/06/23		x				full entry inspection, greased tide gate
BBL20	01/28/23						full entry inspection
BBL20	02/25/23						
BBL20	03/23/23		x				full entry inspection, greased tide gate

BBL20	04/12/23						
BBL20	05/24/23						
BBL20	06/26/23		x				full entry inspection, greased tide gate
BBL20	07/09/23		x				full entry, greased and exercised tide gate
BBL20	08/20/23						full entry diversion removed debris from float
BBL20	09/26/23						
BBL20	10/30/23						
BBL20	11/18/23		x				full entry, greased and exercised tide gate
BBL20	12/06/23		x				full entry inspection, greased tide gate
BBL21	01/28/23						full entry inspection
BBL21	02/25/23						
BBL21	03/23/23						
BBL21	04/08/23						
BBL21	05/18/23						
BBL21	05/18/23						
BBL21	05/24/23						
BBL21	06/26/23						
BBL21	07/09/23						
BBL21	08/20/23		x				full entry greased & exercised tide gate
BBL21	09/26/23						
BBL21	10/30/23						
BBL21	11/18/23						
BBL21	12/06/23		x				full entry inspection, greased tide gate
BBL21	12/19/23		x	x			full entry removed 10' board holding open TG#3 & exercised TG
BBL22	01/28/23						
BBL22	02/19/23						
BBL22	03/23/23						
BBL22	04/08/23						
BBL22	05/24/23						
BBL22	06/28/23						
BBL22	07/09/23						
BBL22	08/20/23						
BBL22	09/26/23						
BBL22	10/30/23						
BBL22	11/19/23						
BBL22	12/06/23						
BBL22A	01/15/23						
BBL22A	02/19/23						
BBL22A	03/16/23						
BBL22A	04/11/23						
BBL22A	05/11/23						
BBL22A	N/A						parks dept had covered holes, were asked to clear the area
BBL22A	07/08/23						

BBL22A	08/20/23						
BBL22A	09/06/23						
BBL22A	10/26/23						
BBL22A	11/07/23						
BBL22A	12/05/23						
BBL23	01/28/23						
BBL23	02/19/23						
BBL23	03/23/23						
BBL23	04/08/23		x	x			full entry, replaced grease fittings, exercised TG
BBL23	05/24/23						
BBL23	06/28/23						
BBL23	07/09/23						
BBL23	08/19/23						
BBL23	08/20/23						full entry inspection, cleaned sensor & float
BBL23	09/26/23						
BBL23	10/30/23						
BBL23	11/19/23						
BBL23	12/06/23						
BBL25	01/28/23		N/A	N/A			
BBL25	02/11/23		N/A	N/A			full entry inspection and removal of rags in diversion
BBL25	03/23/23	x	N/A	N/A			removed rags from regulator
BBL25	04/07/23		N/A	N/A			
BBL25	05/27/23		N/A	N/A			
BBL25	06/28/23		N/A	N/A			
BBL25	07/23/23		N/A	N/A			
BBL25	08/04/23		N/A	N/A			
BBL25	09/07/23		N/A	N/A			
BBL25	10/30/23		N/A	N/A			
BBL25	11/19/23		N/A	N/A			
BBL25	12/14/23		N/A	N/A			
BBL26	01/28/23		x				exercised tide gate
BBL26	02/11/23	x					full entry inspection & removal of rags in regulator
BBL26	03/19/23	x	x				exercised tide gate,removed debris from regulator
BBL26	04/07/23	x	x				exercised tide gate, removed debris regulator
BBL26	05/27/23		x				exercised tide gate
BBL26	06/28/23		x				exercised tide gate
BBL26	07/09/23		x				exercised tide gate
BBL26	08/04/23		X				exercised tide gate
BBL26	09/07/23		x				exercised tide gate
BBL26	10/30/23	x	x				exercised tide gate,removed debris from regulator
BBL26	11/18/23		x	x			full entryexercised tide gate, cleared debris from tide gate
BBL26	12/14/23		x				exercised tide gate
BBL27	01/28/23	x	x	x			full entry,removed debris from regulator,TG was held open,removed debris,exercised

BBL27	02/11/23		x				full entry inspection & tide gate exercised
BBL27	03/18/23		x	x			full entry,TG was held open,removed debris,exercised
BBL27	04/15/23						
BBL27	05/30/23						
BBL27	07/09/23	x	x				full entry, greased & exercised tide gate, removed debris from regulator & diversion
BBL27	08/04/23						
BBL27	09/26/23						
BBL27	10/04/23		x				full entry, greased & exercised
BBL27	11/19/23						
BBL27	12/14/23						
BBL29	01/09/23		N/A	N/A			
BBL29	02/07/23		N/A	N/A			
BBL29	03/18/23		N/A	N/A			
BBL29	04/08/23		N/A	N/A			
BBL29	05/24/23		N/A	N/A			
BBL29	05/30/23		N/A	N/A			
BBL29	06/10/23		N/A	N/A			
BBL29	07/09/23		N/A	N/A			
BBL29	08/04/23		N/A	N/A			
BBL29	09/07/23		N/A	N/A			
BBL29	10/04/23		N/A	N/A			
BBL29	11/18/23		N/A	N/A			
BBL29	12/06/23		N/A	N/A			
BBL29A	01/09/23						
BBL29A	02/07/23						
BBL29A	03/18/23						
BBL29A	04/08/23						
BBL29A	05/24/23						
BBL29A	06/10/23						full entry manhole before regulator & removed debris
BBL29A	07/09/23						
BBL29A	08/04/23						
BBL29A	09/07/23						
BBL29A	10/04/23						
BBL29A	11/18/23						
BBL29A	12/06/23						
BBL30	01/09/23		x				full entry inspection,greased and exercised tide gate
BBL30	02/07/23		x				full entry inspection,greased & exercised tide gate, removed debris from TG chamber
BBL30	02/11/23		x				full entry inspection,greased & exercised tide gate
BBL30	02/28/23						
BBL30	03/01/23			x			replaced square cover
BBL30	04/07/23		x				full entry inspection,greased & exercised tide gate, removed debris from TG chambe
BBL30	05/03/23						
BBL30	06/03/23		x				full entry inspection,greased and exercised tide gate

BBL30	07/05/23		x				full entry inspection,greased and exercised tide gate
BBL30	08/04/23		x				full entry inspection,greased and exercised tide gate
BBL30	09/03/23		X				full entry inspection,greased and exercised tide gate
BBL30	09/26/23						
BBL30	10/04/23		x				full entry inspection, greased and exercised tide gate
BBL30	11/29/23						
BBL30	12/14/23		x				full entry inspection, greased and exercised tide gate
BBL31	01/09/23		x				exercised tide gate
BBL31	02/07/23		x				exercised tide gate & removed debris
BBL31	02/11/23		x				exercised tide gate
BBL31	03/19/23		x				exercised tide gate
BBL31	04/07/23		x				full entry exercised tide gate
BBL31	05/06/23		x				exercised tide gate
BBL31	06/03/23		x				exercised tide gate
BBL31	07/05/23		x				exercised tide gate
BBL31	08/04/23		x				full entry exercised tide gate
BBL31	09/03/23		X				full entry exercised & greased tide gate
BBL31	10/04/23		X				exercised tide gate
BBL31	11/12/23		x	x			exercised tide gate & removed debris
BBL31	12/14/23		x	x			exercised tide gate & removed debris
BBL32	01/09/23		x				exercised tide gate
BBL32	02/11/23		x				exercised tide gate
BBL32	03/23/23						
BBL32	04/07/23		x				full entry exercised tide gate
BBL32	05/06/23		x				exercised tide gate
BBL32	06/28/23						
BBL32	07/05/23		x				exercised tide gate
BBL32	08/04/23		x				exercised tide gate
BBL32	09/26/23						
BBL32	10/04/23						
BBL32	11/29/23						
BBL32	12/14/23						
BBL32A	01/09/23		N/A	N/A			
BBL32A	02/11/23		N/A	N/A			
BBL32A	03/19/23		N/A	N/A			
BBL32A	04/07/23		N/A	N/A			
BBL32A	04/15/23		N/A	N/A			
BBL32A	04/25/23		N/A	N/A			
BBL32A	05/06/23		N/A	N/A			
BBL32A	06/03/23		N/A	N/A			
BBL32A	07/05/23		N/A	N/A			
BBL32A	08/04/23		N/A	N/A			
BBL32A	09/03/23		N/A	N/A			

BBL32A	09/11/23		N/A	N/A			
BBL32A	09/12/23		N/A	N/A			
BBL32A	10/04/23		N/A	N/A			
BBL32A	11/12/23		N/A	N/A			
BBL32A	12/14/23		N/A	N/A			
BBL32B	01/09/23						full entry inspection,removed partial blockage in diversion
BBL32B	02/07/23						full entry inspection,removed partial blockage in diversion
BBL32B	02/11/23						full entry inspection,removed partial blockage in diversion
BBL32B	03/19/23						
BBL32B	04/07/23						
BBL32B	04/15/23						full entry inspection,removed partial blockage in diversion
BBL32B	04/25/23						
BBL32B	05/06/23						
BBL32B	06/03/23						
BBL32B	07/05/23						
BBL32B	08/04/23						
BBL32B	09/03/23						
BBL32B	09/11/23						
BBL32B	09/12/23						
BBL32B	10/04/23						
BBL32B	11/12/23						
BBL32B	12/14/23						
BBL33	01/09/23		x				exercised tide gate
BBL33	02/07/23		x				exercised tide gate
BBL33	02/11/23		x				full enrty inspection & exercised tide gate
BBL33	03/19/23		x				exercised tide gate
BBL33	04/07/23		x				full entry exercised tide gate
BBL33	04/15/23		x				full enrty inspection & exercised tide gate, removed debris from diversion
BBL33	04/25/23		x				exercised tide gate
BBL33	05/06/23		x				exercised tide gate
BBL33	05/27/23						
BBL33	06/03/23		x				exercised tide gate
BBL33	07/05/23		x				exercised tide gate
BBL33	08/04/23		x				exercised tide gate
BBL33	09/03/23		x				exercised tide gate & removed partial blockage
BBL33	09/11/23						
BBL33	09/12/23						
BBL33	10/04/23		x				exercised tide gate
BBL33	11/12/23		x				exercised tide gate
BBL33	12/14/23						
BBL34	01/09/23		N/A	N/A			
BBL34	02/07/23		N/A	N/A			
BBL34	02/11/23		N/A	N/A			

BBL34	03/19/23		N/A	N/A			
BBL34	04/07/23		N/A	N/A			
BBL34	04/15/23		N/A	N/A			
BBL34	04/25/23		N/A	N/A			
BBL34	05/27/23		N/A	N/A			
BBL34	06/03/23		N/A	N/A			
BBL34	07/05/23		N/A	N/A			
BBL34	08/04/23		N/A	N/A			
BBL34	09/03/23		N/A	N/A			removed partial blockage removed with boathook
BBL34	09/12/23		N/A	N/A			
BBL34	10/04/23		N/A	N/A			
BBL34	11/12/23		N/A	N/A			
BBL34	12/14/23		N/A	N/A			
BBL37	01/16/23		N/A	N/A			
BBL37	02/19/23		N/A	N/A			
BBL37	03/18/23		N/A	N/A			
BBL37	04/02/23		N/A	N/A			
BBL37	05/27/23		N/A	N/A			
BBL37	06/10/23		N/A	N/A			
BBL37	07/23/23		N/A	N/A			
BBL37	08/29/23		N/A	N/A			
BBL37	09/10/23		N/A	N/A			
BBL37	10/29/23		N/A	N/A			
BBL37	11/19/23		N/A	N/A			
BBL37	12/24/23		N/A	N/A			
BBL38	01/16/23		N/A	N/A			
BBL38	02/19/23		N/A	N/A			
BBL38	03/18/23		N/A	N/A			
BBL38	04/02/23		N/A	N/A			
BBL38	05/27/23		N/A	N/A			
BBL38	06/10/23		N/A	N/A			
BBL38	07/23/23		N/A	N/A			
BBL38	08/29/23		N/A	N/A			
BBL38	09/10/23		N/A	N/A			
BBL38	10/29/23		N/A	N/A			
BBL38	11/19/23		N/A	N/A			
BBL38	12/24/23		N/A	N/A			
BBL39	01/16/23		N/A	N/A			
BBL39	02/19/23		N/A	N/A			
BBL39	03/18/23		N/A	N/A			
BBL39	04/02/23		N/A	N/A			
BBL39	05/27/23		N/A	N/A			
BBL39	06/10/23		N/A	N/A			

BBL39	07/23/23		N/A	N/A			
BBL39	08/29/23		N/A	N/A			
BBL39	09/10/23		N/A	N/A			
BBL39	10/29/23		N/A	N/A			
BBL39	11/19/23		N/A	N/A			
BBL39	12/24/23		N/A	N/A			
BBL40	01/16/23		N/A	N/A			
BBL40	02/19/23		N/A	N/A			
BBL40	03/18/23		N/A	N/A			
BBL40	04/02/23		N/A	N/A			
BBL40	05/27/23		N/A	N/A			
BBL40	06/10/23		N/A	N/A			
BBL40	07/23/23		N/A	N/A			
BBL40	08/29/23		N/A	N/A			
BBL40	09/10/23		N/A	N/A			
BBL40	10/29/23		N/A	N/A			
BBL40	11/19/23		N/A	N/A			
BBL40	12/24/23		N/A	N/A			
BBL41	01/16/23		N/A	N/A			
BBL41	02/19/23		N/A	N/A			
BBL41	03/18/23		N/A	N/A			
BBL41	04/02/23		N/A	N/A			
BBL41	05/27/23		N/A	N/A			
BBL41	06/10/23		N/A	N/A			
BBL41	07/23/23		N/A	N/A			
BBL41	08/29/23		N/A	N/A			
BBL41	09/10/23		N/A	N/A			
BBL41	10/29/23		N/A	N/A			
BBL41	11/19/23		N/A	N/A			
BBL41	12/24/23		N/A	N/A			
BBL42	01/16/23		N/A	N/A			
BBL42	02/19/23		N/A	N/A			
BBL42	03/18/23		N/A	N/A			
BBL42	04/02/23		N/A	N/A			
BBL42	05/27/23		N/A	N/A			
BBL42	06/10/23		N/A	N/A			
BBL42	07/23/23		N/A	N/A			
BBL42	08/29/23		N/A	N/A			
BBL42	09/10/23		N/A	N/A			
BBL42	10/29/23		N/A	N/A			
BBL42	11/19/23		N/A	N/A			
BBL42	12/24/23		N/A	N/A			

Bowery Bay High Level							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
BBH1	01/09/23		x	x			full entry,exercised tide gate & removed debris from TG chamber
BBH1	02/05/23		x				full entry, exercised tide gate
BBH1	02/28/23						
BBH1	03/01/23			x			replaced square cover
BBH1	03/05/23			x			replaced all 3 I-Beams under square covers
BBH1	04/08/23		x				full entry, exercised tide gate
BBH1	05/07/23		x				full entry,exercised tide gate & removed debris in diversion
BBH1	06/07/23		x				exercised tide gate
BBH1	07/05/23		x	x			full entry,exercised tide gate & removed debris from TG chamber
BBH1	08/05/23		x				full entry, exercised tide gate
BBH1	09/16/23		x				full entry, exercised tide gate
BBH1	10/04/23		x				full entry, exercised tide gate
BBH1	11/29/23		x				full entry, exercised tide gate
BBH1	12/19/23		x				full entry, exercised tide gate
BBH2	01/09/23		x				full enty inspection,greased and exercised tide gate
BBH2	02/05/23		x				ful entry, greased & exercised tide gate
BBH2	03/26/23		x				full enty inspection,greased and exercised tide gate
BBH2	04/08/23		x				full enty inspection,greased and exercised tide gate
BBH2	05/07/23		x				full enty inspection,greased and exercised tide gate
BBH2	06/07/23		x				full enty inspection,greased and exercised tide gate
BBH2	07/05/23		x				full enty inspection,greased and exercised tide gate
BBH2	08/05/23		x				full enty inspection,greased and exercised tide gate
BBH2	09/16/23		x				full enty inspection,greased and exercised tide gate
BBH2	09/16/23						
BBH2	09/17/23						
BBH2	10/02/23		x				full entry, greased and exercised tide gate
BBH2	11/29/23		x				full entry, greased and exercised tide gate
BBH2	12/19/23		x				full entry, greased and exercised tide gate
BBH3	01/02/23		N/A	N/A			
BBH3	02/05/23		N/A	N/A			
BBH3	03/26/23		N/A	N/A			
BBH3	04/19/23		N/A	N/A			
BBH3	05/07/23		N/A	N/A			

BBH3	06/07/23		N/A	N/A			
BBH3	07/25/23		N/A	N/A			
BBH3	08/29/23		N/A	N/A			
BBH3	09/09/23		N/A	N/A			
BBH3	10/25/23		N/A	N/A			
BBH3	11/29/23		N/A	N/A			
BBH3	12/19/23		N/A	N/A			
BBH4	01/02/23		N/A	N/A			
BBH4	02/05/23		N/A	N/A			
BBH4	03/26/23		N/A	N/A			
BBH4	04/19/23		N/A	N/A			
BBH4	05/07/23		N/A	N/A			
BBH4	06/07/23		N/A	N/A			
BBH4	07/25/23		N/A	N/A			
BBH4	08/29/23		N/A	N/A			
BBH4	09/09/23		N/A	N/A			
BBH4	10/25/23		N/A	N/A			
BBH4	11/29/23		N/A	N/A			
BBH4	12/19/23		N/A	N/A			
BBH5	01/02/23		N/A	N/A			
BBH5	02/05/23		N/A	N/A			
BBH5	03/26/23		N/A	N/A			
BBH5	04/19/23		N/A	N/A			
BBH5	05/07/23		N/A	N/A			
BBH5	06/07/23		N/A	N/A			
BBH5	07/25/23		N/A	N/A			
BBH5	08/29/23		N/A	N/A			
BBH5	09/10/23		N/A	N/A			
BBH5	10/25/23		N/A	N/A			
BBH5	11/29/23		N/A	N/A			
BBH5	12/19/23		N/A	N/A			
BBH6	01/02/23		N/A	N/A			full entry inspection
BBHL6	02/05/23		N/A	N/A			full entry inspection
BBH6	03/06/23		N/A	N/A			full entry inspection
BBH6	03/26/23		N/A	N/A			full entry inspection

BBH6	04/19/23		N/A	N/A			full entry inspection
BBH6	05/07/23		N/A	N/A			
BBHL6	06/07/23		N/A	N/A			full entry inspection
BBHL6	07/25/23		N/A	N/A			full entry inspection
BBHL6	08/03/23		N/A	N/A			full entry inspection & cleaned debris off float
BBH6	09/10/23		N/A	N/A			full entry inspection
BBH6	10/25/23		N/A	N/A			full entry inspection
BBH6	11/29/23		N/A	N/A			full entry inspection
BBH6	12/20/23		N/A	N/A			full entry inspection
BBH7	01/02/23		N/A	N/A			
BBH7	02/05/23		N/A	N/A			
BBH7	03/26/23		N/A	N/A			
BBH7	04/19/23		N/A	N/A			
BBH7	05/07/23		N/A	N/A			
BBH7	06/07/23		N/A	N/A			
BBH7	07/25/23		N/A	N/A			
BBH7	08/29/23		N/A	N/A			
BBH7	09/10/23		N/A	N/A			
BBH7	10/13/23		N/A	N/A			
BBH7	11/29/23		N/A	N/A			
BBH7	12/20/23		N/A	N/A			
BBH8	01/02/23		N/A	N/A			
BBH8	02/05/23		N/A	N/A			
BBH8	03/26/23		N/A	N/A			
BBH8	04/19/23		N/A	N/A			
BBH8	05/07/23		N/A	N/A			
BBH8	06/07/23		N/A	N/A			
BBH8	07/25/23		N/A	N/A			
BBH8	08/29/23		N/A	N/A			
BBH8	09/10/23		N/A	N/A			
BBH8	10/13/23		N/A	N/A			
BBH8	11/30/23		N/A	N/A			
BBH8	12/20/23		N/A	N/A			
BBH9	01/07/23		N/A	N/A			
BBHL9	02/05/23		N/A	N/A			

BBHL9	03/26/23		N/A	N/A			
BBHL9	04/19/23		N/A	N/A			
BBHL9	05/07/23		N/A	N/A			
BBHL9	06/07/23		N/A	N/A			
BBHL9	07/25/23		N/A	N/A			
BBHL9	08/29/23		N/A	N/A			
BBHL9	09/10/23		N/A	N/A			
BBHL9	10/13/23		N/A	N/A			
BBHL9	11/30/23		N/A	N/A			
BBHL9	12/20/23		N/A	N/A			
BBH10	01/02/23		N/A	N/A			full entry inspection
BBH10	01/11/23		N/A	N/A			full entry inspection
BBH10	01/24/23		N/A	N/A			full entry inspection
BBH10	02/05/23		N/A	N/A			full entry inspection
BBH10	03/26/23		N/A	N/A			full entry inspection
BBH10	04/19/23		N/A	N/A			full entry inspection
BBH10	05/13/23		N/A	N/A			full entry inspection
BBH10	06/07/23		N/A	N/A			full entry inspection
BBH10	07/25/23		N/A	N/A			full entry inspection
BBH10	08/12/23		N/A	N/A			full entry inspection
BBH10	09/16/23		N/A	N/A			full entry inspection
BBH10	10/11/23		N/A	N/A			full entry inspection
BBH10	11/08/23		N/A	N/A			full entry inspection
BBH10	12/13/23		N/A	N/A			full entry inspection
BBH11	01/02/23		N/A	N/A			
BBH11	02/18/23		N/A	N/A			
BBH11	03/26/23		N/A	N/A			
BBH11	04/19/23		N/A	N/A			
BBH11	05/13/23		N/A	N/A			
BBH11	06/07/23		N/A	N/A			
BBH11	07/25/23		N/A	N/A			
BBH11	08/29/23		N/A	N/A			
BBH11	09/16/23		N/A	N/A			
BBH11	10/11/23		N/A	N/A			
BBH11	11/08/23		N/A	N/A			

BBH11	12/13/23		N/A	N/A			
BBH12	01/02/23		N/A	N/A			
BBH12	02/18/23		N/A	N/A			
BBH12	03/27/23		N/A	N/A			
BBH12	04/19/23		N/A	N/A			
BBH12	05/13/23		N/A	N/A			
BBH12	06/07/23		N/A	N/A			
BBH12	07/25/23		N/A	N/A			
BBH12	08/29/23		N/A	N/A			
BBH12	09/16/23		N/A	N/A			
BBH12	10/11/23		N/A	N/A			
BBH12	11/08/23		N/A	N/A			
BBH12	12/13/23		N/A	N/A			
BBHL14	1/7/2023		N/A	N/A			
BBHL14	2/18/2023		N/A	N/A			
BBHL14	3/27/2023		N/A	N/A			
BBHL14	4/22/2023		N/A	N/A			
BBHL14	5/13/2023		N/A	N/A			
BBHL14	6/28/2023		N/A	N/A			
BBHL14	7/27/2023		N/A	N/A			
BBHL14	8/12/2023		N/A	N/A			
BBHL14	9/16/2023		N/A	N/A			
BBHL14	10/11/2023		N/A	N/A			
BBHL14	11/30/2023		N/A	N/A			
BBHL14	12/20/2023		N/A	N/A			
BBHL15	1/7/2023		N/A	N/A			
BBHL15	2/18/2023		N/A	N/A			
BBHL15	3/27/2023		N/A	N/A			
BBHL15	4/22/2023		N/A	N/A			
BBHL15	5/13/2023		N/A	N/A			
BBHL15	6/28/2023		N/A	N/A			
BBHL15	7/27/2023		N/A	N/A			
BBHL15	8/12/2023		N/A	N/A			
BBHL15	9/16/2023		N/A	N/A			
BBHL15	10/11/2023		N/A	N/A			

BBHL15	11/30/2023		N/A	N/A			
BBHL15	12/20/2023		N/A	N/A			
BBHL27	1/7/2023		N/A	N/A			
BBHL27	2/18/2023		N/A	N/A			removed debris with boat hook
BBHL27	3/27/2023		N/A	N/A			
BBHL27	4/15/2023		N/A	N/A			full entry removed rags & debris
BBHL27	4/22/2023		N/A	N/A			
BBHL27	5/13/2023		N/A	N/A			
BBHL27	6/28/2023		N/A	N/A			full entry removed rags & debris
BBHL27	7/15/2023		N/A	N/A			full entry removed rags & debris
BBHL27	7/23/2023		N/A	N/A			removed debris with boat hook
BBHL27	7/24/2023		N/A	N/A			full entry removed partial blockage
BBHL27	8/12/2023		N/A	N/A			
BBHL27	9/16/2023		N/A	N/A			
BBHL27	10/11/2023		N/A	N/A			
BBHL27	11/30/2023		N/A	N/A			
BBHL27	12/20/2023		N/A	N/A			
BBHL27A	1/7/2023		N/A	N/A			
BBHL27A	2/18/2023		N/A	N/A			
BBHL27A	3/27/2023		N/A	N/A			
BBHL27A	4/15/2023		N/A	N/A			
BBHL27A	5/13/2023		N/A	N/A			
BBHL27A	6/28/2023		N/A	N/A			
BBHL27A	7/23/2023		N/A	N/A			
BBHL27A	8/12/2023		N/A	N/A			
BBHL27A	9/16/2023		N/A	N/A			
BBHL27A	10/11/2023		N/A	N/A			
BBHL27A	11/30/2023		N/A	N/A			
BBHL27A	12/20/2023		N/A	N/A			
BBHL28	1/7/2023		N/A	N/A			
BBHL28	2/18/2023		N/A	N/A			
BBHL28	3/28/2023		N/A	N/A			
BBHL28	4/22/2023		N/A	N/A			
BBHL28	5/13/2023		N/A	N/A			
BBHL28	6/28/2023		N/A	N/A			

BBHL28	7/27/2023		N/A	N/A			
BBHL28	8/12/2023		N/A	N/A			
BBHL28	9/16/2023		N/A	N/A			
BBHL28	10/11/2023		N/A	N/A			
BBHL28	11/30/2023		N/A	N/A			
BBHL28	12/20/2023		N/A	N/A			

Coney Island							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
CI-01	01/09/23						
CI-01	01/21/23						
CI-01	02/05/23						
CI-01	03/09/23						
CI-01	04/22/23						
CI-01	05/06/23						
CI-01	06/19/23						
CI-01	07/22/23						
CI-01	08/26/23						
CI-01	09/04/23						
CI-01	10/15/23						
CI-01	10/25/23						
CI-01	10/26/23						
CI-01	11/05/23						
CI-01	12/14/23						
CI-02	01/21/23						
CI-02	02/05/23						
CI-02	03/09/23						
CI-02	04/22/23						
CI-02	05/06/23						
CI-02	06/19/23						
CI-02	07/22/23						
CI-02	08/26/23						
CI-02	09/04/23						
CI-02	10/15/23						
CI-02	10/25/23						
CI-02	10/26/23						
CI-02	11/05/23						
CI-02	12/14/23						
CI-03	01/21/23						
CI-03	01/21/23						
CI-03	02/05/23						
CI-03	03/09/23						

CI-03	04/22/23						
CI-03	05/06/23						
CI-03	06/19/23						
CI-03	07/22/23						
CI-03	08/26/23						
CI-03	09/04/23						
CI-03	11/05/23						
CI-03	12/14/23						
CI-04	01/09/23						
CI-04	01/21/23						
CI-04	02/05/23						
CI-04	03/09/23						
CI-04	04/22/23						
CI-04	05/06/23						
CI-04	06/19/23						
CI-04	07/22/23						
CI-04	08/26/23						
CI-04	09/04/23						
CI-04	10/15/23						
CI-04	10/25/23						
CI-04	10/26/23						
CI-04	11/05/23						
CI-04	12/14/23						
CI-06	01/21/23						Hosed down debris on Bench.
CI-06	02/05/23						
CI-06	03/09/23						
CI-06	04/22/23						
CI-06	05/06/23						
CI-06	06/19/23						
CI-06	07/22/23						
CI-06	08/26/23						
CI-06	09/04/23						
CI-06	10/15/23						
CI-06	10/25/23						
CI-06	10/26/23						

CI-06	11/05/23						
CI-06	12/14/23						
CSO TG-1	01/08/23						Full underground entry inspection of TG 1, 2, 3, 4, 5 at high tide. No leaks.
CSO TG-1	01/16/23		X				PM TG #1, 2, 3, 4, 5. Exercised, cleaned, lubricated. No leaks.
CSO TG-1	02/15/23						
CSO TG-1	03/13/23						
CSO TG-1	04/28/23						
CSO TG-1	05/28/23						
CSO TG-1	06/19/23						
CSO TG-1	07/22/23						
CSO TG-1	08/27/23						
CSO TG-1	09/04/23						
CSO TG-1	09/27/23		X				PM all five Tide Gates #1,#2,#3,#4,#5 :Greased, exercised and cleaned .
CSO TG-1	10/15/23						
CSO TG-1	11/10/23						
CSO TG-1	12/23/23		X				PM Tide Gates : #1, #2, #3, #4, #5,
CSO TG-2	01/08/23						Full underground entry inspection of TG 1, 2 at high tide. No leaks.
CSO TG-2	02/15/23						
CSO TG-2	03/13/23						
CSO TG-2	04/27/23		X				Full entry , PM Tide Gates 2A, 2B, 2C
CSO TG-2	04/28/23						
CSO TG-2	05/28/23						
CSO TG-2	06/19/23						
CSO TG-2	07/22/23						
CSO TG-2	08/27/23						
CSO TG-2	09/04/23						
CSO TG-2	10/15/23						
CSO TG-2	10/25/23		X				PM Tide Gate #1, #2
CSO TG-2	11/10/23						
CSO TG-2	12/23/23						
CSO TG-3	01/08/23						Full underground entry inspection of TG 1, 2 at high tide. No leaks.
CSO TG-3	02/15/23						
CSO TG-3	03/13/23						
CSO TG-3	04/27/23		X				Full entry , PM Tide Gates 3A, 3B, 3C
CSO TG-3	04/28/23						

CSO TG-3	05/28/23						
CSO TG-3	06/19/23						
CSO TG-3	07/22/23						
CSO TG-3	08/27/23						
CSO TG-3	09/04/23						
CSO TG-3	10/15/23						
CSO TG-3	10/25/23		X				PM Tide Gate #1, #2
CSO TG-3	11/10/23						
CSO TG-3	12/23/23						
CSO TG-4	01/08/23						
CSO TG-4	02/15/23		X				PM Tide Gates 1A, 1B, 1C, 2A, 2C : Greased fittings, exercised gates.
CSO TG-4	03/13/23		X				PM Tide Gates 3A, 3B, 3C, 4A, 4B
CSO TG-4	04/26/23		X				Full entry , PM Tide Gates 4A, 4B, 4C
CSO TG-4	04/28/23						
CSO TG-4	05/26/23		X				PM Tide Gates 4A, 4B, 4C, full entry
CSO TG-4	06/19/23						
CSO TG-4	07/22/23						
CSO TG-4	08/27/23						
CSO TG-4	09/04/23						
CSO TG-4	10/15/23						
CSO TG-4	11/10/23						
CSO TG-4	12/23/23						

HUNTS POINT REGULATOR LOCATIONS - 2023							
NUMBER	REG PM	REG CM	TG PM	TG CM	EBPP	CL RUN	COMMENTS
HP-1	2-Jan		x				
HP-1	1-Feb		x				
HP-1	5-Mar		x				
HP-1	4-Apr		x				
HP-1	2-May	x	x				cleaned debris
HP-1	17-May		x		x		telemetry alarm
HP-1	1-Jun		x				
HP-1	2-Jul		x				
HP-1	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
HP-1	1-Aug		x				
HP-1	29-Aug		x				
HP-1	3-Sep		x				
HP-1	11-Oct		x				
HP-1	1-Nov		x				
HP-1	2-Dec		x				
HP-2	2-Jan		x				
HP-2	1-Feb		x				
HP-2	5-Mar		x				
HP-2	4-Apr		x				
HP-2	2-May		x				
HP-2	1-Jun		x				
HP-2	2-Jul		x				
HP-2	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
HP-2	12-Jul		x		x		telemetry report
HP-2	1-Aug		x				
HP-2	29-Aug		x				
HP-2	3-Sep		x				
HP-2	11-Oct		x				
HP-2	1-Nov		x				
HP-2	2-Dec		x				
HP-2A	2-Jan		x				
HP-2A	1-Feb		x				
HP-2A	5-Mar		x				

HP-2A	4-Apr		x				
HP-2A	2-May	x	x				cleaned debris
HP-2A	1-Jun		x				
HP-2A	2-Jul		x				
HP-2A	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
HP-2A	1-Aug		x				
HP-2A	29-Aug		x				
HP-2A	3-Sep		x				
HP-2A	11-Oct		x				
HP-2A	1-Nov						
HP-2A	2-Dec		x				
HP-3	2-Jan		x				
HP-3	1-Feb	x	x				cleaned debris
HP-3	24-Apr	x	x	x			closed open tg
HP-3	4-Mar		x		x		telemetry alarm
HP-3	5-Mar		x				
HP-3	4-Apr		x				
HP-3	2-May		x				
HP-3	1-Jun		x				
HP-3	2-Jul		x				
HP-3	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
HP-3	13-Jul		x		x		telemetry alarm
HP-3	1-Aug		x				
HP-3	5-Aug		x		x		telemetry alarm
HP-3	6-Aug		x		x		telemetry alarm
HP-3	7-Aug		x		x		telemetry alarm
HP-3	29-Aug		x				
HP-3	3-Sep		x				
HP-3	11-Oct		x				
HP-3	1-Nov		x				
HP-3	2-Dec		x				
HP-4	2-Jan		x				
HP-4	9-Jan		x		x		telemetry alarm
HP-4	10-Jan		x				
HP-4	1-Feb		x				

HP-4	2-Mar		x				
HP-4	4-Apr		x				
HP-4	2-May		x				
HP-4	1-Jun		x				
HP-4	2-Jul		x				
HP-4	1-Aug		x				
HP-4	3-Sep		x				
HP-4	3-Oct		x				
HP-4	1-Nov		x				
HP-4	2-Dec		x				
HP-5	5-Jan		x				
HP-5	12-Jan	x	x	x			cleaned, exercised,lubricated,adjusted
HP-5	31-Jan	x	x				flushed & vactored
HP-5	6-Feb		x				
HP-5	2-Mar		x				
HP-5	16-Mar	x	x				flushed & vactored
HP-5	4-Apr		x				
HP-5	24-Apr	x	x	x			blockage flushed & vactored
HP-5	2-May		x				
HP-5	6-May		x				
HP-5	11-Jun		x				
HP-5	5-Jul		x				
HP-5	18-Jul		x		x		telemetry alarm
HP-5	14-Aug	x	x	x			blockage flushed & vactored
HP-5	18-Aug		x		x		telemetry alarm
HP-5	24-Aug	x	x	x			blockage flushed & vactored
HP-5	27-Aug		x		x		telemetry alarm
HP-5	3-Aug		x				
HP-5	27-Aug	x	x	x			blockage flushed & vactored
HP-5	5-Sep		x				
HP-5	12-Oct		x				
HP-5	14-Nov	x	x	x			blockage flushed & vactored
HP-5	17-Nov	x	x	x			blockage flushed & vactored
HP-5	23-Nov		x		x		telemetry alarm
HP-5	4-Dec		x				

HP-6	5-Jan		n/a	n/a			
HP-6	6-Feb		n/a	n/a			constuction
HP-6	2-Mar		n/a	n/a			constuction
HP-6	4-Apr		n/a	n/a			constuction
HP-6	2-May		n/a	n/a			constuction
HP-6	11-Jun		n/a	n/a			constuction
HP-6	5-Jul		n/a	n/a			constuction
HP-6	3-Aug		n/a	n/a			constuction
HP-6	4-Sep		n/a	n/a			constuction
HP-6	12-Oct		n/a	n/a			constuction
HP-6	1-Nov		n/a	n/a			constuction
HP-6	4-Dec		n/a	n/a			constuction
HP-7	5-Jan		n/a	n/a			
HP-7	6-Feb		n/a	n/a			
HP-7	2-Mar		n/a	n/a			
HP-7	4-Apr		n/a	n/a			
HP-7	6-May		n/a	n/a			
HP-7	11-Jun		n/a	n/a			
HP-7	5-Jul		n/a	n/a			
HP-7	3-Aug		n/a	n/a			
HP-7	30-Aug		n/a	n/a			
HP-7	4-Sep		n/a	n/a			
HP-7	12-Oct		n/a	n/a			
HP-7	1-Nov		n/a	n/a			
HP-7	2-Dec		n/a	n/a			
HP-8	5-Jan		x				
HP-8	2-Feb		x				
HP-8	2-Mar		x				
HP-8	4-Apr		x				
HP-8	6-May		x				
HP-8	11-Jun		x				
HP-8	5-Jul		x				
HP-8	15-Jul		x		x		telemetry alarm
HP-8	3-Aug		x				
HP-8	3-Sep		x				

HP-8	12-Oct		x				
HP-8	2-Nov		x				
HP-8	30-Nov	x	x	x			cleaned, exercised,lubricated,adjusted
HP-8	2-Dec		x				
HP-9	5-Jan		x				
HP-9	6-Feb		x				
HP-9	2-Mar		x				
HP-9	4-Apr		x				
HP-9	6-May		x				
HP-9	11-Jun		x				
HP-9	5-Jul		x				
HP-9	3-Aug		x				
HP-9	3-Sep		x				
HP-9	12-Oct		x				
HP-9	2-Nov		x				
HP-9	30-Nov	x	x	x			cleaned, exercised,lubricated,adjusted
HP-9	2-Dec		x				
HP--9A	5-Jan		x				
HP-9A	6-Feb		x				
HP-9A	2-Mar		x				
HP-9A	4-Apr		x				
HP-9A	6-May		x				
HP-9A	11-Jun		x				
HP-9A	5-Jul		x				
HP-9A	3-Aug		x				
HP-9A	30-Aug		x				
HP-9A	3-Sep		x				
HP-9A	12-Oct		x				
HP-9A	2-Nov		x				
HP--9A	2-Dec		x				
HP-10	5-Jan		x				
HP-10	6-Feb		x				
HP-10	2-Mar		x				
HP10	4-Apr		x				
HP-10	6-May		x				

HP-10	1-Jun		x				telemetry alarm 2x
HP-10	12-Jan	x	x	x			cleaned, exercised,lubricated,adjusted
HP-10	2-Jun		x				telemetry alarm 2x
HP-10	3-Jun		x				telemetry alarm 2x
HP-10	4-Jun		x				telemetry alarm 2x
HP-10	5-Jun		x				telemetry alarm 2x
HP-10	6-Jun		x				telemetry alarm 2x
HP-10	7-Jun		x				telemetry alarm 2x
HP-10	8-Jun		x				telemetry alarm 2x
HP-10	9-Jun		x				telemetry alarm 2x
HP-10	10-Jun		x				telemetry alarm 2x
HP-10	11-Jun		x				telemetry alarm 2x
HP-10	12-Jun		x				telemetry alarm 2x
HP-10	13-Jun		x				telemetry alarm 2x
HP-10	14-Jun		x				telemetry alarm 2x
HP-10	15-Jun		x				telemetry alarm 2x
HP-10	16-Jun		x				telemetry alarm 2x
HP-10	17-Jun		x				telemetry alarm 2x
HP-10	18-Jun		x				telemetry alarm 2x
HP-10	19-Jun		x				telemetry alarm 2x
HP-10	20-Jun		x				telemetry alarm 2x
HP-10	21-Jun		x				telemetry alarm 2x
HP-10	22-Jun		x				telemetry alarm 2x
HP-10	23-Jun		x				telemetry alarm 2x
HP-10	24-Jun		x				telemetry alarm 2x
HP-10	25-Jun		x				telemetry alarm 2x
HP-10	26-Jun		x				telemetry alarm 2x
HP-10	27-Jun		x				telemetry alarm 2x
HP-10	28-Jun		x				telemetry alarm 2x
HP-10	29-Jun		x				telemetry alarm 2x
HP-10	30-Jun		x				telemetry alarm 2x
HP-10	1-Jul		x				telemetry alarm 2x
HP-10	2-Jul		x				telemetry alarm 2x
HP-10	3-Jul		x				telemetry alarm 2x
HP-10	4-Jul		x				telemetry alarm 2x

HP-10	5-Jul		x				telemetry alarm 2x
HP-10	6-Jul		x				telemetry alarm 2x
HP-10	7-Jul		x				telemetry alarm 2x
HP-10	8-Jul		x				telemetry alarm 2x
HP-10	9-Jul		x				telemetry alarm 2x
HP-10	10-Jul		x				telemetry alarm 2x
HP-10	11-Jul		x				telemetry alarm 2x
HP-10	12-Jul		x				telemetry alarm 2x
HP-10	13-Jul		x				telemetry alarm 2x
HP-10	14-Jul		x				telemetry alarm 2x
HP-10	15-Jul		x				telemetry alarm 2x
HP-10	16-Jul		x				telemetry alarm 2x
HP-10	17-Jul		x				telemetry alarm 2x
HP-10	18-Jul		x				telemetry alarm 2x
HP-10	19-Jul		x				telemetry alarm 2x
HP-10	20-Jul		x				telemetry alarm 2x
HP-10	21-Jul		x				telemetry alarm 2x
HP-10	22-Jul		x				telemetry alarm 2x
HP-10	23-Jul		x				telemetry alarm 2x
HP-10	24-Jul		x				telemetry alarm 2x
HP-10	25-Jul		x				telemetry alarm 2x
HP-10	26-Jul		x				telemetry alarm 2x
HP-10	27-Jul		x				telemetry alarm 2x
HP-10	28-Jul		x				telemetry alarm 2x
HP-10	29-Jul		x				telemetry alarm 2x
HP-10	30-Jul		x				telemetry alarm 2x
HP-10	31-Jul		x				telemetry alarm 2x
HP-10	1-Aug		x				telemetry alarm 2x
HP-10	2-Aug		x				telemetry alarm 2x
HP-10	3-Aug		x				telemetry alarm 2x
HP-10	4-Aug		x				telemetry alarm 2x
HP-10	5-Aug		x				telemetry alarm 2x
HP-10	6-Aug		x				telemetry alarm 2x
HP-10	7-Aug		x				telemetry alarm 2x
HP-10	8-Aug		x				telemetry alarm 2x

HP-10	9-Aug		x				telemetry alarm 2x
HP-10	10-Aug		x				telemetry alarm 2x
HP-10	11-Aug		x				telemetry alarm 2x
HP-10	12-Aug		x				telemetry alarm 2x
HP-10	13-Aug		x				telemetry alarm 2x
HP-10	14-Aug		x				telemetry alarm 2x
HP-10	15-Aug		x				telemetry alarm 2x
HP-10	16-Aug		x				telemetry alarm 2x
HP-10	17-Aug		x				telemetry alarm 2x
HP-10	18-Aug		x				telemetry alarm 2x
HP-10	19-Aug		x				telemetry alarm 2x
HP-10	20-Aug		x				telemetry alarm 2x
HP-10	21-Aug		x				telemetry alarm 2x
HP-10	22-Aug		x				telemetry alarm 2x
HP-10	23-Aug		x				telemetry alarm 2x
HP-10	24-Aug		x				telemetry alarm 2x
HP-10	25-Aug		x				telemetry alarm 2x
HP-10	26-Aug		x				telemetry alarm 2x
HP-10	27-Aug		x				telemetry alarm 2x
HP-10	28-Aug		x				telemetry alarm 2x
HP-10	29-Aug		x				telemetry alarm 2x
HP-10	30-Aug		x				telemetry alarm 2x
HP-10	31-Aug		x				telemetry alarm 2x
HP-10	1-Sep		x				telemetry alarm 2x
HP-10	2-Sep		x				telemetry alarm 2x
HP-10	3-Sep		x				telemetry alarm 2x
HP-10	4-Sep		x				telemetry alarm 2x
HP-10	5-Sep		x				telemetry alarm 2x
HP-10	6-Sep		x				telemetry alarm 2x
HP-10	7-Sep		x				telemetry alarm 2x
HP-10	8-Sep		x				telemetry alarm 2x
HP-10	9-Sep		x				telemetry alarm 2x
HP-10	10-Sep		x				telemetry alarm 2x
HP-10	11-Sep		x				telemetry alarm 2x
HP-10	12-Sep		x				telemetry alarm 2x

HP-10	13-Sep		x				telemetry alarm 2x
HP-10	14-Sep		x				telemetry alarm 2x
HP-10	15-Sep		x				telemetry alarm 2x
HP-10	16-Sep		x				telemetry alarm 2x
HP-10	17-Sep		x				telemetry alarm 2x
HP-10	18-Sep		x				telemetry alarm 2x
HP-10	19-Sep		x				telemetry alarm 2x
HP-10	20-Sep		x				telemetry alarm 2x
HP-11	21-Sep		x				telemetry alarm 2x
HP-10	22-Sep		x				telemetry alarm 2x
HP-10	23-Sep		x				telemetry alarm 2x
HP-10	24-Sep		x				telemetry alarm 2x
HP-10	25-Sep		x				telemetry alarm 2x
HP-10	26-Sep		x				telemetry alarm 2x
HP-10	27-Sep		x				telemetry alarm 2x
HP-10	28-Sep		x				telemetry alarm 2x
HP-10	29-Sep		x				telemetry alarm 2x
HP-10	30-Sep		x				telemetry alarm 2x
HP-10	12-Oct		x				
HP-10	2-Nov		x				
HP-10	4-Dec		x				
HP-11	2-Jan		x				
HP-11	1-Feb		x				
HP-11	5-Mar		x				
HP-11	4-Apr		x				
HP-11	2-May		x				
HP-11	9-May		x	x			cleaned, exercised,lubricated,adjusted
HP-11	1-Jun		x				
HP-11	2-Jul		x				
HP-11	1-Aug		x				
HP-11	29-Aug		x				
HP-11	3-Sep		x				
HP-11	11-Oct		x				
HP-11	1-Nov		x				
HP-11	2-Dec		x				

HP-12	2-Jan		x				
HP-12	1-Feb		x				
HP-12	5-Mar		x				
HP-12	4-Apr		x				
HP-12	2-May		x				
HP-12	9-May		x	x			cleaned, exercised,lubricated,adjusted
HP-12	1-Jun		x				
HP-12	22-Jun		x	x			telemetry alarm
HP-12	2-Jul		x				
HP-12	1-Aug		x				
HP-12	29-Aug		x				
HP-12	3-Sep		x				
HP-12	11-Oct		x				
HP-12	1-Nov		x				
HP-12	2-Dec		x				
HP-13	5-Jan		x				
HP-13	6-Feb		x		x		telemetry alarm
HP-13	8-Feb		x				
HP-13	2-Mar		x				
HP-13	7-Mar	x	x				flushed & vactored
HP-13	4-Apr		x				
HP-13	6-May		x				
HP-13	9-May		x	x			cleaned, exercised,lubricated,adjusted
HP-13	1-Jun		x				telemetry alarm 2x
HP-13	2-Jun		x				telemetry alarm 2x
HP-13	3-Jun		x				telemetry alarm 2x
HP-13	4-Jun		x				telemetry alarm 2x
HP-13	5-Jun		x				telemetry alarm 2x
HP-13	6-Jun		x				telemetry alarm 2x
HP-13	7-Jun		x				telemetry alarm 2x
HP-13	8-Jun		x				telemetry alarm 2x
HP-13	9-Jun		x				telemetry alarm 2x
HP-13	10-Jun		x				telemetry alarm 2x
HP-13	11-Jun		x				telemetry alarm 2x
HP-13	12-Jun		x				telemetry alarm 2x

HP-13	13-Jun		x				telemetry alarm 2x
HP-13	14-Jun		x				telemetry alarm 2x
HP-13	15-Jun		x				telemetry alarm 2x
HP-13	16-Jun		x				telemetry alarm 2x
HP-13	17-Jun		x				telemetry alarm 2x
HP-13	18-Jun		x				telemetry alarm 2x
HP-13	19-Jun		x				telemetry alarm 2x
HP-13	20-Jun		x				telemetry alarm 2x
HP-13	21-Jun		x				telemetry alarm 2x
HP-13	22-Jun		x				telemetry alarm 2x
HP-13	23-Jun		x				telemetry alarm 2x
HP-13	5-Jul		x				
HP-13	17-Jan		x				telemetry alarm 2x
HP-13	18-Jan		x				telemetry alarm 2x
HP-13	5-Jul		x				
HP-13	2-Aug		x				
HP-13	20-Aug		x				telemetry alarm 2x
HP-13	21-Aug		x				telemetry alarm 2x
HP-13	22-Aug		x				telemetry alarm 2x
HP-13	23-Aug		x				telemetry alarm 2x
HP-13	29-Aug		x				
HP-13	4-Sep		x				
HP-13	11-Oct		x				
HP-13	1-Nov		x				
HP-13	4-Dec		x				
HP-14	2-Jan		x				
HP-14	1-Feb		x				
HP-14	8-Mar		x				
HP-14	2-Apr		x				
HP-14	2-May		x				
HP-14	1-Jun		x				
HP-14	5-Jul		x				
HP-14	1-Aug		x				
HP-14	3-Sep		x				
HP-14	11-Oct		x				

HP-14	2-Nov		x				
HP-14	30-Nov		x	x			cleaned, exercised,lubricated,adjusted
HP-14	2-Dec		x				
HP-14A	2-Jan		n/a	n/a			
HP-14A	1-Feb		n/a	n/a			
HP-14A	8-Mar		n/a	n/a			
HP-14A	2-Apr		n/a	n/a			
HP-14A	2-May		n/a	n/a			
HP-14A	1-Jun		n/a	n/a			
HP-14A	5-Jul		n/a	n/a			
HP-14A	1-Aug		n/a	n/a			
HP-14A	3-Sep		n/a	n/a			
HP-14A	11-Oct		n/a	n/a			
HP-14A	2-Nov		n/a	n/a			
HP-14A	2-Dec		n/a	n/a			
HP-14B	2-Jan		n/a	n/a			
HP-14B	1-Feb		n/a	n/a			
HP-14B	8-Mar		n/a	n/a			
HP-14B	2-Apr		n/a	n/a			
HP-14B	2-May		n/a	n/a			
HP-14B	1-Jun		n/a	n/a			
HP-14B	5-Jul		n/a	n/a			
HP-14B	1-Aug		n/a	n/a			
HP-14B	3-Sep		n/a	n/a			
HP-14B	11-Oct		n/a	n/a			
HP-14B	2-Nov		n/a	n/a			
HP-14B	2-Dec		n/a	n/a			
HP-14C	2-Jan		n/a	n/a			
HP-14C	1-Feb		n/a	n/a			
HP-14C	8-Mar		n/a	n/a			
HP-14C	2-Apr		n/a	n/a			
HP-14C	6-May		n/a	n/a			
HP-14C	1-Jun		n/a	n/a			
HP-14C	5-Jul		n/a	n/a			
HP-14C	1-Aug		n/a	n/a			

HP-14C	3-Sep		n/a	n/a			
HP-14C	11-Oct		n/a	n/a			
HP-14C	2-Nov		n/a	n/a			
HP-14C	2-Dec		n/a	n/a			
HP-15	2-Jan		x				
HP-15	6-Feb		x				
HP-15	2-Mar		x				
HP-15	2-Apr		x				
HP-15	3-May		x				
HP-15	11-Jun		x				
HP-15	6-Jul		x				
HP-15	4-Sep		x				
HP-15	11-Oct		x				
HP-15	1-Nov		x				
HP-15	4-Dec		x				
HP-15A	2-Jan		n/a	n/a			
HP-15A	6-Feb		n/a	n/a			
HP-15A	2-Mar		n/a	n/a			
HP-15A	5-Apr		n/a	n/a			
HP-15A	6-May		n/a	n/a			
HP-15A	11-Jun		n/a	n/a			
HP-15A	6-Jul		n/a	n/a			
HP-15A	3-Aug		n/a	n/a			
HP-15A	29-Aug		n/a	n/a			
HP-15A	4-Sep		n/a	n/a			
HP-15A	11-Oct		n/a	n/a			
HP-15A	1-Nov		n/a	n/a			
HP-15A	4-Dec		n/a	n/a			
HP-15B	2-Jan		n/a	n/a			
HP-15B	6-Feb		n/a	n/a			
HP-15B	8-Mar		n/a	n/a			
HP-15B	5-Apr		n/a	n/a			
HP-15B	6-May		n/a	n/a			
HP-15B	11-Jun		n/a	n/a			
HP-15B	6-Jul		n/a	n/a			

HP-15B	3-Aug		n/a	n/a			
HP-15B	4-Sep		n/a	n/a			
HP-15B	11-Oct		n/a	n/a			
HP-15B	1-Nov		n/a	n/a			
HP-15B	4-Dec		n/a	n/a			
HP-15C	2-Jan		n/a	n/a			
HP-15C	6-May		n/a	n/a			
HP-15C	3-Oct		n/a	n/a			
HP-15C	6-Jul		n/a	n/a			
HP-15C	1-Nov		n/a	n/a			
HP-15C	4-Dec		n/a	n/a			

Jamaica							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
JAM-01	01/17/23						
JAM-01	02/04/23						
JAM-01	03/10/23						
JAM-01	04/09/23						
JAM-01	05/13/23						
JAM-01	06/10/23		X				PM Tide Gates #1, #2
JAM-01	07/01/23						
JAM-01	08/13/23						
JAM-01	09/02/23						
JAM-01	10/10/23						
JAM-01	11/04/23						
JAM-01	11/23/23		X				PM Tide Gates #1, #2
JAM-01	12/09/23						
JAM-02	01/17/23						
JAM-02	02/04/23						
JAM-02	03/10/23						
JAM-02	04/09/23						
JAM-02	05/13/23						
JAM-02	06/10/23						
JAM-02	07/01/23						
JAM-02	08/13/23						
JAM-02	09/02/23						
JAM-02	10/03/23						Full entry; inspected wooden weir. The weir is good.
JAM-02	11/04/23						
JAM-02	12/09/23						
JAM-03	01/17/23						Removed debris with boat hook.
JAM-03	02/04/23						
JAM-03	03/10/23						
JAM-03	04/09/23						
JAM-03	05/13/23						
JAM-03	06/10/23						
JAM-03	07/01/23						

JAM-03	08/13/23						
JAM-03	09/02/23						
JAM-03	10/03/23						
JAM-03	11/04/23						
JAM-03	12/09/23						
JAM-03A	01/17/23						
JAM-03A	02/04/23						
JAM-03A	03/10/23						
JAM-03A	04/09/23						
JAM-03A	05/13/23						
JAM-03A	06/10/23						
JAM-03A	07/01/23						
JAM-03A	10/10/23						
JAM-03A	11/04/23						
JAM-03A	12/09/23						
JAM-04	01/17/23						
JAM-04	02/04/23						
JAM-04	03/10/23						
JAM-04	04/09/23						
JAM-04	05/13/23						
JAM-04	06/10/23						
JAM-04	07/01/23						
JAM-04	08/13/23						
JAM-04	09/02/23						
JAM-04	10/10/23						
JAM-04	11/04/23						
JAM-04	12/09/23						
JAM-06	01/17/23						
JAM-06	02/04/23						
JAM-06	03/10/23						
JAM-06	04/09/23						
JAM-06	05/13/23						
JAM-06	06/10/23						
JAM-06	07/01/23						
JAM-06	08/13/23						

JAM-06	09/02/23						
JAM-06	10/10/23						
JAM-06	11/04/23						
JAM-06	12/09/23						
JAM-07	01/17/23						
JAM-07	02/04/23						
JAM-07	03/10/23						
JAM-07	04/09/23						
JAM-07	05/13/23						
JAM-07	06/10/23						
JAM-07	07/01/23						
JAM-07	08/13/23						
JAM-07	09/02/23						
JAM-07	10/10/23						
JAM-07	11/04/23						
JAM-07	12/09/23						
JAM-08	01/17/23						
JAM-08	02/04/23						
JAM-08	03/10/23						
JAM-08	04/09/23						
JAM-08	05/13/23						
JAM-08	06/10/23						
JAM-08	07/01/23						
JAM-08	08/13/23						
JAM-08	09/02/23						
JAM-08	10/10/23						
JAM-08	11/04/23						
JAM-08	12/09/23						
JAM-09	01/14/23				X		Checked for NO communications
JAM-09	01/15/23				X		Checked for NO communications
JAM-09	01/17/23						
JAM-09	02/04/23						
JAM-09	03/10/23						
JAM-09	04/09/23						
JAM-09	05/13/23						

JAM-09	06/10/23						
JAM-09	07/01/23						
JAM-09	08/13/23						
JAM-09	09/02/23						
JAM-09	10/10/23						
JAM-09	11/04/23						
JAM-09	12/09/23						
JAM-10	01/17/23						
JAM-10	02/04/23						
JAM-10	03/10/23						
JAM-10	04/09/23						
JAM-10	05/13/23						
JAM-10	06/10/23						
JAM-10	07/01/23						
JAM-10	08/13/23						
JAM-10	09/02/23						
JAM-10	10/10/23						
JAM-10	11/04/23						
JAM-10	12/09/23						
JAM-11	01/17/23						
JAM-11	02/04/23						
JAM-11	03/10/23						
JAM-11	04/09/23						
JAM-11	05/13/23						
JAM-11	06/10/23						
JAM-11	07/01/23						
JAM-11	08/13/23						
JAM-11	09/02/23						
JAM-11	10/10/23						
JAM-11	11/04/23						
JAM-11	12/09/23						
JAM-12	01/17/23						
JAM-12	02/04/23						
JAM-12	03/10/23						
JAM-12	04/09/23						

JAM-12	05/13/23						
JAM-12	06/10/23						Tide Gate is sealed at the Fire House
JAM-12	07/01/23						
JAM-12	08/13/23						
JAM-12	09/02/23						
JAM-12	10/10/23						
JAM-12	11/04/23						
JAM-12	12/09/23						
JAM-14	01/17/23						
JAM-14	02/04/23						
JAM-14	03/10/23						
JAM-14	04/09/23						
JAM-14	05/13/23		X				PM Tide Gates #1, #2, #3, #4 : Greased, exercised.
JAM-14	06/10/23						
JAM-14	07/01/23						
JAM-14	08/13/23						
JAM-14	09/02/23						
JAM-14	10/03/23						
JAM-14	11/04/23						
JAM-14	12/09/23						
WC-1	01/01/23						
WC-1	02/04/23						
WC-1	03/11/23						
WC-1	04/09/23						
WC-1	05/13/23						
WC-1	06/10/23						
WC-1	07/22/23						
WC-1	08/13/23						
WC-1	09/02/23						No leaks
WC-1	10/18/23						
WC-1	11/04/23						
WC-1	12/11/23						
WC-2	01/01/23						
WC-2	02/04/23						
WC-2	03/11/23						

WC-2	04/09/23						
WC-2	05/13/23						
WC-2	06/10/23						
WC-2	07/22/23						
WC-2	08/13/23						
WC-2	09/02/23						No leaks
WC-2	10/18/23						
WC-2	11/04/23						
WC-2	12/11/23						
WC-3	01/01/23						
WC-3	02/04/23						
WC-3	03/11/23						
WC-3	04/09/23						
WC-3	05/13/23						Cover is damaged, can not be opened
WC-3	06/10/23						
WC-3	07/22/23						Damaged cover. Removed debris.
WC-3	08/13/23						CANNNOT OPEN COVER
WC-3	09/02/23						No access : damaged cover
WC-3	10/18/23						
WC-3	11/04/23						
WC-3	12/11/23						No access (cover is damaged)
WC-4	01/01/23						
WC-4	02/04/23						
WC-4	03/11/23						
WC-4	04/09/23						
WC-4	05/13/23						
WC-4	06/10/23						
WC-4	07/22/23						Removed debris.
WC-4	08/13/23						
WC-4	09/02/23						No leaks
WC-4	10/18/23						
WC-4	11/04/23						
WC-4	12/11/23						
WC-5	01/01/23						Hosed debris from top side.
WC-5	02/04/23						

WC-5	03/11/23						
WC-5	04/09/23						
WC-5	05/13/23						
WC-5	06/10/23						
WC-5	07/22/23						
WC-5	08/13/23						NEED TO BE FLUSH
WC-5	09/02/23						No leaks
WC-5	10/18/23						
WC-5	11/04/23						
WC-5	12/11/23						
WC-6	01/01/23						Hosed debris from top side.
WC-6	02/04/23						
WC-6	03/11/23						
WC-6	04/09/23						
WC-6	05/13/23						
WC-6	06/10/23						
WC-6	07/22/23						
WC-6	08/13/23						NEED TO BE FLUSH
WC-6	09/02/23						No leaks
WC-6	10/18/23						
WC-6	11/04/23						
WC-6	12/11/23						

NEWTOWN CREEK LOCATIONS 2023

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
Q-1	25-Jan				N/A		Inspection
Q-1	7-Feb				N/A		Inspection
Q-1	28-Mar				N/A		Inspection
Q-1	26-Apr				N/A		Inspection
Q-1	18-May				N/A		Inspection
Q-1	6-Jun				N/A		Inspection
Q-1	26-Jul				N/A		Inspection
Q-1	31-Aug				N/A		Inspection
Q-1	27-Sep				N/A		Inspection
Q-1	31-Oct				N/A		Inspection
Q-1	28-Nov				N/A		Inspection
Q-1	20-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
Q-2	25-Jan		N/A	N/A	N/A		Inspection
Q-2	7-Feb	X	N/A	N/A	N/A		Inspection, Removed debris from diersion chamber
Q-2	28-Mar		N/A	N/A	N/A		Inspection
Q-2	26-Apr		N/A	N/A	N/A		Inspection
Q-2	18-May		N/A	N/A	N/A		Inspection
Q-2	6-Jun		N/A	N/A	N/A		Inspection
Q-2	26-Jul		N/A	N/A	N/A		Inspection
Q-2	31-Aug	X	N/A	N/A	N/A		Inspection, Removes debris and grit from diversion chamber, and regulator
Q-2	27-Sep		N/A	N/A	N/A		Inspection
Q-2	31-Oct		N/A	N/A	N/A		Inspection
Q-2	28-Nov		N/A	N/A	N/A		Inspection
Q-2	20-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-1	25-Jan				N/A		Inspection
B-1	7-Feb		X		N/A		Inspection, Grease, scrape, and exercise tide gate A.
B-1	28-Mar				N/A		Inspection
B-1	26-Apr				N/A		Inspection
B-1	28-Apr		X		N/A		Grease, scrape, and exercise tide gate C and D.
B-1	18-May				N/A		Inspection
B-1	6-Jun				N/A		Inspection
B-1	26-Jul				N/A		Inspection
B-1	31-Aug				N/A		Inspection
B-1	27-Sep				N/A		Inspection
B-1	31-Oct				N/A		Grease, scrape, and exercise tide gate.
B-1	28-Nov				N/A		Inspection
B-1	20-Dec		X		N/A		Inspection, Grease, scrape, and exercise tide gate A, C, D.
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B1-A	25-Jan				N/A		Inspection
B1-A	7-Feb				N/A		Inspection
B1-A	28-Mar				N/A		Inspection
B1-A	26-Apr				N/A		Inspection
B1-A	18-May				N/A		Inspection
B1-A	6-Jun				N/A		Inspection
B1-A	26-Jul				N/A		Inspection
B1-A	31-Aug				N/A		Inspection
B1-A	27-Sep				N/A		Inspection
B1-A	31-Oct				N/A		Inspection
B1-A	28-Nov				N/A		Inspection
B1-A	20-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
MH-15	25-Jan		N/A	N/A	N/A		Inspection
MH-15	7-Feb		N/A	N/A	N/A		Inspection
MH-15	28-Mar		N/A	N/A	N/A		Inspection
MH-15	26-Apr		N/A	N/A	N/A		Inspection
MH-15	18-May		N/A	N/A	N/A		Inspection
MH-15	6-Jun		N/A	N/A	N/A		Inspection
MH-15	26-Jul		N/A	N/A	N/A		Inspection
MH-15	31-Aug		N/A	N/A	N/A		Inspection
MH-15	27-Sep		N/A	N/A	N/A		Inspection
MH-15	31-Oct		N/A	N/A	N/A		Inspection
MH-15	28-Nov		N/A	N/A	N/A		Inspection
MH-15	20-Dec		N/A	N/A	N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-2	25-Jan		N/A	N/A			Inspection
B-2	7-Feb		N/A	N/A			Inspection
B-2	28-Mar		N/A	N/A			Inspection
B-2	26-Apr		N/A	N/A			Inspection
B-2	18-May		N/A	N/A			Inspection
B-2	6-Jun		N/A	N/A			Inspection
B-2	26-Jul		N/A	N/A			Inspection
B-2	31-Aug		N/A	N/A			Inspection
B-2	27-Sep		N/A	N/A			Inspection
B-2	31-Oct		N/A	N/A			Inspection
B-2	28-Nov		N/A	N/A			Inspection
B-2	20-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-3	19-Jan				N/A		Inspection
B-3	28-Feb				N/A		Inspection
B-3	24-Mar				N/A		Inspection
B-3	13-Apr				N/A		Inspection
B-3	2-May				N/A		Inspection
B-3	1-Jun				N/A		Inspection
B-3	12-Jul				N/A		Inspection
B-3	31-Aug				N/A		Inspection
B-3	21-Sep				N/A		Inspection
B-3	25-Oct				N/A		Inspection
B-3	15-Nov				N/A		Inspection
B-3	21-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-4	19-Jan		N/A	N/A	N/A		Inspection
B-4	28-Feb		N/A	N/A	N/A		Inspection
B-4	24-Mar		N/A	N/A	N/A		Inspection
B-4	13-Apr		N/A	N/A	N/A		Inspection
B-4	2-May		N/A	N/A	N/A		Inspection
B-4	1-Jun		N/A	N/A	N/A		Inspection
B-4	12-Jul		N/A	N/A	N/A		Inspection
B-4	2-Aug		N/A	N/A	N/A		Inspection
B-4	21-Sep		N/A	N/A	N/A		Inspection
B-4	25-Oct		N/A	N/A	N/A		Inspection
B-4	15-Nov		N/A	N/A	N/A		Inspection
B-4	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-5	19-Jan				N/A		Inspection
B-5	28-Feb				N/A		Inspection
B-5	24-Mar				N/A		Inspection
B-5	13-Apr				N/A		Inspection
B-5	2-May				N/A		Inspection
B-5	1-Jun				N/A		Inspection
B-5	12-Jul				N/A		Inspection
B-5	2-Aug				N/A		Inspection
B-5	21-Sep				N/A		Inspection
B-5	25-Oct				N/A		Inspection
B-5	15-Nov				N/A		Inspection
B-5	21-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-5A	19-Jan				N/A		Inspection
B-5A	28-Feb				N/A		Inspection
B-5A	24-Mar				N/A		Inspection
B-5A	13-Apr				N/A		Inspection
B-5A	2-May				N/A		Inspection
B-5A	1-Jun				N/A		Inspection
B-5A	12-Jul				N/A		Inspection
B-5A	25-Jul	X			N/A		Removed debris and grit from diversion chamber, and regulator
B-5A	2-Aug				N/A		Inspection
B-5A	21-Sep				N/A		Inspection
B-5A	25-Aug				N/A		Inspection
B-5A	17-Sep	X			N/A		Responded to callout- DRY WEATHER BYPASS-True-cleared blockage
B-5A	18-Sep	X			N/A		Responded to callout- DRY WEATHER BYPASS-True-cleared blockage
B-5A	16-Oct	X			N/A		Responded to callout- DRY WEATHER BYPASS-True-cleared blockage
B-5A	25-Oct				N/A		Inspection
B-5A	4-Nov	X			N/A		Removed grit and debris from diversion chamber, and regulator
B-5A	15-Nov				N/A		Inspection
B-5A	21-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-6	19-Jan		X		N/A		Inspection, Grease, scrape, and exercise tide gate A,B and C.
B-6	28-Feb				N/A		Inspection
B-6	24-Mar				N/A		Inspection
B-6	13-Apr				N/A		Inspection
B-6	2-May				N/A		Inspection
B-6	1-Jun				N/A		Inspection
B-6	12-Jul				N/A		Inspection
B-6	31-Aug				N/A		Inspection
B-6	21-Sep				N/A		Inspection
B-6	25-Oct				N/A		Inspection
B-6	15-Nov				N/A		Inspection
B-6	21-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-6A	19-Jan		N/A	N/A			Inspection
B-6A	28-Feb		N/A	N/A			Inspection
B-6A	24-Mar		N/A	N/A			Inspection
B-6A	13-Apr	X	N/A	N/A			Inspection, Removed debris and grit from regulator
B-6A	2-May		N/A	N/A			Inspection
B-6A	1-Jun		N/A	N/A			Inspection
B-6A	12-Jul		N/A	N/A			Inspection
B-6A	2-Aug		N/A	N/A			Inspection
B-6A	21-Sep		N/A	N/A			Inspection
B-6A	25-Oct		N/A	N/A			Inspection
B-6A	15-Nov		N/A	N/A			Inspection
B-6A	21-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-7	19-Jan		X		N/A		Inspection ,Grease, scrape, and exercise tide gate "A".
B-7	28-Feb		X		N/A		Inspection, Grease, scrape, and exercise tide gate.
B-7	24-Mar				N/A		Inspection
B-7	13-Apr				N/A		Inspection
B-7	2-May		X		N/A		Inspection, Grease, scrape, and exercise tide gate B.
B-7	1-Jun				N/A		Inspection
B-7	12-Jul				N/A		Inspection
B-7	2-Aug				N/A		Inspection
B-7	21-Sep				N/A		Inspection
B-7	25-Oct				N/A		Inspection
B-7	15-Nov				N/A		Inspection
B-7	21-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-8	19-Jan		N/A	N/A			Inspection
B-8	28-Feb		N/A	N/A			Inspection
B-8	24-Mar		N/A	N/A			Inspection
B-8	13-Apr		N/A	N/A			Inspection
B-8	2-May		N/A	N/A			Inspection
B-8	1-Jun		N/A	N/A			Inspection
B-8	12-Jul		N/A	N/A			Inspection
B-8	2-Aug		N/A	N/A			Inspection
B-8	21-Sep		N/A	N/A			Inspection
B-8	25-Oct		N/A	N/A			Inspection
B-8	16-Nov		N/A	N/A			Inspection
B-8	21-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-9	19-Jan				N/A		Inspection
B-9	28-Feb				N/A		Inspection
B-9	24-Mar				N/A		Inspection
B-9	13-Apr				N/A		Inspection
B-9	2-May				N/A		Inspection
B-9	1-Jun		X		N/A		Inspection, Grease, scrape, and exercise tide gate A,B and C.
B-9	12-Jul				N/A		Inspection
B-9	2-Aug				N/A		Inspection
B-9	21-Sep				N/A		Inspection
B-9	30-Aug				N/A		Inspection
B-9	16-Nov				N/A		Inspection
B-9	21-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-10	19-Jan				N/A		Inspection
B-10	7-Feb				N/A		Inspection
B-10	21-Mar				N/A		Inspection
B-10	4-Apr		X		N/A		Inspection, Grease, scrape, and exercise tide gates and sluice gate
B-10	11-May		X		N/A		Inspection, Grease, scrape, and exercise tide gates
B-10	1-Jun				N/A		Inspection
B-10	25-Jul				N/A		Inspection
B-10	30-Aug				N/A		Inspection
B-10	28-Sep		X		N/A		Inspection, Grease, scrape, and exercise tide gate A and B
B-10	30-Oct				N/A		Inspection
B-10	16-Nov				N/A		Inspection
B-10	26-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-11	19-Jan		N/A	N/A			Inspection
B-11	7-Feb		N/A	N/A			Inspection
B-11	21-Mar		N/A	N/A			Inspection
B-11	4-Apr		N/A	N/A			Inspection
B-11	11-May	X	N/A	N/A			Inspection, Removed debris and cleared blockage from tide gate
B-11	6-Jun		N/A	N/A			Inspection
B-11	25-Jul		N/A	N/A			Inspection
B-11	30-Aug		N/A	N/A			Inspection
B-11	28-Sep		N/A	N/A			Inspection
B-11	30-Oct		N/A	N/A			Inspection
B-11	16-Nov		N/A	N/A			Inspection
B-11	26-Dec		N/A	N/A			Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-12	25-Jan				N/A		Inspection
B-12	7-Feb				N/A		Inspection
B-12	21-Mar				N/A		Inspection
B-12	4-Apr				N/A		Inspection
B-12	11-May		X		N/A		Inspection, Grease, scrape, and exercise tide gate A and B
B-12	6-Jun	X			N/A		Inspection, Removed debris and cleared blockge from diversion chamber, and regulator
B-12	25-Jul				N/A		Inspection
B-12	30-Aug				N/A		Inspection
B-12	28-Sep		X		N/A		Inspection , Grease, scrape, and exercise tide gates A and B
B-12	30-Oct				N/A		Inspection
B-12	16-Nov				N/A		Inspection
B-12	26-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-13	25-Jan		N/A	N/A			Inspection
B-13	7-Feb	X	N/A	N/A			Remove debris from diversion chamber
B-13	21-Mar		N/A	N/A			Inspection
B-13	4-Apr		N/A	N/A			Inspection
B-13	13-Apr	X	N/A	N/A			Removed debris and grit from regulator
B-13	11-May	X	N/A	N/A			Inspection, Removed debris and grit from regulator
B-13	6-Jun		N/A	N/A			Inspection
B-13	25-Jul		N/A	N/A			Inspection
B-13	30-Aug		N/A	N/A			Inspection
B-13	28-Sep		N/A	N/A			Inspection
B-13	30-Oct		N/A	N/A			Inspection
B-13	16-Nov	X	N/A	N/A			Inspection Removed grit and debris from diversion chamber, and regulator
B-13	26-Dec	X	N/A	N/A			Removed grit and debris from diversion chamber, and regulator

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
B-14	25-Jan				N/A		Inspection
B-14	7-Feb				N/A		Inspection
B-14	21-Mar		X		N/A		Inspection, Grease, scrape, and exercise tide gate A.
B-14	4-Apr				N/A		Inspection
B-14	11-May				N/A		Inspection
B-14	6-Jun				N/A		Inspection
B-14	25-Jul				N/A		Inspection
B-14	30-Aug				N/A		Inspection
B-14	28-Sep				N/A		Inspection
B-14	30-Oct				N/A		Inspection
B-14	16-Nov				N/A		Inspection
B-14	22-Nov		X		N/A		Grease, scrape, and exercise tide gates
B-14	26-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-15	25-Jan		N/A	N/A			Inspection
B-15	7-Feb		N/A	N/A			Inspection-
B-15	21-Mar		N/A	N/A			Inspection
B-15	4-Apr		N/A	N/A			Inspection
B-15	11-May		N/A	N/A			Inspection
B-15	6-Jun		N/A	N/A			Inspection
B-15	25-Jul	X	N/A	N/A			Inspection, Remove debris from diversion chamber, and regulator
B-15	31-Aug		N/A	N/A			Inspection
B-15	27-Sep		N/A	N/A			Inspection
B-15	30-Oct		N/A	N/A			Inspection
B-15	28-Nov		N/A	N/A			Inspection
B-15	26-Dec		N/A	N/A			Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-16	25-Jan			X	N/A		Inspection, Cleared blockage with flusher truck
B-16	26-Jan			X	N/A		Imspection, Remove debris from diversion chamber
B-16	7-Feb				N/A		Inspection
B-16	21-Mar				N/A		Inspection
B-16	4-Apr				N/A		Inspection
B-16	30-Apr			X	N/A		Removed debris from sluice gate
B-16	11-May				N/A		Inspection
B-16	6-Jun				N/A		Inspection
B-16	25-Jul				N/A		Inspection
B-16	31-Aug				N/A		Inspection
B-16	27-Sep				N/A		Inspection
B-16	30-Oct				N/A		Inspection
B-16	28-Nov				N/A		Inspection
B-16	26-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
B-17	26-Jan				N/A		Inspection
B-17	7-Feb				N/A		Inspection
B-17	28-Mar			X	N/A		Inspection, Removed grit and debris from diversion chamber
B-17	4-Apr				N/A		Inspection
B-17	11-May				N/A		Inspection
B-17	6-Jun				N/A		Inspection
B-17	25-Jul				N/A		Inspection
B-17	31-Aug				N/A		Inspection
B-17	27-Sep				N/A		Inspection
B-17	30-Oct				N/A		Inspection
B-17	28-Nov				N/A		Inspection
B-17	20-Dec		X		N/A		Inspection , Grease, scrape, and exercise tide gate A.

NEWTOWN CREEK-MANHATTAN REGULATOR LOCATIONS- 2023							
TG-01	REG PM	REG CM	TG PM	TG CM	EBPP	CL RUN	COMMENTS
TG-1	25-Jan		x				
TG-1	21-Feb		x				
TG-1	25-Mar		x				
TG-1	27-Apr		x				
TG-1	25-May		x				
TG-2	26-May	x	x				flushed & vactored
TG-2	29-May	x	x				flushed & vactored
TG-1	24-Jun		x				
TG-1	18-Jul		x				
TG-1	30-Aug		x				
TG-1	27-Sep		x				
TG-1	3-Oct		x				
TG-1	16-Nov		x				
TG-1	23-Dec		x				
TG-2	25-Jan		x				
TG-2	21-Feb		x				
TG-2	25-Mar		x				
TG-2	27-Apr		x				
TG-2	25-May		x				
TG-2	24-Jun		x				
TG-2	18-Jul		x				
TG-2	30-Aug		x				
TG-2	27-Sep		x				
TG-2	3-Oct		x				
TG-2	16-Nov		x				
TG-2	23-Dec		x				
NCM-1	25-Jan		x				
NCM-1	21-Feb		x				
NCM-1	25-Mar		x				
NCM-1	27-Apr		x				
NCM-1	25-May		x				
NCM-1	24-Jun		x				

NCM-1	18-Jul		x				
NCM-1	30-Aug		x				
NCM-1	27-Sep		x				
NCM-1	3-Oct		x				
NCM-1	16-Nov		x				
NCM-1	23-Dec		x				
NCM-2	25-Jan		x				
NCM-2	21-Feb		x	x		x	removed debris closed tg
NCM-2	25-Mar		x				
NCM-2	27-Apr		x				
NCM-2	25-May		x				
NCM-2	24-Jun		x				
NCM-2	18-Jul		x	x			telemetry alarm
NCM-2	30-Aug		x				
NCM-2	27-Sep		x				
NCM-2	3-Oct		x				
NCM-2	16-Nov		x				
NCM-2	23-Dec		x				
NCM-3	25-Jan		x				
NCM-3	21-Feb		x				
NCM-3	25-Mar		x				
NCM-3	27-Apr		x				
NCM-3	25-May		x				
NCM-3	24-Jun		x				
NCM-3	18-Jul		x				
NCM-3	30-Aug		x				
NCM-3	27-Sep		x				
NCM-3	3-Oct		x				
NCM-3	16-Nov		x				
NCM-3	23-Dec		x				
NCM-4	25-Jan		x				
NCM-4	21-Feb		x				
NCM-4	25-Mar		x				
NCM-4	27-Apr		x				

NCM-4	25-May		x				
NCM-4	24-Jun		x				
NCM-4	18-Jul		x				
NCM-4	30-Aug		x				
NCM-4	27-Sep	x					removed debris
NCM-4	3-Oct		x				
NCM-4	16-Nov		x				
NCM-4	23-Dec		x				
NCM-5	25-Jan		x				
NCM-5	21-Feb		x				
NCM-5	25-Mar		x				
NCM-5	27-Apr		x				
NCM-5	26-May		x				
NCM-5	24-Jun		x				
NCM-5	18-Jul		x				
NCM-5	30-Aug		x				
NCM-5	27-Sep		x				
NCM-5	3-Oct		x				
NCM-5	16-Nov		x				
NCM-5	23-Dec		x				
NCM-6	25-Jan		x				
NCM-6	21-Feb		x				
NCM-6	25-Mar		x				
NCM-6	27-Apr		x				
NCM-6	26-May		x				
NCM-6	24-Jun		x				
NCM-6	18-Jul		x				
NCM-6	30-Aug	x	x				cleaned debris
NCM-6	27-Sep		x				
NCM-6	3-Oct		x				
NCM-6	16-Nov		x				
NCM-6	23-Dec		x				
NCM-7	25-Jan		x				
NCM-7	21-Feb		x				

NCM-7	25-Mar		x				
NCM-7	27-Apr		x				
NCM-7	26-May		x				
NCM-7	24-Jun		x				
NCM-7	18-Jul		x				
NCM-7	30-Aug		x				
NCM-7	27-Sep		x				
NCM-7	3-Oct		x				
NCM-7	16-Nov		x				
NCM-7	23-Dec		x				
NCM-8	25-Jan		x				
NCM-8	21-Feb		x	x		x	removed debris closed tg
NCM-8	21-Feb		x				
NCM-8	25-Mar		x				
NCM-8	27-Apr		x				
NCM-8	26-May		x				
NCM-8	24-Jun		x				
NCM-8	14-Jul	x	x				flushed & vactored
NCM-8	18-Jul		x				
NCM-8	21-Jul	x	x				flushed & vactored
NCM-8	15-Aug	x	x				flushed & vactored
NCM-8	23-Aug	x	x				flushed & vactored
NCM-8	30-Aug		x				
NCM-8	27-Sep		x				
NCM-8	3-Oct		x				
NCM-8	16-Nov		x				
NCM-8	5-Dec		x				
NCM-9	25-Jan		x				
NCM-9	21-Feb		x				
NCM-9	25-Mar		x				
NCM-9	27-Apr		x				
NCM-9	26-May		x				
NCM-9	21-Jul	x	x				flushed & vactored
NCM-9	29-Jun		x				

NCM-9	18-Jul		x				
NCM-9	30-Aug		x				
NCM-9	27-Sep		x				
NCM-9	3-Oct		x				
NCM-9	16-Nov		x				
NCM-9	5-Dec		x				
NCM-10	30-Jan		x				
NCM-10	26-Feb		x				
NCM-10	25-Mar		x				
NCM-10	27-Apr						
NCM-10	26-May		x				
NCM-10	25-Jun		x				
NCM-10	18-Jul		x				
NCM-10	31-Aug		x				
NCM-10	27-Sep		x				
NCM-10	3-Oct		x				
NCM-10	16-Nov		x				
NCM-10	5-Dec		x				
NCM-11	30-Jan		x				
NCM-11	26-Feb		x				
NCM-11	25-Mar		x				
NCM-11	27-Apr		x				
NCM-11	26-May		x				
NCM-11	24-Jun		x				
NCM-11	18-Jul		x				
NCM-11	30-Aug		x				
NCM-11	27-Sep		x				
NCM-11	3-Oct		x				
NCM-11	16-Nov		x				
NCM-11	5-Dec		x				
NCM-12	25-Jan		x				
NCM-12	26-Feb		x				
NCM-12	25-Mar		x				
NCM-12	27-Apr		x				

NCM-12	26-May		x				
NCM-12	25-Jun		x				
NCM-12	18-Jul		x				
NCM-12	31-Aug		x				
NCM-12	27-Sep		x				
NCM-12	3-Oct		x				
NCM-12	16-Nov		x				
NCM-12	12-Dec		x				
NCM-13	25-Jan		x				
NCM-13	26-Feb		x				
NCM-13	26-Mar		x				
NCM-13	27-Apr		x	x		x	removed debris closed open tg
NCM-13	26-May		x				
NCM-13	25-Jun		x				
NCM-13	25-Jul		x				
NCM-13	12-Aug		x	x		x	closed open tg
NCM-13	31-Aug		x	x		x	closed open tg
NCM-13	6-Sep		x	x		x	closed open tg
NCM-13	11-Sep		x	x		x	closed open tg
NCM-13	12-Sep		x	x		x	closed open tg
NCM-13	19-Sep		x	x		x	closed open tg
NCM-13	26-Sep		x				
NCM-13	1-Oct		x	x		x	closed open tg
NCM-13	3-Oct		x				
NCM-13	8-Oct		x				
NCM-13	30-Oct		x	x		x	closed open tg
NCM-13	16-Nov		x				
NCM-13	19-Nov		x				
NCM-13	4-Dec		x				
NCM-13	5-Dec		x				
NCM-13	12-Dec		x	x		x	closed open tg
NCM-13	19-Dec		x				
NCM-16	25-Jan		x				
NCM-16	26-Feb		x				

NCM-16	26-Mar		x				
NCM-16	27-Apr		x				
NCM-16	26-May		x				
NCM-16	25-Jun		x				
NCM-16	25-Jul		x				
NCM-16	31-Aug		x				
NCM-16	26-Sep		x				
NCM-16	3-Oct		x				
NCM-16	19-Nov		x				
NCM-16	22-Nov	x	x	x			vactored flushed
NCM-16	5-Dec		x				
NCM-17	26-Jan		x				
NCM-17	26-Feb		x				
NCM-17	26-Mar		x				
NCM-17	27-Apr		x				
NCM-17	25-May		x				
NCM-17	25-Jun		x				
NCM-17	25-Jul		x				
NCM-17	31-Aug		x				
NCM-17	26-Sep	x	x				removed debris
NCM-17	3-Oct		x				
NCM-17	19-Nov		x				
NCM-17	5-Dec		x				
NCM-17	12-Dec		X				
NCM-18	26-Jan		x				
NCM-18	26-Feb		x				
NCM-18	26-Mar		x				
NCM-18	27-Apr		x				
NCM-18	25-May		x				
NCM-18	25-Jun		x				
NCM-18	25-Jul		x				
NCM-18	31-Aug		x				
NCM-18	26-Sep		x				
NCM-18	3-Oct		x				

NCM-18	19-Nov		x				
NCM-18	5-Dec		x				
NCM-18	12-Dec		x				
NCM-19	3-Jan	x	x				flushed & vactored
NCM-19	3-Jan	x	x				flushed & vactored- closed tg
NCM-19	4-Jan		x	x			cleaned, exercised,lubricated,adjusted
NCM-19	10-Jan	x	x				flushed & vactored- closed tg
NCM-19	26-Feb		x				
NCM-19	27-Feb	x	x				flushed & vactored
NCM-19	26-Feb		x				
NCM-19	26-Mar		x				
NCM-19	27-Apr		x				
NCM-19	28-May		x				
NCM-19	25-Jun		x				
NCM-19	25-Jul		x				
NCM-19	31-Aug		x				
NCM-19	6-Sep		x	x			removed debris
NCM-19	12-Sep		x				telemetry alarm
NCM-19	27-Sep	x	x			x	removed debris closed open tg
NCM-19	27-Sep	x	x				removed debris
NCM-19	1-Oct	x	x			x	removed debris closed open tg
NCM-19	3-Oct		x				
NCM-19	30-Oct	x	x			x	removed debris closed open tg
NCM-19	19-Nov		x				
NCM-19	20-Nov	x	x	x			vactored flushed
NCM-19	4-Dec	x	x			x	removed debris closed open tg
NCM-19	5-Dec		x				
NCM-19	12-Dec	x	x			x	removed debris closed open tg
NCM-19	19-Dec		x				
NCM-20	26-Jan		x				
NCM-20	26-Feb		x				
NCM-20	26-Mar		x				
NCM-20	12-Apr		x				
NCM-20	28-May		x				

NCM-20	25-Jun		x				
NCM-20	25-Jul		x				
NCM-20	31-Aug		x				
NCM-20	27-Sep		x				
NCM-20	3-Oct		x				
NCM-20	19-Nov		x				
NCM-20	5-Dec		x				
NCM-21	27-Jan		x				
NCM-21	26-Feb		x				
NCM-21	26-Mar		x				
NCM-21	12-Apr		x				
NCM-21	28-May		x				
NCM-21	25-Jun		x				
NCM-21	25-Jul		x				
NCM-21	18-Jul		x	x		x	removed debris from tg
NCM-21	31-Aug		x				
NCM-21	27-Sep		x				
NCM-21	3-Oct		x				
NCM-21	19-Nov		x				
NCM-21	5-Dec		x				
NCM-22	27-Jan		x				
NCM-22	26-Feb		x				
NCM-22	30-Mar		x				
NCM-22	12-Apr		x				
NCM-22	30-May		x				
NCM-22	30-Jun		x				
NCM-22	31-Jul		x				
NCM-22	28-Aug		x				
NCM-22	30-Sep		x				
NCM-22	5-Oct		x				
NCM-22	14-Nov		x				
NCM-22	5-Dec		x				
NCM-23	27-Jan		x				
NCM-23	22-Feb		x				

NCM-23	30-Mar		x				
NCM-23	12-Apr		x				
NCM-23	30-May		x				
NCM-23	30-Jun		x				
NCM-23	31-Jul		x				
NCM-23	28-Aug		x				
NCM-23	30-Sep		x				
NCM-23	5-Oct		x				
NCM-23	14-Nov		x				
NCM-23	25-Dec		x				
NCM-24	27-Jan		x				
NCM-24	22-Feb		x				
NCM-24	30-Mar		x				
NCM-24	12-Apr		x				
NCM-24	30-May		x				
NCM-24	30-Jun		x				
NCM-24	31-Jul		x				
NCM-24	28-Aug		x				
NCM-24	27-Sep		x				
NCM-24	5-Oct		x				
NCM-24	14-Nov		x				
NCM-24	25-Dec		x				
NCM-25	27-Jan		x				
NCM-25	22-Feb		x				
NCM-25	30-Mar		x				
NCM-25	12-Apr		x				
NCM-25	30-May		x				
NCM-25	30-Jun		x				
NCM-25	31-Jul		x				
NCM-25	28-Aug		x				
NCM-25	27-Sep		x				
NCM-25	5-Oct		x				no access
NCM-25	14-Nov		x				
NCM-25	25-Dec		x				

NCM-26	30-Jan		x				
NCM-26	22-Feb		x				
NCM-26	30-Mar		x				
NCM-26	12-Apr		x				
NCM-26	30-May		x				
NCM-26	30-Jun	x	x				partial blockage cleared debris
NCM-26	31-Jul		x				
NCM-26	28-Aug		x				
NCM-26	27-Sep		x				
NCM-26	5-Oct		x				
NCM-26	14-Nov		x				no access
NCM-26	25-Dec		x				
NCM-27	30-Jan		x				
NCM-27	22-Feb		x				
NCM-27	30-Mar		x				
NCM-27	12-Apr		x				
NCM-27	30-May		x				
NCM-27	30-Jun		x				
NCM-27	31-Jul		x				
NCM-27	28-Aug		x				
NCM-27	27-Sep		x				
NCM-27	5-Oct		x				no access
NCM-27	14-Nov		x				no access
NCM-27	25-Dec		x				no access
NCM-28	30-Jan		x				
NCM-28	22-Feb		x				
NCM-28	30-Mar		x				
NCM-28	12-Apr		x				
NCM-28	30-May		x				
NCM-28	30-Jun		x				
NCM-28	31-Jul		x				
NCM-28	28-Aug		x				
NCM-28	27-Sep		x				
NCM-28	5-Oct		x				no access

NCM-28	14-Nov		x				no access
NCM-28	25-Dec		x				no access
NCM-29	30-Jan		x				
NCM-29	22-Feb		x				
NCM-29	30-Mar		x				
NCM-29	12-Apr		x				
NCM-29	30-May		x				
NCM-29	30-Jun		x				
NCM-29	31-Jul		x				
NCM-29	28-Aug		x				
NCM-29	27-Sep		x				
NCM-29	5-Oct		x				no access
NCM-29	14-Nov		x				no access
NCM-29	23-Dec		x				
NCM-30	30-Jan		x				
NCM-30	22-Feb		x				
NCM-30	30-Mar		x				
NCM-30	12-Apr		x				
NCM-30	30-May		x				
NCM-30	30-Jun		x				
NCM-30	31-Jul		x				
NCM-30	28-Aug		x				
NCM-30	27-Sep		x				
NCM-30	5-Oct		x				no access
NCM-30	14-Nov		x				no access
NCM-30	23-Dec		x				
NCM-31	30-Jan		x				
NCM-31	22-Feb		x				
NCM-31	30-Mar		x				
NCM-31	12-Apr	x	x				partial blockage removed debris
NCM-31	30-May		x				
NCM-31	30-Jun		x				
NCM-31	31-Jul		x				
NCM-31	28-Aug		x				

NCM-31	30-Sep		x				
NCM-31	5-Oct		x				
NCM-31	14-Nov		x				
NCM-31	23-Dec		x				
NCM-32	26-Jan		x				
NCM-32	22-Feb		x				
NCM-32	30-Mar		x				
NCM-32	12-Apr		x				
NCM-32	30-May		x				
NCM-32	30-Jun		x				
NCM-32	31-Jul		x				
NCM-32	28-Aug		x				
NCM-32	30-Sep		x				
NCM-32	5-Oct		x				
NCM-32	14-Nov		x				
NCM-32	23-Dec		x				
NCM-33	26-Jan		x				
NCM-33	22-Feb		x				
NCM-33	30-Mar		x				
NCM-33	12-Apr		x				
NCM-33	30-May		x				
NCM-33	30-Jun		x				
NCM-33	31-Jul		x				
NCM-33	28-Aug		x				
NCM-33	30-Sep		x				
NCM-33	5-Oct		x				
NCM-33	14-Nov		x				
NCM-33	7-Dec		x	x			cleaned, exercised,lubricated,adjusted
NCM-34	26-Jan		x				
NCM-34	22-Feb		x				
NCM-34	30-Mar		x				
NCM-34	12-Apr		x				
NCM-34	30-May		x				
NCM-34	30-Jun		x				

NCM-34	31-Jul		x				
NCM-34	28-Aug		x				
NCM-34	30-Sep		x				
NCM-34	5-Oct		x				
NCM-34	14-Nov		x				
NCM-34	7-Dec		x	x			cleaned, exercised,lubricated,adjusted
NCM-35	26-Jan		x				
NCM-35	22-Feb		x				
NCM-35	30-Mar		x				
NCM-35	12-Apr		x				
NCM-35	30-May		x				
NCM-35	30-Jun		x				
NCM-35	31-Jul		x				
NCM-35	28-Aug		x				
NCM-35	30-Sep		x				
NCM-35	5-Oct		x				
NCM-35	14-Nov		x				
NCM-35	7-Dec	x	x	x			cleaned, exercised,lubricated,adjusted
NCM-36	30-Jan		x				
NCM-36	26-Feb		x				
NCM-36	31-Mar		x				
NCM-36	27-Apr		x				
NCM-36	28-May		x				
NCM-36	25-Jun		x				
NCM-36	31-Jul		x				
NCM-36	28-Aug		x				
NCM-36	30-Sep		x				
NCM-36	19-Oct		x				
NCM-36	11-Nov		x				
NCM-36	7-Dec		x				
NCM-37	24-Jan		x				
NCM-37	26-Feb		x				
NCM-37	26-Mar		x				
NCM-37	27-Apr		x				

NCM-37	28-May		x				
NCM-37	25-Jun		x				
NCM-37	31-Jul		x				
NCM-37	31-Aug		x				
NCM-37	26-Sep		x				
NCM-37	19-Oct		x				
NCM-37	11-Nov		x				
NCM-37	7-Dec		x				
NCM-38	24-Jan		x				
NCM-38	23-Feb		x				
NCM-38	26-Mar		x				
NCM-38	27-Apr		x				
NCM-38	28-May		x				
NCM-38	28-Jun		x				
NCM-38	31-Jul		x				
NCM-38	31-Aug		x				
NCM-38	26-Sep		x				
NCM-38	19-Oct		x				no access
NCM-38	11-Nov		x				
NCM-38	7-Dec	x	x				flushed & vactored
NCM-38A	24-Jan		x				
NCM-38A	23-Feb		x				
NCM-38A	26-Mar		x				
NCM-38A	27-Apr		x				
NCM-38A	28-May		x				
NCM-38A	28-Jun		x				
NCM-38A	31-Jul		x				
NCM-38A	31-Aug		x				
NCM-38A	26-Sep		x				
NCM-38A	19-Oct		x				no access
NCM-38A	11-Nov		x				
NCM-38A	7-Dec		x				
NCM-38B	24-Jan		x				
NCM-38B	23-Feb		x				

NCM-38B	26-Mar	x	x				blockage flushed & vactored
NCM-38B	27-Apr		x				
NCM-38B	28-May		x				
NCM-38B	28-Jun		x				
NCM-38B	31-Jul		x				
NCM-38B	31-Aug		x				
NCM-38B	26-Sep		x				
NCM-38B	19-Oct		x				no access
NCM-38B	11-Nov		x				
NCM-38B	7-Dec		x				
NCM-39	24-Jan		x				
NCM-39	23-Feb		x				
NCM-39	26-Mar		x				
NCM-39	2-Apr	x	x				flushed & vactored
NCM-39	27-Apr		x				
NCM-39	28-May		x				
NCM-39	28-Jun		x				
NCM-39	31-Jul		x				
NCM-39	8-Aug	x	x				blockage flushed & vactored
NCM-39	31-Aug		x				
NCM-39	26-Sep		x				
NCM-39	5-Oct		x				
NCM-39	11-Nov		x				
NCM-39	7-Dec	x	x				flushed & vactored
NCM-39	8-Dec	x	x				flushed & vactored
NCM-39A	24-Jan		n/a	n/a			
NCM-39A	23-Feb		n/a	n/a			
NCM-39A	26-Mar		n/a	n/a			
NCM-39A	27-Apr		n/a	n/a			
NCM-39A	28-May		n/a	n/a			
NCM-39A	28-Jun		n/a	n/a			
NCM-39A	31-Jul		n/a	n/a			
NCM-39A	31-Aug		n/a	n/a			
NCM-39A	26-Sep		n/a	n/a			

NCM-39A	19-Oct		n/a	n/a			no access
NCM-39A	11-Nov		n/a	n/a			
NCM-39A	7-Dec	x	n/a	n/a			flushed & vactored
NCM-39A	8-Dec	x	n/a	n/a			flushed & vactored
NCM-40	24-Jan		x				
NCM-40	23-Feb		x				
NCM-40	30-Mar		x				
NCM-40	27-Apr		x				
NCM-40	27-May		x				
NCM-40	28-Jun		x				
NCM-40	31-Jul		x				
NCM-40	31-Aug		x				
NCM-40	26-Sep		x				
NCM-40	19-Oct		x				
NCM-40	11-Nov		x				
NCM-40	19-Dec		x				
NCM-41	24-Jan		x				
NCM-41	23-Feb		x				
NCM-41	30-Mar		x				
NCM-41	23-Apr		x				
NCM-41	27-May		x				
NCM-41	28-Jun		x				
NCM-41	31-Jul		x				
NCM-41	31-Aug		x				
NCM-41	26-Sep		x				
NCM-41	19-Oct		x				
NCM-41	11-Nov		x				
NCM-41	19-Dec		x				
NCM-41A	24-Jan		x				
NCM-41A	23-Feb		x				
NCM-41A	30-Mar		x				
NCM-41A	23-Apr		x				
NCM-41A	27-May		x				
NCM-41A	28-Jun		x				

NCM-41A	31-Jul		x				
NCM-41A	31-Aug		x				
NCM-41A	26-Sep		x				
NCM-41A	19-Oct		x				
NCM-41A	11-Nov		x				
NCM-41A	19-Dec		x				
NCM-42	24-Jan		x				
NCM-42	23-Feb		x				
NCM-42	4-Mar	x	x				flushed & vactored
NCM-42	30-Mar		x				
NCM-42	30-Mar		x				
NCM-42	30-Mar		x				
NCM-42	23-Apr		x				
NCM-42	27-May		x				
NCM-42	28-Jun		x				
NCM-42	31-Jul		x				
NCM-42	31-Aug		x				
NCM-42	26-Sep		x				
NCM-42	19-Oct		x				
NCM-42	11-Nov		x				
NCM-42	19-Dec		x				
NCM-43	26-Jan		x				
NCM-43	1-Feb	x	x				flushed & vactored
NCM-434	23-Feb		x				
NCM-435	29-Mar		x				
NCM-43	23-Apr		x				
NCM-43	27-May		x				
NCM-43	1-Jun		x	x			cleaned, exercised,lubricated,adjusted
NCM-43	9-Jun		x	x			cleaned, exercised,lubricated,adjusted
NCM-43	28-Jun		x	x			cleaned, exercised,lubricated,adjusted
NCM-43	30-Jul		x				
NCM-43	31-Aug		x				
NCM-43	24-Sep		x				
NCM-43	18-Oct		x				

NCM-43	11-Nov						
NCM-43	19-Dec		x				
NCM-43A	26-Jan		x				
NCM-43A	23-Feb		x				
NCM-43A	29-Mar		x				
NCM-43A	23-Apr		x				
NCM-43A	27-May		x				
NCM-43A	28-Jun		x	x			cleaned, exercised,lubricated,adjusted
NCM-43A	30-Jul		x				
NCM-43A	31-Aug		x				
NCM-43A	24-Sep		x				
NCM-43A	18-Oct		x				
NCM-43A	11-Nov						
NCM-43A	19-Dec		x				
NCM-43B	26-Jan		x				
NCM-43B	23-Feb		x				
NCM-43B	29-Mar		x	x			cleaned, exercised,lubricated,adjusted
NCM-43B	23-Apr		x				
NCM-43B	27-May		x				
NCM-43B	28-Jun		x	x			cleaned, exercised,lubricated,adjusted
NCM-43B	30-Jul		x				
NCM-43B	31-Aug		x				
NCM-43B	24-Sep		x				
NCM-43B	18-Oct		x				
NCM-43B	11-Nov		x				
NCM-43B	19-Dec		x				
NCM-44	26-Jan		x				
NCM-44	23-Feb		x				
NCM-44	29-Mar		x				
NCM-44	23-Apr		x				
NCM-44	27-May		x				
NCM-44	27-Jun		x				
NCM-44	26-Jul		x				
NCM-44	31-Aug		x				

NCM-44	24-Sep		x				
NCM-44	18-Oct		x				
NCM-44	8-Nov		x				
NCM-44	9-Dec		x				
NCM-45	26-Jan		x				
NCM-45	23-Feb		x				
NCM-45	29-Mar	x	x				partial blockage removed debris
NCM-45	23-Apr		x				
NCM-45	27-May		x				
NCM-45	27-Jun		x				
NCM-45	26-Jul		x				
NCM-45	31-Aug		x				
NCM-45	24-Sep		x				
NCM-45	18-Oct		x				
NCM-45	8-Nov		x				
NCM-45	9-Dec		x				
NCM-45A	21-Jan		x				
NCM-45A	23-Feb		x				
NCM-45A	29-Mar		x				
NCM-45A	23-Apr		x				
NCM-45A	27-May		x				
NCM-45A	27-Jun		x				
NCM-45A	26-Jul		x				
NCM-45A	29-Aug		x				
NCM-45A	24-Sep		x				
NCM-45A	18-Oct		x				
NCM-45A	8-Nov		x				
NCM-45A	9-Dec		x				
NCM-46	21-Jan		x				
NCM-46	20-Feb		x				
NCM-46	29-Mar		x				
NCM-46	22-Apr		x				
NCM-46	27-May		x				
NCM-46	27-Jun		x				

NCM-46	26-Jul		x				
NCM-46	29-Aug		x				
NCM-46	24-Sep		x				
NCM-46	18-Oct		x				
NCM-46	8-Nov		x				
NCM-46	9-Dec		x				
NCM-47	21-Jan		x				
NCM-47	20-Feb		x				
NCM-47	29-Mar		x				
NCM-47	22-Apr		x				
NCM-47	27-May		x				
NCM-47	27-Jun		x				
NCM-47	26-Jul		x				
NCM-47	29-Aug		x				
NCM-47	2-Sep		x	x			telemetry alarm
NCM-47	24-Sep		x				
NCM-47	18-Oct		x				
NCM-47	8-Nov		x				
NCM-47	9-Dec		x				
NCM-47A	21-Jan		x				
NCM-47A	20-Feb		x				
NCM-47A	29-Mar		x				
NCM-47A	22-Apr		x				
NCM-47A	27-May		x				
NCM-47A	27-Jun		x				
NCM-47A	26-Jul		x				no access
NCM-47A	29-Aug		x				
NCM-47A	24-Sep		x				
NCM-47A	18-Oct		x				
NCM-47A	8-Nov		x				
NCM-47A	9-Dec		x				
NCM-48	21-Jan		x				
NCM-48	20-Feb		x				
NCM-48	29-Mar		x				

NCM-48	22-Apr		x				
NCM-48	23-May		x				
NCM-48	27-Jun		x				
NCM-48	26-Jul		x				
NCM-48	29-Aug		x				
NCM-48	24-Sep		x				
NCM-48	18-Oct		x				
NCM-48	8-Nov		x				
NCM-48	9-Dec		x				
NCM-48A	21-Jan		x				
NCM-48A	20-Feb		x				
NCM-48A	29-Mar		x				
NCM-48A	22-Apr		x				
NCM-48A	23-May		x				no access
NCM-48A	27-Jun		x				no access
NCM-48A	26-Jul		x				
NCM-48A	29-Aug	x	x				removed debris
NCM-48A	24-Sep		x				
NCM-48A	18-Oct		x				
NCM-48A	8-Nov		x				no access
NCM-48A	19-Dec		x				
NCM-49	21-Jan		n/a				
NCM-49	20-Feb		n/a				
NCM-49	29-Mar		n/a				
NCM-49	22-Apr		n/a				
NCM-49	23-May	x	n/a				removed debris
NCM-49	27-Jun		n/a				
NCM-49	26-Jul		n/a				
NCM-49	29-Aug		n/a				
NCM-49	24-Sep		n/a				
NCM-49	18-Oct		n/a				
NCM-49	8-Nov		n/a				
NCM-49	9-Dec		n/a				
NCM-50	21-Jan		x				

NCM-50	20-Feb		x				
NCM-50	28-Mar		x				
NCM-50	22-Apr		x				
NCM-50	23-May		x				
NCM-50	27-Jun		x				
NCM-50	26-Jul		x				
NCM-50	29-Aug		x				
NCM-50	24-Sep		x				
NCM-50	18-Oct		x	x			telemetry alarm
NCM-50	8-Nov		x				
NCM-50	20-Nov		x	x			telemetry alarm
NCM-50	9-Dec		x				
NCM-51	21-Jan		x				
NCM-51	20-Feb		x				
NCM-51	28-Mar		x				
NCM-51	22-Apr		x				
NCM-51	23-May		x				
NCM-51	27-Jun		x				
NCM-51	26-Jul		x				
NCM-51	29-Aug		x				
NCM-51	23-Sep		x				
NCM-51	18-Oct		x				
NCM-51	8-Nov		x				
NCM-51	9-Dec		x				
NCM-51A	21-Jan		x				
NCM-51A	20-Feb		x				
NCM-51A	28-Mar		x				
NCM-51A	22-Apr		x				
NCM-51A	23-May		x				
NCM-51A	27-Jun		x				
NCM-51A	26-Jul		x				
NCM-51A	29-Aug		x				
NCM-51A	23-Sep		x				
NCM-51A	18-Oct		x				

NCM-51A	8-Nov		x				
NCM-51A	9-Dec		x				
NCM-51B	21-Jan		x				
NCM-51B	20-Feb	x	x			x	removed debris closed open tg
NCM-51B	28-Mar		x				
NCM-51B	22-Apr		x				
NCM-51B	23-May		x				
NCM-51B	27-Jun		x				
NCM-51B	26-Jul		x				
NCM-51B	29-Aug		x				
NCM-51B	23-Sep		x				
NCM-51B	18-Oct		x				
NCM-51B	8-Nov		x				
NCM-51B	9-Dec		x				
NCM-51C	21-Jan		x	x			cleaned, exercised,lubricated,adjusted
NCM-51C	20-Feb	x	x			x	removed debris closed open tg
NCM-51C	28-Mar		x				
NCM-51C	22-Apr		x				
NCM-51C	23-May		x				
NCM-51C	27-Jun		x				
NCM-51C	26-Jul		x				
NCM-51C	29-Aug		x				
NCM-51C	23-Sep		x				
NCM-51C	18-Oct		x				
NCM-51C	8-Nov		x				
NCM-51C	9-Dec		x				

NORTH RIVER REGULATOR LOCATIONS - 2023							
NUMBER	14-Jan	REG CM	TG PM	TG CM	EBPP	CL RUN	COMMENTS
NR-1	14-Jan		n/a	n/a			
NR-1	12-Feb		n/a	n/a			
NR-1	15-Mar		n/a	n/a			
NR-1	28-Apr		n/a	n/a			
NR-1	16-May		n/a	n/a			
NR-1	14-Jun		n/a	n/a			
NR-1	18-Jul		n/a	n/a			
NR-1	17-Aug		n/a	n/a			
NR-1	15-Sep		n/a	n/a			
NR-1	25-Oct		n/a	n/a			
NR-1	6-Nov		n/a	n/a			
NR-1	13-Jan		n/a	n/a			
NR-2	14-Jan		x				
NR-2	12-Feb		x				
NR-2	15-Mar		x				
NR-2	28-Apr		x				
NR-2	16-May		x				
NR-2	14-Jun		x				
NR-2	18-Jul		x				
NR-2	17-Aug		x				
NR-2	15-Sep		x				
NR-2	25-Oct		x				
NR-2	6-Nov		x				
NR-2	13-Dec		x				
NR-3	14-Jan		x				
NR-3	12-Feb		x				
NR-3	13-Feb	x	x				flushed & vactored
NR-3	15-Mar	x	x	x			cleaned, exercised,lubricated,adjusted
NR-3	28-Apr		x				
NR-3	16-May		x				
NR-3	5-Jun		x	x			telemetry alarm
NR-3	14-Jun		x	x			telemetry alarm

NR-3	18-Jul		x				
NR-3	17-Aug		x				
NR-3	15-Sep		x				
NR-3	25-Oct		x			x	closed open tg
NR-3	25-Oct		x				
NR-3	6-Nov		x				
NR-3	23-Nov		x	x			telemetry alarm
NR-3	13-Dec		x				
NR-4	14-Jan		x				
NR-4	12-Feb		x				
NR-4	15-Mar		x	x			cleaned, exercised,lubricated,adjusted
NR-4	28-Apr		x				
NR-4	16-May		x				
NR-3	14-Jun		x				
NR-3	18-Jul		x				
NR-4	17-Aug		x				
NR-4	15-Sep		x				
NR-4	25-Oct		x				
NR-4	6-Nov		x				
NR-4	13-Dec		x				
NR-5	14-Jan		x				
NR-5	12-Feb		x				
NR-5	15-Mar		x				
NR-5	22-Mar	x	x	x			vactored & flushed
NR-5	28-Apr		x				
NR-5	16-May		x				
NR-5	14-Jun		x				
NR-5	18-Jul		x				
NR-5	17-Aug		x				
NR-5	15-Sep		x				
NR-5	25-Oct		x				
NR-5	6-Nov		x				
NR-5	13-Dec		x				
NR-6	14-Jan		x				
NR-6	12-Feb		x				

NR-6	15-Mar		x				
NR-6	17-Mar	x	x				flushed & vactored
NR-6	31-Mar	x	x				flushed & vactored
NR-6	28-Apr		x				
NR-6	16-May		x				
NR-6	14-Jun		x				
NR-6	18-Jul		x				
NR-6	17-Aug		x				
NR-6	15-Sep		x				
NR-6	25-Oct		x				
NR-6	6-Nov		x				
NR-6	13-Dec		x				
NR-7	14-Jan		x				no access
NR-7	30-Jan		x				no access
NR-7	31-Jan		x				
NR-7	12-Feb		x				
NR-7	15-Mar		x	x			cleaned, exercised,lubricated,adjusted
NR-7	28-Apr		x				
NR-7	16-May		x				
NR-7	14-Jun		x				
NR-7	18-Jul		x				
NR-7	17-Aug		x				
NR-7	15-Sep		x				no access
NR-7	26-Sep		x	x			telemetry alarm
NR-7	10-Oct		x	x			telemetry alarm
NR-7	25-Oct		x				no access
NR-7	6-Nov		x				no access
NR-7	13-Dec		x				no access
NR-8	14-Jan		x				no access
NR-8	30-Jan		x				no access
NR-8	31-Jan		x				
NR-8	12-Feb		x				
NR-8	15-Mar		x	x			cleaned db
NR-8	28-Apr		x				
NR-8	16-May		x				

NR-8	14-Jun		x				
NR-8	18-Jul		x				no access
NR-8	17-Aug		x				
NR-8	15-Sep		x				
NR-8	25-Oct		x				no access
NR-8	6-Nov		x				no access
NR-8	13-Dec		x				no access
NR-9	14-Jan		x				
NR-9	20-Feb		x				
NR-9	21-Mar		x				
NR-9	28-Apr		x				
NR-9	16-May		x				
NR-9	14-Jun		x				
NR-9	18-Jul		x				
NR-9	17-Aug		x				
NR-9	15-Sep		x				
NR-9	25-Oct		x				
NR-9	6-Nov		x				
NR-9	13-Dec		x				
NR-10	jan/na		n/a	n/a			
NR-10	feb/na		n/a	n/a			
NR-10	21-Mar		n/a	n/a			
NR-10	28-Apr		n/a	n/a			
NR-10	16-May		n/a	n/a			
NR-10	14-Jun		n/a	n/a			
NR-10	18-Jul		n/a	n/a			
NR-10	17-Aug		n/a	n/a			
NR-10	15-Sep		n/a	n/a			
NR-10	25-Oct		n/a	n/a			
NR-10	6-Nov		n/a	n/a			
NR-10	13-Dec		n/a	n/a			
NR-11	14-Jan		x				
NR-11	20-Feb		x				
NR-11	21-Mar		x				
NR-11	28-Apr		x				

NR-11	16-May		x				
NR-11	14-Jun		x				
NR-11	18-Jul		x				
NR-11	17-Aug		x				
NR-11	15-Sep		x				no access
NR-11	25-Oct		x				
NR-11	6-Nov		x				
NR-11	13-Dec		x				
NR-12	14-Jan		x				
NR-12	12-Feb		x				
NR-12	21-Mar		x				
NR-12	28-Apr		x				
NR-12	16-May		x				
NR-12	14-Jun		x				
NR-12	18-Jul		x				
NR-12	17-Aug		x				
NR-12	15-Sep		x				
NR-12	25-Oct		x				
NR-12	6-Nov		x				
NR-12	13-Dec		x				
NR-13	14-Jan		x				
NR-13	12-Feb		x				
NR-13	21-Mar		x				
NR-13	28-Apr		x				
NR-13	16-May		x				
NR-13	14-Jun		x				
NR-13	18-Jul		x				
NR-13	23-Aug		x				
NR-13	15-Sep		x				
NR-13	25-Oct		x				
NR-13	6-Nov		x				
NR-13	13-Dec		x				
NR-14	14-Jan		x				
NR-14	12-Feb		x				
NR-14	21-Mar		x				

NR-14	28-Apr		x				
NR-14	16-May		x				
NR-14	14-Jun		x				
NR-14	18-Jul		x				
NR-14	23-Aug		x				
NR-14	15-Sep		x				
NR-14	25-Oct		x				
NR-14	6-Nov		x				
NR-14	13-Dec		x				
NR-15	14-Jan		x				
NR-15	12-Feb		x				
NR-15	21-Mar		x				
NR-15	13-Apr		x	x			cleaned, exercised,lubricated,adjusted
NR-15	16-May		x				
NR-15	14-Jun		x				
NR-15	18-Jul		x				
NR-15	23-Aug		x				
NR-15	15-Sep		x				
NR-15	25-Oct		x				
NR-15	6-Nov		x				
NR-15	13-Dec		x				
NR-16	14-Jan		x				
NR-16	12-Feb		x				
NR-16	21-Mar		x				
NR-16	13-Apr		x	x			cleaned, exercised,lubricated,adjusted
NR-16	16-May		x				
NR-16	14-Jun		x				
NR-16	18-Jul		x				
NR-16	19-Aug		x	x			cleaned, exercised,lubricated,adjusted
NR-16	15-Sep		x				
NR-16	26-Oct		x				
NR-16	8-Nov		x				
NR-16	15-Dec		x				
NR-17	15-Jan		n/a	n/a			
NR-17	26-Jan		n/a	n/a			

NR-17	14-Feb		n/a	n/a			
NR-17	23-Mar		n/a	n/a			
NR-17	28-Apr		n/a	n/a			
NR-17	17-May		n/a	n/a			
NR-17	15-Jun	x	n/a	n/a			cleared partial blockage
NR-17	20-Jul		n/a	n/a			
NR-17	19-Aug		n/a	n/a			
NR-17	15-Sep		n/a	n/a			
NR-17	26-Oct		n/a	n/a			
NR-17	8-Nov		n/a	n/a			
NR-17	15-Dec		n/a	n/a			
NR-18	26-Jan		n/a	n/a	x		telemetry alarm
NR-18	14-Feb		n/a	n/a			
NR-18	23-Mar		n/a	n/a			
NR-18	28-Apr		n/a	n/a			
NR-18	17-May		n/a	n/a			
NR-18	14-Jun		n/a	n/a			
NR-18	20-Jul		n/a	n/a			
NR-18	19-Aug		n/a	n/a			
NR-18	15-Sep		n/a	n/a			
NR-18	22-Oct		n/a	n/a			
NR-18	8-Nov		n/a	n/a			
NR-18	15-Dec		n/a	n/a			
NR-19	15-Jan		x				
NR-19	14-Feb		x				
NR-19	23-Mar		x				
NR-19	28-Apr		x				
NR-19	17-May		x				
NR-19	15-Jun		x				
NR-19	20-Jul		x				
NR-19	23-Aug		x				
NR-19	27-Sep		x				
NR-19	23-Oct		x				
NR-19	8-Nov		x				
NR-19	15-Dec		x				

NR-20	15-Jan		n/a	n/a			
NR-20	14-Feb		n/a	n/a			
NR-20	23-Mar		n/a	n/a			
NR-20	28-Apr		n/a	n/a			
NR-20	17-May		n/a	n/a			
NR-20	15-Jun		n/a	n/a			
NR-20	20-Jul		n/a	n/a			
NR-20	19-Aug		n/a	n/a			
NR-20	23-Sep		n/a	n/a			
NR-20	22-Oct		n/a	n/a			
NR-20	8-Nov		n/a	n/a			
NR-20	15-Dec		n/a	n/a			
NR-21	15-Jan		n/a	n/a			
NR-21	14-Feb		n/a	n/a			
NR-21	23-Mar		n/a	n/a			
NR-21	28-Apr		n/a	n/a			
NR-21	17-May		n/a	n/a			
NR-21	14-Jun		n/a	n/a			
NR-21	20-Jul		n/a	n/a			
NR-21	19-Aug		n/a	n/a			
NR-21	15-Sep		n/a	n/a			
NR-21	22-Oct		n/a	n/a			
NR-21	8-Nov		n/a	n/a			
NR-21	15-Dec		n/a	n/a			
NR-21A	15-Jan		n/a	n/a			
NR-21A	14-Feb		n/a	n/a			
NR-21A	23-Mar		n/a	n/a			
NR-21A	28-Apr		n/a	n/a			
NR-21A	17-May		n/a	n/a			
NR-21A	14-Jun		n/a	n/a			
NR-21A	20-Jul		n/a	n/a			
NR-21A	19-Aug		n/a	n/a			
NR-21A	15-Sep		n/a	n/a			
NR-21A	22-Oct		n/a	n/a			
NR-21A	8-Nov		n/a	n/a			

NR-21A	15-Dec		n/a	n/a			
NR-21B	15-Jan		n/a	n/a			
NR-21B	14-Feb		n/a	n/a			
NR-21B	23-Mar		n/a	n/a			
NR-21B	28-Apr		n/a	n/a			
NR-21B	17-May		n/a	n/a			
NR-21B	14-Jun		n/a	n/a			
NR-21B	20-Jul		n/a	n/a			
NR-21B	19-Aug		n/a	n/a			
NR-21B	15-Sep		n/a	n/a			
NR-21B	22-Oct		n/a	n/a			
NR-21B	8-Nov		n/a	n/a			
NR-21B	15-Dec		n/a	n/a			
NR-22	15-Jan		n/a	n/a			
NR-22	14-Feb		n/a	n/a			
NR-22	23-Mar		n/a	n/a			
NR-22	28-Apr		n/a	n/a			
NR-22	17-May		n/a	n/a			
NR-22	14-Jun		n/a	n/a			
NR-22	20-Jul		n/a	n/a			
NR-22	19-Aug		n/a	n/a			
NR-22	15-Sep		n/a	n/a			
NR-22	22-Oct		n/a	n/a			
NR-22	8-Nov		n/a	n/a			
NR-22	15-Dec		n/a	n/a			
NR-22A	15-Jan		x				
NR-22A	14-Feb		x				
NR-22A	23-Mar		x				
NR-22A	28-Apr		x				
NR-22A	17-May		x				
NR-22A	14-Jun		x				
NR-22A	20-Jul		x				
NR-22A	19-Aug		x				
NR-22A	16-Sep		x				
NR-22A	22-Oct		x				

NR-22A	8-Nov		x				
NR-22A	15-Dec		x				
NR-23	15-Jan		x				
NR-23	14-Feb		x				
NR-23	23-Mar		x				
NR-23	28-Apr		x				
NR-23	17-May		x				
NR-23	14-Jun		x				
NR-23	20-Jul		x				
NR-23	19-Aug		x				
NR-23	16-Sep		x				
NR-23	22-Oct		x				
NR-23	8-Nov		x				
NR-23	15-Dec		x				
NR-24	15-Jan		n/a	n/a			
NR-24	14-Feb		n/a	n/a			
NR-24	23-Mar		n/a	n/a			
NR-24	28-Apr		n/a	n/a			
NR-24	17-May		n/a	n/a			
NR-24	15-Jun		n/a	n/a			
NR-24	20-Jul		n/a	n/a			
NR-24	19-Aug		n/a	n/a			
NR-24	16-Sep		n/a	n/a			
NR-24	22-Oct		n/a	n/a			
NR-24	8-Nov		n/a	n/a			
NR-24	15-Dec		n/a	n/a			
NR-25	15-Jan		n/a	n/a			
NR-25	14-Feb		n/a	n/a			
NR-25	23-Mar		n/a	n/a			
NR-25	28-Apr		n/a	n/a			
NR-25	17-May		n/a	n/a			
NR-25	15-Jun		n/a	n/a			
NR-25	20-Jul		n/a	n/a			
NR-25	19-Aug		n/a	n/a			
NR-25	16-Sep		n/a	n/a			

NR-25	22-Oct		n/a	n/a			
NR-25	12-Nov		n/a	n/a			
NR-25	15-Dec		n/a	n/a			
NR-26	15-Jan		n/a	n/a			
NR-26	14-Feb		n/a	n/a			
NR-26	23-Mar		n/a	n/a			
NR-26	28-Apr		n/a	n/a			
NR-26	17-May		n/a	n/a			
NR-26	15-Jun		n/a	n/a			
NR-26	20-Jul		n/a	n/a			
NR-26	23-Aug		n/a	n/a			
NR-26	16-Sep		n/a	n/a			
NR-26	22-Oct		n/a	n/a			
NR-26	12-Nov		n/a	n/a			
NR-26	15-Dec		n/a	n/a			
NR-26A	15-Jan		x				
NR-26A	14-Feb		x				
NR-26A	23-Mar		x				
NR-26A	28-Apr		x				
NR-26A	17-May		x				
NR-26A	15-Jun		x				
NR-26A	20-Jul		x				
NR-26A	23-Aug		x				
NR-26A	16-Sep		x				
NR-26A	22-Oct		x				
NR-26A	12-Nov		x				
NR-26A	15-Dec		x				
NR-27	15-Jan		n/a	n/a			
NR-27	17-Feb		n/a	n/a			
NR-27	23-Mar		n/a	n/a			
NR-27	28-Apr		n/a	n/a			
NR-27	21-May		n/a	n/a			
NR-27	15-Jun		n/a	n/a			
NR-27	20-Jul		n/a	n/a			
NR-27	23-Aug		n/a	n/a			

NR-27	16-Sep		n/a	n/a			
NR-27	22-Oct		n/a	n/a			
NR-27	12-Nov		n/a	n/a			
NR-27	16-Dec		n/a	n/a			
NR-28	16-Jan		n/a	n/a			
NR-28	17-Feb		n/a	n/a			
NR-28	28-Mar		n/a	n/a			
NR-28	28-Apr		n/a	n/a			
NR-28	21-May		n/a	n/a			
NR-28	15-Jun		n/a	n/a			
NR-28	23-Jul		n/a	n/a			
NR-28	23-Aug		n/a	n/a			
NR-28	16-Sep		n/a	n/a			
NR-28	22-Oct		n/a	n/a			
NR-28	12-Nov		n/a	n/a			
NR-28	16-Dec		n/a	n/a			
NR-29A	16-Jan		n/a	n/a			
NR-29A	17-Feb		n/a	n/a			
NR-29A	28-Mar		n/a	n/a			
NR-29A	28-Apr		n/a	n/a			
NR-29A	21-May		n/a	n/a			
NR-29A	15-Jun		n/a	n/a			
NR-29A	23-Jul		n/a	n/a			
NR-29A	23-Aug		n/a	n/a			
NR-29A	16-Sep		n/a	n/a			
NR-29A	22-Oct		n/a	n/a			
NR-29A	12-Nov		n/a	n/a			
NR-29A	16-Dec		n/a	n/a			
NR-29	16-Jan		n/a	n/a			
NR-29	17-Feb		n/a	n/a			
NR-29	28-Mar		n/a	n/a			
NR-29	28-Apr		n/a	n/a			
NR-29	21-May		n/a	n/a			
NR-29	15-Jun		n/a	n/a			
NR-29	23-Jul		n/a	n/a			

NR-29	23-Aug		n/a	n/a			
NR-29	16-Sep		n/a	n/a			
NR-29	22-Oct		n/a	n/a			
NR-29	12-Nov		n/a	n/a			
NR-29	16-Dec		n/a	n/a			
NR-30	16-Jan		x				
NR-30	17-Feb		x				
NR-30	28-Mar		x	x			cleaned, exercised,lubricated,adjusted
NR-30	28-Apr		x				
NR-30	21-May		x				
NR-30	15-Jun		x				
NR-30	23-Jul		x				
NR-30	23-Aug		x				
NR-30	16-Sep		x				
NR-30	22-Oct		x				
NR-30	23-Oct		x	x			cleaned, exercised,lubricated,adjusted
NR-30	12-Nov		x				
NR-30	16-Dec		x				
NR-31	16-Jan		x				
NR-31	17-Feb		x				
NR-31	18-Mar		x				
NR-31	8-Apr		x				
NR-31	21-May		x				
NR-31	15-Jun		x				
NR-31	23-Jul		x				
NR-31	23-Aug		x				
NR-31	16-Sep		x				
NR-31	23-Oct		x	x			cleaned, exercised,lubricated,adjusted
NR-31	12-Nov		x				
NR-31	16-Dec		x				
NR-32	16-Jan		x				
NR-32	17-Feb		x				
NR-32	18-Mar		x				
NR-32	29-Apr		x				
NR-32	21-May		x				

NR-32	15-Jun		x				
NR-32	23-Jul		x				
NR-32	26-Aug		x				
NR-32	16-Sep		x				
NR-32	23-Oct		x	x			cleaned, exercised,lubricated,adjusted
NR-32	12-Nov		x				
NR-32	16-Dec		x				
NR-33	16-Jan		n/a	n/a			
NR-33	17-Feb		n/a	n/a			
NR-33	18-Mar		n/a	n/a			
NR-33	29-Apr		n/a	n/a			
NR-33	7-May		n/a	n/a			
NR-33	6-May		n/a	n/a	x		telemetry alarm
NR-33	15-Jun		n/a	n/a			
NR-33	23-Jul	x	n/a	n/a			no access
NR-33	24-Jul		n/a	n/a			
NR-33	26-Aug		n/a	n/a			
NR-33	16-Sep		n/a	n/a			
NR-33	23-Oct		n/a	n/a			
NR-33	12-Nov		n/a	n/a			
NR-33	16-Dec		n/a	n/a			
NR-34	16-Jan		x				
NR-34	17-Feb		x				
NR-34	18-Mar		x				
NR-34	29-Apr		x				
NR-34	21-May		x				
NR-34	15-Jun		x				
NR-34	23-Jul		x				
NR-34	26-Aug		x				
NR-34	16-Sep		x				
NR-34	23-Oct		x				
NR-34	12-Nov		x				
NR-34	16-Dec		x				
NR-35	16-Jan		x				
NR-35	17-Feb		x				

NR-35	18-Mar		x				
NR-35	29-Apr		x				
NR-35	21-May		x				
NR-35	31-May		x	x			cleaned, exercised,lubricated,adjusted
NR-35	15-Jun		x				
NR-35	23-Jul		x				
NR-35	26-Aug		x				
NR-35	16-Sep		x				
NR-35	23-Oct		x				
NR-35	12-Nov		x				
NR-35	16-Dec		x				
NR-36	16-Jan		x				
NR-36	17-Feb		x				
NR-36	18-Mar		x				
NR-36	29-Apr		x				
NR-36	21-May		x				
NR-36	15-Jun		x				
NR-36	12-Aug	x	x				blockage flushed & vactored
NR-36	23-Jul		x				
NR-36	26-Aug		x				
NR-36	16-Sep		x				
NR-36	23-Oct		x	x			cleaned, exercised,lubricated,adjusted
NR-36	24-Oct	x	x				blockage flushed & vactored
NR-36	15-Nov		x				
NR-36	16-Dec	x	x				blockage flushed & vactored
NR-36	16-Dec		x				
NR-37	16-Jan		x				
NR-37	17-Feb		x				
NR-37	18-Mar		x				
NR-37	13-Apr		x	x			cleaned, exercised,lubricated,adjusted
NR-37	29-Apr		x				
NR-37	21-May		x				
NR-37	15-Jun		x				
NR-37	23-Jul		x				
NR-37	26-Aug		x				

NR-37	16-Sep		x				
NR-37	26-Oct		x				
NR-37	15-Nov		x				
NR-37	16-Dec	x	x				blockage flushed & vactored
NR-38	16-Jan		x				
NR-38	17-Feb		x				
NR-38	18-Mar		x				
NR-38	29-Apr		x				
NR-38	21-May		x				
NR-38	15-Jun		x				
NR-38	23-Jul		x				
NR-38	26-Aug		x				
NR-38	16-Sep		x				
NR-38	26-Oct		x				
NR-38	15-Nov		x				
NR-38	16-Dec		x				
NR-39	16-Jan		x				
NR-39	18-Feb		x				
NR-39	18-Mar		x				
NR-39	29-Apr		x				
NR-39	21-May		x				
NR-39	15-Jun		x				
NR-39	24-Jul		x				
NR-39	26-Aug		x				
NR-39	16-Sep		x				
NR-39	26-Oct		x				
NR-39	15-Nov		x				
NR-39	16-Dec		x				
NR-40	16-Jan		x				
NR-40	18-Feb		x				
NR-40	18-Mar		x				
NR-40	13-Apr		x	x			cleaned, exercised,lubricated,adjusted
NR-40	21-May		x				
NR-40	15-Jun		x				
NR-40	24-Jul		x				

NR-40	26-Aug		x				
NR-40	22-Sep		x				
NR-40	26-Oct		x				
NR-40	15-Nov		x				
NR-40	16-Dec		x				
NR-41	16-Jan		x				
NR-41	18-Feb		x				
NR-41	18-Mar		x				
NR-41	29-Apr		x				
NR-41	23-May		x				
NR-41	15-Jun		x				
NR-41	24-Jul		x				
NR-41	26-Aug		x				
NR-41	22-Sep		x				
NR-41	26-Oct		x				
NR-41	15-Nov		x				
NR-41	16-Dec		x				
NR-42	18-Jan		x				
NR-42	16-Feb	x	x	x			cleaned, exercised,lubricated,adjusted
NR-42	18-Feb		x				
NR-42	18-Mar		x				
NR-42	29-Apr		x				
NR-42	23-May		x				
NR-42	15-Jun		x				
NR-42	24-Jul		x				
NR-42	26-Aug		x				
NR-42	22-Sep		x				
NR-42	26-Oct		x				
NR-42	15-Nov		x				
NR-42	16-Dec		x				
NR-43	18-Jan		x				
NR-43	18-Feb		x				
NR-43	19-Mar		x				
NR-43	29-Apr		x				
NR-43	23-May		x				

NR-43	15-Jun		x				
NR-43	24-Jul		x				
NR-43	26-Aug		x				
NR-43	22-Sep		x				
NR-43	26-Oct		x				
NR-43	15-Nov		x				
NR-43	12-Dec		x				
NR-44	18-Jan		x				
NR-44	18-Feb		x				
NR-44	19-Mar		x				
NR-44	29-Apr		x				
NR-44	23-May		x				
NR-44	15-Jun		x				
NR-44	24-Jul		x				
NR-44	27-Jul		x	x			cleaned, exercised,lubricated,adjusted
NR-44	26-Aug		x				
NR-44	22-Sep		x				
NR-44	27-Oct		x				
NR-44	15-Nov		x				
NR-44	12-Dec		x				
NR-45	18-Jan		x				
NR-45	16-Feb		x	x			cleaned, exercised,lubricated,adjusted
NR-45	18-Feb		x				
NR-45	19-Mar		x				
NR-45	29-Apr		x				
NR-45	23-May		x				
NR-45	15-Jun		x				
NR-45	24-Jul		x				
NR-45	26-Aug		x				
NR-45	22-Sep		x				
NR-45	27-Oct		x				
NR-45	15-Nov		x				
NR-45	12-Dec		x				
NR-46	18-Jan		x				
NR-46	19-Feb		x				

NR-46	19-Mar		x				
NR-46	29-Apr		x				
NR-46	23-May		x				
NR-46	22-Jun		x				
NR-46	24-Jul		x				
NR-46	26-Aug		x				
NR-46	22-Sep		x				
NR-46	27-Oct		x				
NR-46	15-Nov		x				
NR-46	12-Dec		x				
NR-47	18-Jan		x				
NR-47	19-Feb		x				
NR-47	19-Mar		x				
NR-47	29-Apr		x				
NR-47	23-May		x				
NR-47	22-Jun		x				
NR-47	24-Jul		x				
NR-47	27-Aug		x				
NR-47	22-Sep		x				
NR-47	27-Oct		x				
NR-47	15-Nov		x				
NR-47	12-Dec		x				
NR-48	18-Jan		x				
NR-48	19-Feb		x				
NR-48	19-Mar		x				
NR-48	29-Apr		x				
NR-48	23-May		x				
NR-48	22-Jun		x				
NR-48	24-Jul		x				
NR-48	27-Aug		x				
NR-48	22-Sep		x				
NR-48	27-Oct		x				
NR-48	15-Nov		x				
NR-48	12-Dec		x				
NR-49	18-Jan		x				

NR-49	19-Feb		x				
NR-49	19-Mar		x				
NR-49	29-Apr		x				
NR-49	23-May		x				
NR-49	22-Jun		x				
NR-49	25-Jul		x				
NR-49	27-Aug		x				
NR-49	22-Sep		x				
NR-49	27-Oct		x				
NR-49	15-Nov		x				
NR-49	12-Dec		x				
NR-50	18-Jan		x				
NR-50	19-Feb		x				
NR-50	19-Mar		x				
NR-50	29-Apr		x				
NR-50	23-May		x				
NR-50	22-Jun		x				
NR-50	25-Jul		x				
NR-50	27-Aug		x				
NR-50	22-Sep		x				
NR-50	27-Oct		x				
NR-50	18-Nov		x				
NR-50	12-Dec		x				
NR-51	18-Jan		x				
NR-51	16-Feb	x	x	x			cleaned, exercised,lubricated,adjusted
NR-51	19-Feb		x				
NR-51	19-Mar		x				
NR-51	29-Apr		x				
NR-51	23-May		x				
NR-51	22-Jun		x				
NR-51	25-Jul		x				
NR-51	27-Aug		x				
NR-51	22-Sep		x				
NR-51	27-Oct		x				
NR-51	18-Nov		x				

NR-51	12-Dec		x				
NR-52	17-Jan	x	x	x			cleaned, exercised,lubricated,adjusted flushed & vactored
NR-52	18-Jan		x				
NR-52	19-Feb	x	x				cleared partial blockage
NR-52	19-Mar		x				
NR-52	29-Apr		x				
NR-52	23-May		x				
NR-52	22-Jun		x				
NR-52	25-Jul		x				
NR-52	27-Aug		x				
NR-52	22-Sep		x				
NR-52	27-Oct		x				
NR-52	18-Nov		x				
NR-52	12-Dec		x				
NR-54	18-Jan		x				
NR-54	19-Feb		x				
NR-54	19-Mar		x				
NR-54	29-Apr		x				
NR-54	23-May		x				
NR-54	22-Jun		x				
NR-54	25-Jul		x				
NR-54	27-Aug		x				
NR-54	22-Sep		x				
NR-54	27-Oct		x				
NR-54	18-Nov		x				
NR-54	12-Dec		x				
NR-55	18-Jan		x				
NR-55	19-Feb		x				
NR-55	19-Mar		x				
NR-55	29-Apr		x				
NR-55	23-May		x				
NR-55	22-Jun		x				
NR-55	25-Jul		x				
NR-55	27-Aug		x				
NR-55	22-Sep		x				

NR-55	27-Oct		x				
NR-55	18-Nov		x				
NR-55	12-Dec		x				
NR-56	18-Jan		x				
NR-56	19-Feb		x				
NR-56	19-Mar		x				
NR-56	29-Apr		x				
NR-56	23-May		x				
NR-56	22-Jun		x				
NR-56	25-Jul		x				
NR-56	27-Aug		x				
NR-56	22-Sep		x				
NR-56	27-Oct		x				
NR-56	18-Nov		x				
NR-56	12-Dec		x				

OAKWOOD BEACH LOCATIONS 2023

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OB-1	19-Jan				N/A		Inspection
OB-1	2-Feb	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
OB-1	7-Feb				N/A		Inspection
OB-1	23-Mar				N/A		Inspection
OB-1	19-Apr				N/A		Inspection
OB-1	9-May				N/A		Inspection
OB-1	14-Jun				N/A		Inspection
OB-1	11-Jul				N/A		Inspection
OB-1	23-Aug				N/A		Inspection
OB-1	26-Sep				N/A		Inspection
OB-1	17-Oct				N/A		Inspection
OB-1	28-Nov				N/A		Inspection
OB-1	13-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
OB-2	19-Jan				N/A		Inspection
OB-2	2-Feb	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
OB-2	7-Feb				N/A		Inspection-Cleared Blockage in gate.
OB-2	23-Mar				N/A		Inspection
OB-2	19-Apr				N/A		Inspection
OB-2	9-May				N/A		Inspection
OB-2	14-Jun				N/A		Inspection
OB-2	11-Jul				N/A		Inspection
OB-2	23-Aug				N/A		Inspection
OB-2	26-Sep				N/A		Inspection
OB-2	17-Oct				N/A		Inspection
OB-2	28-Nov				N/A		Inspection
OB-2	13-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
OB-3	19-Jan				N/A		Inspection
OB-3	7-Feb				N/A		Inspection
OB-3	23-Mar				N/A		Inspection
OB-3	19-Apr				N/A		Inspection
OB-3	9-May				N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
OB-3	14-Jun				N/A		Inspection
OB-3	11-Jul				N/A		Inspection

OB-3	23-Aug				N/A		Inspection
OB-3	25-Aug	X	X	X	N/A		Inspection-Remounted, Repaired and PM Broken Tide Gate A and B.
OB-3	26-Sep	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
OB-3	17-Oct				N/A		Inspection
OB-3	28-Nov				N/A		Inspection
OB-3	13-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
OB-4	19-Jan				N/A		Inspection
OB-4	7-Feb				N/A		Inspection
OB-4	23-Mar				N/A		Inspection
OB-4	19-Apr				N/A		Inspection
OB-4	9-May				N/A		Inspection
OB-4	14-Jun				N/A		Inspection
OB-4	11-Jul				N/A		Inspection
OB-4	23-Aug				N/A		Inspection
OB-4	26-Sep				N/A		Inspection
OB-4	17-Oct				N/A		Inspection
OB-4	28-Nov				N/A		Inspection
OB-4	13-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
OB-5	19-Jan				N/A		Inspection
OB-5	7-Feb				N/A		Inspection
OB-5	23-Mar				N/A		Inspection
OB-5	19-Apr				N/A		Inspection
OB-5	9-May				N/A		Inspection
OB-5	14-Jun				N/A		Inspection
OB-5	11-Jul				N/A		Inspection
OB-5	23-Aug				N/A		Inspection
OB-5	26-Sep	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
OB-5	17-Oct				N/A		Inspection
OB-5	28-Nov				N/A		Inspection
OB-5	13-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
OB-6	19-Jan				N/A		Inspection
OB-6	7-Feb				N/A		Inspection
OB-6	23-Mar				N/A		Inspection
OB-6	19-Apr				N/A		Inspection
OB-6	9-May				N/A		Inspection

OB-6	14-Jun				N/A		Inspection
OB-6	11-Jul	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A, B, C and D.
OB-6	23-Aug				N/A		Inspection
OB-6	26-Sep				N/A		Inspection
OB-6	17-Oct				N/A		Inspection
OB-6	28-Nov				N/A		Inspection
OB-6	13-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
OB-7	19-Jan				N/A		Inspection
OB-7	7-Feb				N/A		Inspection
OB-7	23-Mar				N/A		Inspection
OB-7	19-Apr				N/A		Inspection
OB-7	9-May				N/A		Inspection
OB-7	14-Jun				N/A		Inspection
OB-7	11-Jul				N/A		Inspection
OB-7	23-Aug				N/A		Inspection
OB-7	26-Sep				N/A		Inspection
OB-7	17-Oct				N/A		Inspection
OB-7	28-Nov				N/A		Inspection
OB-7	13-Dec				N/A		Inspection
OB-7	16-Dec		X	X	N/A		Inspection-Remounted, Repaired and PM Broken Tide Gate A and B.

OWLS HEAD LOCATIONS 2023

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-1	5-Jan		N/A	N/A			Inspection
OH-1	8-Feb		N/A	N/A			Inspection
OH-1	22-Mar		N/A	N/A			Inspection
OH-1	12-Apr		N/A	N/A			Inspection
OH-1	4-May		N/A	N/A			Inspection
OH-1	9-May		N/A	N/A		X	Chloride
OH-1	15-Jun		N/A	N/A			Inspection
OH-1	11-Jul		N/A	N/A			Inspection
OH-1	31-Aug		N/A	N/A			Inspection
OH-1	26-Sep		N/A	N/A			Inspection
OH-1	26-Oct		N/A	N/A			Inspection
OH-1	16-Nov		N/A	N/A			Inspection
OH-1	6-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-2	5-Jan		N/A	N/A	N/A		Inspection
OH-2	8-Feb		N/A	N/A	N/A		Inspection
OH-2	22-Mar		N/A	N/A	N/A		Inspection
OH-2	12-Apr		N/A	N/A	N/A		Inspection
OH-2	4-May		N/A	N/A	N/A		Inspection
OH-2	9-May		N/A	N/A	N/A	X	Chloride
OH-2	15-Jun		N/A	N/A	N/A		Inspection
OH-2	11-Jul		N/A	N/A	N/A		Inspection
OH-2	31-Aug		N/A	N/A	N/A		Inspection
OH-2	26-Sep		N/A	N/A	N/A		Inspection
OH-2	26-Oct		N/A	N/A	N/A		Inspection
OH-2	16-Nov		N/A	N/A	N/A		Inspection
OH-2	6-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-3	5-Jan				N/A		Inspection
OH-3	8-Feb		X		N/A		Inspection, Grease, scrape, and exercise tide gate A.
OH-3	22-Mar				N/A		Inspection
OH-3	12-Apr				N/A		Inspection
OH-3	4-May				N/A		Inspection
OH-3	9-May				N/A	X	Chloride
OH-3	15-Jun				N/A		Inspection
OH-3	11-Jul				N/A		Inspection
OH-3	31-Aug				N/A		Inspection
OH-3	26-Sep				N/A		Inspection
OH-3	26-Oct				N/A		Inspection
OH-3	16-Nov				N/A		Inspection
OH-3	6-Dec		X		N/A		Inspection, Grease, scrape, and exercise tide gate A and B.
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-4	5-Jan				N/A		Inspection
OH-4	8-Feb		X		N/A		Inspection, Grease, scrape, and exercise tide gate A.
OH-4	22-Mar				N/A		Inspection
OH-4	12-Apr				N/A		Inspection
OH-4	4-May				N/A		Inspection
OH-4	9-May				N/A	X	Chloride
OH-4	15-Jun				N/A		Inspection
OH-4	11-Jul				N/A		Inspection
OH 4	31-Aug				N/A		Inspection
OH-4	26-Sep				N/A		Inspection
OH-4	26-Oct				N/A		Inspection
OH-4	16-Nov				N/A		Inspection
OH-4	6-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-5	5-Jan		N/A	N/A			Inspection
OH-5	8-Feb		N/A	N/A			Inspection
OH-5	22-Mar		N/A	N/A			Inspection
OH-5	12-Apr		N/A	N/A			Inspection
OH-5	4-May		N/A	N/A			Inspection
OH-5	9-May		N/A	N/A		X	Chloride
OH-5	15-Jun		N/A	N/A			Inspection
OH-5	11-Jul		N/A	N/A			Inspection
OH-5	31-Aug		N/A	N/A			Inspection
OH-5	26-Sep		N/A	N/A			Inspection
OH-5	26-Oct		N/A	N/A			Inspection
OH-5	16-Nov		N/A	N/A			Inspection
OH-5	6-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-6	5-Jan		N/A	N/A	N/A		Inspection
OH-6	8-Feb		N/A	N/A	N/A		Inspection
OH-6	22-Mar		N/A	N/A	N/A		Inspection
OH-6	12-Apr		N/A	N/A	N/A		Inspection
OH-6	4-May		N/A	N/A	N/A		Inspection
OH-6	9-May		N/A	N/A	N/A	X	Chloride
OH-6	15-Jun		N/A	N/A	N/A		Inspection
OH-6	11-Jul		N/A	N/A	N/A		Inspection
OH-6	4-Aug		N/A	N/A	N/A		Inspection
OH-6	26-Sep		N/A	N/A	N/A		Inspection
OH-6	31-Oct		N/A	N/A	N/A		Inspection
OH-6	16-Nov		N/A	N/A	N/A		Inspection
OH-6	6-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-6A	5-Jan		N/A	N/A	N/A		Inspection
OH-6A	8-Feb		N/A	N/A	N/A		Inspection
OH-6A	22-Mar		N/A	N/A	N/A		Inspection
OH-6A	12-Apr		N/A	N/A	N/A		Inspection
OH-6A	4-May		N/A	N/A	N/A		Inspection
OH-6A	9-May		N/A	N/A	N/A	X	Chloride
OH-6A	15-Jun		N/A	N/A	N/A		Inspection
OH-6A	11-Jul		N/A	N/A	N/A		Inspection
OH-6A	4-Aug		N/A	N/A	N/A		Inspection
OH-6A	26-Sep		N/A	N/A	N/A		Inspection
OH-6A	31-Oct		N/A	N/A	N/A		Inspection
OH-6A	16-Nov		N/A	N/A	N/A		Inspection
OH-6A	6-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-6B	5-Jan		N/A	N/A	N/A		Inspection
OH-6B	8-Feb		N/A	N/A	N/A		Inspection
OH-6B	22-Mar		N/A	N/A	N/A		Inspection
OH-6B	12-Apr		N/A	N/A	N/A		Inspection
OH-6B	4-May		N/A	N/A	N/A		Inspection
OH-6B	9-May		N/A	N/A	N/A	X	Chloride
OH-6B	15-Jun		N/A	N/A	N/A		Inspection
OH-6B	11-Jul		N/A	N/A	N/A		Inspection
OH-6B	4-Aug		N/A	N/A	N/A		Inspection
OH-6B	26-Sep		N/A	N/A	N/A		Inspection
OH-6B	31-Oct		N/A	N/A	N/A		Inspection
OH-6B	16-Nov		N/A	N/A	N/A		Inspection
OH-6B	6-Dec		N/A	N/A	N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-6C	5-Jan			X	N/A		Grease, scrape, and exercise tide gate A.
OH-6C	8-Feb				N/A		Inspection
OH-6C	22-Mar				N/A		Inspection
OH-6C	12-Apr				N/A		Inspection
OH-6C	4-May				N/A		Inspection
OH-6C	9-May				N/A	X	Chloride
OH-6C	15-Jun				N/A		Inspection
OH-6C	11-Jul				N/A		Inspection
OH-6C	4-Aug				N/A		Inspection
OH-6C	26-Sep				N/A		Inspection
OH-6C	31-Oct				N/A		Inspection
OH-6C	16-Nov				N/A		Inspection
OH-6C	6-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-7	5-Jan		N/A	N/A	N/A		Inspection
OH-7	8-Feb		N/A	N/A	N/A		Inspection
OH-7	2-Mar		N/A	N/A	N/A		Inspection
OH-7	18-Apr		N/A	N/A	N/A		Inspection
OH-7	9-May		N/A	N/A	N/A	X	Inspection, Chloride
OH-7	15-Jun		N/A	N/A	N/A		Inspection
OH-7	11-Jul		N/A	N/A	N/A		Inspection
OH-7	4-Aug		N/A	N/A	N/A		Inspection
OH-7	12-Sep	X	N/A	N/A	N/A		Call out for RTU failure, Resest Telemetry
OH 7	27-Sep		N/A	N/A	N/A		Inspection
OH 7	27-Oct		N/A	N/A	N/A		Inspection
OH 7	16-Nov		N/A	N/A	N/A		Inspection
OH 7	25-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-7A	2-Mar		X		N/A		Grease, scrape, and exercise tide gate A.
OH-7A	8-Feb				N/A		Inspection
OH-7A	2-Mar				N/A		Inspection
OH-7A	18-Apr				N/A		Inspection
OH-7A	9-May				N/A	X	Inspection, Chloride
OH-7A	15-Jun				N/A		Inspection
OH-7A	11-Jul				N/A		Inspection
OH-7A	4-Aug				N/A		Inspection
OH-7A	27-Sep				N/A		Inspection
OH-7A	27-Oct				N/A		Inspection
OH-7A	16-Nov				N/A		Inspection
OH-7A	25-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-7B	5-Jan		N/A	N/A	N/A		Inspection
OH-7B	8-Feb		N/A	N/A	N/A		Inspection
OH-7B	2-Mar		N/A	N/A	N/A		Inspection
OH-7B	18-Apr		N/A	N/A	N/A		Inspection
OH-7B	9-May		N/A	N/A	N/A	X	Inspection, Chloride
OH-7B	15-Jun		N/A	N/A	N/A		Inspection
OH-7B	11-Jul		N/A	N/A	N/A		Inspection
OH-7B	4-Aug		N/A	N/A	N/A		Inspection
OH-7B	27-Sep		N/A	N/A	N/A		Inspection
OH-7B	27-Oct		N/A	N/A	N/A		Inspection
OH-7B	16-Nov		N/A	N/A	N/A		Inspection
OH-7B	25-Dec		N/A	N/A	N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-7C	5-Jan		N/A	N/A	N/A		Inspection
OH-7C	8-Feb		N/A	N/A	N/A		Inspection
OH-7C	2-Mar		N/A	N/A	N/A		Inspection
OH-7C	18-Apr		N/A	N/A	N/A		Inspection
OH-7C	9-May		N/A	N/A	N/A	X	Inspection, Chloride
OH-7C	15-Jun		N/A	N/A	N/A		Inspection
OH-7C	11-Jul		N/A	N/A	N/A		Inspection
OH-7C	4-Aug		N/A	N/A	N/A		Inspection
OH-7C	27-Sep		N/A	N/A	N/A		Inspection
OH-7C	27-Oct		N/A	N/A	N/A		Inspection
OH-7C	16-Nov		N/A	N/A	N/A		Inspection
OH-7C	25-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-7D	5-Jan		N/A	N/A	N/A		Inspection
OH-7D	8-Feb		N/A	N/A	N/A		Inspection
OH-7D	2-Mar		N/A	N/A	N/A		Inspection
OH-7D	18-Apr		N/A	N/A	N/A		Inspection
OH-7D	9-May		N/A	N/A	N/A	X	Inspection, Chloride
OH-7D	15-Jun		N/A	N/A	N/A		Inspection
OH-7D	11-Jul		N/A	N/A	N/A		Inspection
OH-7D	4-Aug		N/A	N/A	N/A		Inspection
OH-7D	27-Sep		N/A	N/A	N/A		Inspection
OH-7D	27-Oct		N/A	N/A	N/A		Inspection
OH-7D	16-Nov		N/A	N/A	N/A		Inspection
OH-7D	25-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-8	24-Jan		N/A	N/A	N/A		Inspection
OH-8	1-Feb		N/A	N/A	N/A		Inspection
OH-8	2-Mar		N/A	N/A	N/A		Inspection
OH-8	25-Apr		N/A	N/A	N/A		Inspection
OH-8	17-May		N/A	N/A	N/A		Inspection
OH-8	14-Jun		N/A	N/A	N/A		Inspection
OH-8	27-Jul		N/A	N/A	N/A		Inspection
OH-8	31-Aug		N/A	N/A	N/A		Inspection
OH-8	26-Oct		N/A	N/A	N/A		Inspection
OH-8	30-Nov		N/A	N/A	N/A		Inspection
OH-8	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-8A	24-Jan		N/A	N/A	N/A		Inspection
OH-8A	1-Feb		N/A	N/A	N/A		Inspection
OH-8A	2-Mar		N/A	N/A	N/A		Inspection
OH-8A	25-Apr		N/A	N/A	N/A		Inspection
OH-8A	17-May		N/A	N/A	N/A		Inspection
OH-8A	14-Jun		N/A	N/A	N/A		Inspection
OH-8A	27-Jul		N/A	N/A	N/A		Inspection
OH-8A	31-Aug		N/A	N/A	N/A		Inspection
OH-8A	26-Oct		N/A	N/A	N/A		Inspection
OH-8A	30-Nov		N/A	N/A	N/A		Inspection
OH-8A	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
OH-8B	24-Jan		N/A	N/A	N/A		Inspection
OH-8B	1-Feb		N/A	N/A	N/A		Inspection
OH-8B	2-Mar		N/A	N/A	N/A		Inspection
OH-8B	25-Apr		N/A	N/A	N/A		Inspection
OH-8B	17-May		N/A	N/A	N/A		Inspection
OH-8B	14-Jun		N/A	N/A	N/A		Inspection
OH-8B	27-Jul		N/A	N/A	N/A		Inspection
OH-8B	31-Aug		N/A	N/A	N/A		Inspection
OH-8B	26-Oct		N/A	N/A	N/A		Inspection
OH-8B	30-Nov		N/A	N/A	N/A		Inspection
OH-8B	21-Dec		N/A	N/A	N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-9	24-Jan	N/A	N/A	N/A	N/A		Inspection
OH 9	1-Feb	N/A	N/A	N/A	N/A		Inspection
OH-9	29-Mar	N/A	N/A	N/A	N/A		Inspection
OH-9	18-Apr	N/A	N/A	N/A	N/A		Inspection
OH-9	17-May	N/A	N/A	N/A	N/A		Inspection
OH-9	14-Jun	N/A	N/A	N/A	N/A		Inspection
OH-9	20-Jul	N/A	N/A	N/A	N/A		Inspection
OH-9	30-Aug	N/A	N/A	N/A	N/A		Inspection
OH-9	27-Sep	N/A	N/A	N/A	N/A		Inspection
OH-9	26-Oct	N/A	N/A	N/A	N/A		Inspection
OH-9	18-Nov	N/A	N/A	N/A	N/A		Inspection
OH-9	21-Dec	N/A	N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-9A	24-Jan		N/A	N/A	N/A		Inspection
OH-9A	1-Feb		N/A	N/A	N/A		Inspection
OH-9A	29-Mar		N/A	N/A	N/A		Inspection
OH-9A	25-Apr		N/A	N/A	N/A		Inspection
OH-9A	17-May		N/A	N/A	N/A		Inspection
OH-9A	14-Jun		N/A	N/A	N/A		Inspection
OH-9A	20-Jul		N/A	N/A	N/A		Inspection
OH-9A	30-Aug		N/A	N/A	N/A		Inspection
OH-9A	27-Sep		N/A	N/A	N/A		Inspection
OH-9A	26-Oct		N/A	N/A	N/A		Inspection
OH-9A	18-Nov		N/A	N/A	N/A		Inspection
OH-9A	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-9B	24-Jan		N/A	N/A	N/A		Inspection
OH-9B	1-Feb		N/A	N/A	N/A		Inspection
OH-9B	29-Mar		N/A	N/A	N/A		Inspection
OH-9B	25-Apr		N/A	N/A	N/A		Inspection
OH-9B	17-May		N/A	N/A	N/A		Inspection
OH-9B	14-Jun		N/A	N/A	N/A		Inspection
OH-9B	20-Jul		N/A	N/A	N/A		Inspection
OH-9B	30-Aug		N/A	N/A	N/A		Inspection
OH-9B	27-Sep		N/A	N/A	N/A		Inspection
OH-9B	26-Oct		N/A	N/A	N/A		Inspection
OH-9B	18-Nov		N/A	N/A	N/A		Inspection
OH-9B	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-9C	24-Jan		N/A	N/A	N/A		Inspection
OH-9C	1-Feb		N/A	N/A	N/A		Inspection
OH-9C	29-Mar		N/A	N/A	N/A		Inspection
OH-9C	25-Apr		N/A	N/A	N/A		Inspection
OH-9C	17-May		N/A	N/A	N/A		Inspection
OH-9C	14-Jun		N/A	N/A	N/A		Inspection
OH-9C	20-Jul		N/A	N/A	N/A		Inspection
OH-9C	30-Aug		N/A	N/A	N/A		Inspection
OH-9C	27-Sep		N/A	N/A	N/A		Inspection
OH-9C	26-Oct		N/A	N/A	N/A		Inspection
OH-9C	18-Nov		N/A	N/A	N/A		Inspection
OH-9C	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-9D	24-Jan		N/A	N/A	N/A		Inspection
OH-9D	1-Feb		N/A	N/A	N/A		Inspection
OH-9D	29-Mar		N/A	N/A	N/A		Inspection
OH-9D	25-Apr		N/A	N/A	N/A		Inspection
OH-9D	17-May		N/A	N/A	N/A		Inspection
OH-9D	14-Jun		N/A	N/A	N/A		Inspection
OH-9D	20-Jul		N/A	N/A	N/A		Inspection
OH-9D	30-Aug		N/A	N/A	N/A		Inspection
OH-9D	26-Oct		N/A	N/A	N/A		Inspection
OH-9D	30-Nov		N/A	N/A	N/A		Inspection
OH-9D	21-Dec		N/A	N/A	N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-10	24-Jan		N/A	N/A	N/A		Inspection
OH-10	1-Feb		N/A	N/A	N/A		Inspection
OH-10	29-Mar		N/A	N/A	N/A		Inspection
OH-10	16-Apr	X	N/A	N/A	N/A		Call out for dry weather bypass condition cleared blockage
OH-10	18-Apr	X	N/A	N/A	N/A		Removed debris and cleared blockage in diversion chamber
OH-10	17-May		N/A	N/A	N/A		Inspection
OH-10	14-Jun		N/A	N/A	N/A		Inspection
OH-10	20-Jul		N/A	N/A	N/A		Inspection
OH-10	30-Aug	X	N/A	N/A	N/A		Inspection, Cleared Blockage in Regulator
OH-10	26-Oct		N/A	N/A	N/A		Inspection
OH-10	18-Nov		N/A	N/A	N/A		Inspection
OH-10	21-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
OH-11	24-Jan				N/A		Inspection
OH-11	1-Feb				N/A		Inspection
OH-11	29-Mar				N/A		Inspection
OH-11	25-Apr				N/A		Inspection, Grease, scrape, and exercise tide gates A and B.
OH-11	17-May				N/A		Inspection
OH-11	2-Jun	X			N/A		Call out dry weather bypass false alarm
OH-11	14-Jun				N/A		Inspection
OH-11	20-Jul				N/A		Inspection
OH-11	30-Aug				N/A		Inspection
OH-11	26-Oct				N/A		Inspection
OH-11	18-Nov				N/A		Inspection
OH-11	21-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
CSO-2	4-Jan			x	N/A		Close tide gates A and B post rain event.
CSO-2	5-Jan			x	N/A		Close tide gates A and B post rain event.
CSO-2	6-Jan			x	N/A		Close tide gates A and B post rain event.
CSO-2	8-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	9-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	10-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	11-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	12-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	13-Jan			x	N/A		Close tide gates A and B post rain event.
CSO-2	15-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	18-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	19-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	20-Jan			x	N/A		Close tide gates A and B post rain event.
CSO-2	24-Jan		x	X	N/A		Inspection ,Close tide gates A and B post rain event. Grease, scrape, and exercise tide gates.
CSO-2	26-Jan			X	N/A		Close tide gates A and B post rain event.
CSO-2	2-Feb			x	N/A		Close tide gates A and B post rain event.
CSO-2	3-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	4-Feb			x	N/A		Close tide gates A and B post rain event.
CSO-2	5-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	6-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	7-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	8-Feb				N/A		Inspection
CSO-2	18-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	21-Feb			x	N/A		Close tide gates A and B post rain event.
CSO-2	23-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	24-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	25-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	26-Feb			X	N/A		Close tide gates A and B post rain event.
CSO-2	28-Feb			x	N/A		Close tide gates A and B post rain event.
CSO-2	2-Mar			x	N/A		Close tide gates A and B post rain event.
CSO-2	6-Mar			x	N/A		Close tide gates A and B post rain event.
CSO-2	7-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	8-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	9-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	11-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	13-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	14-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	15-Mar			X	N/A		Close tide gates A and B post rain event.

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
CSO-2	17-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	18-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	20-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	21-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	23-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	24-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	25-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	26-Mar			X	N/A		Close tide gates A and B post rain event.
CSO-2	29-Mar				N/A		Inspection
CSO-2	2-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	5-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	6-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	7-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	8-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	9-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	10-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	12-Apr				N/A		Close tide gates A and B post rain event.
CSO-2	13-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	14-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	15-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	18-Apr				N/A		Inspection
CSO-2	22-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	25-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	27-Apr			X	N/A		Close tide gates A and B post rain event.
CSO-2	6-May			X	N/A		Close tide gates A and B post rain event.
CSO-2	7-May			X	N/A		Close tide gates A and B post rain event.
CSO-2	9-May				N/A	X	Inspection, Chloride
CSO-2	20-May			X	N/A		Close tide gates A and B post rain event.
CSO-2	21-May			X	N/A		Close tide gates A and B post rain event.
CSO-2	23-May			X	N/A		Close tide gates A and B post rain event.
CSO-2	8-Jun			X	N/A		Close tide gates A and B post rain event.
CSO-2	15-Jun				N/A		Inspection
CSO-2	17-Jun			X	N/A		Close tide gates A and B post rain event.
CSO-2	27-Jun			X	N/A		Close tide gates A and B post rain event.
CSO-2	3-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	4-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	13-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	22-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	26-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	27-Jul				N/A		Inspections
CSO-2	28-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	29-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	30-Jul			X	N/A		Close tide gates A and B post rain event.
CSO-2	7-Aug			X	N/A		Close tide gates A and B post rain event.
CSO-2	11-Aug			X	N/A		Close tide gates A and B post rain event.
CSO-2	15-Aug			X	N/A		Removed 6' 4" Wooden beam from tide gate. Closed tide gate
CSO-2	19-Aug			X	N/A		Removed bricks, wood, grit and debris from diversion chamber
CSO-2	20-Aug			X	N/A		Close tide gates A and B post rain event.
CSO-2	8-Sep			X	N/A		Close tide gates A and B post rain event.
CSO-2	19-Sep			X	N/A		Close tide gates A and B post rain event.
CSO-2	27-Sep			X	N/A		Close tide gates A and B post rain event.
CSO-2	28-Sep			X	N/A		Close tide gates A and B post rain event.
CSO-2	7-Oct			X	N/A		Close tide gates A and B post rain event.
CSO-2	10-Oct			X	N/A		Close tide gates A and B post rain event.
CSO-2	17-Oct			X	N/A		Close tide gates A and B post rain event.
CSO-2	19-Oct			X	N/A		Close tide gates A and B post rain event.
CSO-2	21-Oct			X	N/A		Close tide gates A and B due to construction on 3rd ave and 7th street
CSO-2	1-Nov			X	N/A		Close tide gates A and B due to construction on 3rd ave and 7th street
CSO-2	7-Nov			X	N/A		Close tide gates A and B post rain event.
CSO-2	12-Nov			X	N/A		Close tide gates A and B post rain event.
CSO-2	13-Nov			X	N/A		Close tide gates A and B post rain event.
CSO-2	14-Nov			X	N/A		Close tide gates A and B post rain event.
CSO-2	16-Nov			X	N/A		Close tide gates A and B post rain event.
CSO-2	27-Nov			X	N/A		Close tide gates A and B post rain event.

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
CSO-2	4-Dec			X	N/A		Close tide gates A and B post rain event.
CSO-2	11-Dec			X	N/A		Close tide gates A and B post rain event.
CSO-2	16-Dec			X	N/A		Close tide gates A and B post rain event.
CSO-2	17-Dec			X	N/A		Close tide gates A and B post rain event.
CSO-2	25-Dec				N/A		Inspections
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
REG	24-Jan				N/A		Inspection
REG	1-Feb				N/A		Inspection
REG	2-Mar				N/A		Inspection
REG	18-Apr				N/A		Inspection
REG	9-May				N/A	X	Inspection, Chloride
REG	15-Jun				N/A		Inspection
REG	27-Jul				N/A		Inspection
REG	4-Aug				N/A		Inspection
REG	27-Oct				N/A		Inspection
REG	30-Nov				N/A		Inspection
REG	25-Dec				N/A		Inspection

PORT RICHMOND EAST LOCATIONS 2023

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-1E	5-Jan				N/A		Inspection
PR-1E	1-Feb				N/A		Inspection
PR-1E	23-Feb	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-1E	1-Mar				N/A		Inspection
PR-1E	4-Apr				N/A		Inspection
PR-1E	4-May				N/A		Inspection
PR-1E	27-Jun				N/A		Inspection
PR-1E	5-Jul				N/A		Inspection
PR-1E	12-Jul	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-1E	8-Aug				N/A		Inspection
PR-1E	6-Sep				N/A		Inspection
PR-1E	24-Oct				N/A		Inspection
PR-1E	2-Nov				N/A		Inspection
PR1E	5-Dec				N/A		Inspection
PR-1E	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-2E	5-Jan		N/A	N/A	N/A		Inspection
PR-2E	1-Feb		N/A	N/A	N/A		Inspection
PR-2E	1-Mar		N/A	N/A	N/A		inspection
PR-2E	4-Apr		N/A	N/A	N/A		Inspection
PR-2E	4-May		N/A	N/A	N/A		Inspection
PR-2E	27-Jun		N/A	N/A	N/A		Inspection
PR-2E	5-Jul		N/A	N/A	N/A		Inspection
PR-2E	8-Aug		N/A	N/A	N/A		Inspection
PR-2E	6-Sep		N/A	N/A	N/A		Inspection
PR-2E	24-Oct		N/A	N/A	N/A		Inspection
PR-2E	2-Nov		N/A	N/A	N/A		Inspection
PR-2E	5-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-3E	5-Jan				N/A		Inspection
PR-3E	1-Feb				N/A		Inspection
PR-3E	1-Mar	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-3E	4-Apr				N/A		Inspection

PR-3E	4-May	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate and removed debris.
PR-3E	27-Jun				N/A		Inspection
PR-3E	5-Jul				N/A		Inspection
PR-3E	8-Aug				N/A		Inspection
PR-3E	6-Sep				N/A		Inspection
PR-3E	24-Oct				N/A		Inspection
PR-3E	2-Nov				N/A		Inspection
PR-3E	5-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
PR-4E	5-Jan				N/A		Inspection
PR-4E	1-Feb				N/A		Inspection
PR-4E	23-Feb	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-4E	1-Mar				N/A		Inspection
PR-4E	4-Apr				N/A		Inspection
PR-4E	4-May				N/A		Inspection
PR-4E	27-Jun				N/A		Inspection
PR-4E	5-Jul				N/A		Inspection
PR-4E	8-Aug				N/A		Inspection
PR-4E	6-Sep				N/A		Inspection
PR-4E	24-Oct				N/A		Inspection
PR-4E	2-Nov				N/A		Inspection
PR-4E	5-Dec				N/A		Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
PR-5E	5-Jan		N/A	N/A			Inspection
PR-5E	1-Feb		N/A	N/A			Inspection
PR-5E	1-Mar		N/A	N/A			Inspection
PR-5E	4-Apr		N/A	N/A			Inspection
PR-5E	4-May		N/A	N/A			Inspection
PR-5E	27-Jun	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-5E	5-Jul		N/A	N/A			Inspection
PR-5E	8-Aug		N/A	N/A			Inspection
PR-5E	6-Sep		N/A	N/A			Inspection
PR-5E	24-Oct		N/A	N/A			Inspection
PR-5E	2-Nov		N/A	N/A			Inspection
PR-5E	5-Dec		N/A	N/A			Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-6E	5-Jan		N/A	N/A			Inspection
PR-6E	1-Feb		N/A	N/A			Inspection
PR-6E	1-Mar		N/A	N/A			Inspection
PR-6E	4-Apr		N/A	N/A			Inspection
PR-6E	4-May		N/A	N/A			Inspection
PR-6E	27-Jun	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-6E	5-Jul		N/A	N/A			Inspection
PR-6E	8-Aug		N/A	N/A			Inspection
PR-6E	6-Sep		N/A	N/A			Inspection
PR-6E	24-Oct		N/A	N/A			Inspection
PR-6E	2-Nov		N/A	N/A			Inspection
PR-6E	5-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-7E	5-Jan				N/A		Inspection
PR-7E	2-Feb				N/A		Inspection
PR-7E	1-Mar				N/A		Inspection
PR-7E	4-Apr	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
PR-7E	4-May				N/A		Inspection
PR-7E	27-Jun				N/A		Inspection
PR-7E	5-Jul				N/A		Inspection
PR-7E	8-Aug				N/A		Inspection
PR-7E	6-Sep				N/A		Inspection
PR-7E	3-Oct				N/A		Inspection
PR-7E	2-Nov				N/A		Inspection
PR-7E	5-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-8E	12-Jan				N/A		Inspection
PR-8E	2-Feb				N/A		Inspection
PR-8E	1-Mar				N/A		Inspection
PR-8E	4-Apr				N/A		Inspection
PR-8E	4-May				N/A		Inspection
PR-8E	27-Jun				N/A		Inspection
PR-8E	5-Jul				N/A		Inspection
PR-8E	8-Aug				N/A		Inspection

PR-8E	6-Sep				N/A		Inspection
PR-8E	3-Oct				N/A		Inspection
PR-8E	8-Nov				N/A		Inspection
PR-8E	5-Dec				N/A		Inspection
PR-8E	27-Dec	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-9E	12-Jan				N/A		Inspection
PR-9E	1-Feb				N/A		Inspection
PR-9E	8-Mar				N/A		Inspection
PR-9E	6-Apr				N/A		Inspection
PR-9E	4-May				N/A		Inspection
PR-9E	27-Jun				N/A		Inspection
PR-9E	25-Jul				N/A		Inspection
PR-9E	8-Aug				N/A		Inspection
PR-9E	13-Sep				N/A		Inspection
PR-9E	3-Oct				N/A		Inspection
PR-9E	8-Nov				N/A		Inspection
PR-9E	9-Dec				N/A		Inspection
PR-9E	27-Dec	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-10E	12-Jan		N/A	N/A			Inspection
PR-10E	1-Feb		N/A	N/A			Inspection
PR-10E	8-Mar		N/A	N/A			Inspection
PR-10E	6-Apr		N/A	N/A			Inspection
PR-10E	4-May		N/A	N/A			Inspection
PR-10E	27-Jun		N/A	N/A			Inspection
PR-10E	25-Jul		N/A	N/A			Inspection
PR-10E	22-Aug	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-10E	13-Sep		N/A	N/A			Inspection
PR-10E	3-Oct		N/A	N/A			Inspection
PR-10E	8-Nov		N/A	N/A			Inspection
PR-10E	9-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-11E	12-Jan		N/A	N/A			Inspection
PR-11E	1-Feb		N/A	N/A			Inspection

PR-11E	8-Mar		N/A	N/A			Inspection
PR-11E	6-Apr	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-11E	4-May		N/A	N/A			Inspection
PR-11E	27-Jun		N/A	N/A			Inspection
PR-11E	25-Jul		N/A	N/A			Inspection
PR-11E	22-Aug		N/A	N/A			Inspection
PR-11E	13-Sep		N/A	N/A			Inspection
PR-11E	3-Oct		N/A	N/A			Inspection
PR-11E	8-Nov		N/A	N/A			Inspection
PR-11E	9-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-13E	12-Jan				N/A		Inspection
PR-13E	2-Feb				N/A		Inspection
PR-13E	8-Mar	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A, B and C.
PR-13E	6-Apr				N/A		Inspection
PR-13E	4-May				N/A		Inspection
PR-13E	27-Jun				N/A		Inspection
PR-13E	25-Jul				N/A		Inspection
PR-13E	22-Aug				N/A		Inspection
PR-13E	13-Sep				N/A		Inspection
PR-13E	3-Oct				N/A		Inspection
PR-13E	8-Nov				N/A		Inspection
PR-13E	9-Dec				N/A		Inspection
PR-13E	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-15E	12-Jan	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A, B and C.
PR-15E	2-Feb				N/A		Inspection
PR-15E	8-Mar				N/A		Inspection
PR-15E	6-Apr				N/A		Inspection
PR-15E	4-May				N/A		Inspection
PR-15E	27-Jun				N/A		Inspection
PR-15E	25-Jul				N/A		Inspection
PR-15E	22-Aug	X			N/A		Inspection-Cleared Blockage in the Diversion
PR-15E	13-Sep				N/A		Inspection
PR-15E	3-Oct				N/A		Inspection

PR-15E	8-Nov	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate A, B and C.
PR-15E	9-Dec				N/A		Inspection
PR-15E	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-16E	12-Jan				N/A		Inspection
PR-16E	2-Feb				N/A		Inspection
PR-16E	8-Mar				N/A		Inspection
PR-16E	6-Apr	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-16E	4-May				N/A		Inspection
PR-16E	27-Jun				N/A		Inspection
PR-16E	25-Jul				N/A		Inspection
PR-16E	22-Aug				N/A		Inspection
PR-16E	13-Sep				N/A		Inspection
PR-16E	3-Oct				N/A		Inspection
PR-16E	15-Nov				N/A		Inspection
PR-16E	9-Dec				N/A		Inspection
PR-16E	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-17E	12-Jan	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
PR-17E	2-Feb				N/A		Inspection
PR-17E	8-Mar				N/A		Inspection
PR-17E	6-Apr				N/A		Inspection
PR-17E	4-May				N/A		Inspection
PR-17E	27-Jun	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
PR-17E	25-Jul				N/A		Inspection
PR-17E	22-Aug				N/A		Inspection
PR-17E	13-Sep				N/A		Inspection
PR-17E	3-Oct				N/A		Inspection
PR-17E	15-Nov				N/A		Inspection
PR-17E	9-Dec				N/A		Inspection
PR-17E	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-18E	24-Jan		N/A	N/A	N/A		Inspection
PR-18E	2-Feb		N/A	N/A	N/A		Inspection
PR-18E	14-Mar		N/A	N/A	N/A		Inspection

PR-18E	13-Apr		N/A	N/A	N/A		Inspection
PR-18E	8-May		N/A	N/A	N/A		Inspection
PR-18E	28-Jun		N/A	N/A	N/A		Inspection
PR-18E	19-Jul		N/A	N/A	N/A		Inspection
PR-18E	22-Aug		N/A	N/A	N/A		Inspection
PR-18E	13-Sep		N/A	N/A	N/A		Inspection
PR-18E	18-Oct		N/A	N/A	N/A		Inspection
PR-18E	15-Nov		N/A	N/A	N/A		Inspection
PR-18E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-19E	24-Jan		N/A	N/A	N/A		Inspection
PR-19E	2-Feb		N/A	N/A	N/A		Inspection
PR-19E	14-Mar		N/A	N/A	N/A		Inspection
PR-19E	13-Apr		N/A	N/A	N/A		Inspection
PR-19E	8-May		N/A	N/A	N/A		Inspection
PR-19E	28-Jun		N/A	N/A	N/A		Inspection
PR-19E	19-Jul		N/A	N/A	N/A		Inspection
PR-19E	22-Aug		N/A	N/A	N/A		Inspection
PR-19E	14-Sep		N/A	N/A	N/A		Inspection
PR-19E	18-Oct		N/A	N/A	N/A		Inspection
PR-19E	15-Nov		N/A	N/A	N/A		Inspection
PR-19E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-20E	24-Jan				N/A		Inspection
PR-20E	2-Feb				N/A		Inspection
PR-20E	14-Mar				N/A		Inspection
PR-20E	13-Apr				N/A		Inspection
PR-20E	8-May	X	X	X	N/A		Inspection-Grease, scrape, and exercise tide gate A and B.
PR-20E	28-Jun				N/A		Inspection
PR-20E	19-Jul				N/A		Inspection
PR-20E	22-Aug				N/A		Inspection
PR-20E	14-Sep				N/A		Inspection
PR-20E	18-Oct				N/A		Inspection
PR-20E	15-Nov				N/A		Inspection
PR-20E	12-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-21E	24-Jan		N/A	N/A	N/A		Inspection
PR-21E	8-Feb		N/A	N/A	N/A		Inspection
PR-21E	14-Mar		N/A	N/A	N/A		Inspection
PR-21E	13-Apr		N/A	N/A	N/A		Inspection
PR-21E	8-May		N/A	N/A	N/A		Inspection
PR-21E	28-Jun		N/A	N/A	N/A		Inspection
PR-21E	19-Jul		N/A	N/A	N/A		Inspection
PR-21E	7-Aug		N/A	N/A	N/A		Inspection
PR-21E	14-Sep		N/A	N/A	N/A		Inspection
PR-21E	18-Oct		N/A	N/A	N/A		Inspection
PR-21E	15-Nov		N/A	N/A	N/A		Inspection
PR-21E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-22E	24-Jan		N/A	N/A	N/A		Inspection
PR-22E	8-Feb		N/A	N/A	N/A		Inspection
PR-22E	14-Mar		N/A	N/A	N/A		Inspection
PR-22E	13-Apr		N/A	N/A	N/A		Inspection
PR-22E	8-May		N/A	N/A	N/A		Inspection
PR-22E	28-Jun		N/A	N/A	N/A		Inspection
PR-22E	19-Jul		N/A	N/A	N/A		Inspection
PR-22E	7-Aug		N/A	N/A	N/A		Inspection
PR-22E	14-Sep		N/A	N/A	N/A		Inspection
PR-22E	18-Oct		N/A	N/A	N/A		Inspection
PR-22E	16-Nov		N/A	N/A	N/A		Inspection
PR-22E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-23E	24-Jan		N/A	N/A	N/A		Inspection
PR-23E	8-Feb		N/A	N/A	N/A		Inspection
PR-23E	14-Mar		N/A	N/A	N/A		Inspection
PR-23E	13-Apr		N/A	N/A	N/A		Inspection
PR-23E	8-May		N/A	N/A	N/A		Inspection
PR-23E	28-Jun	X	N/A	N/A	N/A		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-23E	19-Jul		N/A	N/A	N/A		Inspection
PR-23E	7-Aug		N/A	N/A	N/A		Inspection

PR-23E	14-Sep		N/A	N/A	N/A		Inspection
PR-23E	18-Oct		N/A	N/A	N/A		Inspection
PR-23E	16-Nov		N/A	N/A	N/A		Inspection
PR-23E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-24E	24-Jan		N/A	N/A	N/A		Inspection
PR-24E	8-Feb		N/A	N/A	N/A		Inspection
PR-24E	14-Mar		N/A	N/A	N/A		Inspection
PR-24E	13-Apr		N/A	N/A	N/A		Inspection
PR-24E	8-May		N/A	N/A	N/A		Inspection
PR-24E	28-Jun		N/A	N/A	N/A		Inspection
PR-24E	19-Jul		N/A	N/A	N/A		Inspection
PR-24E	7-Aug		N/A	N/A	N/A		Inspection
PR-24E	14-Sep		N/A	N/A	N/A		Inspection
PR-24E	18-Oct		N/A	N/A	N/A		Inspection
PR-24E	16-Nov		N/A	N/A	N/A		Inspection
PR-24E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-27E	24-Jan		N/A	N/A	N/A		Inspection
PR-27E	8-Feb		N/A	N/A	N/A		Inspection
PR-27E	14-Mar		N/A	N/A	N/A		Inspection
PR-27E	12-Apr		N/A	N/A	N/A		Inspection
PR-27E	17-May		N/A	N/A	N/A		Inspection
PR-27E	7-Jun		N/A	N/A	N/A		Inspection
PR-27E	19-Jul		N/A	N/A	N/A		Inspection
PR-27E	7-Aug		N/A	N/A	N/A		Inspection
PR-27E	14-Sep		N/A	N/A	N/A		Inspection
PR-27E	19-Oct		N/A	N/A	N/A		Inspection
PR-27E	16-Nov		N/A	N/A	N/A		Inspection
PR-27E	12-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-28E	25-Jan		N/A	N/A			Inspection
PR-28E	8-Feb		N/A	N/A			Inspection
PR-28E	21-Mar		N/A	N/A			Inspection
PR-28E	12-Apr		N/A	N/A			Inspection

PR-28E	25-Apr	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-28E	17-May		N/A	N/A			Inspection
PR-28E	7-Jun		N/A	N/A			Inspection
PR-28E	26-Jul		N/A	N/A			Inspection
PR-28E	7-Aug		N/A	N/A			Inspection
PR-28E	21-Sep		N/A	N/A			Inspection
PR-28E	19-Oct		N/A	N/A			Inspection
PR-28E	16-Nov		N/A	N/A			Inspection
PR-28E	14-Dec		N/A	N/A			Inspection
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
PR-29E	25-Jan		N/A	N/A			Inspection
PR-29E	8-Feb		N/A	N/A			Inspection
PR-29E	21-Mar		N/A	N/A			Inspection
PR-29E	12-Apr		N/A	N/A			Inspection
PR-29E	17-May		N/A	N/A			Inspection
PR-29E	7-Jun		N/A	N/A			Inspection
PR-29E	26-Jul		N/A	N/A			Inspection
PR-29E	30-Aug		N/A	N/A			Inspection
PR-29E	21-Sep		N/A	N/A			Inspection
PR-29E	19-Oct		N/A	N/A			Inspection-Removed Partial Blockage From Sluice Gate
PR-29E	16-Nov		N/A	N/A			Inspection
PR-29E	14-Dec	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
Number	**REG PM**	**REG CM**	**TG PM**	**TG CM**	**DB**	**Cl Runs**	**Comments**
PR-31E	25-Jan				N/A		Inspection
PR-31E	15-Feb				N/A		Inspection
PR-31E	21-Mar				N/A		Inspection
PR-31E	12-Apr				N/A		Inspection
PR-31E	17-May				N/A		Inspection
PR-31E	7-Jun				N/A		Inspection
PR-31E	26-Jul				N/A		Inspection
PR-31E	30-Aug	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-31E	21-Sep				N/A		Inspection
PR-31E	19-Oct				N/A		Inspection
PR-31E	21-Nov	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-31E	14-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-32E	25-Jan		N/A	N/A			Inspection
PR-32E	15-Feb		N/A	N/A			Inspection
PR-32E	21-Mar		N/A	N/A			Inspection
PR-32E	12-Apr		N/A	N/A			Inspection
PR-32E	17-May		N/A	N/A			Inspection
PR-32E	7-Jun		N/A	N/A			Inspection
PR-32E	26-Jul		N/A	N/A			Inspection
PR-32E	30-Aug		N/A	N/A			Inspection
PR-32E	21-Sep		N/A	N/A			Inspection
PR-32E	19-Oct		N/A	N/A			Inspection
PR-32E	21-Nov		N/A	N/A			Inspection
PR-32E	14-Dec	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-33E	25-Jan		N/A	N/A			Inspection
PR-33E	15-Feb		N/A	N/A			Inspection
PR-33E	21-Mar		N/A	N/A			Inspection
PR-33E	12-Apr		N/A	N/A			Inspection
PR-33E	17-May		N/A	N/A			Inspection
PR-33E	7-Jun		N/A	N/A			Inspection
PR-33E	26-Jul		N/A	N/A			Inspection
PR-33E	30-Aug		N/A	N/A			Inspection
PR-33E	21-Sep		N/A	N/A			Inspection
PR-33E	19-Oct		N/A	N/A			Inspection
PR-33E	21-Nov		N/A	N/A			Inspection
PR-33E	14-Dec		N/A	N/A			Inspection
PR-33E	27-Dec	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-34E	25-Jan				N/A		Inspection
PR-34E	15-Feb				N/A		Inspection
PR-34E	21-Mar				N/A		Inspection
PR-34E	12-Apr				N/A		inspection
PR-34E	17-May				N/A		Inspection
PR-34E	7-Jun				N/A		Inspection
PR-34E	26-Jul				N/A		Inspection

PR-34E	30-Aug	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-34E	21-Sep				N/A		Inspection
PR-34E	19-Oct				N/A		Inspection
PR-34E	21-Nov	X	X		N/A		Inspection-Grease, scrape, and exercise tide gate.
PR-34E	14-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-TF	25-Jan		N/A	N/A	N/A		Inspection-O/S
PR-TF	15-Feb		N/A	N/A	N/A		Inspection-O/S
PR-TF	12-Apr		N/A	N/A	N/A		Inspection-O/S
PR-TF	17-May		N/A	N/A	N/A		Inspection-O/S
PR-TF	7-Jun		N/A	N/A	N/A		Inspection-O/S
PR-TF	26-Jul		N/A	N/A	N/A		Inspection-O/S
PR-TF	30-Aug		N/A	N/A	N/A		Inspection-O/S
PR-TF	21-Sep		N/A	N/A	N/A		Inspection-O/S
PR-TF	19-Oct		N/A	N/A	N/A		Inspection-O/S
PR-TF	21-Nov		N/A	N/A	N/A		Inspection-O/S
PR-TF	14-Dec		N/A	N/A	N/A		Inspection-O/S

PORT RICHMOND WEST LOCATIONS 2023

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-35W	4-Jan				N/A		Inspection
PR-35W	22-Feb				N/A		Inspection
PR-35W	22-Mar				N/A		Inspection
PR-35W	11-Apr				N/A		Inspection
PR-35W	16-May				N/A		Inspection
PR-35W	6-Jun				N/A		Inspection
PR-35W	6-Jul				N/A		Inspection
PR-35W	29-Aug				N/A		Inspection
PR-35W	21-Sep				N/A		Inspection
PR-35W	4-Oct				N/A		Inspection
PR-35W	14-Nov				N/A		Inspection
PR-35W	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-36W	4-Jan				N/A		Inspection
PR-36W	22-Feb				N/A		Inspection
PR-36W	22-Mar				N/A		Inspection
PR-36W	11-Apr				N/A		Inspection
PR-36W	16-May				N/A		Inspection
PR-36W	6-Jun				N/A		Inspection
PR-36W	6-Jul				N/A		Inspection
PR-36W	29-Aug				N/A		Inspection
PR-36W	21-Sep				N/A		Inspection
PR-36W	4-Oct				N/A		Inspection
PR-36W	14-Nov				N/A		Inspection
PR-36W	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-37W	4-Jan				N/A		Inspection
PR-37W	22-Feb				N/A		Inspection
PR-37W	22-Mar				N/A		Inspection
PR-37W	11-Apr				N/A		Inspection
PR-37W	16-May				N/A		Inspection
PR-37W	6-Jun				N/A		Inspection
PR-37W	6-Jul				N/A		Inspection
PR-37W	29-Aug				N/A		Inspection
PR-37W	21-Sep				N/A		Inspection

PR-37W	4-Oct				N/A		Inspection
PR-37W	14-Nov				N/A		Inspection
PR-37W	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-1W	4-Jan		N/A	N/A			Inspection
PR-1W	22-Feb		N/A	N/A			Inspection
PR-1W	22-Mar	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear,Blockages
PR-1W	11-Apr		N/A	N/A			Inspection
PR-1W	16-May		N/A	N/A			Inspection
PR-1W	6-Jun		N/A	N/A			Inspection
PR-1W	6-Jul		N/A	N/A			Inspection
PR-1W	29-Aug		N/A	N/A			Inspection
PR-1W	20-Sep		N/A	N/A			Inspection
PR-1W	4-Oct		N/A	N/A			Inspection
PR-1W	14-Nov		N/A	N/A			Inspection
PR-1W	19-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-2W	4-Jan		N/A	N/A			Inspection
PR-2W	22-Feb		N/A	N/A			Inspection
PR-2W	22-Mar		N/A	N/A			Inspection
PR-2W	11-Apr		N/A	N/A			Inspection
PR-2W	16-May		N/A	N/A			Inspection
PR-2W	6-Jun		N/A	N/A			Inspection
PR-2W	6-Jul		N/A	N/A			Inspection
PR-2W	29-Aug		N/A	N/A			Inspection
PR-2W	20-Sep	X	N/A	N/A	X		Inspection-PM Duck Bill, Checked For Loose Bolts, Deformities, Wear,Blockages
PR-2W	4-Oct		N/A	N/A			Inspection
PR-2W	14-Nov		N/A	N/A			Inspection
PR-2W	19-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-3W	4-Jan		N/A	N/A			Inspection
PR-3W	15-Feb		N/A	N/A			Inspection
PR-3W	22-Mar		N/A	N/A			Inspection
PR-3W	11-Apr		N/A	N/A			Inspection
PR-3W	16-May	X	N/A	N/A	X		Inspection-PM 3 Duck Bill, Checked For Loose Bolts, Deformities, Wear, Blockages
PR-3W	6-Jun		N/A	N/A			Inspection
PR-3W	6-Jul		N/A	N/A			Inspection
PR-3W	29-Aug		N/A	N/A			Inspection

PR-3W	20-Sep		N/A	N/A			Inspection
PR-3W	4-Oct		N/A	N/A			Inspection
PR-3W	14-Nov		N/A	N/A			Inspection
PR-3W	19-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-4W	4-Jan				N/A		Inspection
PR-4W	15-Feb				N/A		Inspection
PR-4W	22-Mar				N/A		Inspection
PR-4W	11-Apr				N/A		Inspection
PR-4W	16-May				N/A		Inspection
PR-4W	6-Jun				N/A		Inspection
PR-4W	6-Jul				N/A		Inspection
PR-4W	29-Aug				N/A		Inspection
PR-4W	20-Sep				N/A		Inspection
PR-4W	4-Oct				N/A		Inspection
PR-4W	25-Oct	X	X		N/A		Grease, scrape, and exercise tide gate A and B.
PR-4W	14-Nov				N/A		Inspection
PR-4W	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-5W	4-Jan				N/A		Inspection
PR-5W	15-Feb				N/A		Inspection
PR-5W	22-Mar				N/A		Inspection
PR-5W	11-Apr				N/A		Inspection
PR-5W	16-May				N/A		Inspection
PR-5W	6-Jun				N/A		Inspection
PR-5W	6-Jul				N/A		Inspection
PR-5W	29-Aug				N/A		Inspection
PR-5W	20-Sep				N/A		Inspection
PR-5W	4-Oct				N/A		Inspection
PR-5W	24-Oct	X	X	X	N/A		Grease, scrape, and exercise tide gate A, B, C and D.
PR-5W	14-Nov				N/A		Inspection
PR-5W	19-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
PR-6W	4-Jan				N/A		Inspection
PR-6W	22-Feb				N/A		Inspection
PR-6W	22-Mar				N/A		Inspection
PR-6W	11-Apr				N/A		Inspection
PR-6W	16-May			X	N/A		Inspection-Removed debris and closed T/G post rain storm.

PR-6W	**17-May**			**X**	**N/A**		**Repaired 3" Hole in T/G**
PR-6W	**6-Jun**				**N/A**		**Inspection**
PR-6W	**6-Jul**				**N/A**		**Inspection**
PR-6W	**29-Aug**				**N/A**		**Inspection**
PR-6W	**20-Sep**				**N/A**		**Inspection**
PR-6W	**4-Oct**				**N/A**		**Inspection**
PR-6W	**14-Nov**				**N/A**		**Inspection**
PR-6W	**19-Dec**				**N/A**		**Inspection**

RED HOOK LOCATIONS 2023

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-1	4-Jan				N/A		Inspection
RH-1	2-Feb				N/A		Inspection
RH-1	16-Mar				N/A		Inspection
RH-1	11-Apr			X	N/A		Inspection, Removed debris and cleared blockage fromtide gate
RH-1	3-May				N/A		Inspection
RH-1	7-Jun				N/A		Inspection
RH-1	19-Jul				N/A		Inspection
RH-1	1-Aug				N/A		Inspection
RH-1	26-Sep				N/A		Inspection
RH-1	24-Oct				N/A		Inspection
RH-1	15-Nov				N/A		Inspection
RH-1	20-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-2	4-Jan				N/A		Inspection
RH-2	2-Feb			X	N/A		Inspection, Removed drift wood and debris tide gate chamber.
RH-2	2-Mar			X	N/A		Removed debris tide gate chamber.
RH-2	16-Mar				N/A		Inspection
RH-2	11-Apr				N/A		Inspection
RH-2	3-May				N/A		Inspection
RH-2	7-Jun				N/A		Inspection
RH-2	19-Jul				N/A		Inspection
RH-2	1-Aug				N/A		Inspection
RH-2	26-Sep				N/A		Inspection
RH-2	24-Oct				N/A		Inspection
RH-2	15-Nov				N/A		Inspection
RH-2	20-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-5	4-Jan		N/A	N/A			Inspection
RH-5	2-Feb		N/A	N/A			Inspection
RH-5	17-Feb	X	N/A	N/A			Call out for Sewage condition, BWSO working at site
RH-5	16-Mar		N/A	N/A			Inspection
RH-5	11-Apr		N/A	N/A			Inspection
RH-5	3-May		N/A	N/A			Inspection
RH-5	7-Jun		N/A	N/A			Inspection
RH-5	19-Jul		N/A	N/A			Inspection
RH-5	1-Aug		N/A	N/A			Inspection
RH-5	26-Sep		N/A	N/A			Inspection
RH-5	24-Oct		N/A	N/A			Inspection
RH-5	15-Nov		N/A	N/A			Inspection
RH-5	20-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-6	4-Jan		N/A	N/A			Inspection
RH-6	2-Feb		N/A	N/A			Inspection
RH-6	16-Mar		N/A	N/A			Inspection
RH-6	11-Apr		N/A	N/A			Inspection
RH-6	3-May		N/A	N/A			Inspection
RH-6	7-Jun		N/A	N/A			Inspection
RH-6	19-Jul		N/A	N/A			Inspection
RH-6	1-Aug		N/A	N/A			Inspection
RH-6	26-Sep		N/A	N/A			Inspection
RH-6	24-Oct		N/A	N/A			Inspection
RH-6	15-Nov		N/A	N/A			Inspection
RH-6	20-Dec		N/A	N/A			Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
RH-7	4-Jan		N/A	N/A			Inspection
RH-7	2-Feb		N/A	N/A			Inspection
RH-7	16-Mar		N/A	N/A			Inspection
RH-7	11-Apr		N/A	N/A			Inspection
RH-7	3-May		N/A	N/A			Inspection
RH-7	7-Jun		N/A	N/A			Inspection
RH-7	19-Jul		N/A	N/A			Inspection
RH-7	1-Aug		N/A	N/A			Inspection
RH-7	26-Sep		N/A	N/A			Inspection
RH-7	24-Oct		N/A	N/A			Inspection
RH-7	15-Nov		N/A	N/A			Inspection
RH-7	20-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
RH-8	4-Jan		N/A	N/A			Inspection
RH-8	2-Feb		N/A	N/A			Inspection
RH-8	16-Mar		N/A	N/A			Inspection
RH-8	11-Apr		N/A	N/A			Inspection
RH-8	3-May		N/A	N/A			Inspection
RH-8	7-Jun		N/A	N/A			Inspection
RH-8	19-Jul		N/A	N/A			Inspection
RH-8	1-Aug		N/A	N/A			Inspection
RH-8	26-Sep		N/A	N/A			Inspection
RH-8	24-Oct		N/A	N/A			Inspection
RH-8	15-Nov		N/A	N/A			Inspection
RH-8	20-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
RH-9	4-Jan				N/A		Inspection
RH-9	2-Feb				N/A		Inspection
RH-9	16-Mar				N/A		Inspection
RH-9	11-Apr				N/A		Inspection
RH-9	3-May				N/A		Inspection
RH-9	21-Jun				N/A		Inspection
RH-9	19-Jul				N/A		Inspection
RH-9	1-Aug				N/A		Inspection
RH-9	26-Sep				N/A		Inspection
RH-9	24-Oct				N/A		Inspection
RH-9	15-Nov				N/A		Inspection
RH-9	27-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
RH-10	4-Jan		N/A	N/A			Inspection
RH-10	2-Feb		N/A	N/A			Inspection
RH-10	16-Mar		N/A	N/A			Inspection
RH-10	11-Apr		N/A	N/A			Inspection
RH-10	3-May		N/A	N/A			Inspection
RH-10	21-Jun		N/A	N/A			Inspection
RH-10	19-Jul		N/A	N/A			Inspection
RH-10	1-Aug		N/A	N/A			Inspection
RH-10	26-Sep	X	N/A	N/A			Inspection, Removed grit and debris from diversion chamber and diversion
RH-10	24-Oct		N/A	N/A			Inspection
RH-10	22-Nov		N/A	N/A			Inspection
RH-10	27-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	CI Runs	Comments
RH-11	4-Jan				N/A		Inspection
RH-11	2-Feb				N/A		Inspection
RH-11	16-Mar		X	X	N/A		Inspection, Grease, scrape, and exercise tide gate A, Removed debris tide gate chamber
RH-11	11-Apr				N/A		Inspection
RH-11	3-May				N/A		Inspection
RH-11	21-Jun				N/A		Inspection
RH-11	19-Jul		X		N/A		Inspection, Grease, scrape, and exercise tide gate A and B.
RH-11	1-Aug				N/A		Inspection
RH-11	26-Sep				N/A		Inspection
RH-11	24-Oct				N/A		Inspection
RH-11	15-Nov				N/A		Inspection
RH-11	27-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-12	4-Jan				N/A		Inspection
RH-12	2-Feb				N/A		Inspection
RH-12	16-Mar				N/A		Inspection
RH-12	27-Apr				N/A		Inspection
RH-12	23-May				N/A		Inspection
RH-12	27-Jun				N/A		Inspection
RH-12	13-Jul				N/A		Inspection
RH-12	1-Aug				N/A		Inspection
RH-12	24-Oct				N/A		Inspection
RH-12	22-Nov				N/A		Inspection
RH-12	27-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-13	4-Jan				N/A		Inspection
RH-13	2-Feb				N/A		Inspection
RH-13	16-Mar				N/A		Inspection
RH-13	27-Apr				N/A		Inspection
RH-13	23-May				N/A		Inspection
RH-13	27-Jun				N/A		Inspection
RH-13	13-Jul				N/A		Inspection
RH-13	1-Aug				N/A		Inspection
RH-13	25-Oct				N/A		Inspection
RH-13	22-Nov				N/A		Inspection
RH-13	27-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-14	4-Jan				N/A		Inspection
RH-14	2-Feb				N/A		Inspection
RH-14	16-Mar				N/A		Inspection
RH-14	27-Apr				N/A		Inspection
RH-14	23-May	X			N/A		Remove debris, and grit from diversion chamber, regulator, and tide gate
RH-14	27-Jun	X			N/A		Inspection, Remove debris, and grit from diversion chamber, and tide gate
RH-14	13-Jul		X		N/A		Inspection, Grease, scrape, and exercise tide gate A.
RH-14	1-Aug				N/A		Inspection
RH-14	25-Oct		X		N/A		Inspection, Grease, scrape, and exercise tide gate.
RH-14	22-Nov		X		N/A		Inspection, Grease, scrape, and exercise tide gate.
RH-14	27-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-15	4-Jan		x		N/A		Grease, scrape, and exercise tide gate A.
RH-15	2-Feb				N/A		Inspection
RH-15	16-Mar				N/A		Inspection
RH-15	27-Apr				N/A		Inspection
RH-15	23-May		X		N/A		Inspection, Grease, scrape, and exercise tide gate.
RH-15	27-Jun				N/A		Inspection
RH-15	13-Jul				N/A		Inspection
RH-15	9-Aug				N/A		Inspection
RH-15	25-Oct				N/A		Inspection
RH-15	22-Nov		X		N/A		Inspection, Grease, scrape, and exercise tide gate.
RH-15	27-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-16	26-Jan				N/A		Inspection
RH-16	2-Feb		X		N/A		Insepction, Grease, scrape, and exercise tide gate A.
RH-16	16-Mar				N/A		Inspection
RH-16	27-Apr				N/A		Inspection
RH-16	23-May				N/A		Inspection
RH-16	27-Jun				N/A		Inspection
RH-16	13-Jul				N/A		Inspection
RH-16	9-Aug				N/A		Inspection
RH-16	25-Oct				N/A		Inspection
RH-16	22-Nov				N/A		Inspection
RH-16	29-Dec				N/A		Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-17	26-Jan				N/A		Inspection
RH-17	2-Feb				N/A		Inspection, Removed grit and debris tide gate chamber.
RH-17	16-Mar		X	X	N/A		Grease, scrape, and exercise tide gate A.
RH-17	27-Apr				N/A		Inspection
RH-17	23-May				N/A		Inspection
RH-17	27-Jun				N/A		Inspection
RH-17	13-Jul				N/A		Inspection
RH-17	9-Aug				N/A		Inspection
RH-17	24-Oct	X			N/A	X	Inspection, Chloride , Removed grit and debris diversion chamber and regulator
RH-17	22-Nov				N/A		Inspection
RH-17	29-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-18	26-Jan				N/A		Inspection
RH-18	23-Feb				N/A		Inspection
RH-18	23-Mar				N/A		Inspection
RH-18	27-Apr				N/A		Inspection
RH-18	16-May				N/A		Inspection
RH-18	27-Jun				N/A		Inspection
RH-18	13-Jul		X		N/A		Inspection, Grease, scrape, and exercise tide gate A.
RH-18	9-Aug				N/A		Inspection
RH-18	23-Oct		X		N/A		Inspection, Grease, scrape, and exercise tide gate.
RH-18	22-Nov				N/A		Inspection
RH-18	29-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-18A	26-Jan				N/A		Grease, scrape, and exercise tide gate A.
RH-18A	23-Feb		x	x	N/A		Inspection, Remove debris from tide gate chamber
RH-18A	23-Mar				N/A		Inspection
RH-18A	27-Apr				N/A		Inspection
RH-18A	16-May				N/A		Inspection
RH-18A	27-Jun				N/A		Inspection
RH-18A	13-Jul				N/A		Inspection
RH-18A	9-Aug				N/A		Inspection
RH-18A	23-Oct				N/A		Inspection
RH-18A	22-Nov				N/A		Inspection
RH-18A	29-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-19	26-Jan		N/A	N/A			Inspection
RH-19	23-Feb		N/A	N/A			Inspection
RH-19	23-Mar		N/A	N/A			Inspection
RH-19	19-Apr		N/A	N/A			Inspection
RH-19	16-May	X	N/A	N/A			Inspection, Removed large debris, wood, and grit from diversion chamber
RH-19	27-Jun		N/A	N/A			Inspection
RH-19	13-Jul		N/A	N/A			Inspection
RH-19	9-Aug		N/A	N/A			Inspection
RH-19	23-Oct		N/A	N/A			Inspection
RH-19	21-Nov		N/A	N/A			Inspection
RH-19	29-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-19A	26-Jan		N/A	N/A			Inspection
RH-19A	23-Feb		N/A	N/A			Inspection
RH-19A	23-Mar		N/A	N/A			Inspection
RH-19A	19-Apr		N/A	N/A			Inspection
RH-19A	16-May		N/A	N/A			Inspection
RH-19A	27-Jun		N/A	N/A			Inspection
RH-19A	27-Jul		N/A	N/A			Inspection
RH-19A	9-Aug		N/A	N/A			Inspection
RH-19A	23-Oct		N/A	N/A			Inspection
RH-19A	21-Nov		N/A	N/A			Inspection
RH-19A	29-Dec		N/A	N/A			Inspection

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-20	26-Jan		N/A	N/A	N/A		Inspection
RH-20	23-Feb		N/A	N/A	N/A		Inspection
RH-20	23-Mar		N/A	N/A	N/A		Inspection
RH-20	19-Apr		N/A	N/A	N/A		Inspection
RH-20	16-May		N/A	N/A	N/A		Inspection
RH-20	7-Jun		N/A	N/A	N/A		Inspection
RH-20	27-Jul		N/A	N/A	N/A		Inspection
RH-20	9-Aug		N/A	N/A	N/A		Inspection
RH-20	23-Oct		N/A	N/A	N/A		Inspection
RH-20	21-Nov		N/A	N/A	N/A		Inspection
RH-20	29-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-20A	26-Jan				N/A		Inspection
RH-20A	23-Feb				N/A		Inspection
RH-20A	23-Mar				N/A		Inspection
RH-20A	19-Apr				N/A		Inspection
RH-20A	16-May				N/A		Inspection
RH-20A	7-Jun				N/A		Inspection
RH-20A	27-Jul				N/A		Inspection
RH-20A	9-Aug				N/A		Inspection
RH-20A	23-Oct				N/A		Inspection
RH-20A	21-Nov				N/A		Inspection
RH-20A	29-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-21	26-Jan		N/A	N/A	N/A		Inspection
RH-21	23-Feb		N/A	N/A	N/A		Inspection
RH-21	23-Mar		N/A	N/A	N/A		Inspection
RH-21	19-Apr		N/A	N/A	N/A		Inspection
RH-21	16-May		N/A	N/A	N/A		Inspection
RH-21	7-Jun		N/A	N/A	N/A		Inspection
RH-21	27-Jul		N/A	N/A	N/A		Inspection
RH-21	9-Aug		N/A	N/A	N/A		Inspection
RH-21	23-Oct		N/A	N/A	N/A		Inspection
RH-21	21-Nov	X	N/A	N/A	N/A		Removed wood and debris from from diversion chamber
RH-21	29-Dec		N/A	N/A	N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-21A	26-Jan				N/A		Inspection
RH-21A	23-Feb				N/A		Inspection
RH-21A	23-Mar				N/A		Inspection
RH-21A	19-Apr				N/A		Inspection
RH-21A	16-May				N/A		Inspection
RH-21A	7-Jun				N/A		Inspection
RH-21A	27-Jul	X			N/A		Inspection, Removed debris, and grit from diversion chamber, and regulator
RH-21A	9-Aug				N/A		Inspection
RH-21A	23-Oct				N/A		Inspection
RH-21A	21-Nov				N/A		Inspection
RH-21A	29-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-22	31-Jan		N/A	N/A			Inspection
RH-22	15-Feb		N/A	N/A			Inspection
RH-22	26-Mar		N/A	N/A			Inspection
RH-22	19-Apr		N/A	N/A			Inspection
RH-22	23-May		N/A	N/A			Inspection
RH-22	21-Jun		N/A	N/A			Inspection
RH-22	26-Jul		N/A	N/A			Inspection
RH-22	29-Aug		N/A	N/A			Inspection
RH-22	26-Sep		N/A	N/A			Inspection
RH-22	25-Oct		N/A	N/A			Inspection
RH-22	29-Nov		N/A	N/A			Inspection
RH-22	15-Dec	X	N/A	N/A			Inspection, Removed driftwood and debris from regulator

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-23	31-Jan		N/A	N/A			Inspection
RH-23	15-Feb		N/A	N/A			Inspection
RH-23	26-Mar		N/A	N/A			Inspection
RH-23	19-Apr		N/A	N/A			Inspection
RH-23	23-May		N/A	N/A			Inspection
RH-23	21-Jun		N/A	N/A			Inspection
RH-23	26-Jul		N/A	N/A			Inspection
RH-23	29-Aug		N/A	N/A			Inspection
RH-23	26-Sep		N/A	N/A			Inspection
RH-23	25-Oct		N/A	N/A			Inspection
RH-23	29-Nov		N/A	N/A			Inspection
RH-23	15-Dec		N/A	N/A			Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-24	31-Jan				N/A		Inspection
RH-24	15-Feb				N/A		Inspection
RH-24	26-Mar				N/A		Inspection
RH-24	19-Apr				N/A		Inspection
RH-24	24-May				N/A		Inspection
RH-24	21-Jun	X	X		N/A		Inspection, Grease, scrape, and exercise tide gates. Removed grit and debris from diversion chamber and regulator.
RH-24	26-Jul				N/A		Inspection
RH-24	29-Aug				N/A		Inspection
RH-24	26-Sep				N/A		Inspection, Inspection, Grease, scrape, and exercise tide gate.
RH-24	25-Oct				N/A		Inspection
RH-24	29-Nov				N/A		Inspection
RH-24	15-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-25	26-Jan				N/A		Inspection
RH-25	15-Feb				N/A		Inspection
RH-25	26-Mar				N/A		Inspection
RH-25	19-Apr				N/A		Inspection
RH-25	24-May				N/A		Inspection
RH-25	21-Jun				N/A		Inspection
RH-25	26-Jul				N/A		Inspection
RH-25	26-Aug		X		N/A		Grease, scrape, and exercise tide gate.
RH-25	29-Aug				N/A		Inspection
RH-25	26-Sep		X		N/A		Grease, scrape, and exercise tide gate.
RH-25	25-Oct		X	X	N/A		Grease, scrape, and exercise tide gate. Removed grit and debris from diversion chamber and regulator.
RH-25	29-Nov				N/A		Inspection
RH-25	15-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-26	26-Jan				N/A		Inspection
RH-26	15-Feb				N/A		Inspection
RH-26	26-Mar				N/A		Inspection
RH-26	11-Apr				N/A		Inspection
RH-26	24-May				N/A		Inspection
RH-26	7-Jun		X		N/A		Inspection, Grease, scrape, and exercise tide gates.
RH-26	27-Jul				N/A		Inspection
RH-26	29-Aug				N/A		Inspection
RH-26	23-Oct				N/A		Inspection
RH-26	29-Nov		X		N/A		Inspection, Inspection, Grease, scrape, and exercise tide gates.
RH-26	15-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
RH-GPS	26-Jan				N/A		Inspection
RH-GPS	15-Feb				N/A		Inspection
RH-GPS	26-Mar				N/A		Inspection
RH-GPS	15-Apr		X		N/A		Grease, scrape, and exercise tide gate D.
RH-GPS	19-Apr				N/A		Inspection
RH-GPS	24-May				N/A		Inspection
RH-GPS	21-Jun				N/A		Inspection
RH-GPS	26-Jul				N/A		Inspection
RH-GPS	29-Aug				N/A		Inspection
RH-GPS	26-Sep				N/A		Inspection
RH-GPS	25-Oct				N/A		Inspection
RH-GPS	29-Nov				N/A		Inspection
RH-GPS	15-Dec		X		N/A		Inspection, Grease, scrape, and exercise all tide gates.

Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
CSO-1	31-Jan				N/A		Inspection
CSO-1	15-Feb				N/A		Inspection
CSO-1	23-Mar				N/A		Inspection
CSO-1	24-May				N/A		Inspection
CS0-1	21-Jun				N/A		Inspection
CSO-1	26-Jul				N/A		Inspection
CSO-1	29-Aug		X		N/A		Inspection, Scrapped, grease, and exercised tide gates
CSO-1	25-Oct				N/A		Inspection
CSO-1	29-Nov				N/A		Inspection
CSO-1	20-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
CS0-2	31-Jan		X		N/A		Grease, scrape, and exercise tide gate "A".
CSO-2	15-Feb				N/A		Inspection
CSO-2	4-Mar			X	N/A		Inspection, Removed grit and debris tide gate chamber.
CSO-2	23-Mar				N/A		Inspection
CSO-2	24-May				N/A		Inspection
CSO-2	21-Jun				N/A		Inspection
CSO-2	26-Jul				N/A		Inspection
CSO-2	29-Aug		X		N/A		Inspection, Scrapped, grease, and exercised tide gates
CSO-2	25-Oct				N/A		Inspection
CSO-2	29-Nov				N/A		Inspection
CSO-2	20-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
CSO-3	31-Jan				N/A		Inspection
CSO-3	15-Feb				N/A		Inspection
CSO-3	26-Mar				N/A		Inspection
CSO-3	24-May				N/A		Inspection
CSO-3	21-Jun				N/A		Inspection
CSO-3	26-Jul				N/A		Inspection
CSO-3	29-Aug		X		N/A		Inspection, Scrapped, grease, and exercised tide gates
CSO-3	25-Oct				N/A		Inspection
CSO-3	29-Nov				N/A		Inspection
CSO-3	15-Dec				N/A		Inspection
Number	REG PM	REG CM	TG PM	TG CM	DB	Cl Runs	Comments
GFT	4-Jan	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	15-Feb	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	23-Mar	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	11-Apr	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	3-May	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	21-Jun	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	19-Jul	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	29-Aug	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	26-Sep	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	24-Oct	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	15-Nov	N/A	N/A	N/A	N/A	N/A	Inspection
GFT	15-Dec	N/A	N/A	N/A	N/A	N/A	Inspection

Rockaway							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
ROCK-01	01/14/23						
ROCK-01	02/03/23						Accumulated debris, grease - needs Vactor
ROCK-01	03/12/23						
ROCK-01	04/08/23						
ROCK-01	05/20/23						
ROCK-01	06/11/23		X				PM Tide Gate #1
ROCK-01	07/15/23						
ROCK-01	08/12/23						
ROCK-01	09/03/23						
ROCK-01	10/14/23						
ROCK-01	11/12/23						
ROCK-01	12/10/23						
ROCK-02	01/14/23						
ROCK-02	02/03/23						Accumulated debris, grease - needs Vactor
ROCK-02	03/12/23						
ROCK-02	04/08/23						
ROCK-02	05/20/23						
ROCK-02	06/11/23		X				PM Tide Gate #2
ROCK-02	07/15/23						
ROCK-02	08/12/23						
ROCK-02	09/03/23						
ROCK-02	10/14/23						
ROCK-02	11/12/23						
ROCK-02	12/10/23						
ROCK-D2	01/15/23						
ROCK-D2	02/02/23						
ROCK-D2	03/12/23						
ROCK-D2	04/08/23						
ROCK-D2	05/20/23						
ROCK-D2	06/11/23						
ROCK-D2	07/15/23						
ROCK-D2	08/12/23						

ROCK-D2	09/03/23						
ROCK-D2	10/14/23						
ROCK-D2	11/12/23						
ROCK-D2	12/10/23						
ROCK-D3	01/15/23						
ROCK-D3	02/02/23						
ROCK-D3	03/12/23						
ROCK-D3	04/08/23						
ROCK-D3	05/20/23						
ROCK-D3	06/11/23						
ROCK-D3	07/15/23						
ROCK-D3	08/12/23						
ROCK-D3	09/03/23						
ROCK-D3	10/14/23						
ROCK-D3	11/12/23						Rungs need to be replaced
ROCK-D3	12/10/23						
ROCK-D4	01/15/23						
ROCK-D4	02/02/23						
ROCK-D4	03/12/23						
ROCK-D4	04/08/23						
ROCK-D4	05/20/23						
ROCK-D4	06/11/23						
ROCK-D4	07/15/23						
ROCK-D4	08/12/23						
ROCK-D4	09/03/23						
ROCK-D4	10/14/23						
ROCK-D4	11/12/23						
ROCK-D4	12/10/23						
ROCK-D5	01/15/23						
ROCK-D5	02/03/23						
ROCK-D5	03/12/23						
ROCK-D5	04/08/23						
ROCK-D5	05/20/23						
ROCK-D5	06/11/23						
ROCK-D5	07/15/23						

ROCK-D5	08/12/23						
ROCK-D5	09/03/23						
ROCK-D5	10/14/23						
ROCK-D5	11/12/23						
ROCK-D5	12/10/23						
ROCK-D6	01/15/23						
ROCK-D6	01/15/23						
ROCK-D6	02/03/23						
ROCK-D6	03/12/23						
ROCK-D6	04/08/23						
ROCK-D6	05/20/23						
ROCK-D6	06/11/23						
ROCK-D6	07/15/23						
ROCK-D6	08/12/23						
ROCK-D6	09/03/23						
ROCK-D6	10/14/23						
ROCK-D6	11/12/23						Partly blocked - corrected
ROCK-D6	12/10/23						
ROCK-D7	01/15/23						Hosed out grit and debris with Flusher Truck.
ROCK-D7	02/03/23						
ROCK-D7	03/12/23						
ROCK-D7	04/08/23						
ROCK-D7	05/20/23						
ROCK-D7	06/11/23						
ROCK-D7	07/15/23						
ROCK-D7	08/12/23						
ROCK-D7	09/03/23						
ROCK-D7	10/14/23						
ROCK-D7	11/12/23						
ROCK-D7	12/10/23						
ROCK-D8	01/14/23						
ROCK-D8	02/03/23						
ROCK-D8	03/12/23						
ROCK-D8	04/08/23						
ROCK-D8	05/20/23						

ROCK-D8	06/11/23						
ROCK-D8	07/15/23						
ROCK-D8	08/12/23						
ROCK-D8	09/03/23						
ROCK-D8	10/14/23						
ROCK-D8	11/12/23						
ROCK-D8	12/10/23						
ROCK-D9	01/14/23						
ROCK-D9	02/03/23						
ROCK-D9	03/12/23						
ROCK-D9	04/08/23						
ROCK-D9	05/20/23						
ROCK-D9	06/11/23						
ROCK-D9	07/15/23						
ROCK-D9	08/12/23						
ROCK-D9	09/03/23						
ROCK-D9	10/14/23						
ROCK-D9	10/14/23						
ROCK-D9	11/12/23						Partly blocked - corrected
ROCK-D9	12/10/23						
ROCK-D10	01/14/23						Hosed out grit and debris from top side.
ROCK-D10	02/03/23						
ROCK-D10	03/12/23						
ROCK-D10	04/08/23						
ROCK-D10	05/20/23						
ROCK-D10	06/11/23						
ROCK-D10	07/15/23						
ROCK-D10	08/12/23						
ROCK-D10	09/03/23						
ROCK-D10	10/14/23						
ROCK-D10	11/12/23						
ROCK-D10	12/10/23						
ROCK-D11	01/14/23						
ROCK-D11	02/03/23						
ROCK-D11	03/12/23						

ROCK-D11	04/08/23						
ROCK-D11	05/20/23						
ROCK-D11	06/11/23						
ROCK-D11	07/15/23						
ROCK-D11	08/12/23						
ROCK-D11	09/03/23						
ROCK-D11	10/14/23						
ROCK-D11	11/12/23						
ROCK-D11	12/10/23						
ROCK-D12	01/14/23						
ROCK-D12	02/03/23						
ROCK-D12	03/12/23						
ROCK-D12	04/08/23						Need to be flushed.
ROCK-D12	05/20/23						
ROCK-D12	06/11/23						
ROCK-D12	07/15/23						
ROCK-D12	08/12/23						
ROCK-D12	09/03/23						
ROCK-D12	10/14/23						
ROCK-D12	11/12/23						Partly blocked - corrected
ROCK-D12	12/10/23						
ROCK-D15	01/14/23						
ROCK-D15	02/03/23						
ROCK-D15	03/12/23						
ROCK-D15	04/08/23						
ROCK-D15	05/20/23						
ROCK-D15	06/11/23						
ROCK-D15	07/15/23						
ROCK-D15	08/12/23						
ROCK-D15	09/03/23						
ROCK-D15	10/14/23						
ROCK-D15	11/12/23						No access
ROCK-D15	12/10/23						No access

Tallman's Island							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
TI1	N/A						
TI2	N/A						
TI3	01/08/23		X				full entry inspection,exercised tide gate
TI3	02/08/23		X				full entry inspection,exercised tide gate
TI3	03/21/23		X				full entry inspection,exercised tide gate
TI3	04/03/23	x	x				full entry inspection,exercised TG, removed partial blockage in regulator
TI3	05/06/23		x	x			full entry, repaired flapper bracket, exercised tide gate
TI3	06/02/23		x				exercised tide gate
TI3	07/02/23		X				exercised tide gate
TI3	07/29/23		x	x			exercised tide gate & removed debris from TG
TI3	08/19/23		X				exercised tide gate
TI3	09/02/23		X				exercised & greased tide gate
TI3	10/03/23		X				exercised tide gate & removed debris from diversion
TI3	11/01/23		x				exercised tide gate
TI3	12/16/23		x				exercised tide gate
TI4	01/08/23		X				exercised tide gate
TI4	02/08/23		X				exercised tide gate
TI4	03/21/23		X				exercised tide gate
TI4	04/03/23		x				exercised tide gate
TI4	05/23/23		x				exercised tide gate
TI4	06/20/23		x				exercised tide gate
TI4	07/02/23						
TI4	07/29/23		x				exercised tide gate
TI4	08/19/23		x				exercised tide gate
TI4	09/02/23		x	x			full entry removed debris from tide gate, exercised tide gate
TI4	10/03/23		x				exercised tide gate
TI4	11/01/23		x				exercised tide gate
TI4	12/16/23		x				exercised tide gate
TI5	N/A						1/1/23-12/31/23 area under construction
TI6	01/08/23						
TI6	02/08/23						full entry to diversion & regulator chamber removed partial blockage
TI6	02/09/23						
TI6	03/21/23						

TI6	04/03/23						full entry to diversion chamber removed partial blockage
TI6	05/06/23						
TI6	05/23/23						
TI6	06/02/23						
TI6	07/02/23						
TI6	08/19/23						full entry to diversion chamber removed partial blockage
TI6	09/02/23						
TI6	10/03/23						
TI6	11/01/23						
TI6	12/16/23						removed partial blockage from diversion with boat hook
TI7	01/08/23		x				exercised tide gate
TI7	02/08/23		x				exercised tide gate
TI7	03/21/23	x	x				Exercised tide gate, removed partial blcoakge from regulator
TI7	04/03/23		x				exercised tide gate
TI7	05/06/23		x				exercised tide gate
TI7	06/02/23		x				exercised tide gate
TI7	07/02/23		x				exercised tide gate
TI7	08/19/23		x	x			full entry, exercised TG & removed debris from pull chain
TI7	09/02/23		x				full entry, removed debris & cleaned tide gate
TI7	10/03/23		x				exercised tide gate & removed debris from diversion
TI7	11/01/23		x				exercised tide gate
TI7	12/16/23		x				exercised tide gate
TI9	01/08/23		N/A	N/A			full entry inspection
TI9	02/20/23		N/A	N/A			
TI9	03/21/23		N/A	N/A			full entry inspection
TI9	04/03/23		N/A	N/A			full entry inspection
TI9	05/23/23		N/A	N/A			full entry inspection
TI9	06/02/23		N/A	N/A			full entry inspection
TI9	07/02/23		N/A	N/A			full entry inspection
TI9	08/30/23		N/A	N/A			full entry inspection
TI9	09/02/23		N/A	N/A			
TI9	09/17/23		N/A	N/A			full entry inspection
TI9	10/03/23		N/A	N/A			full entry inspection
TI9	11/28/23		N/A	N/A			full entry inspection
TI9	12/16/23		N/A	N/A			full entry inspection

TI10A	01/08/23		N/A	N/A			full entry inspection
TI10A	02/08/23		N/A	N/A			
TI10A	03/21/23		N/A	N/A			full entry inspection
TI10A	04/03/23		N/A	N/A			full entry inspection
TI10A	05/13/23		N/A	N/A			full entry inspection
TI10A	06/02/23		N/A	N/A			full entry inspection
TI10A	07/02/23		N/A	N/A			full entry inspection
TI10A	08/03/23		N/A	N/A			
TI10A	08/19/23		N/A	N/A			full entry inspection
TI10A	09/02/23		N/A	N/A			
TI10A	10/03/23		N/A	N/A			full entry inspection
TI10A	11/01/23		N/A	N/A			full entry inspection
TI10A	12/16/23		N/A	N/A			full entry inspection
TI10B	01/08/23		N/A	N/A			
TI10B	02/08/23		N/A	N/A			full entry inspection
TI10B	03/21/23		N/A	N/A			
TI10B	04/03/23		N/A	N/A			
TI10B	05/13/23		N/A	N/A			
TI10B	06/02/23		N/A	N/A			
TI10B	07/04/23		N/A	N/A			
TI10B	08/19/23		N/A	N/A			
TI10B	09/02/23		N/A	N/A			
TI10B	10/03/23		N/A	N/A			
TI10B	11/01/23		N/A	N/A			
TI10B	12/16/23		N/A	N/A			
TI11	01/11/23		N/A	N/A			
TI11	02/20/23		N/A	N/A			
TI11	04/03/23		N/A	N/A			
TI11	05/29/23	x	N/A	N/A			full entry, removed debris from regulator chamber
TI11	06/02/23		N/A	N/A			
TI11	07/04/23		N/A	N/A			
TI11	08/30/23		N/A	N/A			
TI11	09/17/23		N/A	N/A			
TI11	10/03/23		N/A	N/A			
TI11	11/23/23		N/A	N/A			

TI11	12/16/23		N/A	N/A			
TI12	01/11/23		x	x			full entry,exercised tide gate and removed debris from TG chamber
TI12	01/27/23		x	x			full entry inspection,removed debris from tide gate and exercised
TI12	01/28/23		x				exercised tide gate
TI12	01/30/23						
TI12	02/08/23		x	x			full entry, exercised tide gate & removed debris from TG chamber
TI12	03/21/23		x				full entry, exercised tide gate & removed debris from diversion
TI12	04/03/23		x				exercised tide gate
TI12	04/24/23		x				exercised tide gate
TI12	05/03/23		X				full entry, exercised TG
TI12	05/08/23		x	x			full entry, replaced 24" flapper, exercised TG
TI12	05/21/23						
TI12	06/02/23						
TI12	07/11/23		x	x			full entry, exercised tide gate & removed debris from TG chamber
TI12	07/29/23		x				exercised tide gate
TI12	07/29/23		x				exercised tide gate
TI12	08/05/23		x				full entry, exercised TG
TI12	08/26/23						
TI12	08/28/23		x				exercised tide gate
TI12	09/01/23						
TI12	09/02/23		x	x			full entry, exercised & greased TG & removed debris
TI12	10/02/23		X				exercised tide gate
TI12	10/08/23		x				exercised tide gate
TI12	10/22/23		X				exercised tide gate
TI12	11/01/23		x				exercised tide gate
TI12	11/24/23		x				exercised tide gate
TI12	11/30/23		x				exercised tide gate
TI12	12/10/23						
TI12	12/11/23						
TI12	12/21/23		x	x			full entry, removed debris stuck in tide gate
TI12	12/23/23						
TI13	01/11/23		N/A	N/A			
TI13	02/20/23		N/A	N/A			
TI13	03/29/23		N/A	N/A			
TI13	04/26/23		N/A	N/A			

TI13	05/29/23		N/A	N/A			
TI13	06/02/23		N/A	N/A			
TI13	07/04/23		N/A	N/A			
TI13	07/15/23		N/A	N/A			
TI13	07/16/23		N/A	N/A			
TI13	08/30/23		N/A	N/A			
TI13	09/17/23		N/A	N/A			
TI13	10/09/23		N/A	N/A			
TI13	11/23/23		N/A	N/A			
TI13	12/25/23		N/A	N/A			
TI14	01/29/23		N/A	N/A			
TI14	02/20/23		N/A	N/A			
TI14	03/29/23		N/A	N/A			
TI14	04/26/23		N/A	N/A			
TI14	05/29/23		N/A	N/A			
TI14	06/29/23		N/A	N/A			
TI14	07/27/23		N/A	N/A			
TI14	08/30/23		N/A	N/A			
TI14	09/28/23		N/A	N/A			
TI14	10/09/23		N/A	N/A			
TI14	11/23/23		N/A	N/A			
TI14	12/25/23		N/A	N/A			
TI15	01/29/23		N/A	N/A			
TI15	02/20/23		N/A	N/A			
TI15	03/29/23		N/A	N/A			
TI15	04/26/23		N/A	N/A			
TI15	05/29/23		N/A	N/A			
TI15	06/29/23		N/A	N/A			
TI15	07/27/23		N/A	N/A			
TI15	08/30/23		N/A	N/A			
TI15	09/28/23		N/A	N/A			
TI15	10/09/23		N/A	N/A			
TI15	11/23/23		N/A	N/A			
TI15	12/25/23		N/A	N/A			
TI16	01/29/23		N/A	N/A			

TI16	02/20/23		N/A	N/A			
TI16	03/29/23		N/A	N/A			
TI16	04/26/23		N/A	N/A			
TI16	05/29/23		N/A	N/A			
TI16	06/29/23		N/A	N/A			
TI16	07/27/23		N/A	N/A			
TI16	08/30/23		N/A	N/A			
TI16	09/28/23		N/A	N/A			
TI16	10/09/23		N/A	N/A			
TI16	11/23/23		N/A	N/A			
TI16	12/25/23		N/A	N/A			
TI17	01/29/23		N/A	N/A			
TI17	02/20/23		N/A	N/A			
TI17	03/29/23		N/A	N/A			
TI17	04/26/23		N/A	N/A			
TI17	05/29/23		N/A	N/A			
TI17	06/29/23		N/A	N/A			
TI17	07/27/23		N/A	N/A			
TI17	08/30/23		N/A	N/A			
TI17	09/28/23		N/A	N/A			
TI17	10/09/23		N/A	N/A			
TI17	11/23/23		N/A	N/A			
TI17	12/25/23		N/A	N/A			
TI18	01/29/23		N/A	N/A			
TI18	02/20/23		N/A	N/A			
TI18	03/29/23		N/A	N/A			
TI18	04/26/23		N/A	N/A			
TI18	05/29/23		N/A	N/A			
TI18	06/29/23		N/A	N/A			
TI18	07/27/23		N/A	N/A			
TI18	08/30/23		N/A	N/A			
TI18	09/28/23		N/A	N/A			
TI18	10/09/23		N/A	N/A			
TI18	11/23/23		N/A	N/A			
TI18	12/25/23		N/A	N/A			

TI19	01/29/23		N/A	N/A			
TI19	02/20/23		N/A	N/A			
TI19	03/29/23		N/A	N/A			
TI19	04/26/23		N/A	N/A			
TI19	05/29/23		N/A	N/A			
TI19	06/29/23		N/A	N/A			
TI19	07/27/23		N/A	N/A			
TI19	08/30/23		N/A	N/A			
TI19	09/28/23		N/A	N/A			
TI19	10/09/23		N/A	N/A			
TI19	11/23/23		N/A	N/A			
TI19	12/25/23		N/A	N/A			
TI20	01/29/23		N/A	N/A			
TI20	02/20/23		N/A	N/A			
TI20	03/29/23		N/A	N/A			
TI20	04/26/23		N/A	N/A			
TI20	05/29/23		N/A	N/A			
TI20	06/29/23		N/A	N/A			
TI20	07/27/23		N/A	N/A			
TI20	08/30/23		N/A	N/A			
TI20	09/28/23		N/A	N/A			
TI20	10/09/23		N/A	N/A			
TI20	11/23/23		N/A	N/A			
TI20	12/25/23		N/A	N/A			
TI21	01/29/23		N/A	N/A			
TI21	02/20/23		N/A	N/A			
TI21	03/29/23		N/A	N/A			
TI21	04/26/23		N/A	N/A			
TI21	05/29/23		N/A	N/A			
TI21	06/29/23		N/A	N/A			
TI21	07/27/23		N/A	N/A			
TI21	08/30/23		N/A	N/A			
TI21	09/28/23		N/A	N/A			
TI21	10/09/23		N/A	N/A			
TI21	11/23/23		N/A	N/A			

TI21	12/25/23		N/A	N/A			
TI22	01/29/23		N/A	N/A			
TI22	02/20/23		N/A	N/A			
TI22	03/29/23		N/A	N/A			
TI22	04/26/23		N/A	N/A			
TI22	05/29/23		N/A	N/A			
TI22	06/29/23		N/A	N/A			
TI22	07/27/23		N/A	N/A			
TI22	08/30/23		N/A	N/A			
TI22	09/28/23		N/A	N/A			
TI22	10/09/23		N/A	N/A			
TI22	11/23/23		N/A	N/A			
TI22	12/25/23		N/A	N/A			
TI23	01/29/23		N/A	N/A			
TI23	02/20/23		N/A	N/A			
TI23	03/29/23		N/A	N/A			
TI23	04/26/23		N/A	N/A			
TI23	05/29/23		N/A	N/A			
TI23	06/29/23		N/A	N/A			
TI23	07/27/23		N/A	N/A			
TI23	08/30/23		N/A	N/A			
TI23	09/28/23		N/A	N/A			
TI23	10/09/23		N/A	N/A			
TI23	11/23/23		N/A	N/A			
TI23	12/25/23		N/A	N/A			
TI24	01/29/23		N/A	N/A			
TI24	02/20/23		N/A	N/A			
TI24	03/29/23		N/A	N/A			
TI24	04/26/23		N/A	N/A			
TI24	05/29/23		N/A	N/A			
TI24	06/29/23		N/A	N/A			
TI24	07/27/23		N/A	N/A			
TI24	08/30/23		N/A	N/A			
TI24	09/28/23		N/A	N/A			
TI24	10/09/23		N/A	N/A			

TI24	11/23/23		N/A	N/A			
TI24	12/25/23		N/A	N/A			
TI25	01/29/23		N/A	N/A			
TI25	02/20/23		N/A	N/A			
TI25	03/29/23		N/A	N/A			
TI25	04/26/23		N/A	N/A			
TI25	05/29/23		N/A	N/A			
TI25	06/29/23		N/A	N/A			
TI25	07/27/23		N/A	N/A			
TI25	08/30/23		N/A	N/A			
TI25	09/28/23		N/A	N/A			
TI25	10/09/23		N/A	N/A			
TI25	11/23/23		N/A	N/A			
TI25	12/25/23		N/A	N/A			
TI26	01/29/23		N/A	N/A			
TI26	02/20/23		N/A	N/A			
TI26	03/29/23		N/A	N/A			
TI26	04/26/23		N/A	N/A			
TI26	05/29/23		N/A	N/A			
TI26	06/29/23		N/A	N/A			
TI26	07/27/23		N/A	N/A			
TI26	08/30/23		N/A	N/A			
TI26	09/28/23		N/A	N/A			
TI26	10/09/23		N/A	N/A			
TI26	11/23/23		N/A	N/A			
TI26	11/26/23		N/A	N/A			
TI26	12/25/23		N/A	N/A			
TI27	01/29/23		N/A	N/A			
TI27	02/20/23		N/A	N/A			
TI27	03/29/23		N/A	N/A			
TI27	04/26/23		N/A	N/A			
TI27	05/29/23		N/A	N/A			
TI27	06/29/23		N/A	N/A			
TI27	07/27/23		N/A	N/A			
TI27	08/30/23		N/A	N/A			

TI27	09/28/23		N/A	N/A			
TI27	10/09/23		N/A	N/A			
TI27	11/23/23		N/A	N/A			
TI27	11/26/23		N/A	N/A			
TI27	12/25/23		N/A	N/A			
TI28	01/29/23		N/A	N/A			
TI28	02/20/23		N/A	N/A			
TI28	03/29/23		N/A	N/A			
TI28	04/26/23		N/A	N/A			
TI28	05/29/23		N/A	N/A			
TI28	06/29/23		N/A	N/A			
TI28	07/27/23		N/A	N/A			
TI28	08/30/23		N/A	N/A			
TI28	09/28/23		N/A	N/A			
TI28	10/09/23		N/A	N/A			
TI28	11/23/23		N/A	N/A			
TI28	11/26/23		N/A	N/A			
TI28	12/25/23		N/A	N/A			
TI29	01/29/23		N/A	N/A			
TI29	02/22/23		N/A	N/A			
TI29	03/06/23		N/A	N/A			
TI29	04/25/23		N/A	N/A			
TI29	05/03/23		N/A	N/A			
TI29	06/19/23		N/A	N/A			
TI29	06/20/23		N/A	N/A			
TI29	07/19/23		N/A	N/A			
TI29	08/28/23		N/A	N/A			
TI29	09/27/23		N/A	N/A			
TI29	10/18/23		N/A	N/A			
TI29	11/15/23		N/A	N/A			
TI29	12/21/23		N/A	N/A			
TI30	01/29/23		N/A	N/A			
TI30	02/26/23		N/A	N/A			
TI30	02/27/23	x	N/A	N/A			full entry to regulator, installed top rungs
TI30	02/28/23	x	N/A	N/A			full entry to regulator, installed 3 more rungs

TI30	03/06/23		N/A	N/A			full entry inspection
TI30	03/08/23		N/A	N/A			
TI30	04/25/23		N/A	N/A			
TI30	05/03/23		N/A	N/A			
TI30	06/19/23		N/A	N/A			full entry inspection, cleaned sonic
TI30	07/19/23		N/A	N/A			
TI30	08/28/23		N/A	N/A			
TI30	09/27/23		N/A	N/A			
TI30	10/18/23		N/A	N/A			
TI30	11/15/23		N/A	N/A			
TI30	12/21/23		N/A	N/A			
TI31	01/11/23		N/A	N/A			
TI31	02/26/23		N/A	N/A			
TI31	03/29/23		N/A	N/A			
TI31	04/05/23		N/A	N/A			
TI31	05/03/23		N/A	N/A			
TI31	06/20/23		N/A	N/A			
TI31	07/27/23		N/A	N/A			
TI31	08/30/23		N/A	N/A			
TI31	09/27/23		N/A	N/A			
TI31	10/18/23		N/A	N/A			
TI31	11/15/23		N/A	N/A			
TI31	12/09/23		N/A	N/A			
TI32	01/04/23		N/A	N/A			
TI32	02/26/23		N/A	N/A			
TI32	03/08/23		N/A	N/A			full entry into diversion, removed rags
TI32	04/05/23		N/A	N/A			full entry into diversion, removed rags
TI32	05/03/23		N/A	N/A			
TI32	06/20/23		N/A	N/A			
TI32	07/19/23		N/A	N/A			
TI32	08/28/23		N/A	N/A			
TI32	09/28/23		N/A	N/A			removed partial blockage with boat hook
TI32	10/18/23		N/A	N/A			removed partial blockage with boat hook
TI32	11/15/23		N/A	N/A			
TI32	12/09/23		N/A	N/A			removed partial blockage with boat hook

TI33	01/04/23		N/A	N/A			
TI33	02/26/23		N/A	N/A			
TI33	03/08/23		N/A	N/A			
TI33	04/05/23		N/A	N/A			
TI33	05/03/23		N/A	N/A			
TI33	06/20/23		N/A	N/A			
TI33	07/19/23		N/A	N/A			
TI33	08/28/23		N/A	N/A			
TI33	09/28/23		N/A	N/A			
TI33	10/18/23		N/A	N/A			
TI33	11/15/23		N/A	N/A			
TI33	12/09/23		N/A	N/A			removed partial blockage with boat hook
TI34	01/04/23		N/A	N/A			
TI34	02/26/23		N/A	N/A			removed partial blockage with boat hook
TI34	03/08/23		N/A	N/A			
TI34	04/05/23		N/A	N/A			full entry into diversion, removed partial blockage
TI34	05/03/23		N/A	N/A			
TI34	06/20/23		N/A	N/A			full entry into diversion, removed partial blockage
TI34	07/19/23		N/A	N/A			
TI34	08/28/23		N/A	N/A			
TI34	09/28/23		N/A	N/A			removed partial blockage with boat hook
TI34	10/18/23		N/A	N/A			
TI34	11/15/23		N/A	N/A			
TI34	12/09/23		N/A	N/A			removed partial blockage with boat hook
TI35	01/04/23		N/A	N/A			
TI35	02/26/23		N/A	N/A			
TI35	03/08/23		N/A	N/A			
TI35	04/05/23		N/A	N/A			
TI35	05/03/23		N/A	N/A			
TI35	06/20/23		N/A	N/A			
TI35	07/19/23		N/A	N/A			
TI35	08/28/23		N/A	N/A			
TI35	09/28/23		N/A	N/A			
TI35	10/18/23		N/A	N/A			
TI35	11/15/23		N/A	N/A			

TI35	12/09/23		N/A	N/A			removed partial blockage with boat hook
TI36	01/04/23		N/A	N/A			
TI36	02/26/23		N/A	N/A			
TI36	03/08/23		N/A	N/A			
TI36	04/05/23		N/A	N/A			
TI36	05/03/23		N/A	N/A			
TI36	06/20/23		N/A	N/A			
TI36	07/19/23		N/A	N/A			
TI36	08/28/23		N/A	N/A			
TI36	09/28/23		N/A	N/A			
TI36	10/18/23		N/A	N/A			
TI36	11/15/23		N/A	N/A			
TI36	12/09/23		N/A	N/A			
TI37	01/04/23		N/A	N/A			
TI37	02/26/23		N/A	N/A			
TI37	03/08/23		N/A	N/A			
TI37	04/21/23		N/A	N/A			
TI37	05/03/23		N/A	N/A			
TI37	06/20/23		N/A	N/A			
TI37	07/19/23		N/A	N/A			
TI37	08/28/23		N/A	N/A			
TI37	09/28/23		N/A	N/A			
TI37	10/18/23		N/A	N/A			
TI37	11/15/23		N/A	N/A			
TI37	12/09/23		N/A	N/A			
TI38	01/04/23		N/A	N/A			
TI38	02/26/23		N/A	N/A			
TI38	03/08/23		N/A	N/A			
TI38	04/21/23		N/A	N/A			
TI38	05/03/23		N/A	N/A			
TI38	06/20/23		N/A	N/A			
TI38	07/19/23		N/A	N/A			
TI38	08/28/23		N/A	N/A			
TI38	09/28/23		N/A	N/A			
TI38	10/25/23		N/A	N/A			

TI38	11/15/23		N/A	N/A			
TI38	12/09/23		N/A	N/A			
TI39	01/04/23		N/A	N/A			
TI39	02/26/23		N/A	N/A			
TI39	03/08/23		N/A	N/A			
TI39	04/21/23		N/A	N/A			
TI39	05/03/23		N/A	N/A			
TI39	06/20/23		N/A	N/A			
TI39	07/19/23		N/A	N/A			
TI39	08/28/23		N/A	N/A			
TI39	09/28/23		N/A	N/A			
TI39	10/25/23		N/A	N/A			
TI39	11/15/23		N/A	N/A			
TI39	12/09/23		N/A	N/A			
TI40	01/24/23		N/A	N/A			full entry inspection
TI40	02/26/23		N/A	N/A			
TI40	03/06/23		N/A	N/A			full entry inspection
TI40	04/21/23		N/A	N/A			full entry inspection
TI40	05/29/23		N/A	N/A			
TI40	06/20/23		N/A	N/A			
TI40	07/12/23		N/A	N/A			
TI40	08/28/23		N/A	N/A			full entry inspection
TI40	09/28/23		N/A	N/A			
TI40	10/25/23		N/A	N/A			full entry inspection
TI40	11/28/23		N/A	N/A			
TI40	12/31/23		N/A	N/A			
TI40A	01/24/23		N/A	N/A			
TI40A	02/26/23		N/A	N/A			
TI40A	03/06/23		N/A	N/A			
TI40A	04/21/23		N/A	N/A			
TI40A	05/29/23		N/A	N/A			
TI40A	06/20/23		N/A	N/A			
TI40A	07/12/23		N/A	N/A			
TI40A	08/28/23		N/A	N/A			
TI40A	09/28/23		N/A	N/A			

TI40A	10/25/23		N/A	N/A			
TI40A	11/28/23		N/A	N/A			
TI40A	12/31/23		N/A	N/A			
TI41	01/24/23		N/A	N/A			
TI41	02/16/23		N/A	N/A			
TI41	03/08/23		N/A	N/A			
TI41	04/21/23		N/A	N/A			
TI41	05/04/23		N/A	N/A			
TI41	06/04/23		N/A	N/A			
TI41	07/12/23		N/A	N/A			
TI41	08/03/23		N/A	N/A			
TI41	09/28/23		N/A	N/A			
TI41	10/10/23		N/A	N/A			
TI41	11/24/23		N/A	N/A			
TI41	12/31/23		N/A	N/A			
TI42	01/24/23		N/A	N/A			
TI42	02/16/23		N/A	N/A			
TI42	03/09/23		N/A	N/A			
TI42	04/21/23		N/A	N/A			
TI42	05/04/23		N/A	N/A			
TI42	06/04/23		N/A	N/A			
TI42	07/12/23		N/A	N/A			
TI42	8/3/2023		N/A	N/A			
TI42	9/28/2023		N/A	N/A			
TI42	10/10/2023		N/A	N/A			
TI42	11/24/2023		N/A	N/A			
TI42	12/31/2023		N/A	N/A			
TI43	1/24/2023		N/A	N/A			
TI43	2/16/2023		N/A	N/A			
TI43	3/9/2023		N/A	N/A			
TI43	4/21/2023		N/A	N/A			
TI43	5/4/2023		N/A	N/A			
TI43	6/4/2023		N/A	N/A			
TI43	7/12/2023		N/A	N/A			
TI43	8/3/2023		N/A	N/A			

TI43	9/28/2023		N/A	N/A			
TI43	10/10/2023		N/A	N/A			
TI43	11/24/2023		N/A	N/A			
TI43	12/31/2023		N/A	N/A			
TI44	1/24/2023		N/A	N/A			
TI44	2/16/2023		N/A	N/A			
TI44	3/9/2023		N/A	N/A			
TI44	4/16/2023		N/A	N/A			full entry, partial blockage in diversion
TI44	4/22/2023		N/A	N/A			
TI44	5/4/2023		N/A	N/A			
TI44	6/4/2023		N/A	N/A			
TI44	7/11/2023		N/A	N/A			
TI44	8/3/2023		N/A	N/A			
TI44	9/28/2023		N/A	N/A			
TI44	10/10/2023		N/A	N/A			
TI44	11/24/2023		N/A	N/A			
TI44	12/31/2023		N/A	N/A			
TI45	1/24/2023		N/A	N/A			
TI45	2/16/2023		N/A	N/A			
TI45	3/9/2023		N/A	N/A			
TI45	4/22/2023		N/A	N/A			
TI45	5/4/2023		N/A	N/A			
TI45	6/4/2023		N/A	N/A			
TI45	7/12/2023		N/A	N/A			
TI45	8/14/2023		N/A	N/A			
TI45	9/28/2023		N/A	N/A			
TI45	10/10/2023		N/A	N/A			
TI45	11/24/2023		N/A	N/A			
TI45	12/31/2023		N/A	N/A			
TI45A	1/24/2023		N/A	N/A			
TI45A	2/16/2023		N/A	N/A			
TI45A	3/9/2023		N/A	N/A			
TI45A	4/22/2023		N/A	N/A			
TI45A	5/4/2023		N/A	N/A			full entry, removed ropes/debirs from rungs
TI45A	6/4/2023		N/A	N/A			

TI45A	7/12/2023		N/A	N/A			full entry inspection
TI45A	8/14/2023		N/A	N/A			
TI45A	9/28/2023		N/A	N/A			
TI45A	10/10/2023		N/A	N/A			
TI45A	11/24/2023		N/A	N/A			
TI45A	12/31/2023		N/A	N/A			
TI46	1/27/2023		N/A	N/A			
TI46	2/16/2023		N/A	N/A			
TI46	3/9/2023		N/A	N/A			
TI46	4/26/2023		N/A	N/A			full entry & inspection
TI46	5/4/2023		N/A	N/A			
TI46	6/4/2023		N/A	N/A			
TI46	7/11/2023		N/A	N/A			
TI46	8/3/2023		N/A	N/A			
TI46	8/12/2023		N/A	N/A			
TI46	8/14/2023		N/A	N/A			
TI46	8/14/2023		N/A	N/A			
TI46	9/28/2023		N/A	N/A			
TI46	10/10/2023		N/A	N/A			full entry & inspection
TI46	11/24/2023		N/A	N/A			
TI46	12/31/2023		N/A	N/A			
TI47	1/27/2023		N/A	N/A			
TI47	2/16/2023		N/A	N/A			full entry & inspection , removed rags from rungs
TI47	3/9/2023		N/A	N/A			
TI47	4/25/2023		N/A	N/A			
TI47	5/4/2023		N/A	N/A			
TI47	6/4/2023		N/A	N/A			
TI47	7/11/2023		N/A	N/A			
TI47	8/3/2023		N/A	N/A			full entry & inspection
TI47	9/28/2023		N/A	N/A			
TI47	10/10/2023		N/A	N/A			full entry & inspection
TI47	11/24/2023		N/A	N/A			full entry & inspection
TI47	12/31/2023		N/A	N/A			
TI48	1/24/2023		N/A	N/A			
TI48	2/16/2023		N/A	N/A			

TI48	3/9/2023		N/A	N/A			
TI48	4/25/2023		N/A	N/A			
TI48	5/4/2023		N/A	N/A			
TI48	6/4/2023		N/A	N/A			
TI48	7/11/2023		N/A	N/A			
TI48	8/3/2023		N/A	N/A			
TI48	9/28/2023		N/A	N/A			
TI48	10/10/2023		N/A	N/A			
TI48	11/24/2023		N/A	N/A			
TI48	12/31/2023		N/A	N/A			
TI49	1/27/2023		N/A	N/A			
TI49	2/16/2023		N/A	N/A			
TI49	3/9/2023		N/A	N/A			
TI49	4/25/2023		N/A	N/A			
TI49	5/4/2023		N/A	N/A			
TI49	6/4/2023		N/A	N/A			full entry removed debris
TI49	6/4/2023		N/A	N/A			full entry cleaned float/sensor
TI49	7/11/2023		N/A	N/A			
TI49	7/15/2023		N/A	N/A			full entry removed debris
TI49	7/16/2023		N/A	N/A			full entry removed debris ,checked twice b/c of no comms
TI49	7/17/2023		N/A	N/A			
TI49	8/3/2023		N/A	N/A			
T149	9/28/2023		N/A	N/A			
TI49	10/10/2023		N/A	N/A			
TI49	11/24/2023		N/A	N/A			
TI49	12/31/2023		N/A	N/A			
TI50	1/27/2023		N/A	N/A			full entry inspection
TI50	2/22/2023		N/A	N/A			
TI50	3/22/2023		N/A	N/A			
TI50	4/22/2023		N/A	N/A			
TI50	5/4/2023		N/A	N/A			
TI50	6/14/2023		N/A	N/A			
TI50	7/12/2023		N/A	N/A			full entry inspection
TI50	8/30/2023		N/A	N/A			
TI50	9/27/2023		N/A	N/A			full entry inspection

TI50	10/13/2023		N/A	N/A			
TI50	11/28/2023		N/A	N/A			full entry inspection
TI50	12/29/2023		N/A	N/A			full entry inspection
TI51	1/27/2023		N/A	N/A			
TI51	2/22/2023		N/A	N/A			
TI51	3/22/2023		N/A	N/A			
TI51	4/22/2023		N/A	N/A			
TI51	5/14/2023	x	N/A	N/A			removed partial debris with boathook
TI51	6/14/2023		N/A	N/A			
TI51	7/2/2023		N/A	N/A			
TI51	8/30/2023		N/A	N/A			
TI51	9/27/2023		N/A	N/A			
TI51	10/13/2023		N/A	N/A			
TI51	11/28/2023		N/A	N/A			
TI51	12/29/2023		N/A	N/A			
TI52	1/27/2023		N/A	N/A			
TI52	2/22/2023		N/A	N/A			
TI52	3/22/2023		N/A	N/A			
TI52	4/22/2023		N/A	N/A			
TI52	5/14/2023		N/A	N/A			
TI52	6/14/2023		N/A	N/A			
TI52	7/2/2023		N/A	N/A			
TI52	8/30/2023		N/A	N/A			
TI52	9/27/2023		N/A	N/A			
TI52	10/13/2023		N/A	N/A			
TI52	11/28/2023		N/A	N/A			
TI52	12/29/2023		N/A	N/A			
TI53	1/8/2023		x				full entry inspection,greased and exercised tide gate
TI53	2/8/2023		x				full entry inspection,greased and exercised tide gate
TI53	3/22/2023		x				full entry inspection,greased and exercised tide gate
TI53	4/8/2023		x				full entry inspection,greased and exercised tide gate
TI53	5/23/2023		x				full entry inspection,greased and exercised tide gate
TI53	6/19/2023		x				full entry inspection,greased and exercised tide gate
TI53	7/2/2023		x				full entry inspection,greased and exercised tide gate
TI53	8/5/2023		x				full entry inspection,greased and exercised tide gate

TI53	9/2/2023		x				full entry inspection,greased and exercised tide gate
TI53	10/3/2023		x				full entry inspection,greased and exercised tide gate
TI53	11/1/2023		x				full entry inspection,greased and exercised tide gate
TI53	12/16/2023		x				full entry inspection,greased and exercised tide gate
TI54	1/8/2023		x				full entry,removed partial blockage in diversion,greased & exercised gate
TI54	2/8/2023		x				full entry,removed partial blockage in diversion,greased & exercised gate
TI54	3/22/2023		x				full entry,removed partial blockage in diversion,greased & exercised gate
TI54	4/8/2023		x				full entry,removed partial blockage in diversion,greased & exercised gate
TI54	5/23/2023		x				full entry inspection,greased and exercised tide gate
TI54	6/19/2023		x				full entry, greased & exercised tide gate
TI54	7/2/2023		x				full entry, greased & exercised tide gate
TI54	8/5/2023		x				full entry, greased & exercised tide gate
TI54	9/2/2023		x				full entry, greased & exercised tide gate
TI54	10/3/2023		x				full entry, greased & exercised tide gate
TI54	11/1/2023		x				full entry, greased & exercised tide gate
TI54	12/16/2023		x				full entry,removed partial blockage in diversion,greased & exercised gate
TI55	1/11/2023		N/A	N/A			
TI55	2/22/2023		N/A	N/A			
TI55	3/22/2023		N/A	N/A			
TI55	4/5/2023		N/A	N/A			
TI55	5/14/2023		N/A	N/A			
TI55	6/14/2023		N/A	N/A			
TI55	7/11/2023		N/A	N/A			
TI55	8/23/2023		N/A	N/A			
TI55	9/27/2023		N/A	N/A			
TI55	10/13/2023		N/A	N/A			
TI55	11/28/2023		N/A	N/A			
TI55	12/27/2023		N/A	N/A			
TI56	1/11/2023		N/A	N/A			
TI56	2/22/2023		N/A	N/A			
TI56	3/29/2023		N/A	N/A			
TI56	4/5/2023		N/A	N/A			
TI56	5/3/2023		N/A	N/A			
TI56	6/14/2023		N/A	N/A			
TI56	7/12/2023		N/A	N/A			

TI56	8/23/2023		N/A	N/A			
TI56	9/27/2023		N/A	N/A			
TI56	10/13/2023		N/A	N/A			
TI56	11/28/2023		N/A	N/A			
TI56	12/27/2023		N/A	N/A			
TI57	1/4/2023		N/A	N/A			
TI57	1/11/2023		N/A	N/A			
TI57	1/18/2023		N/A	N/A			
TI57	1/25/2023		N/A	N/A			
TI57	2/1/2023		N/A	N/A			
TI57	2/8/2023		N/A	N/A			
TI57	2/16/2023		N/A	N/A			
TI57	2/22/2023		N/A	N/A			
TI57	3/1/2023		N/A	N/A			vactor operations
TI57	3/8/2023		N/A	N/A			
TI57	3/15/2023		N/A	N/A			
TI57	3/22/2023		N/A	N/A			
TI57	3/29/2023		N/A	N/A			
TI57	4/5/2023		N/A	N/A			
TI57	4/12/2023		N/A	N/A			
TI57	4/19/2023		N/A	N/A			
TI57	4/26/2023		N/A	N/A			
TI57	5/3/2023		N/A	N/A			
TI57	5/10/2023		N/A	N/A			
TI57	5/17/2023		N/A	N/A			vactor operations
TI57	5/24/2023		N/A	N/A			
TI57	5/31/2023		N/A	N/A			
TI57	6/7/2023		N/A	N/A			
TI57	6/14/2023		N/A	N/A			
TI57	6/20/2023		N/A	N/A			
TI57	6/28/2023		N/A	N/A			
TI57	7/5/2023		N/A	N/A			
TI57	7/11/2023		N/A	N/A			
TI57	7/19/2023		N/A	N/A			
TI57	7/26/2023		N/A	N/A			

TI57	8/2/2023		N/A	N/A			
TI57	8/9/2023		N/A	N/A			vactor operations
TI57	8/16/2023		N/A	N/A			
TI57	8/23/2023		N/A	N/A			
TI57	8/30/2023		N/A	N/A			
TI57	9/6/2023		N/A	N/A			
TI57	9/13/2023		N/A	N/A			
TI57	9/20/2023		N/A	N/A			
TI57	9/27/2023		N/A	N/A			
TI57	10/4/2023		N/A	N/A			
TI57	10/11/2023		N/A	N/A			
TI57	10/18/2023		N/A	N/A			
TI57	10/25/2023		N/A	N/A			
TI57	11/1/2023		N/A	N/A			
TI57	11/8/2023		N/A	N/A			
TI57	11/15/2023		N/A	N/A			
TI57	11/24/2023		N/A	N/A			
TI57	11/29/2023		N/A	N/A			
TI57	12/6/2023		N/A	N/A			
TI57	12/13/2023		N/A	N/A			
TI57	12/20/2023		N/A	N/A			
TI57	12/27/2023		N/A	N/A			
TI58	1/11/2023		N/A	N/A			
TI58	2/22/2023		N/A	N/A			removed debris with boat hook
TI58	3/22/2023		N/A	N/A			
TI58	4/5/2023		N/A	N/A			
TI58	5/14/2023		N/A	N/A			removed debris with boat hook
TI58	6/14/2023		N/A	N/A			removed debris with boat hook
TI58	7/11/2023		N/A	N/A			
TI58	8/23/2023		N/A	N/A			
TI58	9/27/2023		N/A	N/A			removed debris with boat hook
TI58	10/13/2023		N/A	N/A			
TI58	11/28/2023		N/A	N/A			
TI58	12/27/2023		N/A	N/A			
TI59	1/11/2023		N/A	N/A			

TI59	2/22/2023		N/A	N/A			
TI59	3/22/2023		N/A	N/A			
TI59	4/5/2023		N/A	N/A			
TI59	5/14/2023		N/A	N/A			
TI59	6/14/2023		N/A	N/A			
TI59	7/11/2023		N/A	N/A			
TI59	8/23/2023		N/A	N/A			
TI59	9/27/2023		N/A	N/A			
TI59	10/13/2023		N/A	N/A			
TI59	11/28/2023		N/A	N/A			
TI59	12/27/2023		N/A	N/A			
TI60	1/11/2023		N/A	N/A			
TI60	2/22/2023		N/A	N/A			
TI60	3/22/2023		N/A	N/A			
TI60	4/5/2023		N/A	N/A			
TI60	5/14/2023		N/A	N/A			
TI60	6/14/2023		N/A	N/A			
TI60	7/11/2023		N/A	N/A			
TI60	8/23/2023		N/A	N/A			
TI60	9/27/2023		N/A	N/A			
TI60	10/13/2023		N/A	N/A			
TI60	11/28/2023		N/A	N/A			
TI60	12/27/2023		N/A	N/A			

WARDS ISLAND - BRONX REGULATOR LOCATIONS - 2023							
NUMBER	REG PM	REG CM	TG PM	TG CM	EBPP	CL RUN	COMMENTS
WIB-53	7-Jan		x				
WIB-53	9-Feb	x	x	x			remove debris from tg
WIB-53	11-Feb		x				
WIB-53	28-Feb	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-53	8-Mar		x				
WIB-53	6-Apr		x				
WIB-53	11-May		x				
WIB-53	12-Jun		x				
WIB-53	5-Aug		x				
WIB-53	10-Sep		x				
WIB-53	19-Oct		x				
WIB-53	2-Nov		x				
WIB-53	10-Dec		x				
WIB-54	7-Jan		x				
WIB-54	11-Feb		x				
WIB-54	8-Mar		x				
WIB-54	6-Apr		x				
WIB-54	11-May		x				
WIB-54	12-Jun		x				
WIB-54	13-Jul		x				
WIB-54	5-Aug		x				
WIB-54	10-Sep	x	x				na
WIB-54	19-Oct		x				
WIB-54	2-Nov		x				
WIB-54	10-Dec		x				
WIB-55	5-Jan		x				
WIB-55	11-Feb		x				
WIB-55	9-Mar		x				
WIB-55	6-Apr		x				
WIB-55	11-May		x				
WIB-55	12-Jun		x				
WIB-55	13-Jul		x				
WIB-55	5-Aug		x				

WIB-55	10-Sep		x				
WIB-55	18-Oct		x				
WIB-55	2-Nov		x				
WIB-55	10-Dec		x				
WIB-56	5-Jan		x				
WIB-56	11-Feb		x				
WIB-56	9-Mar		x				
WIB-56	6-Apr		x				
WIB-56	11-May		x				
WIB-56	12-Jun		x				
WIB-56	13-Jul		x				
WIB-56	5-Aug		x				
WIB-56	10-Sep		x				
WIB-56	18-Oct	x	x				partial blockage remove debris
WIB-56	18-Oct		x	x			telemetry alarm
WIB-56	1-Nov		x				
WIB-56	6-Dec		x				
WIB-57	5-Jan		x				
WIB-57	11-Feb		x				
WIB-57	9-Mar		x				
WIB-57	6-Apr		x				
WIB-57	11-May		x				
WIB-57	12-Jun		x				
WIB-57	13-Jul		x				
WIB-57	5-Aug		x				
WIB-57	10-Sep		x				
WIB-57	18-Oct		x				
WIB-57	1-Nov		x				
WIB-57	10-Dec		x				
WIB-58	5-Jan		x				
WIB-58	11-Feb		x				
WIB-58	9-Mar		x				
WIB-58	6-Apr		x				
WIB-58	11-May		x				
WIB-58	12-Jun		x				

WIB-58	9-Jul		x				
WIB-58	5-Aug		x				
WIB-58	10-Sep		x				
WIB-58	18-Oct		x				
WIB-58	1-Nov		x				
WIB-58	6-Dec		x				
WIB-59	5-Jan		x				
WIB-59	11-Feb		x				
WIB-59	16-Mar	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-59	6-Apr		x				
WIB-59	11-May		x				
WIB59	12-Jun		x				
WIB-59	9-Jul		x				
WIB-59	5-Aug		x				
WIB-59	10-Sep		x				
WIB-59	18-Oct		x				
WIB-59	1-Nov		x				
WIB-59	6-Dec		x				
WIB-60	5-Jan		x				
WIB-60	11-Feb		x				
WIB-60	9-Mar		x				
WIB-60	5-Apr		x				
WIB-60	7-May		x				
WIB-60	12-Jun		x				
WIB-60	9-Jul		x				
WIB-60	5-Aug		x				
WIB-60	10-Sep		x				
WIB-60	18-Oct		x				
WIB-60	1-Nov		x				
WIB-60	6-Dec		x				
WIB-60A	5-Jan		x				
WIB-60A	11-Feb		x				
WIB-60A	9-Mar		x				
WIB-60A	5-Apr		x				
WIB-60A	7-May		x				

WIB-60A	12-Jun		x				
WIB-60A	9-Jul		x				
WIB-60A	5-Aug		x				
WIB-60A	10-Sep		x				
WIB-60A	12-Oct		x				
WIB-60A	1-Nov		x				
WIB-60A	6-Dec		x				
WIB-61	5-Jan		n/a				
WIB-61	11-Feb		n/a				
WIB-61	9-Mar		n/a				
WIB-61	5-Apr		n/a				
WIB-61	7-May		n/a				
WIB-61	12-Jun		n/a				
WIB-61	9-Jul		n/a				
WIB-61	6-Aug		n/a				
WIB-61	10-Sep		n/a				
WIB-61	12-Oct		n/a				
WIB-61	1-Nov		n/a				
WIB-61	6-Dec		n/a				
WIB-62T	5-Jan		x				
WIB-62T	11-Feb		x				
WIB-62T	9-Mar		x				
WIB-62T	5-Apr		x				
WIB-62T	7-May		x				
WIB-62T	12-Jun		x				
WIB-62T	9-Jul		x	x			cleaned, exercised,lubricated,adjusted
WIB-62T	6-Aug		x				
WIB-62T	10-Sep		x				
WIB-62T	12-Oct		x				
WIB-62T	1-Nov		x				
WIB-62T	6-Dec		x				
WIB-62R	5-Jan		n/a	n/a			
WIB-62R	11-Feb		n/a	n/a			
WIB-62R	9-Mar		n/a	n/a			
WIB-62R	5-Apr		n/a	n/a			

WIB-62R	7-May		n/a	n/a			
WIB-62R	12-Jun		n/a	n/a			
WIB-62R	9-Jul		n/a	n/a			
WIB-62R	6-Aug		n/a	n/a			
WIB-62R	10-Sep		n/a	n/a			
WIB-62R	12-Oct		n/a	n/a			
WIB-62R	1-Nov		n/a	n/a			
WIB-62R	6-Dec		n/a	n/a			
WIB-64	5-Jan		n/a	n/a			
WIB-64	11-Feb		n/a	n/a			
WIB-64	9-Mar		n/a	n/a			
WIB-64	6-Apr		n/a	n/a			
WIB-64	7-May		n/a	n/a			
WIB-64	11-Jun		n/a	n/a			
WIB-64	9-Jul		n/a	n/a			
WIB-64	6-Aug		n/a	n/a			
WIB-64	10-Sep		n/a	n/a			
WIB-64	12-Oct		n/a	n/a			
WIB-64	1-Nov		n/a	n/a			
WIB-64	6-Dec		n/a	n/a			
WIB-65	5-Jan		x				
WIB-65	11-Feb		x				
WIB-65	9-Mar		x				
WIB-65	5-Apr		x				
WIB-65	7-May		x				
WIB-65	11-Jun		x				
WIB-65	9-Jul		x				
WIB-65	5-Aug		x				
WIB-65	10-Sep		x				
WIB-65	18-Oct		x				
WIB-65	1-Nov		x				
WIB-65	6-Dec		x				
WIB-66	7-Jan		x				
WIB-66	11-Feb		x				
WIB-66	9-Mar		x				

WIB-66	5-Apr		x				
WIB-66	7-May		x				
WIB-66	11-Jun		x				
WIB-66	9-Jul		x				
WIB-66	5-Aug		x				
WIB-66	10-Sep		x				
WIB-66	18-Oct		x				
WIB-66	2-Nov		x				
WIB-66	6-Dec		x				
WIB-67	7-Jan		x				
WIB-67	7-Feb		x				
WIB-67	28-Feb	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-67	9-Mar		x				
WIB-67	5-Apr		x				
WIB-67	9-May		x				
WIB-67	11-Jun		x				
WIB-67	9-Jul		x				
WIB-67	5-Aug		x				
WIB-67	10-Sep		x				
WIB-67	12-Oct		x				
WIB-67	1-Nov		x				
WIB-67	6-Dec		x				
WIB-68	7-Jan		x				
WIB-68	11-Feb		x				
WIB-68	8-Mar		x				
WIB-68	6-Apr		x				
WIB-68	11-May		x				
WIB-68	12-Jun		x				
WIB-68	8-Jul		x				
WIB-68	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-68	6-Aug		x				
WIB-68	14-Sep		x				
WIB-68	12-Oct		x				
WIB-68	2-Nov		x				
WIB-68	10-Dec		x				

WIB-69	7-Jan		x				
WIB-69	11-Feb		x				
WIB-69	8-Mar		x				
WIB-69	6-Apr		x				
WIB-69	17-Apr	x	x				flushed & vactored
WIB-69	19-Apr	x	x				flushed & vactored
WIB-69	11-May		x				
WIB-69	12-Jun		x				
WIB-69	8-Jul		x				
WIB-69	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-69	6-Aug		x				
WIB-69	14-Sep		x				
WIB-69	17-Oct		x				
WIB-69	2-Nov		x				
WIB-69	10-Dec		x				
WIB-70	7-Jan		x				
WIB-70	11-Feb		x				
WIB-70	8-Mar		x				
WIB-70	6-Apr		x				
WIB-70	11-May		x				
WIB-70	12-Jun		x				
WIB-70	8-Jul		x				
WIB-70	10-Jul	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-70	6-Aug		x				
WIB-70	14-Sep		x				
WIB-70	17-Oct		x				
WIB-70	2-Nov		x				
WIB-70	10-Dec		x				
WIB-71	7-Jan		x				
WIB-71	11-Feb		x				
WIB-71	8-Mar		x				
WIB-71	6-Apr	x	x				partial blockage cleared
WIB-71	11-May		x				
WIB-71	12-Jun		x				
WIB-71	8-Jul		x				

WIB-71	6-Aug		x				
WIB-71	14-Sep		x				
WIB-71	17-Oct		x				
WIB-71	2-Nov		x				
WIB-71	10-Dec		x				
WIB-72	5-Jan		x				
WIB-72	11-Feb		x				
WIB-72	16-Mar	x	x	x			cleaned, exercised,lubricated,adjusted
WIB-72	5-Apr		x				
WIB-72	11-May		x				
WIB-72	12-Jun		x				
WIB-72	9-Jul		x				
WIB-72	6-Aug		x				
WIB-72	10-Sep		x				
WIB-72	18-Oct		x				
WIB-72	1-Nov		x				
WIB-72	6-Dec		x				
WIB-73	7-Jan		x				
WIB-73	11-Feb		x				
WIB-73	23-Feb		x	x			cleaned, exercised,lubricated,adjusted
WIB-73	8-Mar		x				
WIB-73	6-Apr		x				
WIB-73	11-May		x				
WIB-73	12-Jun		x				
WIB-73	8-Jul		x				
WIB-73	6-Aug		x				
WIB-73	10-Sep		x				
WIB-73	17-Oct		x				
WIB-73	2-Nov		x				
WIB-73	10-Dec		x				

WARDS ISLAND-MANHATTAN REGULATOR LOCATIONS - 2023

NUMBER	REG PM	REG CM	TG PM	TG CM	EBPP	CL RUN	COMMENTS
WIM-1	8-Jan		x				
WIM-1	11-Feb		x				
WIM-1	12-Mar		x				
WIM-1	16-Apr		x				
WIM-1	14-May		x				
WIM-1	18-Jun		x				
WIM-1	16-Jul		x				
WIM-1	20-Aug		x				
WIM-1	17-Sep		x				
WIM-1	28-Oct		x				
WIM-1	5-Nov		x				
WIM-1	17-Dec		x				
WIM-2A	8-Jan		n/a	n/a			
WIM-2A	11-Feb		n/a	n/a			
WIM-2A	12-Mar		n/a	n/a			
WIM-2A	16-Apr		n/a	n/a			
WIM-2A	14-May		n/a	n/a			
WIM-2A	18-Jun		n/a	n/a			
WIM-2A	16-Jul		n/a	n/a			
WIM-2A	20-Aug		n/a	n/a			
WIM-2A	17-Sep		n/a	n/a			
WIM-2A	28-Oct		n/a	n/a			
WIM-2A	5-Nov		n/a	n/a			
WIM-2A	17-Dec		n/a	n/a			
WIM-2B	8-Jan		n/a	n/a			
WIM-2B	11-Feb		n/a	n/a			
WIM-2B	12-Mar		n/a	n/a			
WIM-2B	16-Apr		n/a	n/a			
WIM-2B	14-May		n/a	n/a			
WIM-2B	18-Jun		n/a	n/a			
WIM-2B	16-Jul		n/a	n/a			
WIM-2B	20-Aug		n/a	n/a			

WIM-2B	17-Sep		n/a	n/a			
WIM-2B	28-Oct		n/a	n/a			
WIM-2B	5-Nov		n/a	n/a			
WIM-2B	17-Dec		n/a	n/a			
WIM-3	8-Jan		x				
WIM-3	11-Feb		x				
WIM-3	12-Mar		x				
WIM-3	16-Apr		x				
WIM-3	14-May		x				
WIM-3	18-Jun		x				
WIM-3	16-Jul		x				
WIM-3	20-Aug		x				
WIM-3	17-Sep		x				
WIM-3	28-Oct		x				
WIM-3	5-Nov		x				
WIM-3	17-Dec		x				
WIM-4	8-Jan		x				
WIM-4	11-Feb		x				
WIM-4	12-Mar		x				
WIM-4	16-Apr		x				
WIM-4	14-May		x				
WIM-4	18-Jun		x				
WIM-4	16-Jul		x				
WIM-4	20-Aug		x				
WIM-4	17-Sep		x				
WIM-4	28-Oct		x				
WIM-4	5-Nov		x				
WIM-4	17-Dec		x				
WIM-5	8-Jan		x				
WIM-5	11-Feb		x				
WIM-5	12-Mar		x				
WIM-5	16-Apr		x				
WIM-5	14-May		x				
WIM-5	18-Jun		x				
WIM-5	16-Jul		x				

WIM-5	20-Aug		x				
WIM-5	17-Sep		x				
WIM-5	28-Oct		x				
WIM-5	5-Nov		x				
WIM-5	17-Dec		x				
WIM-6	8-Jan		x				
WIM-6	11-Feb		x				
WIM-6	12-Mar		x				
WIM-6	16-Apr		x				
WIM-6	14-May		x				
WIM-6	18-Jun		x				
WIM-6	16-Jul		x				
WIM-6	20-Aug		x				
WIM-6	17-Sep		x				
WIM-6	28-Oct		x				
WIM-6	5-Nov		x				
WIM-6	17-Dec		x				
WIM-7	8-Jan		x				
WIM-7	10-Feb		x				
WIM-7	12-Mar		x				
WIM-7	16-Apr		x				
WIM-7	14-May		x				
WIM-7	18-Jun		x				
WIM-7	16-Jul		x				
WIM-7	17-Aug		x				no access
WIM-7	20-Aug		x				
WIM-7	17-Sep		x				
WIM-7	28-Oct		x				
WIM-7	30-Oct		x	x			telemetry alarm
WIM-7	5-Nov		x				
WIM-7	6-Nov		x				
WIM-7	23-Nov		x	x			telemetry alarm
WIM-7	17-Dec		x				
WIM-8	8-Jan		n/a	n/a			
WIM-8	10-Feb		n/a	n/a			

WIM-8	12-Mar		n/a	n/a			
WIM-8	16-Apr		n/a	n/a			
WIM-8	18-May		n/a	n/a			
WIM-8	18-Jun		n/a	n/a			
WIM-8	16-Jul		n/a	n/a			
WIM-8	14-Aug		n/a	n/a			
WIM-8	23-Sep		n/a	n/a			
WIM-8	24-Oct		n/a	n/a			
WIM-8	5-Nov		n/a	n/a			
WIM-8	17-Dec		n/a	n/a			
WIM-9	8-Jan		n/a	n/a			
WIM-9	10-Feb		n/a	n/a			
WIM-9	12-Mar		n/a	n/a			
WIM-9	16-Apr		n/a	n/a			
WIM-9	18-May		n/a	n/a			
WIM-9	18-Jun		n/a	n/a			
WIM-9	16-Jul		n/a	n/a			
WIM-9	14-Aug		n/a	n/a			
WIM-9	23-Sep		n/a	n/a			
WIM-9	24-Oct		n/a	n/a			
WIM-9	5-Nov		n/a	n/a			
WIM-9	17-Dec		n/a	n/a			
WIM-10	12-Jan		n/a	n/a			
WIM-10	10-Feb		n/a	n/a			
WIM-10	12-Mar		n/a	n/a			
WIM-10	16-Apr		n/a	n/a			
WIM-10	13-May		n/a	n/a			
WIM-10	18-Jun		n/a	n/a			
WIM-10	16-Jul		n/a	n/a			
WIM-10	14-Aug		n/a	n/a			
WIM-10	23-Sep		n/a	n/a			
WIM-10	24-Oct		n/a	n/a			
WIM-10	5-Nov		n/a	n/a			
WIM-10	17-Dec		n/a	n/a			
WIM-11	12-Jan		x				

WIM-11	10-Feb		x				
WIM-11	12-Mar		x				
WIM-11	9-Apr		x				
WIM-11	13-May		x				
WIM-11	18-Jun		x				
WIM-11	16-Jul		x				
WIM-11	14-Aug		x				
WIM-11	23-Sep		x				
WIM-11	24-Oct		x				
WIM-11	5-Nov		x				
wIM-11	17-Dec		x				
WIM-12	12-Jan		x				
WIM-12	10-Feb		x				
WIM-12	12-Mar		x				
WIM-12	9-Apr		x				
WIM-12	13-May		x				
WIM-12	18-Jun		x				
WIM-12	15-Jul		x				
WIM-12	14-Aug		x				
WIM-12	24-Aug	x	x	x			cleaned, exercised,lubricated,adjusted
WIM-12	23-Sep		x				
WIM-12	24-Oct		x				
WIM-12	5-Nov		x				
WIM-12	17-Dec		x				
WIM-13	12-Jan		x				
WIM-13	10-Feb		x				
WIM-13	12-Mar		x				
WIM-13	9-Apr		x				
WIM-13	13-May		x				
WIM-13	18-Jun		x				
WIM-13	15-Jul		x				
WIM-13	14-Aug		x				
WIM-13	23-Sep		x				
WIM-13	30-Oct		x	x			telemetry alarm
WIM-13	24-Oct		x				

WIM-13	5-Nov		x				
WIM-13	17-Dec		x				
WIM-14	8-Jan		x				
WIM-14	11-Feb		x				
WIM-14	12-Mar		x				
WIM-14	16-Apr		x				
WIM-14	14-May		x				
WIM-14	18-Jun		x				
WIM-14	16-Jul		x				
WIM-14	20-Aug		x				
WIM-14	17-Sep		x				
WIM-14	18-Oct		x				
WIM-14	5-Nov		x				
WIM-14	17-Dec		x				
WIM-15	12-Jan		x				
WIM-15	11-Feb		x				
WIM-15	12-Mar		x				
WIM-15	22-Apr		x				
WIM-15	13-May		x				
WIM-15	18-Jun		x				
WIM-15	15-Jul		x				
WIM-15	20-Aug		x				
WIM-15	24-Aug	x	x	x			cleaned, exercised,lubricated,adjusted
WIM-15	23-Sep		x				
WIM-15	19-Oct		x				
WIM-15	5-Nov		x				
WIM-15	17-Dec		x				
WIM-16	12-Jan		x				
WIM-16	10-Feb		x				
WIM-16	22-Mar		x				
WIM-16	22-Apr		x				
WIM-16	13-May		x				
WIM-16	18-Jun		x				
WIM-16	15-Jul		x				
WIM-16	14-Aug		x				

WIM-16	24-Aug	x	x	x			cleaned, exercised,lubricated,adjusted
WIM-16	17-Sep		x				
WIM-16	19-Oct		x				
WIM-16	5-Nov		x				
WIM-16	17-Dec		x				
WIM-17	12-Jan	x	x				blockage flushed & vactored
WIM-17	10-Feb		x				
WIM-17	22-Mar		x				
WIM-17	22-Apr		x				
WIM-17	9-May	x	x	x			flushed & vactored
WIM-17	13-May	x	x				blockage flushed & vactored
WIM-17	15-Jun		x				
WIM-17	15-Jul		x				
WIM-17	14-Aug		x				
WIM-17	17-Sep		x				
WIM-17	19-Oct		x				
WIM-17	5-Nov		x				
WIM-17	25-Dec		x				
WIM-18	8-Jan		x				
WIM-18	10-Feb		x				
WIM-18	22-Mar		x				
WIM-18	22-Apr		x				
WIM-18	13-May		x				
WIM-18	15-Jun		x				
WIM-18	15-Jul		x				
WIM-18	14-Aug		x				
WIM-18	17-Sep		x				
WIM-18	19-Oct		x				
WIM-18	14-Nov		x				
WIM-18	25-Dec		x				
WIM-19	12-Jan		x				
WIM-19	10-Feb		x				
WIM-19	22-Mar		x				
WIM-19	22-Apr		x				
WIM-19	13-May		x				

WIM-19	19-May	x	x				blockage flushed & vactored
WIM-19	15-Jun		x				
WIM-19	15-Jul		x				
WIM-19	14-Aug		x				
WIM-19	19-Sep		x				
WIM-19	19-Oct		x				
WIM-13	30-Oct		x	x			telemetry alarm
WIM-19	4-Nov		x				
WIM-19	25-Dec		x				
WIM-20	12-Jan		x				
WIM-20	10-Feb		x				
WIM-20	22-Mar		x				
WIM-20	22-Apr		x				
WIM-20	13-May		x				
WIM-20	15-Jun		x				
WIM-20	15-Jul		x				
WIM-20	14-Aug		x				
WIM-20	19-Sep		x				
WIM-20	19-Oct		x				
WIM-20	4-Nov		x				
WIM-20	14-Dec		x				
WIM-21	12-Jan		x				
WIM-21	8-Feb		x	x		x	closed open flapper
WIM-21	22-Mar		x				
WIM-21	22-Apr		x				
WIM-21	13-May		x				
WIM-21	15-Jun		x				
WIM-21	15-Jul		x				
WIM-21	18-Jul	x	x				flushed & vactored
WIM-21	14-Aug		x				
WIM-21	19-Sep		x				
WIM-21	19-Oct		x				
WIM-21	4-Nov	x	x				partial blockage cleared debris
WIM-21	14-Dec		x				
WIM-22	12-Jan		x				

WIM-22	8-Feb		x				
WIM-22	22-Mar		x				
WIM-22	10-Apr		x				
WIM-22	13-May		x				
WIM-22	15-Jun		x				
WIM-22	15-Jul		x				
WIM-22	18-Jul		x				
WIM-22	9-Aug		x				
WIM-22	19-Sep		x				
WIM-22	19-Oct		x				
WIM-22	4-Nov		x				
WIM-22	14-Dec		x				
WIM-23	12-Jan		x				
WIM-23	8-Feb		x				
WIM-23	22-Mar		x				
WIM-23	10-Apr		x				
WIM-23	13-May		x				
WIM-23	15-Jun		x				
WIM-23	9-Aug		x				
WIM-23	19-Sep		x				
WIM-23	19-Oct		x				
WIM-23	4-Nov		x				
WIM-23	14-Dec		x				
WIM-24	12-Jan		x				
WIM-24	8-Feb		x				
WIM-24	22-Mar		x				
WIM-24	10-Apr		x				
WIM-24	13-May		x				
WIM-24	15-Jun		x				
WIM-24	15-Jul		x				
WIM-24	9-Aug		x				
WIM-24	19-Sep		x				
WIM-24	19-Oct		x				
WIM-24	4-Nov		x				
WIM-24	14-Dec		x				

WIM-25	12-Jan		x				
WIM-25	8-Feb		x				
WIM-25	22-Mar		x				
WIM-25	10-Apr		x				
WIM-25	2-May		x				
WIM-25	4-May		x				
WIM-25	15-Jun		x				
WIM-25	15-Jul		x				
WIM-25	9-Aug		x				
WIM-25	19-Sep		x				
WIM-25	19-Oct		x				
WIM-25	4-Nov						
WIM-25	14-Dec		x				
WIM-26	15-Jan		x				
WIM-26	8-Feb		x				
WIM-26	22-Mar		x				
WIM-26	24-Mar	x	x				blockage flushed & vactored
WIM-26	10-Apr		x				
WIM-26	2-May		x				
WIM-26	4-May		x				
WIM-26	15-Jun		x				
WIM-26	15-Jul		x				
WIM-26	9-Aug		x				
WIM-26	19-Sep		x				
WIM-26	19-Oct		x				
WIM-26	4-Nov		x				
WIM-26	14-Dec		x				
WIM-27	11-Jan		x				
WIM-27	8-Feb		x				
WIM-27	22-Mar		x				
WIM-27	10-Apr		x				
WIM-27	2-May		x				
WIM-27	4-May		x				
WIM-27	15-Jun		x				
WIM-27	13-Jul		x				

WIM-27	9-Aug		x				
WIM-27	19-Sep		x				
WIM-27	19-Oct		x				
WIM-27	4-Nov		x				
WIM-27	14-Dec		x				
WIM-28	11-Jan		x	n/a			
WIM-28	8-Feb		x	n/a			
WIM-28	22-Mar		x	n/a			
WIM-28	10-Apr		x	n/a			
WIM-28	4-May		x	n/a			
WIM-28	15-Jun		x	n/a			
WIM-28	13-Jul		x	n/a			
WIM-28	9-Aug		x	n/a			
WIM-28	19-Sep		x	n/a			
WIM-28	19-Oct		x	n/a			
WIM-28	4-Nov		x	n/a			
WIM-28	14-Dec		x	n/a			
WIM-29	11-Jan		x	n/a			
WIM-29	8-Feb		x	n/a			
WIM-29	22-Mar		x	n/a			
WIM-29	10-Apr		x	n/a			
WIM-29	4-May		x	n/a			
WIM-29	15-Jun		x	n/a			
WIM-29	13-Jul		x	n/a			
WIM-29	9-Aug		x	n/a			
WIM-29	19-Sep		x	n/a			
WIM-29	19-Oct		x	n/a			
WIM-29	4-Nov		x				
WIM-29	14-Dec		x				
WIM-30	11-Jan		x				
WIM-30	1-Feb	x	x				flushed & vactored
WIM-30	8-Feb		x				
WIM-30	16-Mar		x				
WIM-30	10-Apr		x				
WIM-30	4-May		x				

WIM-30	15-Jun		x				
WIM-30	13-Jul		x				
WIM-30	9-Aug		x				
WIM-30	19-Sep		x				
WIM-30	19-Oct		x				
WIM-30	4-Nov		x				
WIM-30	14-Dec		x				
WIM-31	11-Jan		x				
WIM-31	8-Feb		x				
WIM-31	16-Mar	x	x	x			cleaned, exercised,lubricated,adjusted
WIM-31	10-Apr		x				
WIM-31	4-May		x				
WIM-31	15-Jun		x				
WIM-31	13-Jul		x				
WIM-31	9-Aug		x				
WIM-31	19-Sep		x				
WIM-31	19-Oct		x				
WIM-31	4-Nov		x				
WIM-32	14-Dec		x				
WIM-32	11-Jan		x				
WIM-32	8-Feb		x				
WIM-32	16-Mar		x				
WIM-32	10-Apr		x				
WIM-32	14-May		x				
WIM-32	14-Jun		x				
WIM-32	13-Jul		x				
WIM-32	9-Aug		x				
WIM-32	19-Sep		x				
WIM-32	19-Oct		x				
WIM-32	4-Nov		x				
WIM-32	14-Dec		x				
WIM-33	11-Jan		x				
WIM-33	8-Feb		x				
WIM-33	28-Feb	x	x				flushed & vactored
WIM-33	16-Mar	x	x	x			cleaned, exercised,lubricated,adjusted

WIM-33	10-Apr		x				
WIM-33	4-May		x				
WIM-33	14-Jun		x				
WIM-33	13-Jul		x				
WIM-33	9-Aug		x				
WIM-33	19-Sep		x				
WIM-33	19-Oct		x				
WIM-33	4-Nov		x				
WIM-33	14-Dec		x				
WIM-34	11-Jan		x				
WIM-34	10-Feb		x				
WIM-34	16-Mar		x				
WIM-34	9-Apr		x				
WIM-34	4-May		x				
WIM-34	14-Jun		x				
WIM-34	11-Jul		x				
WIM-34	9-Aug		x				
WIM-34	19-Sep		x				
WIM-34	19-Oct		x				
WIM-34	4-Nov		x				
WIM-34	14-Dec		x				no access
WIM-35	11-Jan		x				
WIM-35	8-Feb		x				
WIM-35	15-Mar		x				
WIM-35	16-Mar	x	x	x			cleaned, exercised,lubricated,adjusted
WIM-35	9-Apr		x				
WIM-35	4-May		x				
WIM-35	14-Jun		x				
WIM-35	13-Jul		x				
WIM-35	8-Aug		x				
WIM-35	19-Sep		x				
WIM-35	19-Oct		x				
WIM-35	3-Nov		x				
WIM-35	12-Dec		x				
WIM-36	11-Jan		x				

WIM-36	7-Feb		x				
WIM-36	8-Mar		x				
WIM-36	9-Apr		x				
WIM-36	4-May		x				
WIM-36	14-Jun		x				
WIM-36	11-Jul		x				
WIM-36	8-Aug		x				
WIM-36	19-Sep		x				
WIM-36	19-Oct		x				
WIM-36	3-Nov		x				
WIM-36	12-Dec		x				
WIM-37	11-Jan		x				
WIM-37	7-Feb		x				
WIM-37	8-Mar		x				
WIM-37	9-Apr		x				
WIM-37	14-May		x				
WIM-37	14-Jun		x				
WIM-37	16-Jul		x				
WIM-37	8-Aug		x				
WIM-37	19-Sep		x				
WIM-37	17-Oct		x				
WIM-37	3-Nov		x				
WIM-37	12-Dec		x				
WIM-38	11-Jan		x				
WIM-38	10-Feb		x				
WIM-38	8-Mar		x				
WIM-38	9-Apr		x				
WIM-38	3-May		x				
WIM-38	14-Jun		x				
WIM-38	11-Jul		x				
WIM-38	8-Aug		x				
WIM-38	19-Sep		x				
WIM-38	17-Oct		x				
WIM-38	3-Nov		x				
WIM-38	12-Dec		x				

WIM-39	10-Jan		x				
WIM-39	7-Feb		x				
WIM-39	8-Mar		x				
WIM-39	23-Mar	x	x				cleared partial blockage
WIM-39	26-Mar	x	x				cleared partial blockage
WIM-39	8-May	x	x	x			blockage flushed & vactored
WIM-39	9-May	x	x	x			blockage flushed & vactored
WIM-39	23-Mar	x	x				cleared partial blockage
WIM-39	9-Apr		x				
WIM-39	3-May		x				
WIM-39	9-May	x	x				cleared partial blockage
WIM-39	14-Jun		x				
WIM-39	11-Jul		x				
WIM-39	13-Jul	x	x	x			blockage flushed & vactored
WIM-39	13-Jul	x	x	x			blockage flushed & vactored
WIM-39	8-Aug		x				
WIM-39	11-Aug	x	x	x			blockage flushed & vactored
WIM-39	15-Aug	x	x	x			blockage flushed & vactored
WIM-39	25-Aug	x	x	x			blockage flushed & vactored
WIM-39	28-Aug	x	x	x			blockage flushed & vactored
WIM-39	11-Aug	x	x	x			blockage flushed & vactored
WIM-39	19-Sep		x				
WIM-39	17-Oct		x				
WIM-39	3-Nov		x				
WIM-39	13-Nov	x	x	x			blockage flushed & vactored
WIM-39	12-Dec		x				
WIM-39	27-Dec	x	x	x			blockage flushed & vactored
WIM-40	10-Jan		x				
WIM-40	7-Feb		x				
WIM-40	8-Mar		x				
WIM-40	8-Apr		x				
WIM-40	4-May		x				
WIM-40	14-Jun		x				
WIM-40	11-Jul		x				
WIM-40	8-Aug		x				

WIM-40	14-Sep		x				
WIM-40	17-Oct		x				
WIM-40	3-Nov		x				
WIM-40	12-Dec		x				
WIM-41	10-Jan		x				
WIM-41	7-Feb		x				
WIM-41	8-Mar		x				
WIM-41	13-Mar	x	x				flushed & vactored
WIM-41	8-Apr		x				
WIM-41	3-May		x				
WIM-41	24-May	x	x				blockage flushed & vactored
WIM-41	14-Jun		x				
WIM-41	11-Jul		x				
WIM-41	8-Aug		x				
WIM-41	14-Sep		x				
WIM-41	17-Oct		x				
WIM-41	3-Nov		x				
WIM-41	12-Dec		x				
WIM-42	10-Jan		x				
WIM-42	7-Feb		x				
WIM-42	8-Mar		x				
WIM-42	8-Apr		x				
WIM-42	4-May		x				
WIM-42	14-Jun		x				
WIM-42	11-Jul		x				
WIM-42	8-Aug		x				
WIM-42	14-Sep		x				
WIM-42	17-Oct		x				
WIM-42	3-Nov		x				
WIM-42	12-Dec		x				
WIM-44	11-Jan		x				
WIM-44	10-Feb		x				
WIM-44	8-Mar		x				
WIM-44	13-Mar	x	x				flushed & vactored
WIM-44	8-Apr		x				

WIM-44	3-May		x				
WIM-44	14-Jun		x				
WIM-44	11-Jul		x				
WIM-44	8-Aug		x				
WIM-44	14-Sep		x				
WIM-44	17-Oct		x				
WIM-44	3-Nov		x				
WIM-44	25-Dec		x				
WIM-45	10-Jan		x				
WIM-45	7-Feb		x				
WIM-45	8-Mar		x				
WIM-45	8-Apr		x				
WIM-45	3-May		x				
WIM-45	14-Jun		x				
WIM-45	11-Jul		x				
WIM-45	8-Aug		x				
WIM-45	23-Sep		x				
WIM-45	19-Oct		x				
WIM-45	3-Nov		x				
WIM-45	12-Dec		x				
WIM-46	10-Jan		x				
WIM-46	7-Feb		x				
WIM-46	8-Mar		x				
WIM-46	8-Apr		x				
WIM-46	3-May		x				
WIM-46	14-Jun		x				
WIM-46	11-Jul		x				
WIM-46	8-Aug		x				
WIM-46	14-Sep		x				
WIM-46	17-Oct		x				
WIM-46	3-Nov		x				
WIM-46	12-Dec		x				
WIM-47	10-Jan		x				
WIM-47	7-Feb		x				
WIM-47	8-Mar		x				

WIM-47	8-Apr		x				
WIM-47	3-May		x				
WIM-47	14-Jun		x				
WIM-47	11-Jul		x				
WIM-47	8-Aug		x				
WIM-47	14-Sep		x				
WIM-47	17-Oct		x				
WIM-47	3-Nov		x				
WIM-47	12-Dec		x				
WIM-48	10-Jan		x				
WIM-48	7-Feb		x				
WIM-48	8-Mar		x				
WIM-48	8-Apr		x				
WIM-48	3-May		x				
WIM-48	12-Jun		x				
WIM-48	11-Jul		x				
WIM-48	6-Aug		x				
WIM-48	14-Sep		x				
WIM-48	17-Oct		x				
WIM-48	2-Nov		x				
WIM-48	10-Dec		x				
WIM-50	10-Jan		x				
WIM-50	7-Feb		x				
WIM-50	8-Mar		x				
WIM-50	8-Apr		x				
WIM-50	3-May		x				
WIM-50	12-Jun		x				
WIM-50	11-Jul		x				
WIM-50	6-Aug		x				
WIM-50	14-Sep		x				
WIM-50	17-Oct		x				
WIM-50	2-Nov		x				
WIM-50	10-Dec		x				
WIM-51	10-Jan		n/a	n/a			
WIM-51	7-Feb		n/a	n/a			

WIM-51	8-Mar		n/a	n/a			
WIM-51	8-Apr		n/a	n/a			
WIM-51	4-May		n/a	n/a	x		telemetry alarm
WIM-51	12-Jun		n/a	n/a			
WIM-51	11-Jul		n/a	n/a			
WIM-51	6-Aug		n/a	n/a			
WIM-51	30-Aug		n/a	n/a			flushed & vactored
WIM-51	14-Sep		n/a	n/a			
WIM-51	17-Oct		n/a	n/a			
WIM-51	2-Nov		n/a	n/a			
WIM-51	10-Dec		n/a	n/a			
WIM-52	10-Jan		n/a	n/a			
WIM-52	7-Feb		n/a	n/a			
WIM-52	8-Feb		n/a	n/a			
WIM-52	8-Mar		n/a	n/a			
WIM-52	8-Apr		n/a	n/a			
WIM-52	4-May		n/a	n/a			
WIM-52	16-May		n/a	n/a			
WIM-52	29-May		n/a	n/a			telemetry alarm x2
WIM-52	30-May		n/a	n/a			telemetry alarm x2
WIM-52	31-May		n/a	n/a			telemetry alarm x2
WIM-52	1-Jun		n/a	n/a			telemetry alarm x2
WIM-52	2-Jun		n/a	n/a			telemetry alarm x2
WIM-52	3-Jun		n/a	n/a			telemetry alarm x2
WIM-52	4-Jun		n/a	n/a			telemetry alarm x2
WIM-52	5-Jun		n/a	n/a			telemetry alarm x2
WIM-52	6-Jun		n/a	n/a			telemetry alarm x2
WIM-52	7-Jun		n/a	n/a			telemetry alarm x2
WIM-52	8-Jun		n/a	n/a			telemetry alarm x2
WIM-52	9-Jun		n/a	n/a			telemetry alarm x2
WIM-52	10-Jun		n/a	n/a			telemetry alarm x2
WIM-52	11-Jun		n/a	n/a			telemetry alarm x2
WIM-52	12-Jun		n/a	n/a			telemetry alarm x2
WIM-52	13-Jun		n/a	n/a			telemetry alarm x2
WIM-52	14-Jun		n/a	n/a			telemetry alarm x2

WIM-52	15-Jun		n/a	n/a			telemetry alarm x2
WIM-52	16-Jun		n/a	n/a			telemetry alarm x2
WIM-52	17-Jun		n/a	n/a			telemetry alarm x2
WIM-52	18-Jun		n/a	n/a			telemetry alarm x2
WIM-52	19-Jun		n/a	n/a			telemetry alarm x2
WIM-52	20-Jun		n/a	n/a			telemetry alarm x2
WIM-52	21-Jun		n/a	n/a			telemetry alarm x2
WIM-52	22-Jun		n/a	n/a			telemetry alarm x2
WIM-52	23-Jun		n/a	n/a			telemetry alarm x2
WIM-52	24-Jun		n/a	n/a			telemetry alarm x2
WIM-52	25-Jun		n/a	n/a			telemetry alarm x2
WIM-52	26-Jun		n/a	n/a			telemetry alarm x2
WIM-52	27-Jun		n/a	n/a			telemetry alarm x2
WIM-52	28-Jun		n/a	n/a			telemetry alarm x2
WIM-52	29-Jun		n/a	n/a			telemetry alarm x2
WIM-52	30-Jun		n/a	n/a			telemetry alarm x2
WIM-52	1-Jul		n/a	n/a			telemetry alarm x2
WIM-52	2-Jul		n/a	n/a			telemetry alarm x2
WIM-52	3-Jul		n/a	n/a			telemetry alarm x2
WIM-52	4-Jul		n/a	n/a			telemetry alarm x2
WIM-52	5-Jul		n/a	n/a			telemetry alarm x2
WIM-52	6-Jul		n/a	n/a			telemetry alarm x2
WIM-52	7-Jul		n/a	n/a			telemetry alarm x2
WIM-52	8-Jul		n/a	n/a			telemetry alarm x2
WIM-52	9-Jul		n/a	n/a			telemetry alarm x2
WIM-52	10-Jul		n/a	n/a			telemetry alarm x2
WIM-52	11-Jul		n/a	n/a			telemetry alarm x2
WIM-52	12-Jul		n/a	n/a			telemetry alarm x2
WIM-52	13-Jul		n/a	n/a			telemetry alarm x2
WIM-52	14-Jul		n/a	n/a			telemetry alarm x2
WIM-52	15-Jul		n/a	n/a			telemetry alarm x2
WIM-52	16-Jul		n/a	n/a			telemetry alarm x2
WIM-52	17-Jul		n/a	n/a			telemetry alarm x2
WIM-52	18-Jul		n/a	n/a			telemetry alarm x2
WIM-52	19-Jul		n/a	n/a			telemetry alarm x2

WIM-52	20-Jul		n/a	n/a			telemetry alarm x2
WIM-52	21-Jul		n/a	n/a			telemetry alarm x2
WIM-52	22-Jul		n/a	n/a			telemetry alarm x2
WIM-52	23-Jul		n/a	n/a			telemetry alarm x2
WIM-52	24-Jul		n/a	n/a			telemetry alarm x2
WIM-52	25-Jul		n/a	n/a			telemetry alarm x2
WIM-52	26-Jul		n/a	n/a			telemetry alarm x2
WIM-52	27-Jul		n/a	n/a			telemetry alarm x2
WIM-52	28-Jul		n/a	n/a			telemetry alarm x2
WIM-52	29-Jul		n/a	n/a			telemetry alarm x2
WIM-52	30-Jul		n/a	n/a			telemetry alarm x2
WIM-52	31-Jul		n/a	n/a			telemetry alarm x2
WIM-52	1-Aug		n/a	n/a			telemetry alarm x2
WIM-52	2-Aug		n/a	n/a			telemetry alarm x2
WIM-52	3-Aug		n/a	n/a			telemetry alarm x2
WIM-52	4-Aug		n/a	n/a			telemetry alarm x2
WIM-52	5-Aug		n/a	n/a			telemetry alarm x2
WIM-52	6-Aug		n/a	n/a			telemetry alarm x2
WIM-52	7-Aug		n/a	n/a			telemetry alarm x2
WIM-52	8-Aug		n/a	n/a			telemetry alarm x2
WIM-52	9-Aug		n/a	n/a			telemetry alarm x2
WIM-52	10-Aug		n/a	n/a			telemetry alarm x2
WIM-52	11-Aug		n/a	n/a			telemetry alarm x2
WIM-52	12-Aug		n/a	n/a			telemetry alarm x2
WIM-52	13-Aug		n/a	n/a			telemetry alarm x2
WIM-52	14-Aug		n/a	n/a			telemetry alarm x2
WIM-52	15-Aug		n/a	n/a			telemetry alarm x2
WIM-52	16-Aug		n/a	n/a			telemetry alarm x2
WIM-52	17-Aug		n/a	n/a			telemetry alarm x2
WIM-52	18-Aug		n/a	n/a			telemetry alarm x2
WIM-52	19-Aug		n/a	n/a			telemetry alarm x2
WIM-52	20-Aug		n/a	n/a			telemetry alarm x2
WIM-52	21-Aug		n/a	n/a			telemetry alarm x2
WIM-52	22-Aug		n/a	n/a			telemetry alarm x2
WIM-52	23-Aug		n/a	n/a			telemetry alarm x2

WIM-52	24-Aug		n/a	n/a			telemetry alarm x2
WIM-52	25-Aug		n/a	n/a			telemetry alarm x2
WIM-52	26-Aug		n/a	n/a			telemetry alarm x2
WIM-52	27-Aug		n/a	n/a			telemetry alarm x2
WIM-52	28-Aug		n/a	n/a			telemetry alarm x2
WIM-52	29-Aug		n/a	n/a			telemetry alarm x2
WIM-52	30-Aug		n/a	n/a			telemetry alarm x2
WIM-52	31-Aug		n/a	n/a			telemetry alarm x2
WIM-52	1-Sep		n/a	n/a			telemetry alarm x2
WIM-52	2-Sep		n/a	n/a			telemetry alarm x2
WIM-52	3-Sep		n/a	n/a			telemetry alarm x2
WIM-52	4-Sep		n/a	n/a			telemetry alarm x2
WIM-52	5-Sep		n/a	n/a			telemetry alarm x2
WIM-52	6-Sep		n/a	n/a			telemetry alarm x2
WIM-52	7-Sep		n/a	n/a			telemetry alarm x2
WIM-52	8-Sep		n/a	n/a			telemetry alarm x2
WIM-52	9-Sep		n/a	n/a			telemetry alarm x2
WIM-52	10-Sep		n/a	n/a			telemetry alarm x2
WIM-52	11-Sep		n/a	n/a			telemetry alarm x2
WIM-52	12-Sep		n/a	n/a			telemetry alarm x2
WIM-52	13-Sep		n/a	n/a			telemetry alarm x2
WIM-52	14-Sep		n/a	n/a			telemetry alarm x2
WIM-52	15-Sep		n/a	n/a			telemetry alarm x2
WIM-52	16-Sep		n/a	n/a			telemetry alarm x2
WIM-52	17-Sep		n/a	n/a			telemetry alarm x2
WIM-52	18-Sep		n/a	n/a			telemetry alarm x2
WIM-52	19-Sep		n/a	n/a			telemetry alarm x2
WIM-52	20-Sep		n/a	n/a			telemetry alarm x2
WIM-52	21-Sep		n/a	n/a			telemetry alarm x2
WIM-52	22-Sep		n/a	n/a			telemetry alarm x2
WIM-52	23-Sep		n/a	n/a			telemetry alarm x2
WIM-52	24-Sep		n/a	n/a			telemetry alarm x2
WIM-52	25-Sep		n/a	n/a			telemetry alarm x2
WIM-52	26-Sep		n/a	n/a			telemetry alarm x2
WIM-52	27-Sep		n/a	n/a			telemetry alarm x2

WIM-52	28-Sep		n/a	n/a			telemetry alarm x2
WIM-52	29-Sep		n/a	n/a			telemetry alarm x2
WIM-52	30-Sep		n/a	n/a			telemetry alarm x2
WIM-52	17-Oct		n/a	n/a			
WIM-52	2-Nov		n/a	n/a			
WIM-52	10-Dec		n/a	n/a			

FORCE MAIN LOCATIONS - 2023			
NUMBER	FORCE MAIN	PM	COMMENTS
RIFM	7-Jan	x	
RIFM	8-Feb	x	
RIFM	20-Mar	x	pumped out
RIFM	18-Apr	x	
RIFM	15-May	x	
RIFM	12-Jun	x	
RIFM	6-Jul	x	
RIFM	4-Aug	x	
RIFM	9-Sep	x	
RIFM	24-Oct	x	
RIFM	18-Nov	x	
RIFM	8-Dec	x	
OBFM	7-Jan	x	
OBFM	8-Feb	x	
OBFM	20-Mar	x	pumped out
OBFM	18-Apr	x	
OBFM	15-May	x	
OBFM	12-Jun	x	
OBFM	6-Jul	x	
OBFM	4-Aug	x	
OBFM	9-Sep	x	
OBFM	24-Oct	x	
OBFM	18-Nov	x	
OBFM	8-Dec	x	
CIFM-1	7-Jan	x	
CIFM	8-Feb	x	
CIFM	28-Feb	x	vactored flushed
CIFM	1-Mar	x	vactored flushed
CIFM	4-Mar	x	
CIFM	7-Apr	x	vactored flushed
CIFM	18-Apr	x	
CIFM	15-May	x	

CIFM	12-Jun	x	
CIFM	6-Jul	x	
CIFM	4-Aug	x	
CIFM	9-Sep	x	
CIFM	24-Oct	x	pumped out
CIFM	18-Nov	x	
CIFM	10-Dec	x	vactored flushed
CIFM	28-Dec	x	pumped out
CIFM	30-Dec	x	vactored flushed
CIFM-3	1-Jan	x	
CIFM	2-Jan	x	
CIFM	3-Jan	x	
CIFM	4-Jan	x	
CIFM	5-Jan	x	
CIFM	6-Jan	x	
CIFM	7-Jan	x	
CIFM	8-Jan	x	
CIFM	9-Jan	x	
CIFM	10-Jan	x	
CIFM	11-Jan	x	
CIFM	12-Jan	x	
CIFM	13-Jan	x	
CIFM	14-Jan	x	
CIFM	15-Jan	x	
CIFM	16-Jan	x	
CIFM	17-Jan	x	
CIFM	18-Jan	x	
CIFM	19-Jan	x	
CIFM	20-Jan	x	
CIFM	21-Jan	x	
CIFM	22-Jan	x	
CIFM	23-Jan	x	
CIFM	24-Jan	x	
CIFM	25-Jan	x	
CIFM	26-Jan	x	

CIFM	27-Jan	x	
CIFM	28-Jan	x	
CIFM	29-Jan	x	
CIFM	30-Jan	x	
CIFM	31-Jan	x	
CIFM	1-Feb	x	
CIFM	2-Feb	x	
CIFM	3-Feb	x	
CIFM	4-Feb	x	
CIFM	5-Feb	x	
CIFM	6-Feb	x	
CIFM	7-Feb	x	
CIFM	8-Feb	x	
CIFM	9-Feb	x	
CIFM	10-Feb	x	
CIFM	11-Feb	x	
CIFM	12-Feb	x	
CIFM	13-Feb	x	
CIFM	14-Feb	x	
CIFM	15-Feb	x	
CIFM	16-Feb	x	
CIFM	17-Feb	x	
CIFM	18-Feb	x	
CIFM	19-Feb	x	
CIFM	20-Feb	x	
CIFM	21-Feb	x	
CIFM	22-Feb	x	
CIFM	23-Feb	x	
CIFM	24-Feb	x	
CIFM	25-Feb	x	
CIFM	26-Feb	x	
CIFM	27-Feb	x	
CIFM	28-Feb	x	
CIFM	1-Mar	x	
CIFM	2-Mar	x	

CIFM	3-Mar	x	
CIFM	4-Mar	x	
CIFM	5-Mar	x	
CIFM	6-Mar	x	
CIFM	7-Mar	x	
CIFM	8-Mar	x	
CIFM	9-Mar	x	
CIFM	10-Mar	x	
CIFM	11-Mar	x	
CIFM	12-Mar	x	
CIFM	13-Mar	x	
CIFM	14-Mar	x	
CIFM	15-Mar	x	
CIFM	16-Mar	x	
CIFM	17-Mar	x	
CIFM	18-Mar	x	
CIFM	19-Mar	x	
CIFM	20-Mar	x	
CIFM	21-Mar	x	
CIFM	22-Mar	x	
CIFM	23-Mar	x	
CIFM	24-Mar	x	
CIFM	25-Mar	x	
CIFM	26-Mar	x	
CIFM	27-Mar	x	
CIFM	28-Mar	x	
CIFM	29-Mar	x	
CIFM	30-Mar	x	
CIFM	31-Mar	x	
CIFM	1-Apr	x	
CIFM	2-Apr	x	
CIFM	3-Apr	x	
CIFM	4-Apr	x	
CIFM	5-Apr	x	
CIFM	6-Apr	x	

CIFM	7-Apr	x	
CIFM	8-Apr	x	
CIFM	9-Apr	x	
CIFM	10-Apr	x	
CIFM	11-Apr	x	
CIFM	12-Apr	x	
CIFM	13-Apr	x	
CIFM	14-Apr	x	
CIFM	15-Apr	x	
CIFM	16-Apr	x	
CIFM	17-Apr	x	
CIFM	18-Apr	x	
CIFM	19-Apr	x	
CIFM	20-Apr	x	
CIFM	21-Apr	x	
CIFM	22-Apr	x	
CIFM	23-Apr	x	
CIFM	24-Apr	x	
CIFM	25-Apr	x	
CIFM	26-Apr	x	
CIFM	27-Apr	x	
CIFM	28-Apr	x	
CIFM	29-Apr	x	
CIFM	30-Apr	x	
CIFM	1-May	x	
CIFM	2-May	x	
CIFM	3-May	x	
CIFM	4-May	x	
CIFM	5-May	x	
CIFM	6-May	x	
CIFM	7-May	x	
CIFM	8-May	x	
CIFM	9-May	x	
CIFM	10-May	x	
CIFM	11-May	x	

CIFM	12-May	x	
CIFM	13-May	x	
CIFM	14-May	x	
CIFM	15-May	x	
CIFM	16-May	x	
CIFM	17-May	x	
CIFM	18-May	x	
CIFM	19-May	x	
CIFM	20-May	x	
CIFM	21-May	x	
CIFM	22-May	x	
CIFM	23-May	x	
CIFM	24-May	x	
CIFM	25-May	x	
CIFM	26-May	x	flushed & vactored
CIFM	27-May	x	
CIFM	28-May	x	
CIFM	29-May	x	
CIFM	30-May	x	
CIFM	31-May	x	
CIFM	1-Jun	x	
CIFM	2-Jun	x	
CIFM	3-Jun	x	
CIFM	4-Jun	x	
CIFM	5-Jun	x	
CIFM	6-Jun	x	
CIFM	7-Jun	x	
CIFM	8-Jun	x	
CIFM	9-Jun	x	
CIFM	10-Jun	x	
CIFM	11-Jun	x	
CIFM	12-Jun	x	
CIFM	13-Jun	x	
CIFM	14-Jun	x	
CIFM	15-Jun	x	

CIFM	16-Jun	x	
CIFM	17-Jun	x	
CIFM	18-Jun	x	
CIFM	19-Jun	x	
CIFM	20-Jun	x	
CIFM	21-Jun	x	
CIFM	22-Jun	x	
CIFM	23-Jun	x	
CIFM	24-Jun	x	
CIFM	25-Jun	x	
CIFM	26-Jun	x	
CIFM	27-Jun	x	
CIFM	28-Jun	x	
CIFM	29-Jun	x	
CIFM	30-Jun	x	
CIFM	1-Jul	x	
CIFM	2-Jul	x	
CIFM	3-Jul	x	
CIFM	4-Jul	x	
CIFM	5-Jul	x	
CIFM	6-Jul	x	
CIFM	7-Jul	x	
CIFM	8-Jul	x	
CIFM	9-Jul	x	
CIFM	10-Jul	x	
CIFM	11-Jul	x	
CIFM	12-Jul	x	
CIFM	13-Jul	x	
CIFM	14-Jul	x	
CIFM	15-Jul	x	
CIFM	16-Jul	x	
CIFM	17-Jul	x	
CIFM	18-Jul	x	
CIFM	19-Jul	x	
CIFM	20-Jul	x	

CIFM	21-Jul	x	
CIFM	22-Jul	x	
CIFM	23-Jul	x	
CIFM	24-Jul	x	
CIFM	25-Jul	x	
CIFM	26-Jul	x	
CIFM	27-Jul	x	
CIFM	28-Jul	x	
CIFM	29-Jul	x	
CIFM	30-Jul	x	
CIFM	31-Jul	x	
CIFM	1-Aug	x	
CIFM	2-Aug	x	
CIFM	3-Aug	x	
CIFM	4-Aug	x	
CIFM	5-Aug	x	
CIFM	6-Aug	x	
CIFM	7-Aug	x	
CIFM	8-Aug	x	
CIFM	9-Aug	x	
CIFM	10-Aug	x	
CIFM	11-Aug	x	
CIFM	12-Aug	x	
CIFM	13-Aug	x	
CIFM	14-Aug	x	
CIFM	15-Aug	x	
CIFM	16-Aug	x	
CIFM	17-Aug	x	
CIFM	18-Aug	x	
CIFM	19-Aug	x	
CIFM	20-Aug	x	
CIFM	21-Aug	x	
CIFM	22-Aug	x	
CIFM	23-Aug	x	
CIFM	24-Aug	x	

CIFM	25-Aug	x	
CIFM	26-Aug	x	
CIFM	27-Aug	x	
CIFM	28-Aug	x	
CIFM	29-Aug	x	
CIFM	30-Aug	x	
CIFM	31-Aug	x	
CIFM	1-Sep	x	
CIFM	2-Sep	x	
CIFM	3-Sep	x	
CIFM	4-Sep	x	
CIFM	5-Sep	x	
CIFM	6-Sep	x	
CIFM	7-Sep	x	
CIFM	8-Sep	x	
CIFM	9-Sep	x	
CIFM	10-Sep	x	
CIFM	11-Sep	x	
CIFM	12-Sep	x	
CIFM	13-Sep	x	
CIFM	14-Sep	x	
CIFM	15-Sep	x	
CIFM	16-Sep	x	
CIFM	17-Sep	x	
CIFM	18-Sep	x	
CIFM	19-Sep	x	
CIFM	20-Sep	x	
CIFM	21-Sep	x	
CIFM	22-Sep	x	
CIFM	23-Sep	x	
CIFM	24-Sep	x	
CIFM	25-Sep	x	
CIFM	26-Sep	x	
CIFM	27-Sep	x	
CIFM	28-Sep	x	

CIFM	29-Sep	x	
CIFM	30-Sep	x	
CIFM	1-Oct	x	
CIFM	2-Oct	x	
CIFM	3-Oct	x	
CIFM	4-Oct	x	
CIFM	5-Oct	x	
CIFM	6-Oct	x	
CIFM	7-Oct	x	
CIFM	8-Oct	x	
CIFM	9-Oct	x	
CIFM	10-Oct	x	
CIFM	11-Oct	x	
CIFM	12-Oct	x	
CIFM	13-Oct	x	
CIFM	14-Oct	x	
CIFM	15-Oct	x	
CIFM	16-Oct	x	
CIFM	17-Oct	x	
CIFM	18-Oct	x	
CIFM	19-Oct	x	
CIFM	20-Oct	x	
CIFM	21-Oct	x	
CIFM	22-Oct	x	
CIFM	23-Oct	x	
CIFM	24-Oct	x	
CIFM	25-Oct	x	
CIFM	26-Oct	x	
CIFM	27-Oct	x	
CIFM	28-Oct	x	
CIFM	29-Oct	x	
CIFM	30-Oct	x	
CIFM	31-Oct	x	
CIFM	1-Nov	x	
CIFM	2-Nov	x	

CIFM	3-Nov	x	
CIFM	4-Nov	x	
CIFM	5-Nov	x	
CIFM	6-Nov	x	
CIFM	7-Nov	x	
CIFM	8-Nov	x	
CIFM	9-Nov	x	
CIFM	10-Nov	x	
CIFM	11-Nov	x	
CIFM	12-Nov	x	
CIFM	13-Nov	x	
CIFM	14-Nov	x	
CIFM	15-Nov	x	
CIFM	16-Nov	x	
CIFM	17-Nov	x	
CIFM	18-Nov	x	
CIFM	19-Nov	x	
CIFM	20-Nov	x	
CIFM	21-Nov	x	
CIFM	22-Nov	x	
CIFM	23-Nov	x	
CIFM	24-Nov	x	
CIFM	25-Nov	x	
CIFM	26-Nov	x	
CIFM	27-Nov	x	
CIFM	28-Nov	x	
CIFM	29-Nov	x	
CIFM	30-Nov	x	
CIFM	1-Dec	x	
CIFM	2-Dec	x	
CIFM	3-Dec	x	
CIFM	4-Dec	x	
CIFM	5-Dec	x	
CIFM	6-Dec	x	
CIFM	7-Dec	x	

CIFM	8-Dec	x	
CIFM	9-Dec	x	
CIFM	10-Dec	x	
CIFM	11-Dec	x	
CIFM	12-Dec	x	
CIFM	13-Dec	x	
CIFM	14-Dec	x	
CIFM	15-Dec	x	
CIFM	16-Dec	x	
CIFM	17-Dec	x	
CIFM	18-Dec	x	
CIFM	19-Dec	x	
CIFM	20-Dec	x	
CIFM	21-Dec	x	
CIFM	22-Dec	x	
CIFM	23-Dec	x	
CIFM	24-Dec	x	
CIFM	25-Dec	x	
CIFM	26-Dec	x	
CIFM	27-Dec	x	
CIFM	28-Dec	x	
CIFM	29-Dec	x	
CIFM	30-Dec	x	

MARBLE HILL REGULATOR LOCATIONS - 2023							
NUMBER	REG PM	REG CM	TG PM	TG CM	EBPP	CI RUN	COMMENTS
MH-1	6-Jan		x				
MH-1	18-Feb		x				
MH-1	4-Mar		x				
MH-1	18-Apr		x				
MH-1	15-May		x				
MH-1	11-Jun		x				
MH-1	8-Jul		x				
MH-1	4-Aug		x				
MH-1	4-Sep		x				
MH-1	17-Oct		x				
MH-1	2-Nov		x				
MH-1	8-Dec		x				
MH-2	6-Jan		x				
MH-2	18-Feb		x				
MH-2	4-Mar		x				
MH-2	18-Apr		x				
MH-2	15-May		x				
MH-2	11-Jun		x				
MH-2	8-Jul		x				
MH-2	4-Aug		x				
MH-2	4-Sep		x				
MH-2	17-Oct		x				
MH-2	2-Nov		x				
MH-2	8-Dec		x				
MH-3	6-Jan		x				
MH-3	18-Feb		x				
MH-3	4-Mar		x				
MH-3	18-Apr		x				
MH-3	15-May		x				
MH-3	11-Jun		x				
MH-3	8-Jul		x				
MH-3	4-Aug		x				
MH-3	4-Sep		x				

MH-3	17-Oct		x				
MH-3	2-Nov		x				
MH-3	8-Dec		x				

RIVERDALE REGULATOR LOCATIONS - 2023							
NUMBER	REG PM	REG CM	TG PM	TG CM	EBPP	CI RUN	COMMENTS
RD-1	6-Jan		n/a	n/a			
RD-1	18-Feb		n/a	n/a			
RD-1	4-Mar		n/a	n/a			
RD-1	18-Apr		n/a	n/a			
RD-1	15-May		n/a	n/a			
RD-1	11-Jun		n/a	n/a			
RD-1	8-Jul		n/a	n/a			
RD-1	4-Aug		n/a	n/a			
RD-1	4-Sep		n/a	n/a			
RD-1	17-Oct		n/a	n/a			
RD-1	2-Nov		n/a	n/a			
RD-1	8-Dec		n/a	n/a			
RD-2	6-Jan		n/a	n/a			
RD-2	18-Feb		n/a	n/a			
RD-2	4-Mar		n/a	n/a			
RD-2	18-Apr		n/a	n/a			
RD-2	15-May		n/a	n/a			
RD-2	11-Jun		n/a	n/a			
RD-2	8-Jul		n/a	n/a			
RD-2	4-Aug		n/a	n/a			
RD-2	4-Sep		n/a	n/a			
RD-2	17-Oct		n/a	n/a			
RD-2	2-Nov		n/a	n/a			
RD-2	8-Dec		n/a	n/a			
RD-3	6-Jan		n/a	n/a			
RD-3	16-Feb		n/a	n/a			
RD-3	4-Mar		n/a	n/a			
RD-3	18-Apr		n/a	n/a			
RD-3	15-May		n/a	n/a			
RD-3	11-Jun		n/a	n/a			
RD-3	8-Jul		n/a	n/a			
RD-3	4-Aug		n/a	n/a			

RD-3	4-Sep		n/a	n/a			
RD-3	17-Oct		n/a	n/a			
RD-3	2-Nov		n/a	n/a			
RD-3	8-Dec		n/a	n/a			
RD-4	6-Jan		n/a	n/a			
RD-4	21-Jan	x	n/a	n/a			flushed & vactored
RD-4	16-Feb		n/a	n/a			
RD-4	4-Mar		n/a	n/a			
RD-4	18-Apr		n/a	n/a			
RD-4	15-May		n/a	n/a			
RD-4	4-Aug		n/a	n/a			
RD-4	4-Sep		n/a	n/a			
RD-4	17-Oct		n/a	n/a			
RD-4	2-Nov		n/a	n/a			
RD-4	8-Dec		n/a	n/a			

Misc.							
LOCATION	REG PM	REG CM	TG PM	TG CM	EBPP	Cl Runs	ACTIONS TAKEN
Alley Creek	01/10/23		x				full entry inspection,greased tide gates
Tide Gates	02/26/23						
	03/27/23		x				full entry inspection, greased & exercised tide gates
	04/21/23		x				full entry inspection, greased & exercised tide gates
	05/28/23		x				full entry inspection, greased & exercised tide gates
	06/18/23		x				full entry inspection, greased & exercised tide gates
	07/22/23		x				full entry inspection, greased & exercised tide gates
	08/14/23		x				full entry inspection, greased & exercised tide gates
	09/17/23		x				full entry inspection, greased & exercised tide gates
	10/28/23		x				full entry inspection, greased & exercised tide gates
	11/26/23						
	12/27/23		x				full entry inspection,greased tide gates
Flushing	01/10/23		x				full entry inspection,greased and exercised tide gates
Tide Gates	02/09/23		x				full entry inspection,greased and exercised tide gates
	03/06/23						
	04/09/23		x				full entry inspection, greased tide gates
	05/23/23		x				full entry inspection, greased tide gates
	05/28/23						
	06/18/23		x				full entry inspection, greased and exercised tide gates
	07/22/23		x				full entry inspection, greased and exercised tide gates
	08/06/23		x	x			full entry inspection, greased and exercised tide gates removed 8' wood stud
	09/28/23						
	10/28/23		x				full entry inspection,greased and exercised tide gates
	11/05/23		x				full entry inspection,greased tide gates
	12/25/23						
Rec Center	01/30/23						
Tide Gates	02/26/23						
	03/06/23						full entry inspection
	04/22/23		x				full entry inspection, greased tide gates
	05/28/23		x				full entry, greased & exercised tide gates
	06/19/23		x				full entry, greased & exercised tide gates
	07/30/23		x				full entry, greased & exercised tide gates
	08/06/23		x				full entry, greased & exercised tide gates
	09/20/23		x	x			full entry greased & exercised tide gates, removed 30' black hose
	10/29/23		x				full entry, greased & exercised tide gates
	11/05/23		x				full entry, greased & exercised tide gates

	12/25/23						
Roosevelt	01/16/23						
Force Main	02/25/23						
	03/18/23						
	04/08/23						
	05/24/23						
	06/10/23						
	07/09/23						
	08/20/23						
	09/26/23						
	10/30/23						
	11/29/23						
	12/06/23						
Rikers South	N/A						no access due to contractors upgrading pump station 1/1/23-7/31/23
Force main	08/31/23						
	09/16/23						
	10/25/23						
	11/07/23						
	12/05/23						

Van Cortlandt Park Screen - 2023			
Van Cortlandt Park Screen	PM	CM	COMMENTS
6-Jan	x		*no debris*
17-Feb	x		*no debris*
16-Mar	x		*no debris*
30-Mar	x		*no debris*
27-Apr	x		*no debris*
17-May		x	*cleaned bars*
28-Jun	x		*no debris*
12-Jul		x	*cleaned bars*
12-Jul		x	*cleaned bars*
22-Aug	x		*no debris*
13-Sep		x	*cleaned bars*
16-Nov	x		*no debris*
27-Dec	x		*no access*

BRONX ZOO CSO SCREENING FACILITY - 2023			
BRONX ZOO CSO	PM	CM	COMMENTS
22-Jan	X		
16-Feb	X		
30-Mar		X	cleaned bars
15-Apr	X		
31-May	X		
30-Jun	X		
6-Jul	X		
31-Aug	x	X	cleaned bars
6-Jul	X		
9-Sep	x		
26-Oct	x		
19-Nov	x		
28-Dec	X		

HP-13 CSO NETTING FACILITY - 2023												
HP-13 CSO	PM	CM	TG CM	N-1	N-2	N-3	N-4	N-5	N-6	N-7	N-8	COMMENTS
5-Jan	x											
8-Feb	x											
7-Mar		X		X	X	X	X	X	X	X	X	replaced nets
4-Apr	x											
6-May	x											
17-Jun	x											
5-Jul	x											
5-Jul	x											
2-Aug		x		x	x	x	x					replaced nets
23-Aug		x		x	x	x	x	x	x	x	x	replaced nets
1-Sep	x											
26-Oct		x						x	x	x	x	replaced nets
18-Nov	x											
4-Dec	x											

BRONX PARK AVE CSO SCREENING FACILITY -2023			
BRONX PARK AVE CSO	PM	CM	COMMENTS
27-Jan	x		
16-Feb	x		
30-Mar	x	x	cleaned bars
15-Apr	x		
31-May	x	x	cleaned bars
30-Jun	x		
6-Jul	x	x	cleaned bars
31-Aug	x		
30-Jul	x		
31-Aug	x		
9-Sep	x		no access
13-Sep	x	x	cleaned bars
2-Oct	x	x	cleaned bars
26-Oct	x		
30-Nov	x		
28-Dec	x	x	cleaned bars

WEST FARM CSO NETTING FACILITY - 2023							
WEST FARM CSO	PM	CM	Net-1	N-2	N-3	N-4	COMMENTS
27-Jan	x						
16-Feb	x						
30-Mar	x						
15-Apr	x	x	x	x			replaced nets
31-May	x	x			x	x	replaced nets
30-Jun	x						
6-Jul	x						
31-Aug	x						
30-Jul	x						
31-Aug	x						
9-Sep	x						
26-Oct	x	x	x	x	x	x	replaced nets
18-Nov	x						
22-Dec	x	x	x	x	x	x	replaced nets

City of New York
Department of Environmental Protection
Bureau of Wastewater Treatment

Floatables Monitoring Program
Progress Report

(Presented as an Addendum to the CSO BMP Annual Report)

Prepared by
Markus Koelbl
City Research Scientist III

March 2024

Table of Contents

List of Figures

List of Tables

CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION
FLOATABLES MONITORING PROGRAM
ANNUAL REPORT FOR 2023

INTRODUCTION

The New York City Department of Environmental Protection (NYC DEP) has been tasked through its State Pollutant Discharge Elimination System (SPDES) permit requirements to implement and maintain a floatables control program as well as a monitoring program to provide a means to assess and measure the effectiveness of the programs. These control and monitoring programs are embodied in the City-Wide Comprehensive CSO Floatables Plan Modified Facility Planning Report (Floatables Plan, July 2005) inclusive of Addendum 1 – Pilot Floatables Monitoring Program Workplan (December 2005).

The floatables plan contains a conceptual framework for the monitoring of floatables conditions in New York Harbor water and a work plan for a pilot program that was implemented over the course of 2006 and 2007 to develop and test the monitoring methodology envisioned in the framework. Since 2008, the floatables monitoring program has completed its sixteenth year of full scale program.

The floatables monitoring program is based on observations of the presence/absence of floatables from monitoring sites throughout the harbor. It has developed a number of methods to assess floatables control programs. The monitoring data were used to prioritize problem areas; and three sites with persistent "Poor" ratings were selected for more comprehensive site-specific investigations. These site-specific studies were performed by contractors in 2009 and 2010. NYC DEP Harbor Water Quality Survey (HWQS) continued the study in 2011 going forward.

At NYSDEC's request, NYC DEP agreed to add a public participation component to the program. Since summer 2007, it has been achieved through the participation of the New York City Beach Floatables Survey Program (Survey Program); and the Survey Program volunteers provide monitoring data which have been included in past reports, but not since 2020.

Since 2006, the program has been grown to monitor most of NYC's regional waters and their near shores and shorelines. NYC DEP Harbor Water Quality Survey and Volunteer Survey Program monitoring stations increased from 25 sites in 2006 to 132 sites in 2019. In 2023 there were 58 sites sampled by the DEP resulting in 4,002 ratings. Over the long term, variations in monitoring sites and locations will likely occur as public participation volunteer interest varies, shoreline cleanup sites change, and HWQS sites change; floatables monitoring at PCM sites will continue to be added as forthcoming LTCP construction is completed.

Numeric Rating System

A numeric rating system (see table below) was set up for the floatables monitoring program to evaluate floatables conditions among monitoring stations. Monitoring fieldwork confirmed several complexities about Harbor-wide monitoring, such as tide dependent categories (e.g., some sites may have a rip rap or sand shoreline during low tide and no shoreline when the water rises against the bulkhead at high tide), and differences from site to site (e.g., sand vs. rip rap shorelines, width of shorelines). These complexities plus the complexities inherent in an assessment method used by multiple organizations (e.g., HWQS and public participation groups) led to the need for a simple, percent-based ranking of sites. Therefore, sites were ranked based on their percentage of good vs. poor ratings per total number of the ratings in a given time period.

Table 1. Sample Floatables Condition Ratings.

Score(1)	Rating(2)	Rating Description
1	Very Good	No floatables present
2	Good	Floatables present but diffuse
3	Fair	Floatables present in moderate density
4	Poor	Floatables present and dense
5	Very Poor	Floatables present and extremely dense

(1) The intent of this table is to show the "best to worst" gradients for floatables condition ratings.
(2) Each monitoring site included scores and ratings for up to three categories:
1) Open Water or Off Shore dependent upon vessel-based or land-based observations,
2) Near Shore, and
3) Shoreline - areas with only one or two of the categories, the missing categories were not rated.

DATA COLLECTION OPERATIONS

The floatables monitoring program reached its sixteenth year for the full-scale survey; and there were 58 total monitoring stations around NYC's five boroughs in 2023. Floatables Conditions Monitoring Stations Maps can be found in Appendix 2 and Fig. 6 below.

According to the full-scale floatables monitoring plan, NYC DEP HWQS conducted several visits per station every month during bathing season (from Jun. to Oct.), and one monthly visit per station during the off-season (Nov. to May).

Site specific investigations have been performed since 2008. Based on the ratings from 2022, "poor" and "very poor" sites were evaluated and three sites were selected (Thurston Basin head, Newtown Creek midway point, St. George, Staten Island). Sampling here was performed in the summer of 2023. Details for the investigations are presented in section 'Site Specific Investigation Study'.

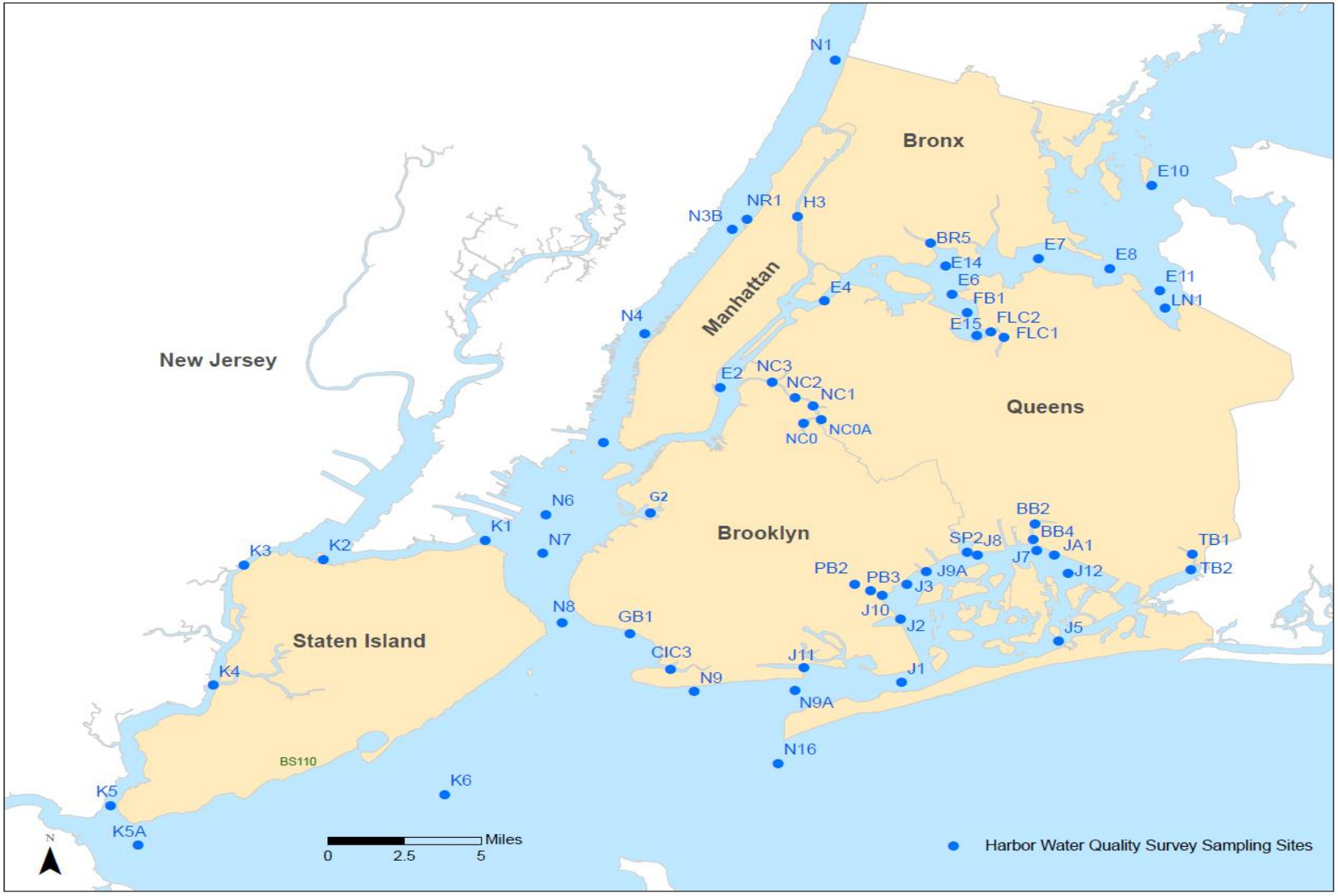


Figure 1. Floatables condition monitoring stations map.

DATA MANAGEMENT, MONITORING/REMEDIATION, AND ACTION TRIGGERS

A discussion of data reporting and how resulting investigations relate to action triggers and remediation can be found in all prior Floatables Monitoring Progress Reports. Below is a table summarizing the floatables monitoring program schedule.

Table 2. Floatables Monitoring Program Completion Dates

Task	Original Completion Date	New Completion Date	Status
Pilot Program Setup Tasks	January 2007	January 2007 No change	Completed – schedule met
Action Trigger & Investigation Process Development	March 2007	March 2007 No change	Completed – schedule met
Pilot Program Operation / Implementation Tasks	July 2007	July 2007 No change	Completed – schedule met
Pilot Program Evaluation / Adjustment	Ongoing	Ongoing No change	Completed – schedule met
Final Floatables Condition Rating System	July 2007	July 2007 No change	Completed – schedule met. Minor updates in 2008 to distinguish between water and land-based observations.
Public Participation Component Commencement	September 2006	April 2007	Complete – schedule met
Public Participation Component Ongoing Activities	Ongoing (as feasible)	Ongoing No change	2007-2019 Complete. Activities currently on hold.
Pilot Program Interim Progress Report	December 2006	December 2006 No change	Accepted by NYSDEC
Pilot Program Progress Report	April 1, 2007 (part of ongoing CSO BMP annual report)	April 1, 2007 No change	Accepted by NYSDEC
Transition to Full Scale Program	February 2008	February 2008 No change	Completed – schedule met
Progress Report	April 1 each year (part of ongoing CSO BMP annual report)	April 1	Submission dates: April 2008 Each March 2009-2024

FLOATABLES CONDITION RATING DATA SUMMARY

FLOATABLES CONDITION RATING INTRODUCTION

The following data summary provides an explanation of how the floatables monitoring data has been used to rank sites in order to prioritize areas for the investigative phases of the program. Due to the complexities of floatables monitoring, the rating field work has been intentionally kept simple, and the resulting data analysis mirrors this simplicity by showing the count of each rating for each site as a percent of the total number of ratings. Using this simple comparison, the three sites with the highest percent poor ratings were targeted for investigations as described in the Pilot Floatables Monitoring Program Work plan. Sites selected for investigation each year are all mutually disjoint within a five year span, regardless of persistent poor ratings.

The data analysis below has been completed for the entire set of data collected during the full-scale floatables monitoring program from January 1 through December 31, 2023. Figure 1 shows the program monitoring station locations (see Appendix 2 for more detail).

2-Point Site Specific Ratings

The simplest way to view the floatables monitoring data is to combine like ratings so that only two categories are used for ranking purposes. To this end, Figures 3 and 4 display a 2-point rating comparison, “good vs. poor.” The 5-point rating system data has been combined as follows for these figures.

- **Good** – The “good” ratings (shown in green in Figures 3 and 4) comprise the “good” and “very good” ratings from the data compiled to date as based on the Floatables Monitoring Program rating scale.

- **Poor** – The “poor” ratings (shown in red in Figures 3 through 4) comprise the “fair,” “poor,” and “very poor” ratings from the data compiled to date as based on the Floatables Monitoring Program rating scale

Combining the ratings in this way simplifies the site prioritization by reducing the amount of data categories that have to be considered, plus, any issues of subjectivity and rating inconsistency among the monitoring staff are de-emphasized. In this 2 point system percentages of good or poor ratings are examined. The DEP open water and near shore data set has an $n \geq 25$ for many stations.

Generally, open water and near shore ratings are better than shoreline ratings (Fig. 3). Shoreline ratings are most likely the poorest due to the concentration of debris that washes up after each tidal cycle and the possible addition of litter from upland sources. Only 111 of the 1592 NYC DEP open water ratings in 2023 (7%) were poor (Table 3). Near shore DEP ratings were considered poor 6.8% of the time. Only in the shoreline ratings do we see a marked increase in poor ratings; 20.5% for the DEP surveys (168 poor out of 818 total).

For open water rating categories, all but three sites had at least 75% good ratings (Fig. 3a) and they were all in Newtown Creek. NC0 and NC3 were the worst rated open water sites in 2023 (70.4% "good") and were also rated poorly in the nearshore category along with NC2. Many of the poorest sites are in tributaries and flow restrictive waterways such as Newtown Creek, Coney Island Creek, Bergen Basin and Thurston Basin (Fig. 3).

Coney Island Creek had only three good ratings in the shoreline (Fig. 3c). Sites in Coney Island Creek, Thurston Basin, Bergen Basin, Bronx River and Kill Van Kull were very poorly rated based on DEP shoreline ratings data (CIC3, NC0, BB2, BR5 and K1). Areas with good tidal flow and public beaches that may be kept clean during the summer tend to have good ratings (East River and Hudson River sites, Breezy Point).

Table 3. Total ratings of Good or Poor in each rating category for the NYC DEP monitoring program in 2023.

	Open Water			Near Shore			Shoreline		
	Good ratings	Poor ratings	Percent Poor	Good ratings	Poor ratings	Percent Poor	Good ratings	Poor ratings	Percent Poor
NYC DEP	1481	111	7.0	1483	109	6.8	650	168	20.5

5-Point Site Specific Ratings

Figure 4 shows the 5-point rating scales for all sites and categories. This is the scale used by all personnel in the field at the time of rating and, although it can appear a bit confusing, it is useful in further breaking down the rating scale. One striking observation of these figures is the predominance of "very good" ratings in the open water and near shore categories. Shoreline ratings look very different and follow the trends described above in the 2-point rating section. In all of the 4,002 ratings there were only 21 very poor ratings and 62 poor ratings (combined about 2%).

COMPARISON: 2009-2023

Table 4 displays the "worst" sites based on the 2-point rating scale from 2009 to 2023. Newtown Creek (NC0 & NC3) and Coney Island Creek (CIC3) are ubiquitously poorly rated sites. The evidence suggests that poor sites remain so from year to year and are often located in restricted waterways. Future comparisons and tracking of sites will shed more light on these patterns.

Site specific investigation sites are typically chosen as the worst of the near shore category (Table 4), excluding previously sampled locations within the last five years. NC2, NC0, NC0A and NC3 were all sampled within the last five years. NC1 would be the next eligible site with a 74% "good" rating. Since no other eligible sites had nearshore ratings less than 85% good, it was determined that the

poorest shoreline ratings would be used to select sites. The resulting three site specific investigation sites for 2024 are NC1, BB2 and BB4.

Table 4. Comparison of the three sites with the highest % of poor ratings in each category in 2009 to 2023. Ratings are from the 2-point rating scale. Stations with less than four observations were not considered. Repeating stations are in bold type.

"Worst" Sites: 2009 to 2023

	Open Water	Near Shore	Shoreline
2009	**BS41**, BS54, BSNY010	**BS41**, BS54, **BS57**	**BS49**, BS54, **BS57**
2010	BS15, BS24, **BS41**	BS24, **BS41**, **BS57**	**BS49**, BS53, **BS57**
2011	**BS41**, BS71, **BSNY010**	**BS41**, **BS49, BS57**	**BS41, BS49**, BS62
2012	**BS41**, BS44B, **BS49**	BS23, **BS41**, **BS49**	BB2, **BS49**,**BS41**
2013	BS82, **BS15**, BS1	BS48, BS88, **BS49**	**BB2, BS41, BS49**
2014	BS29, CIC3, K2	NC3, **BS23**, BS84	**BB2,** CIC3**, BS49**
2015	**BS84**, BS44C, BS44D	**BS41,** BS44C, BS44D	**BS15,** BS3, EJ3
2016	**CIC3**, **NC0,** BS61	BS90, **CIC3, NC0**	**BB2, CIC3,** BS3
2017	**BS41, BS54, BS84**	**BS84,** BS22, (BS93,BS95,BS91)*	**BB2, CIC3, BS3**
2018	**BS22, BS23, BS61**	**BS22, BS23,** BS106	**BS3, CIC3, BS49**
2019	BS23B, **BS41**, **BS93**	BS23B, **BS93, BS95**	**BS3**, **BB2**, K1
2020	**NC0**, NC2, FLC1	BR5, NC2, **NC3**	BR5, **CIC3,** TB1
2021	**NC3, BB2, FLC1**	**NC0, NC3, NC2**	NC1, **CIC3, BR5**
2022	**NC2, NC0A, BR5**	**NC0, NC0A, (NC2, NC3)***	**CIC3, K1, TB1**
2023	**NC0, NC3, NC2**	**NC2, (NC0, NC0A, NC3)***	**CIC3, TB1, K1**

***Stations tied**

SUMMARY

Sites in Bergen Basin (BB2 & BB4), Thurston Basin (TB1), Coney Island Creek (CIC3), Kill Van Kull (K1), and Newtown Creek (NC0) were considered the major problem sites in 2023 in terms of Shoreline ratings (Figures 3c & 4c). Many of these sites were also poorly rated at the shoreline in 2022. When examining the whole data set there is an overwhelming number of sites rated "good" in the offshore and near shore zones. Areas with consistently poor ratings can be focused on and examined.

The past year's overall poor ratings increased from 2022. The shoreline ratings were 20.5% poor. Over the years the combined shoreline poor rating percentage has increased from 16.5% to 21.8% to 33.3% in 2012, then settling down to 29.2% in 2013 and decreasing again after 2014. This year's

DEP offshore and nearshore percent poor ratings were the highest since sampling began. Figure 2 breaks down the ratings of Public Participation and DEP monitoring sites over the years. Patterns in the occurrence of floatable trash at rating sites can be attributed to a combination of rainfall, city clean-up efforts and the propensity for the public to litter. At some sites it is apparent that something as simple as a regularly maintained trash receptacle could cut down on floatables.

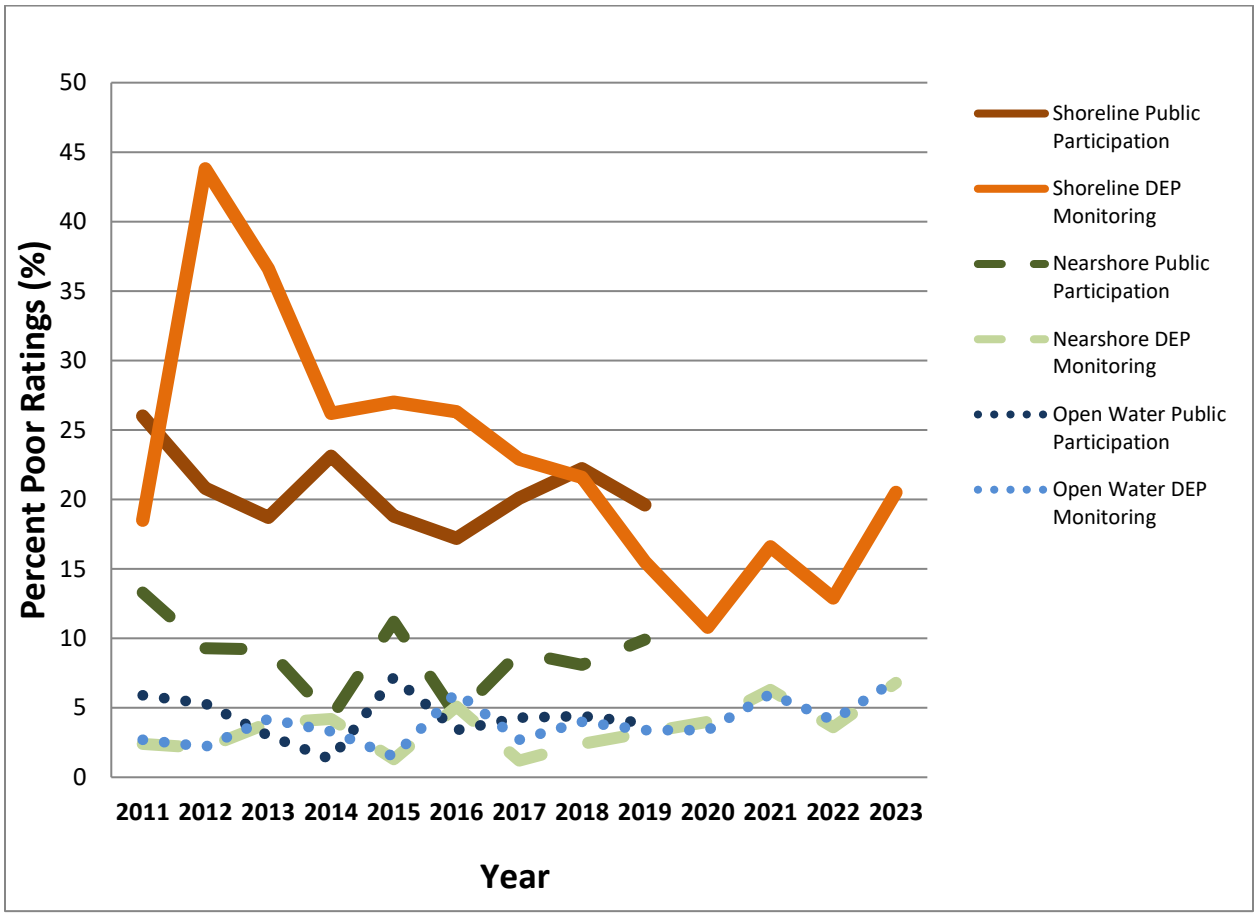


Figure 2. Percent poor ratings for all Public Participation and DEP sites from 2011 to 2023 in all three sampling zones based on 2-point ratings.

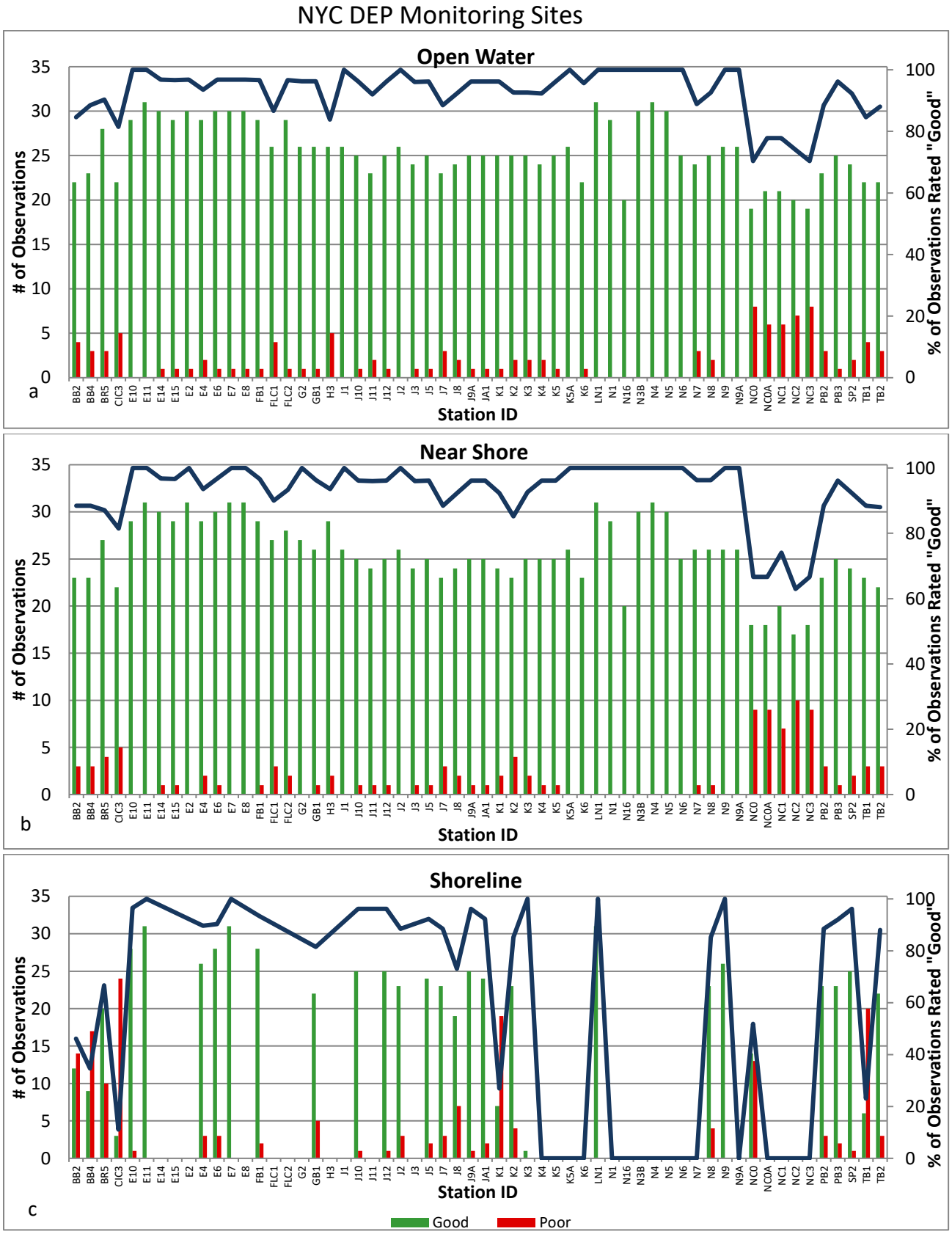


Figure 3a-c. A 2-point rating system for the 3 categories of NYC DEP monitoring. Total observations in 2022 were rated as “Good” or “Poor” and tallied. Some sites in the shoreline category received no ratings due to permanent bulkheads or shore was too far from the boat to view.

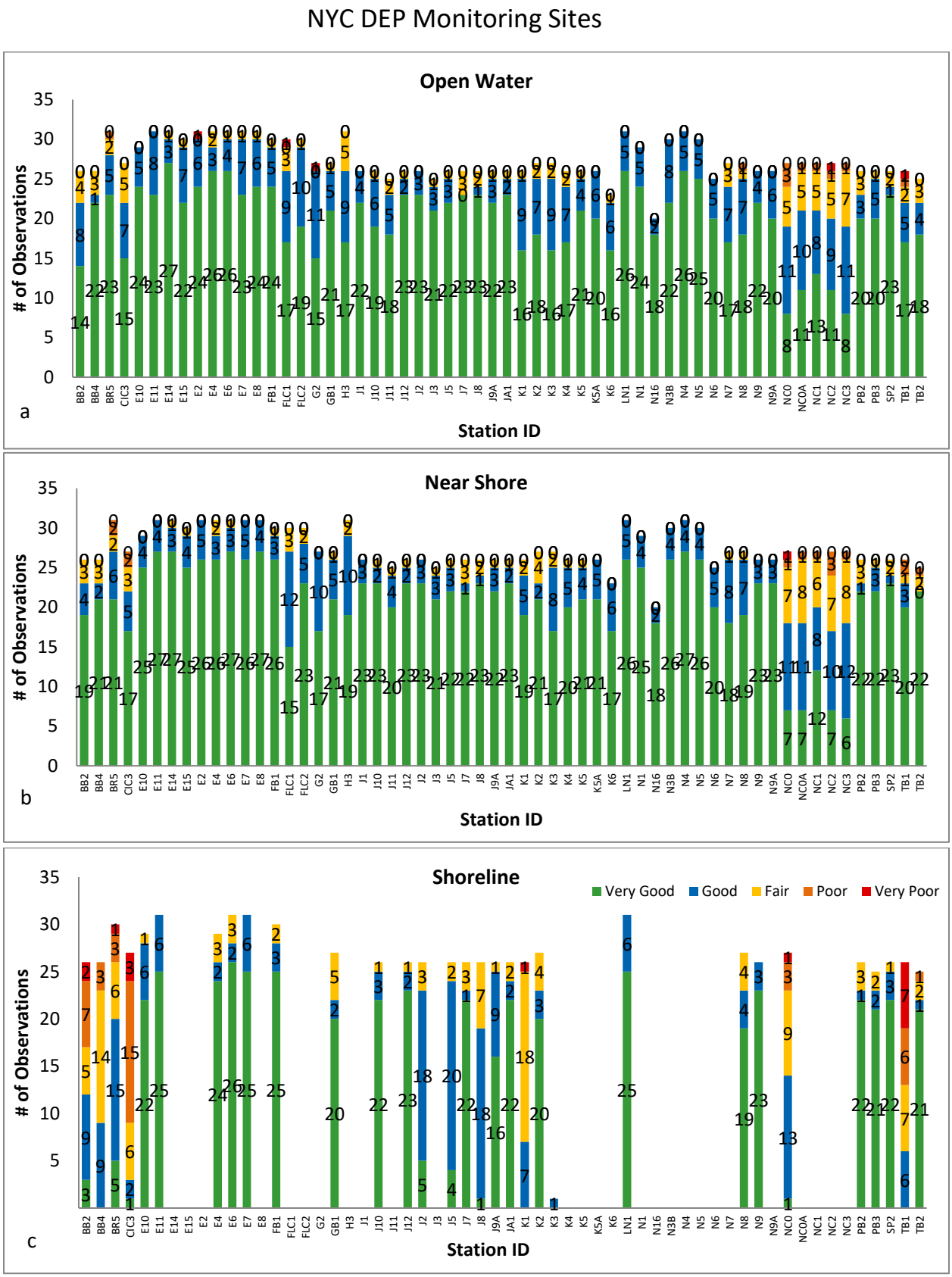


Figure 4a-c. A 5-point rating system for the 3 categories of NYC DEP monitoring. Some sites in the shoreline category received no ratings due to permanent bulkheads or the shore was too far from the boat to view.

PRECIPITATION ANALYSIS

As part of the floatables monitoring program, additional screening level data analyses were conducted in order to get a sense of how the floatables condition ratings could be used. Given the variable nature of the sites involved and the somewhat subjective nature of the rating system, the floatables condition ratings were never intended to do any more than provide a systematic manner in which to help prioritize areas of New York Harbor with regard to floatables control planning purposes. However, investigating the data to see if any patterns exist has been useful in providing insight into the results of the site specific investigations and other portions of the program.

This section summarizes findings based on monitoring data from 2023 and any association of ratings with monthly rainfall totals. Figure 5 shows the percentage of each rating category in each month. Rainfall totals are displayed in the background. Rainfall totals were high in 2023 (59.25 inches), substantially higher than the prior year (46.3 inches in 2022). This could be a contributing factor to the high ratings in 2023 (see Fig. 2).

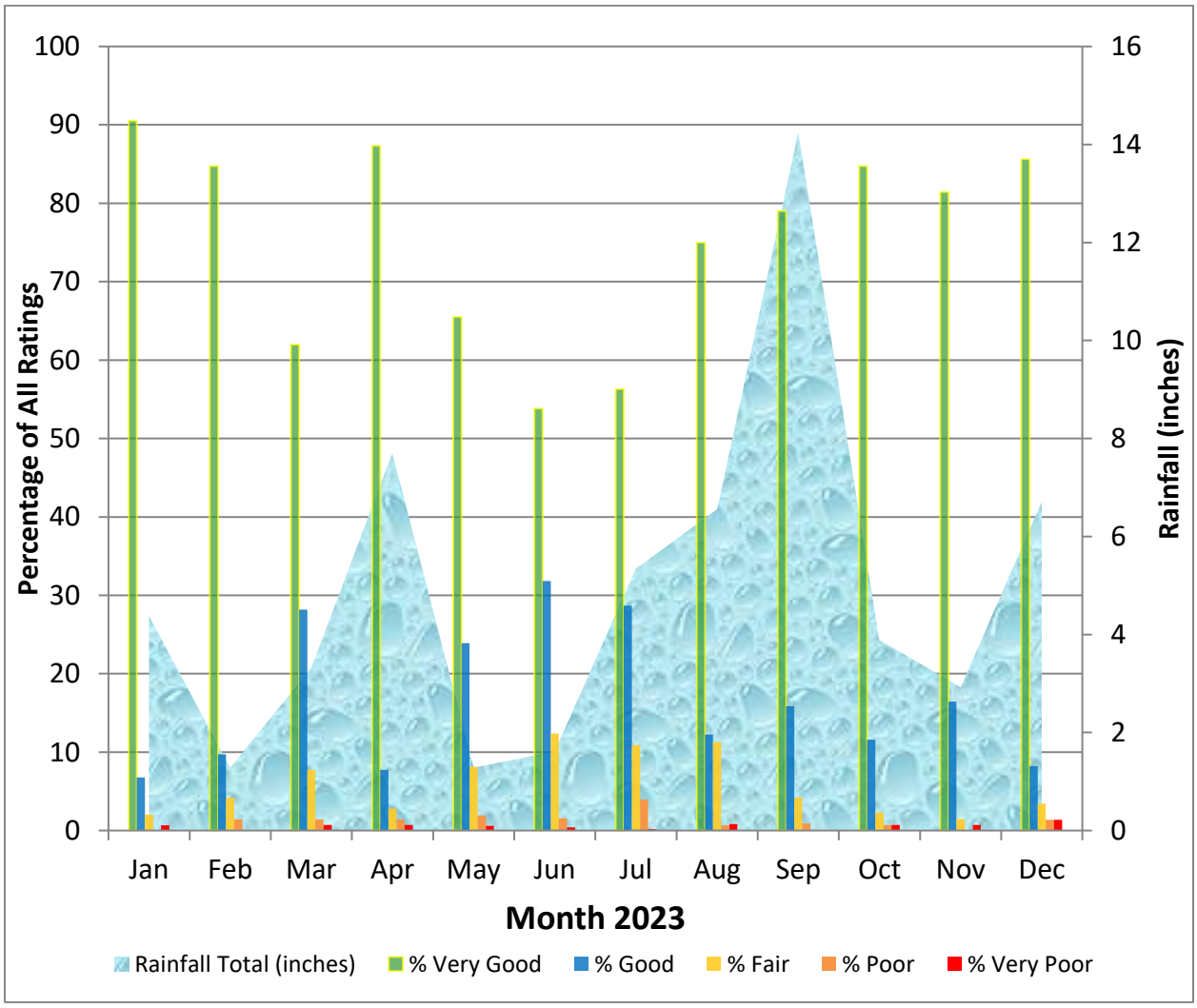


Figure 5. Monthly ratings and precipitation comparison. Rainfall data are from N.O.A.A. online weather data (Central Park Area, http://www.weather.gov/okx/CentralParkHistorical).

SITE SPECIFIC INVESTIGATION STUDY

INTRODUCTION

As part of the Floatables Monitoring Program, site-specific investigations were conducted for the monitoring sites that had the most persistent poor floatables condition ratings based on monitoring data collected in 2022 (i.e., TB1 Thurston Basin Head, NC2 midpoint of Newtown Creek and K1 St. George, Staten Island; see Figure 6). To date, the investigations have included document and database reviews and field observations during dry and wet weather. The overarching goal of this year's site specific investigations was to gain insight into the sources of floatables and other debris at the selected sites in order to inform planning within the framework of the City-wide Combined Sewer Overflow (CSO) Long Term Control Plan (LTCP). The investigations were able to provide a step toward this goal and initial findings have confirmed that the floatables conditions at each site were impacted by several types of debris from several types of sources.

Summarized progress information, investigation methods, and findings are presented in the following sections with the purpose of describing the approach the New York City Department of Environmental Protection (NYCDEP) has taken to advance this portion of the floatables monitoring program. In addition, general methods for conducting the investigations as well as compiled data and information gathered as a result of the investigations are provided.

In the sections that follow, the classification of CSO vs. non-CSO debris is addressed by describing the use of material characterization and source inference to make this distinction, and also recognizing the overlap of debris sources that adds to the complexity of this issue.

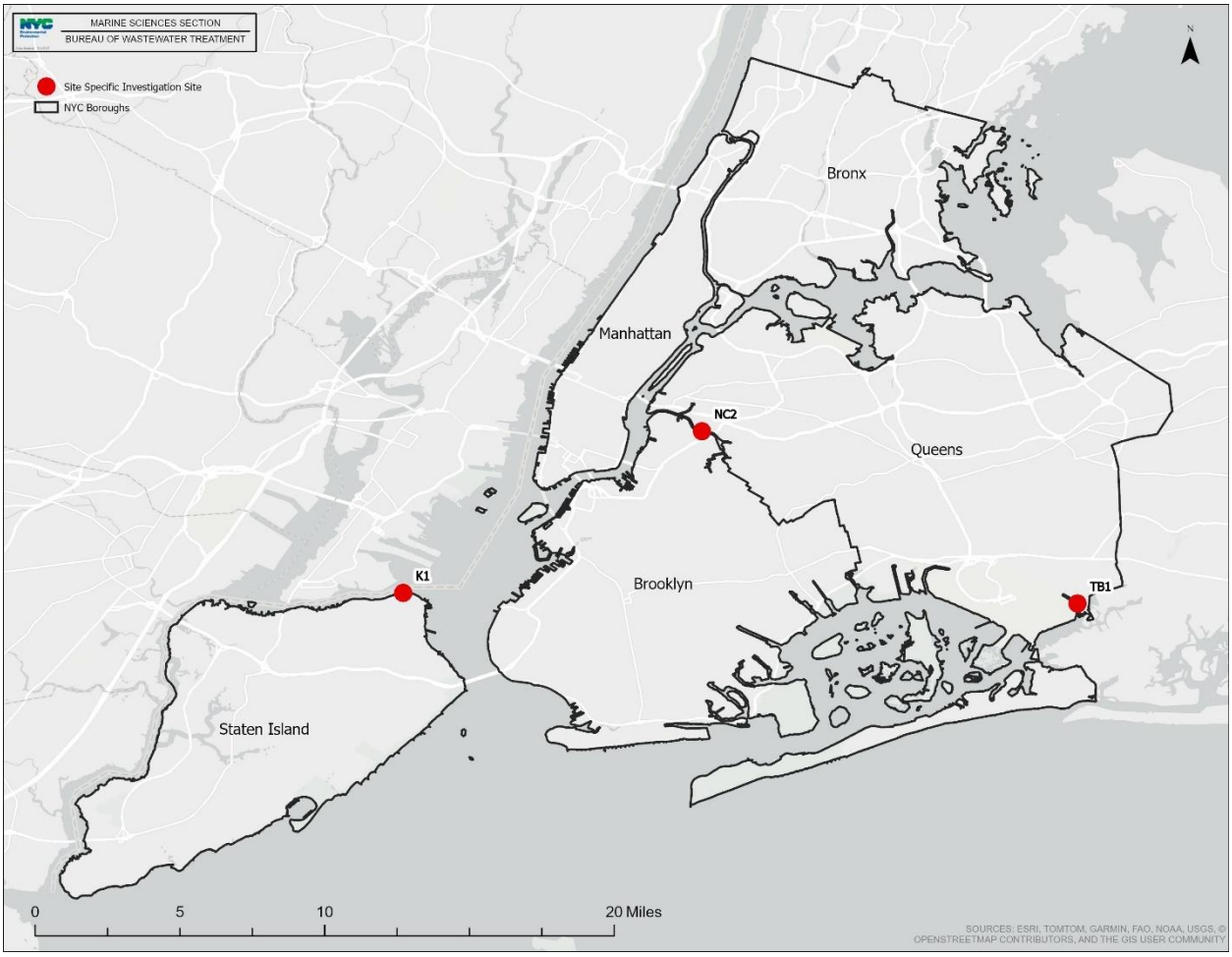


Figure 6. The 3 sites selected for the site specific investigation study in 2023.

OBJECTIVES

The objectives of the site-specific investigations include the following near-term goals:

- **Study area characterization, including proximal floatable control programs:** The characterization of the study area surrounding the selected monitoring site was intended to identify traits that may influence debris, such as land use; CSO and litter control mechanisms and practices; sewer system components; and CSO and storm outfall locations, physical characteristics, and drainage areas.
- **Floatable and debris materials characterization:** By categorizing and enumerating the discarded material found at a site, the influence of the different types of material on the floatables condition rating in the Off Shore, Near Shore, Shoreline and Upland areas and the influence on upland conditions was generally determined with regard to relative magnitude. Because the condition ratings as well as the general aesthetics of an area are affected by the presence of all types of discarded material, not just waterborne floatables, debris ranging from sunken, derelict pier pilings to upland litter were included in the material characterizations.
- **Investigation of floatables and debris sources:** Following from the debris and study area characterizations, a sense of debris sources and their relative degrees of influence was reasonably determined through inference. Although not necessarily definitive due to overlapping sources (e.g.,

street litter from CSO outfalls or shoreline littering) and the lack of observed active deposition (e.g., illegal dumping caught in the act), source identification of this sort may help to prioritize further investigations and/or rule out certain sources.

Other, longer term objectives of the program include:

- **Correlation of rating trends to floatables control programs where applicable:** Using the information gained in the study area and material characterizations and the material source investigations, an association of floatables rating trends to control programs may be made in some, but not all, cases. Additional work will be necessary to complete this objective.

- **Initiation of appropriate remediation planning where feasible:** The information developed through the achievement of the near-term goals was fed into the LTCP in order to help inform control program planning, as necessary and appropriate.

METHODS

The site investigations conducted to date focused on the three near term objectives listed above. Methods for each are described below.

Study Area Characterization, Including Proximal Floatable Control Programs

Data reviews were conducted for study areas surrounding each of the study sites. Reviews included the following information and were conducted for the primary area immediately adjacent to the sites and for the secondary study area encompassed by the regulated combined sewage drainage area(s) that contribute flow to the waterbody. Data sources included readily accessible data and documents produced by the New York City Department of City Planning and GIS databases maintained as part of the New York City Department of Environmental Protection CSO LTCP project.

- Land use
- Zoning
- Sewer system components (e.g., regulators, outfalls, catch basins)
- Sewer system characteristics (e.g. combined, separate, direct drainage)
- Lot ownership (primary study area only)
- General character

Site characterization data was confirmed, in general, as part of field investigations, and additional information was noted such as the general cleanliness of the primary study area with regard to litter.

Floatables and Debris Material Characterizations

Materials characterizations were conducted in the field by observing, counting, and categorizing debris items within the count area. Descriptions of the count area and the categorization of items are provided below.

Count Area Delineation

The delineation for each count area for each site was determined by what could reasonably be seen and identified from the monitoring site landside vantage point. Given the variability of the sites with regard to existence of shoreline and bulkhead areas, readily available access to the sites, access to the shoreline area, and the existence of view obstructions, this "line of sight" delineation proved most useful for the objectives at hand. Standard delineations, such as sampling uniform grids across all the sites were considered during the pilot phase but found impractical. Delineations are represented in Figures 7-9.

Material Categorization

Item counts were initially categorized in the field by material type according to a data sheet adapted from the International Coastal Cleanup (ICC). The ICC is a yearly event sponsored by the Ocean Conservancy where volunteers count and remove trash and debris from beaches worldwide, including many in New York City. The ICC data sheets and categorization system are widely recognized and were selected for use to allow for future data comparisons with ICC events, if warranted.

ICC major categories used on the site investigation field data sheet included Shoreline/Recreational Activities/Street Litter, Ocean/Waterway Activities, Dumping Activities, and Medical/Personal Hygiene. In addition, two new categories, Natural Material and Derelict Pier/Bulkhead Material, were added during 2007. Most items within each category were terms from the ICC data sheet. Some terms were modified forms of the ICC terms, and others were terms that were added to the lists, based on observations from preliminary site visits in February 2007. These changes in ICC terms were made in order to put the data collection into the context of the floatables monitoring program.

Figure 7. Debris sample zones at Thurston Basin head (TB1).

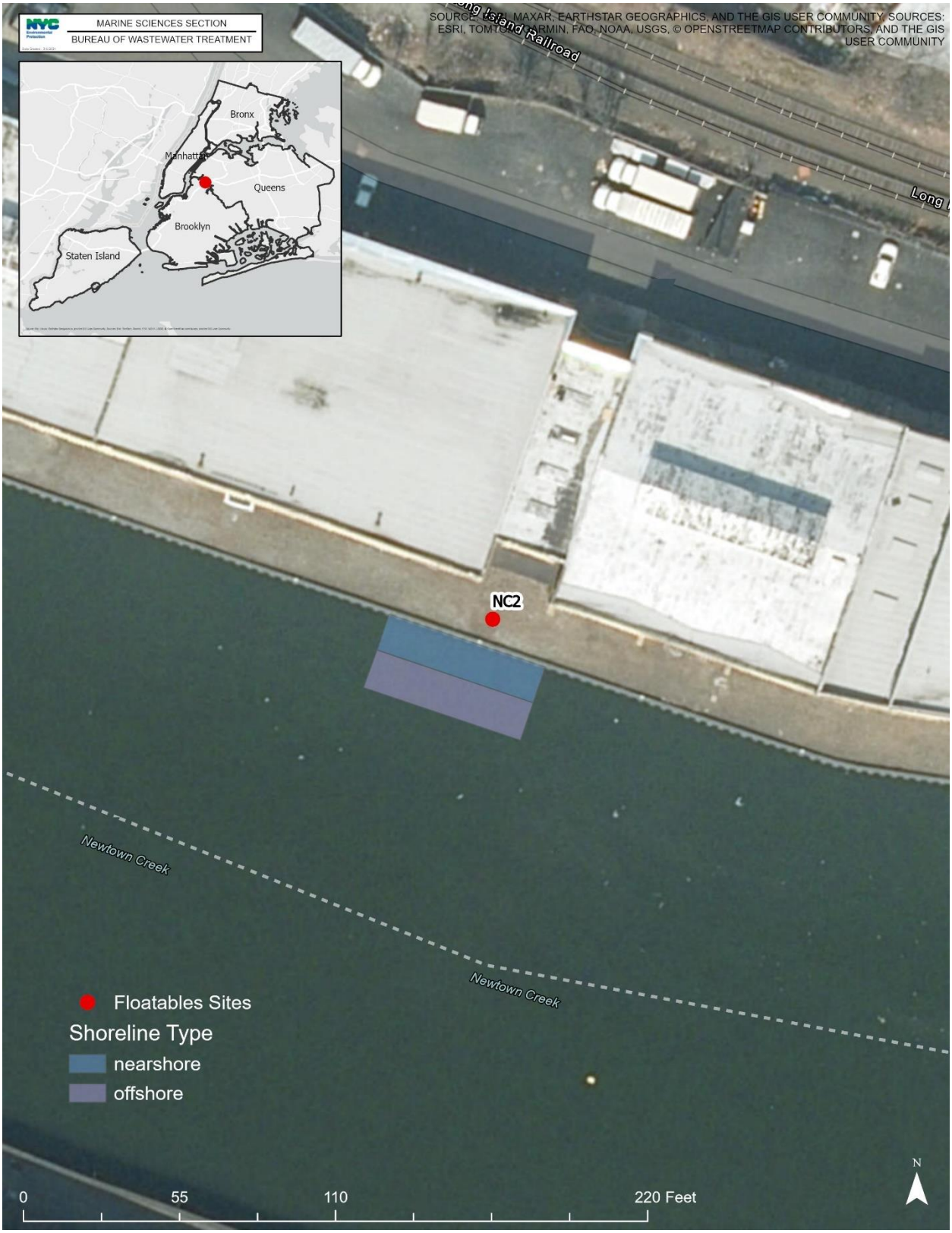


Figure 8. Debris sample zones at Newtown Creek Creek (NC2).

Figure 9. Debris sample zones at St. George, Staten Island (K1).

The following bullet points summarize the count categories and provide alternative names in parenthesis that are more relevant to the context of this study.

- **Ocean/Waterway Activities (i.e., Marine/Boating Activities):** Items such as nets, line, buoys, and fishing gear were included in this category.

- **Dumping Activities (i.e., Construction and Demolition Debris (C&D) and Automotive Items):** Discarded building materials, such as dry wall, block, stone, siding, metal conduit, plumbing, and used lumber were considered part of this category along with tires, axles, doors, spark plugs, batteries, and other car parts. Full, 30+ gallon trash bags were also part of this category.

- **Medical/Personal Hygiene:** Items such as condoms, tampon applicators, syringes, and diapers were included in this category.

- **Derelict Pier and Bulkhead Material:** Debris, such as planks and pilings, that were likely to have originated from the decay of wooden piers and bulkheads comprise this category.

- **Natural Material**: Debris such as seaweed, grasses, leaves, sticks, logs and other natural items comprise this category.

- **Shoreline, Recreational Activities & Street Litter**: This category includes debris characteristic of municipal solid waste items generally found on streets in sidewalk litter baskets. The category comprises numerous items such as food wrappers, beverage containers, newspapers, and household items. The ICC category of Smoking-Related Activities, cigarette butts and cigarette packaging, was added to this category.

Item counts were also categorized by location according to the three of the four floatables condition rating system categories, Off Shore, Near Shore, and Shoreline. An Upland category was also included. The Open Water category was excluded (water-based survey); the site specific investigations were done from land-based observations. A section on the data sheet also included areas for the user to record certain data about the tide and weather at each site, including the tide stage, time, temperature, precipitation, and wind direction.

Investigation of Floatables and Debris Sources

In order to associate materials with sources, field observers inferred a material's source from its characteristics and/or its location. Although related to the item categories based on the ICC data sheets, this source categorization was deemed necessary due to the overlap of sources for certain materials, most notably street litter. For instance, the hypothetical waterborne beverage bottle vs. an upland beverage bottle share similar characteristics as street litter, but their sources could be different.

The possible sources of each material category are described below. It is noted that many of these sources may overlap – different source categories may contain some of the same items.

- **CSO Discharge:** The presence of floatables comprised of items characteristic of Street Litter (i.e., Shoreline and Recreational Activities) and Medical/Personal Hygiene items were considered to suggest CSO discharge as a potential source.

- **Illegal Dumping:** Items characteristic of bulk Street Litter, bulk Natural Material, C&D, and Automotive (i.e., Dumping Activities) items have been associated with illegal dumping. Depending upon the site, illegal dumping influences waterbodies through the direct dumping of material into the waterbody (e.g., a tire thrown over a bulkhead) and possibly through the wind dispersal of items from land to the water.

- **On-Land Littering:** Items characteristic of Street Litter, Marine Litter, and Medical/Personal Hygiene products have the potential to enter waterbodies through direct human deposition onto the shoreline and/or into the water and through possible wind or runoff dispersal of lighter items deposited upland. On land littering also includes items discharged by stormwater outfalls in the case of water borne debris.

- **Marine Dumping/Littering:** Items characteristic of Street Litter, Marine Litter and Medical/Personal Hygiene products have the potential to enter waterbodies through direct deposition from boats or marinas.

- **Natural Deposition:** Natural materials, such as tree limbs, leaves, and reeds, have the potential to be deposited in the water or on shore as a result of natural activities including storms, deciduous leaf cycles, and seasonal plant life cycles.

- **Pier/Bulkhead Decay:** Derelict Pier and Bulkhead Debris including such items as waterlogged planks and pier pilings have been inferred to have been deposited as a result of pier and bulkhead decay.

In order to simplify the source categorization, especially given the overlapping sources, these categories of items were further classified during data compilation and analysis as Possible CSO, Non-CSO, or Unknown. Possible CSO includes items in the Street Litter and Medical/Personal Hygiene categories. Non-CSO Material includes items in the Illegal Dumping, On-Land Littering, Marine Dumping/Littering, Natural Deposition, and Pier/Bulkhead Decay categories.

SITE CHARACTERIZATION RESULTS

Thurston Basin Head (TB1)

This site is near the head of Thurston Basin on the eastern end of Jamaica Bay. The shoreline is marsh grass and reeds (Fig. 10) with some CSO outfalls further in towards the head and near the mouth of the basin (Fig. 12). The surrounding area is predominantly open green space and J.F.K. International Airport.

Figure 10. Thurston Basin (TB1) sampling zones. Top: Shoreline, nearshore and offshore sampling zones. Bottom same zones in the fall where trash is more evident.

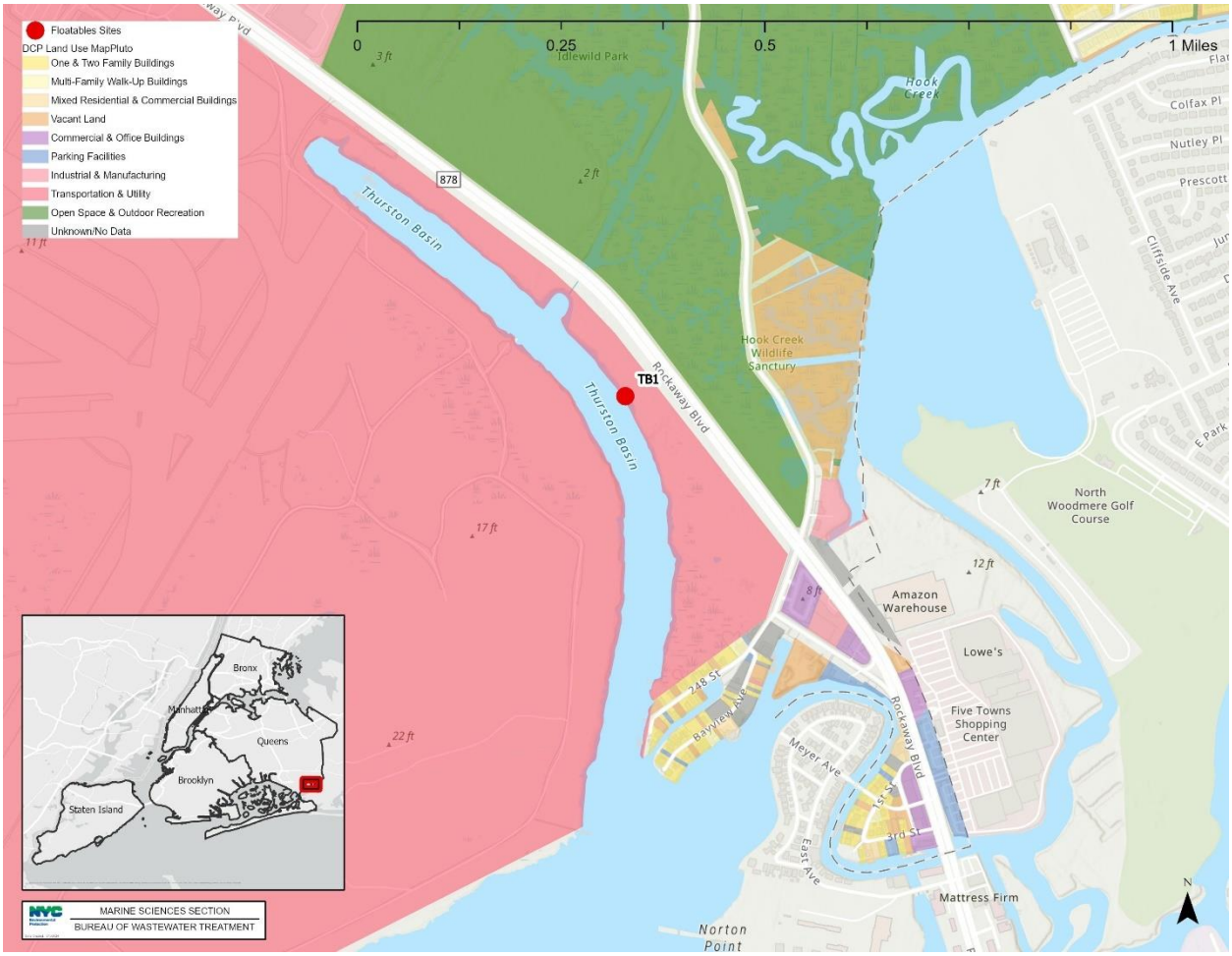


Figure 11. Land use map of the Thurston Basin (TB1) area.

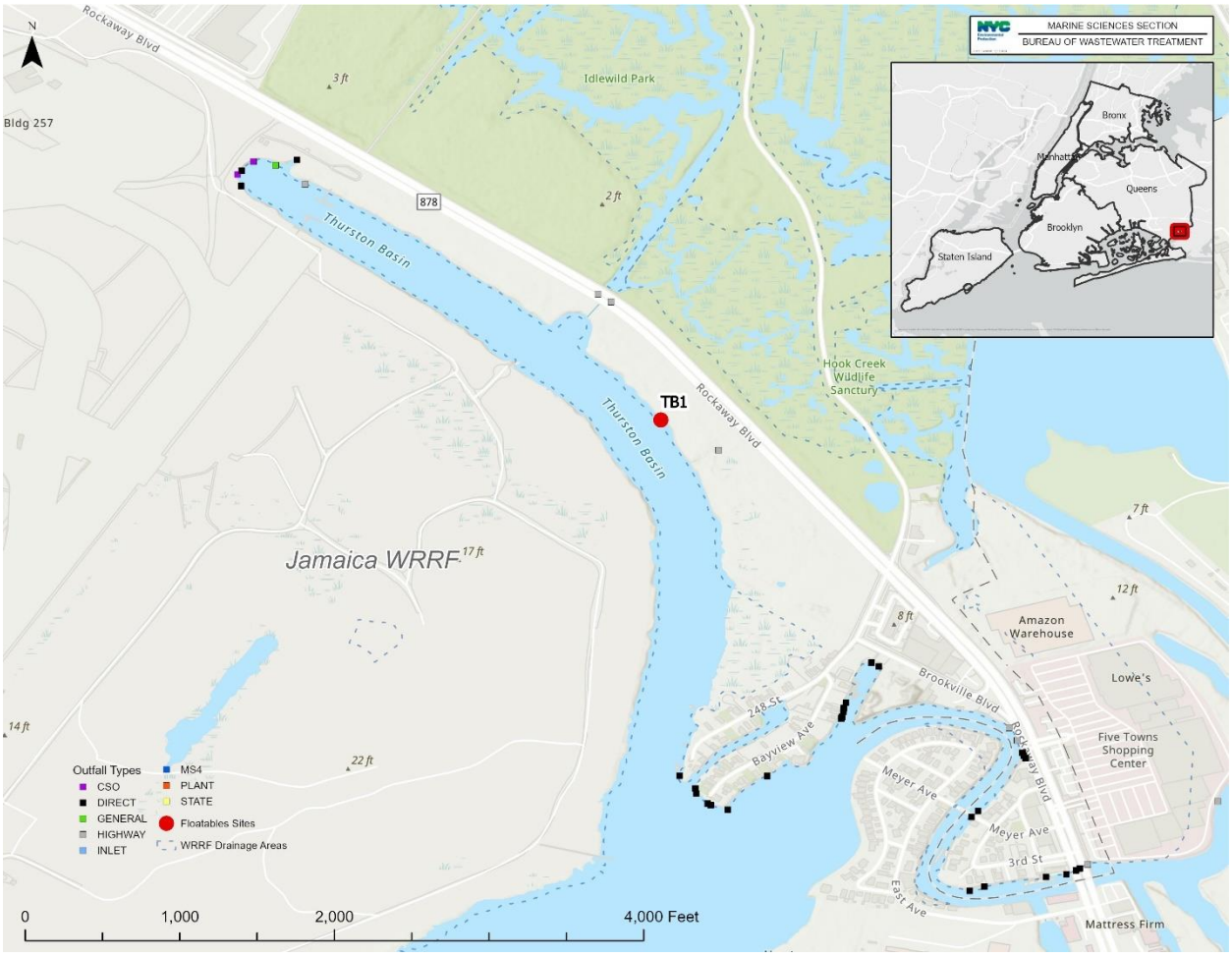


Figure 12. CSO map of the Thurston Basin (TB1) area. The site drains to the Jamaica Bay Plant.

Newtown Creek Midway Point (NC2)

This site is located Roughly midway into Newtown Creek just east of the John Jay Byrne Bridge. There is a manmade bulkhead here and as a result, no shoreline or upland zone. The area consists of mostly industrial and manufacturing facilities (Fig. 14) with many outfalls throughout the creek.

Figure 13. Newtown Creek sampling zones. Left: overview of site. Right: closeup of nearshore zone.

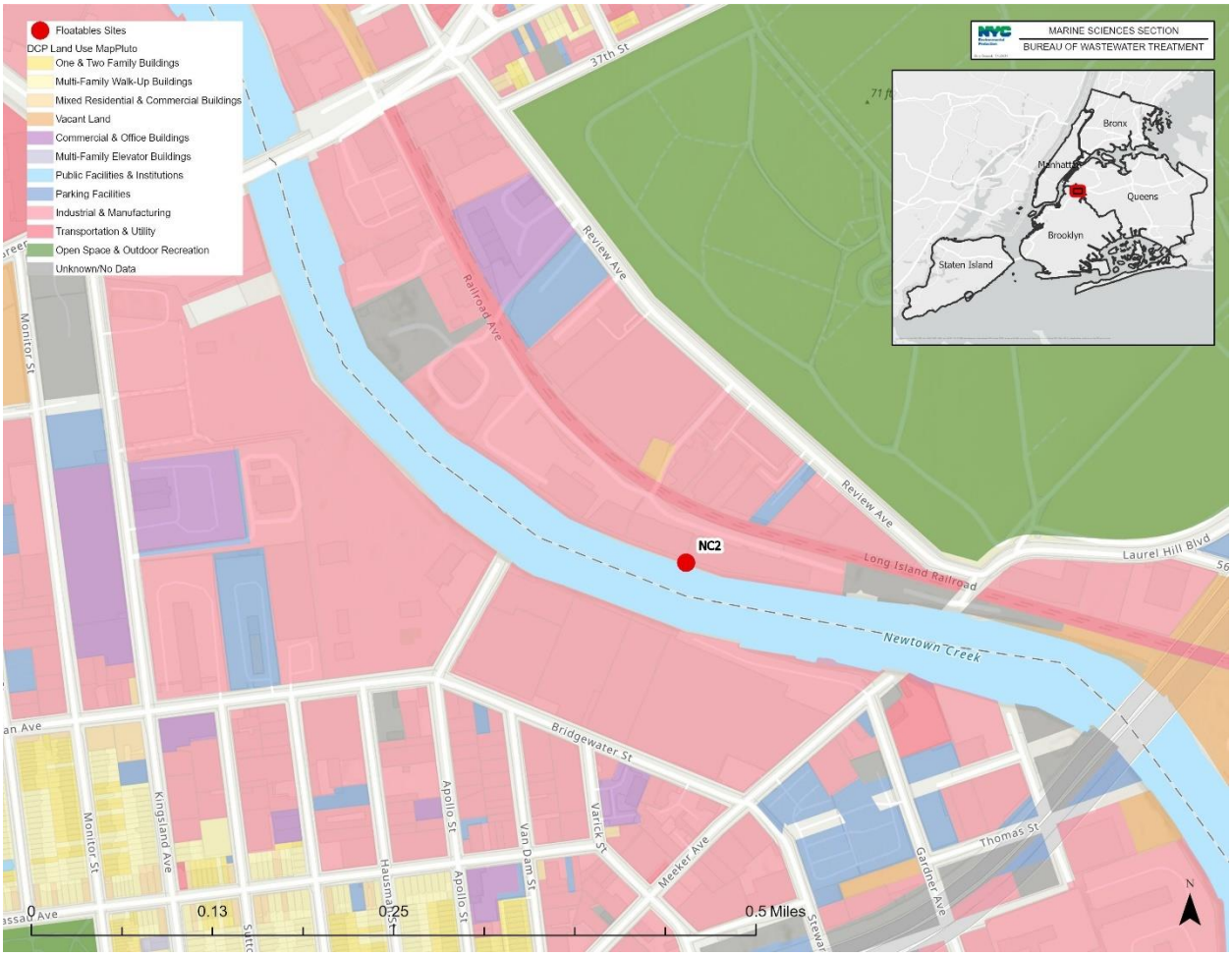


Figure 14. Land use map for Newtown Creek (NC2).

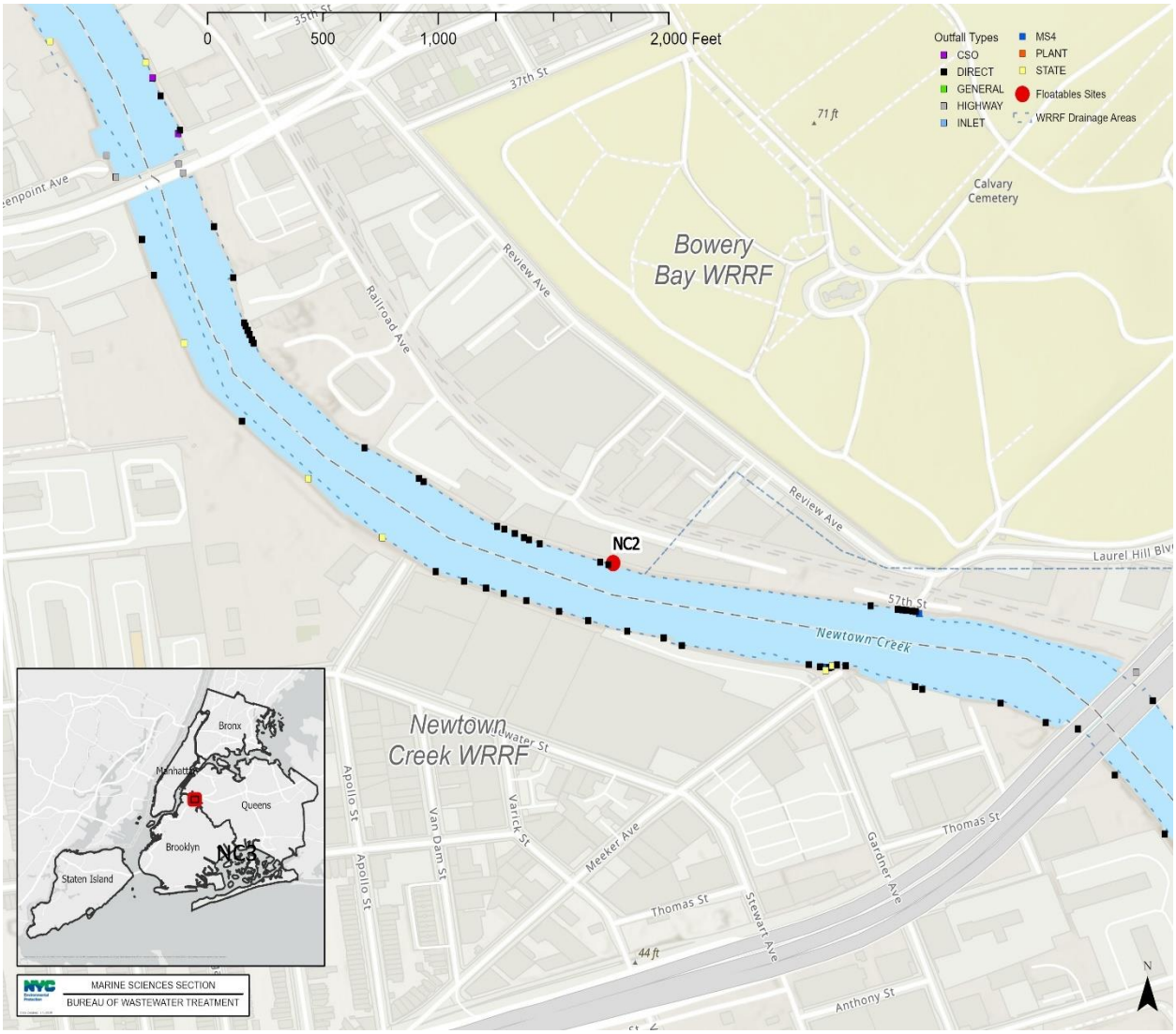


Figure 15. CSO map of the Newtown Creek (NC2) area.

St. George, Staten Island (K1)

This site is on the northeastern tip of Staten Island in the Kill Van Kull. Fishermen occasionally use the site. The immediate area is predominantly vacant land and public facilities (Fig. 17). There are several CSOs nearby and lining much of the Staten Island shoreline (Fig. 18).

Figure 16. St. George sampling zones. Top left: overview of site. Top right: shoreline and upland zones. Bottom: detail of pallets and debris.

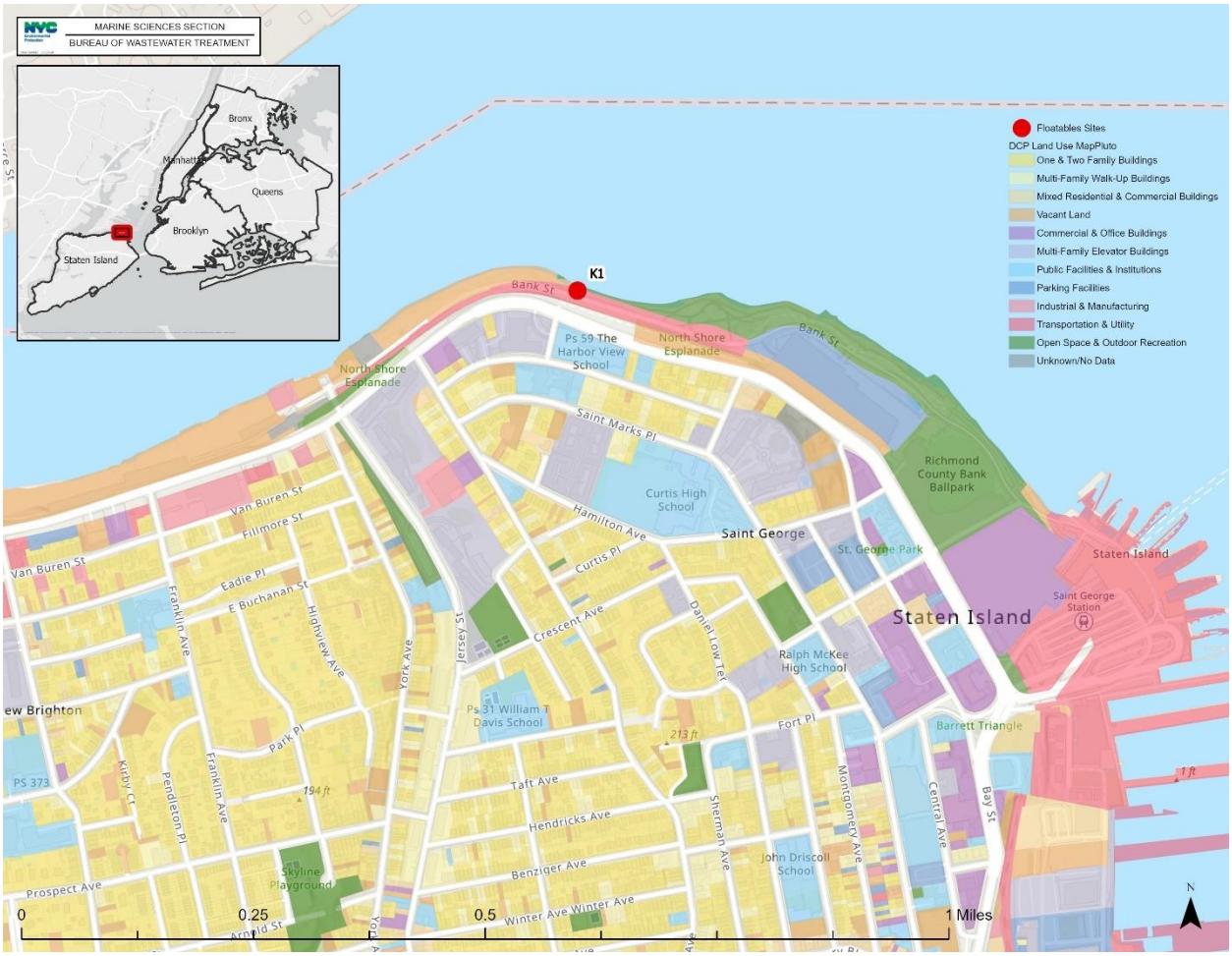


Figure 17. Land use map of The St. George, Staten Island (K1) area.

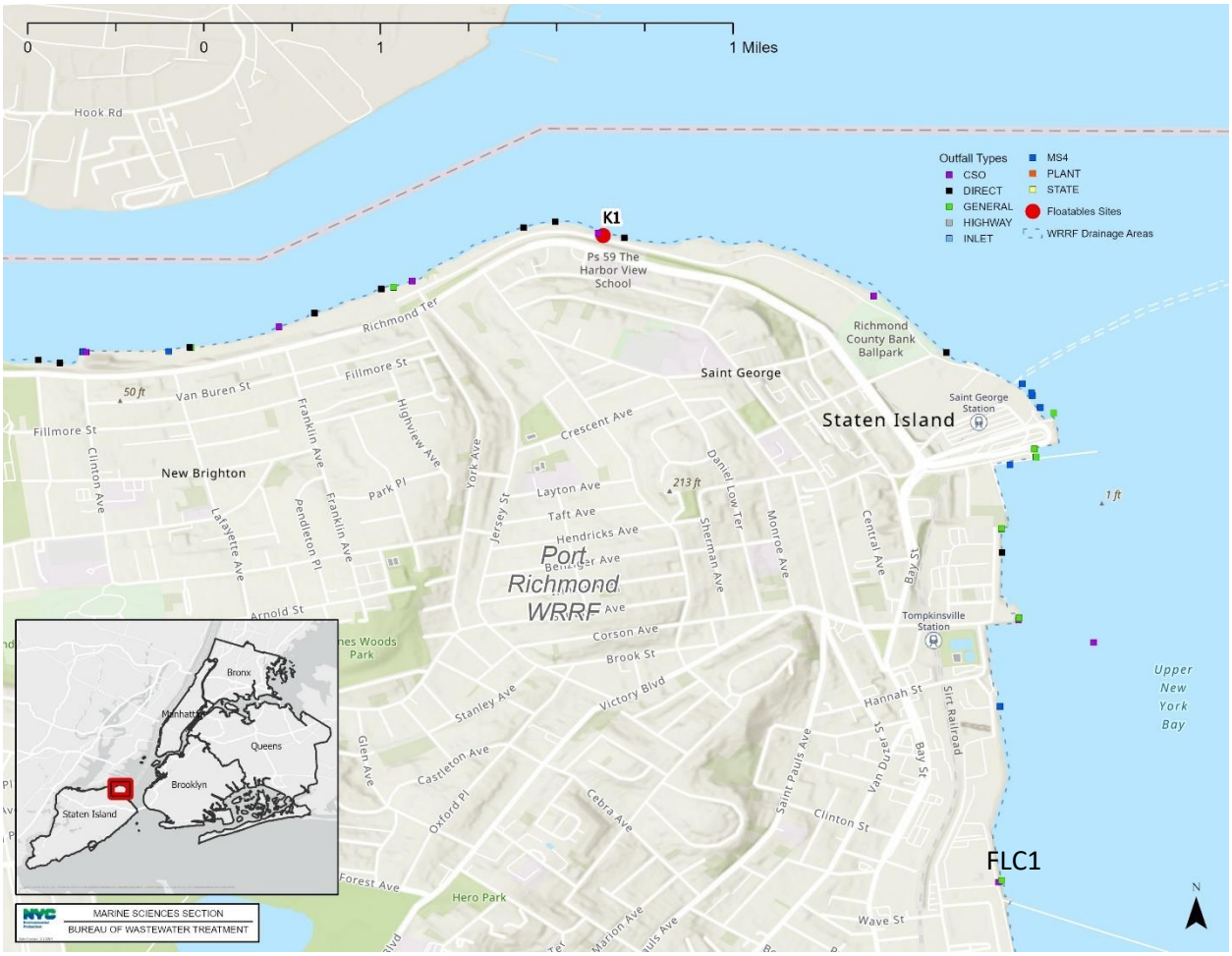


Figure 18. CSO map of the St. George, Staten Island (K1) area. The site lies in the Port Richmond WWTP drainage basin.

OBSERVATION NOTES

July 24 and 27, 2023 Conditions:

All three sites were visited between 10am and noon over the two days. The weather was dry and temperatures were in the mid to high 80's °F. The tide was low and flooding at St. George and Newtown Creek and high and flooding in Thurston Basin. Thurston Basin was sampled from the H.S.V. *Osprey*.

August 21 and 25, 2023 Conditions:

All three sites were visited between noon and 1:15pm over the two days. The temperature was in the 70's °F with light winds. It was high tide at TB1 and K1 during sampling and low and flooding at NC2. No floatables were observed at the Newtown Creek site.

September 20th and 27th and October 10th (TB1), 2023 Conditions:

September 2023 was a very rainy month with 14.25 inches falling. Prior to sampling there were heavy rains on Sept. 18th (1.3"), Sept. 23rd (0.95"), Sept 25th (0.6") and Sept 29th (5.6"). All three sites were visited in the morning before 12:15pm. There were many shipping pallets noticed at K1 on 9/20 but it was not clear if they were dumped or washed up.

MATERIAL COUNTS AND DISCUSSION

Field sheet tables for each site on each sampling date showing the individual counts of debris items at the site specific zones are available upon request (Appendix 1). Figures 19-21 associate a possible source to these debris items.

Head of Thurston Basin (TB1)

Figure 19 summarizes the debris count sources near the head of Thurston Basin in 2023. Most floatable debris here were recorded in the shoreline zone (Fig. 19b). Floatable litter accumulating on the marshy shoreline over many tide cycles seems to be the major contributor to debris in all the zones. There is a boom just to the north and a local resident stated that trash will get past this boom and out into the basin. Wet weather in September increased the occurrence of overall debris in the shoreline zone (Fig. 19).

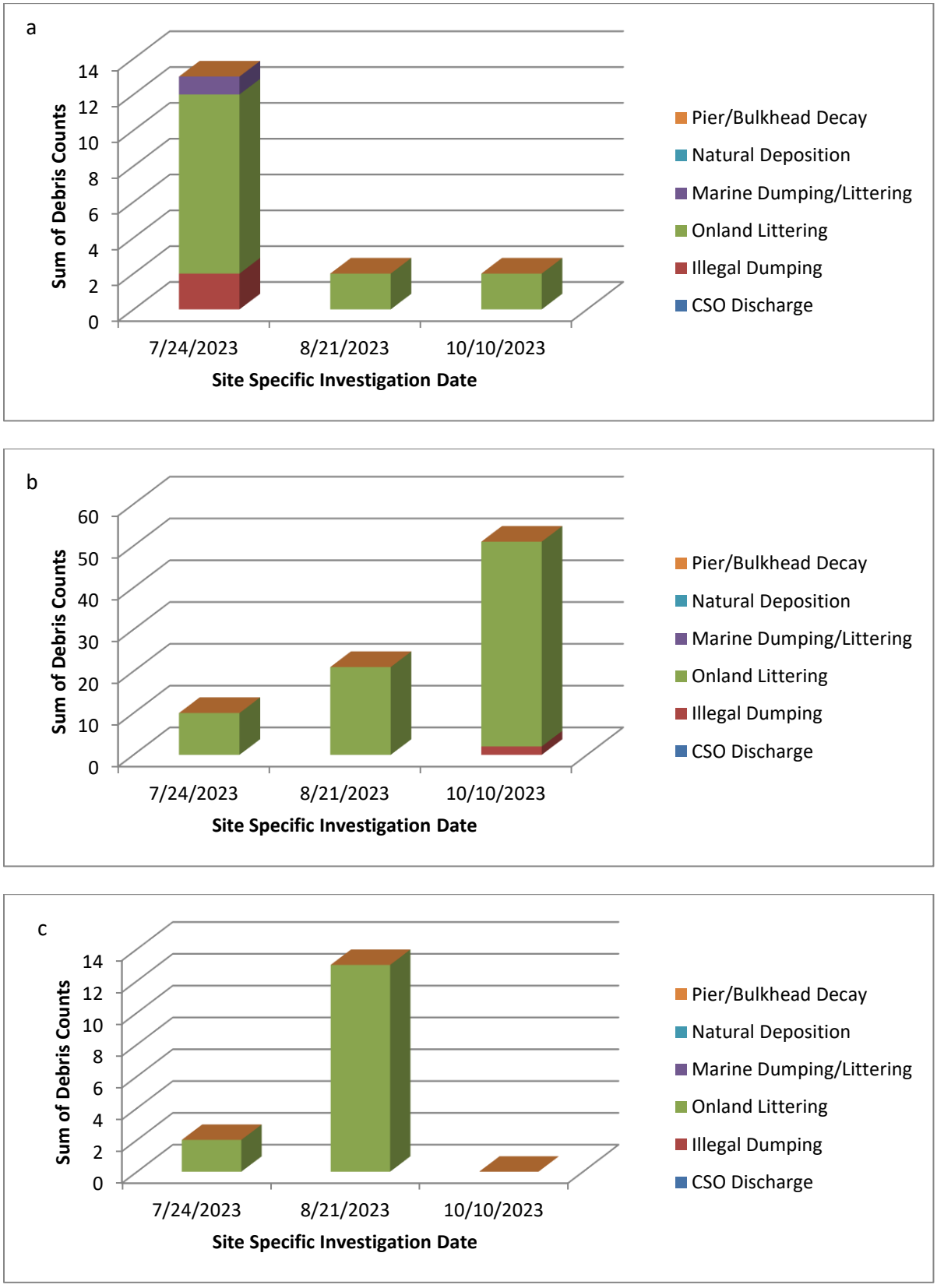


Figure 19. Thurston Basin debris source counts in the upland (a), shoreline (b) and nearshore (c) zones. There were no debris recorded in the offshore zone. 10/10/23 was a wet weather sampling day.

Newtown Creek Midpoint (NC2)

Figure 20 summarizes the debris count sources at NC2 in 2023. The floatable sources here were predominantly littering related debris in the upland zone (Fig. 22a). There were almost no floatables present when sampling took place though anecdotal observations have shown that at times there can be many floatables in this part of the creek. Debris occurrence here can be a function of the tide as floatables get carried back and forth.

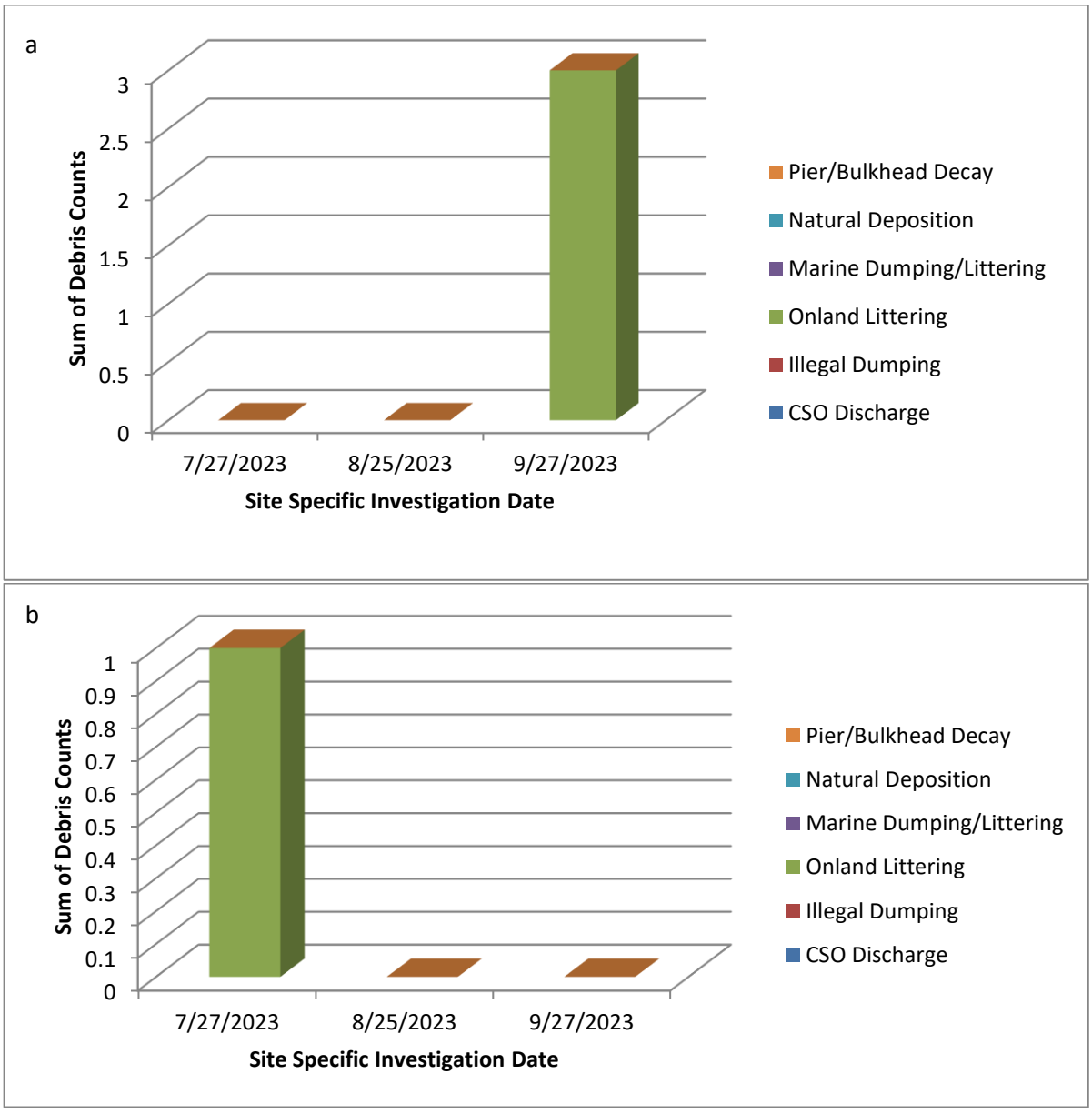
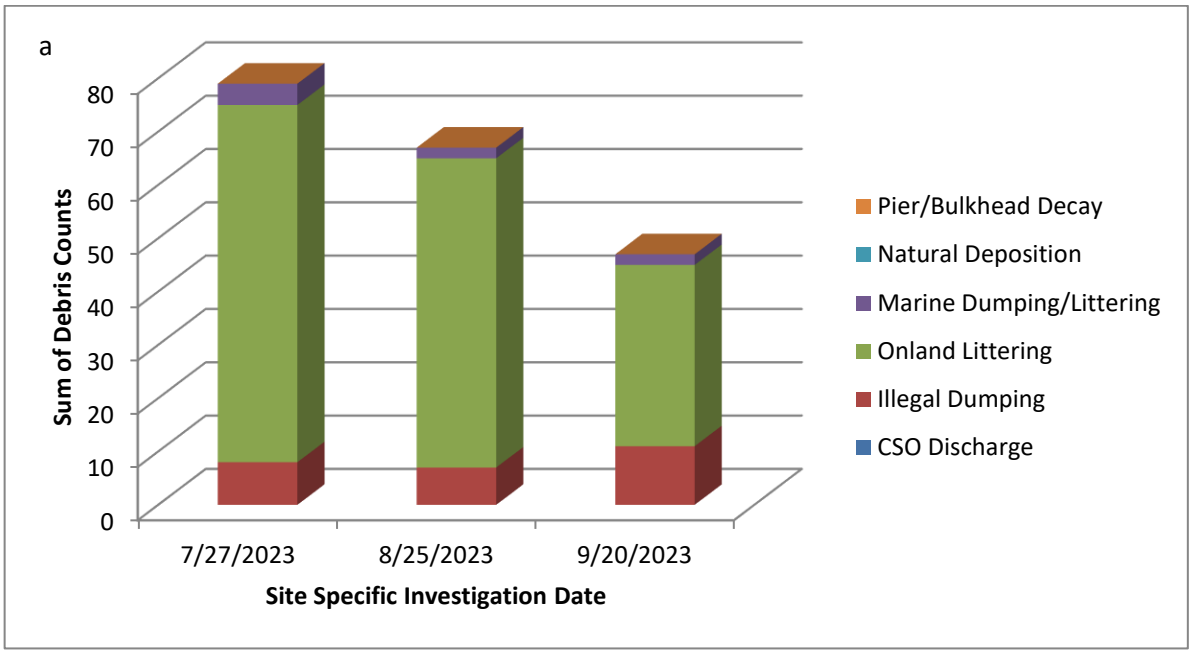
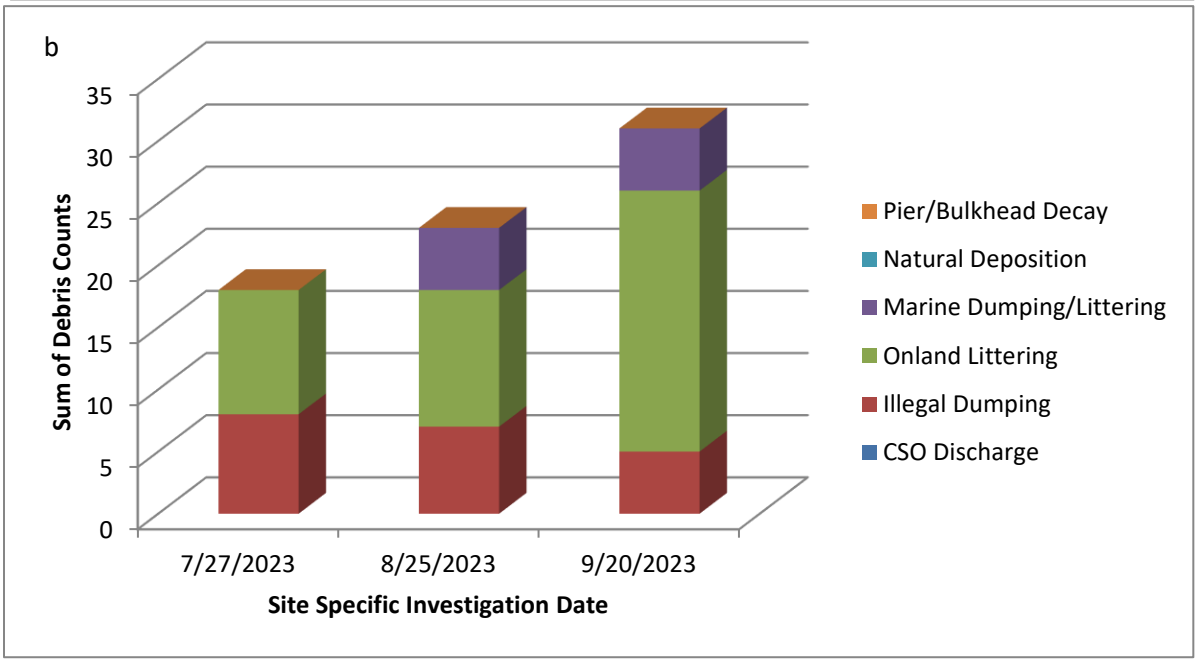


Figure 20. Newtown Creek (NC2) debris source counts in the nearshore (a) and offshore (b) zones. 9/27/23 was a wet weather sampling day.

St. George, Staten Island (K1)

Much of the debris at this site is from onland littering and illegal dumping (Fig. 21) though there are floatables present in the water as this is a major shipping channel at the confluence of the Hudson River Estuary and New York Harbor. There was an increase in the debris counts in the shoreline zone after heavy rainfall (Fig. 21b). It is typical for sites that are frequented by anglers to have litter present.





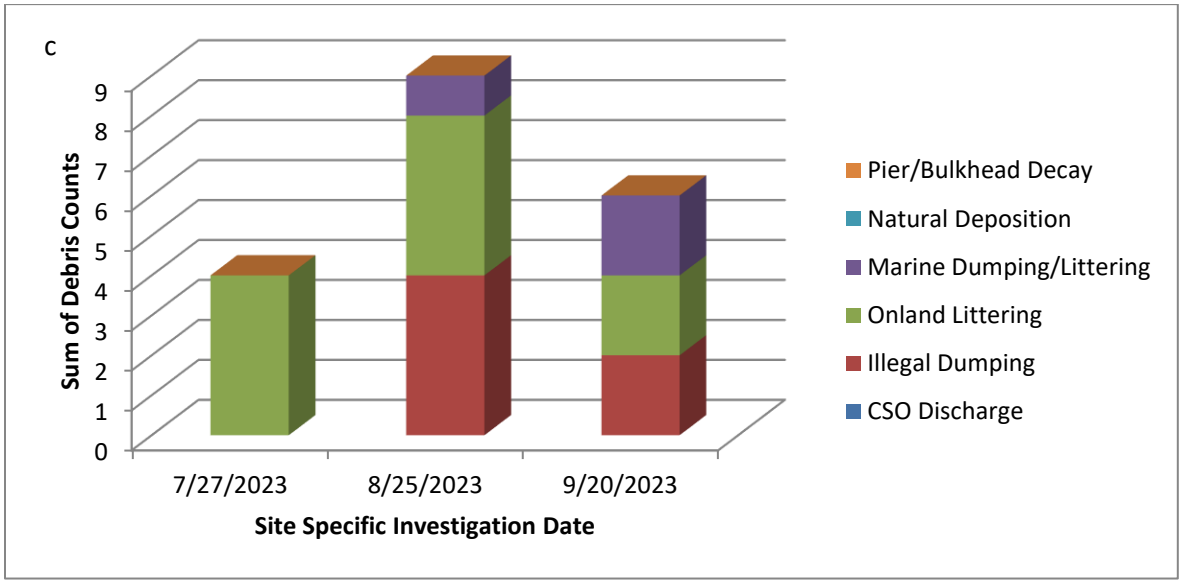


Figure 21. St George (K1) debris counts in the upland (a), shoreline (b) and near shore (c) zones. 9/20/23 was a wet weather sampling day.

APPENDIX 1

Categorized Material Item Counts

Field sheets for floatable item counts are available upon request

Contact email: MKoelbl@dep.nyc.gov

APPENDIX 2

RAW DATA

Raw Data available upon request

Contact email: MKoelbl@dep.nyc.gov

APPENDIX 3

LOCATION OF PROGRAM MONITORING STATIONS

The following list and map of floatables monitoring stations includes those stations for which ratings were conducted and data collected in 2023. The stations include all active monitoring stations for the following programs.

- Harbor Water Quality Survey (HWQS)
- Long Term Control Plan (LTCP) Post Construction Compliance Monitoring (PCM)

The number of monitoring sites will vary from year to year within each program, although the total number will generally increase each year through the completion of the LTCP. PCM sites will grow in number as LTCP elements come on line.

Table 1. Descriptive Locations and ID's of all floatables monitoring stations.

Primary Station ID	Secondary Station ID	Descriptive Location	Monitoring Group
BB2	BB2	Head of Bergen Basin	HWQS
BB4	BB4	Mouth of Bergen basin	HWQS
BR5	BR5	Midway of Bronx River	HWQS
CIC3	CIC3	Coney Island Creek, midway, Brooklyn	HWQS
E10	E10-W	Off Hart Island, Western Long Island Sound, Bronx	HWQS
E14	E14-W	Mouth of Bronx River, Bronx	HWQS
E15	E15	Flushing Bay near world's Fair Marina, Queens	HWQS
E2	E2	Mouth of Newtown Creek, East River, Brooklyn/Queens	HWQS
E4	E4-W	Astoria Park, East River, Queens	HWQS
E6	E6	Mouth of Flushing Bay, East River, Queens	HWQS
E7	E7	East of Whitestone Bridge, East River, Queens	HWQS
E8	E8	Between Willet's Point and Throg's Point, Little Bay, Queens	HWQS
FB1	FB1	LaGuardia Airport, Flushing Bay, Queens	HWQS
FLC1	FLC1	Flushing Creek mid creek, Queens	HWQS
FLC2	FLC2	Mouth of Flushing Creek, Queens	HWQS
G2	G2-W	Gowanus Canal mouth, Brooklyn	HWQS
GB1	GB1	Gravesend Bay, Brooklyn	HWQS
H3	H3-W	Jerome Avenue, Harlem River, Manhattan/Bronx	HWQS

Primary Station ID	Secondary Station ID	Descriptive Location	Monitoring Group
J1	J1	Jamaica Bay - Rockaway Inlet near Marine Parkway Bridge, Brooklyn	HWQS
J10	J10	South of Paerdegat Basin Bridge, Brooklyn	HWQS
J11	J11	Sheepshead Bay near mouth of bay, Brooklyn	HWQS
J12	J12-W	Eastern Jamaica Bay, Grassy Bay off of JFK airport, Queens	HWQS
J2	J2	Mouth of Mill Basin, Jamaica Bay, Brooklyn	HWQS
J3	J3-W	Canarsie Pier, Jamaica Bay, Brooklyn	HWQS
J5	J5	Near mouth of Barbadoes Basin, Jamaica Bay, Queens	HWQS
J7	J7	Mouth of Bergen Basin, Jamaica Bay, Queens	HWQS
J8	J8-W	Mouth of Spring Creek, Jamaica Bay, Brooklyn/Queens	HWQS
J9A	J9A	Beyond mouth of Fresh Creek, Jamaica Bay, Brooklyn	HWQS
K1	K1	Mouth of Kill Van Kull, Staten Island	HWQS
K2	K2-W	Kill Van Kull near Shooters Island, Staten Island	HWQS
K3	K3	Near Goethal's Bridge, Arthur Kill, Staten Island	HWQS
K4	K4	Island of Meadows, Arthur Kill, Staten Island	HWQS
K5	K5	Mouth of Arthur Kill, Staten Island	HWQS
K5A	K5A	Open water beyond Conference House Park, Raritan Bay, Staten Island	HWQS
K6	K6	Open water beyond Great Kills Park, Raritan Bay, Staten Island	HWQS
N1	N1	Westchester County border, Hudson River, Bronx	HWQS
N16	N16	Open Water beyond Breezy Point Park, New York Harbor, Queens	HWQS
N3B	N3B	South of North River WPCP, Hudson River, Manhattan	HWQS
N4	N4-W	44th Street, Hudson River, Manhattan	HWQS
N5	N5	Mouth of Hudson River at Battery, Manhattan	HWQS
N6	N6	Mid-Upper Bay	HWQS
N7	N7	Upper New York Harbor open water between northern Staten Island and Owl's Head Park Brooklyn	HWQS
N8	N8-W	Narrows, Lower Bay/ Upper Bay, Brooklyn/	HWQS
N9	N9-W	Coney Island Beach, Lower Bay, Brooklyn	HWQS
N9A	N9A	Coney Island outfall, Brooklyn	HWQS
NC0	NC0	Off Rewe Street, English Kills, Brooklyn	HWQS
NC0B	NC0B	Grand Ave. Bridge, East Branch, Brooklyn	HWQS
NC1	NC1	Near Mouth of Maspeth Creek, Newtown Creek, Queens	HWQS
NC2	NC2-W	Apollo Street, Newtown Creek, Brooklyn/ Queens	HWQS

Primary Station ID	Secondary Station ID	Descriptive Location	Monitoring Group
NC3	NC3-W	Mouth of Dutch Kills, Newtown Creek, Brooklyn/ Queens	HWQS
PB2	PB2	Midway of Paerdegat Basin, Brooklyn	HWQS
PB3	PB3	Mouth of Paerdegat Basin, Brooklyn	HWQS
SP2	SP2	Near mouth of Spring Creek, Brooklyn	HWQS
TB1	TB1	Thurston Basin Head	HWQS
TB2	TB2	Thurston Basin mouth	HWQS

Monitoring Group Description:

HWQS – Harbor Water Quality Survey

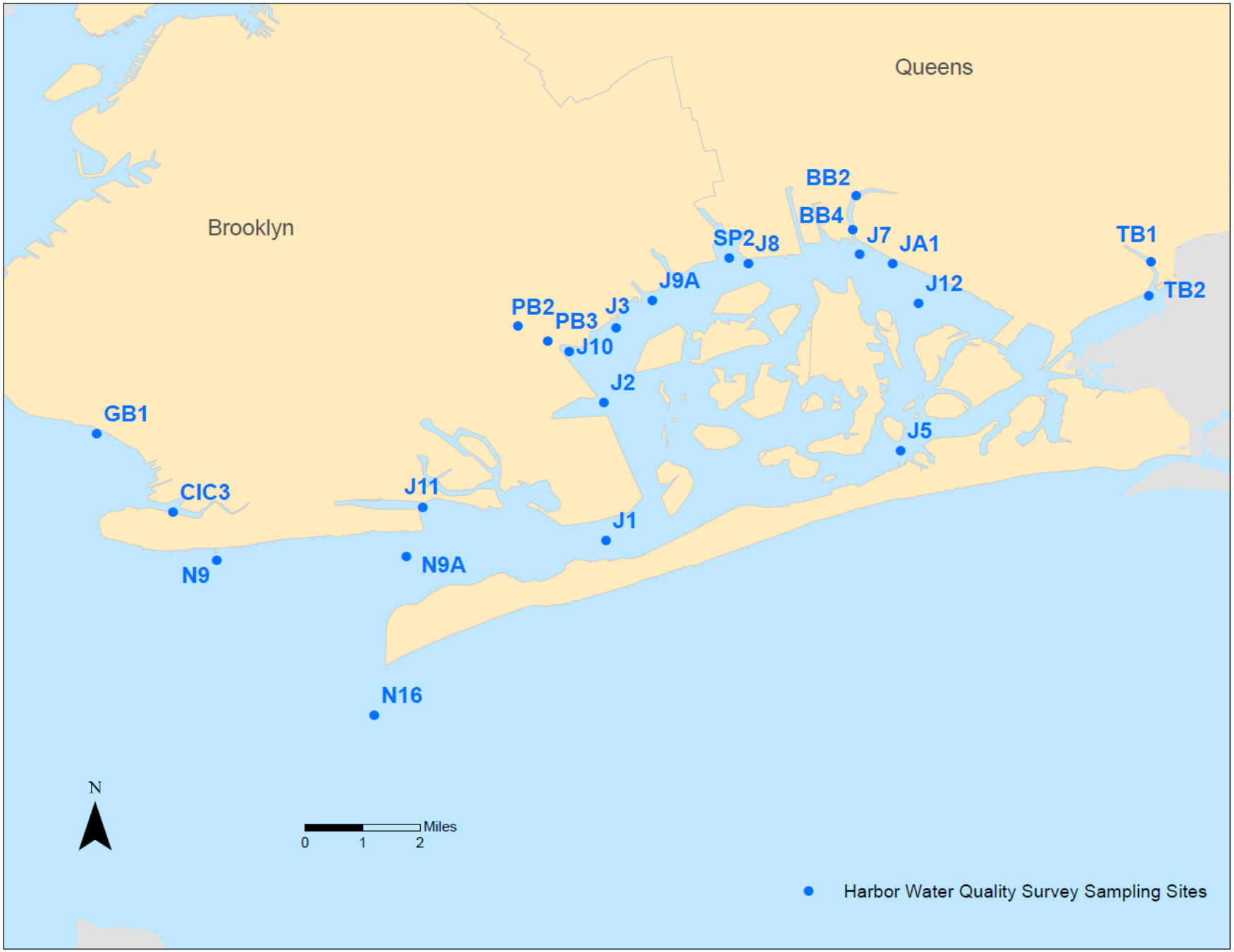


Figure 1. Detailed area of monitoring station map (Jamaica Bay).

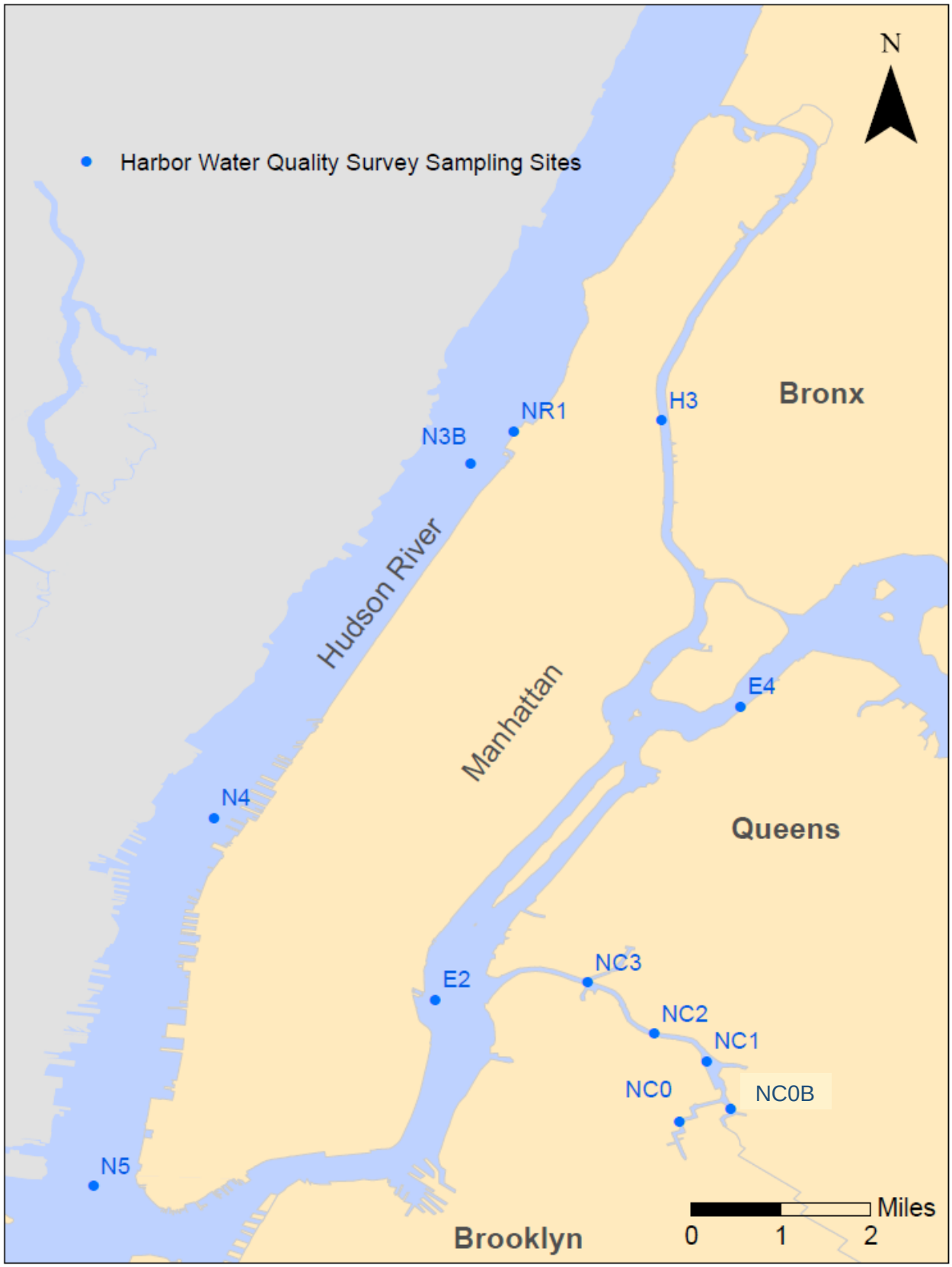


Figure 2. Detailed area of monitoring station map (Manhattan, East River).

City of New York Department of Environmental Protection
Floatables Monitoring Program
Location of Pilot Program
Monitoring Stations
March 2024

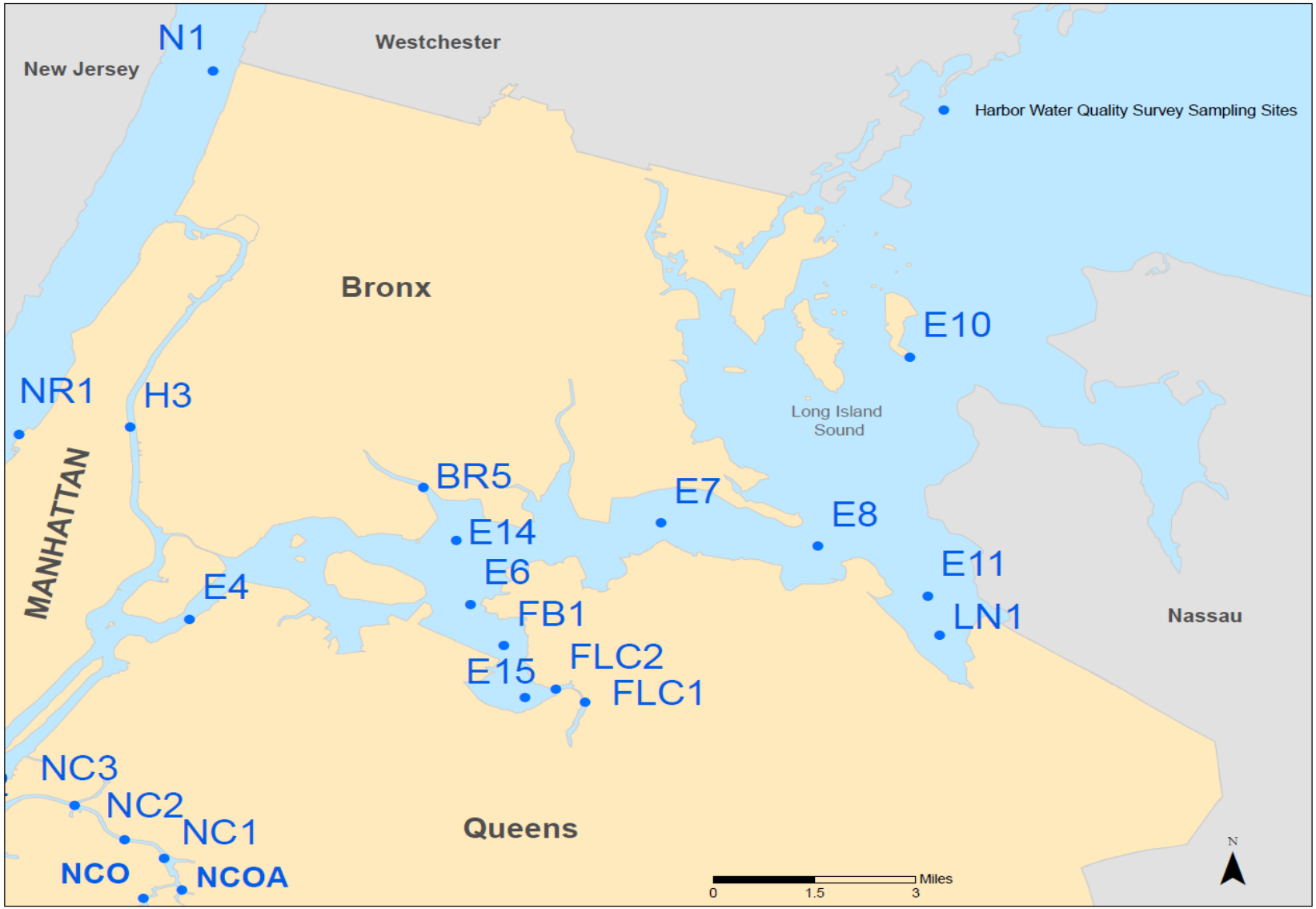


Figure 3. Detailed area of monitoring station map (Upper East River).

City of New York Department of Environmental Protection
Floatables Monitoring Program
Location of Pilot Program
Monitoring Stations
March 2024

Figure 4. Detailed area of monitoring station map (Staten Island).

City of New York
Department of Environmental Protection
Bureau of Wastewater Treatment

SUMMARY OF COMBINED SEWER OVERFLOW TOTAL NITROGEN LOADING CALENDAR YEAR 2023

April 2024
NYCDEP

FINAL REPORTING RESULTS:

- **East River CSO Total Nitrogen Loading (LIS Zones 8 & 9)**
- **Jamaica Bay CSO Total Nitrogen Loading**
- **East River CSO Total Nitrogen Waste Allocations (LIS Zones 8 & 9)**

Table 1 - Summary of East River Monthly CSO Total Nitrogen Loadings by WPCP Drainage Area and Study Zone

Year	Month	Calculated CSO Total Nitrogen Load (lbs/day)						Zone Totals	
		Bowery Bay	Hunts Point	Newtown Creek	Red Hook	Tallman Island	Wards Island	Zone 8[1]	Zone 9[2]
2022	January	619	296	167	65	183	337	1,434	233
	February	397	73	60	31	93	134	697	92
	March	309	100	50	42	68	108	586	92
	April	492	288	169	101	175	337	1,292	271
	May	592	221	116	89	202	240	1,256	204
	June	375	329	88	42	146	265	1,114	130
	July	413	654	201	13	160	554	1,780	214
	August	202	64	44	3	53	75	394	47
	September	730	395	435	118	421	333	1,879	553
	October	681	255	184	111	344	325	1,604	296
	November	510	267	154	61	165	262	1,204	215
	December	594	317	110	68	203	446	1,561	178
2023	January	710	324	123	51	203	337	1,575	174
	February	178	27	14	1	37	26	268	14
	March	452	199	117	38	136	210	998	155
	April	1,210	884	655	196	591	825	3,509	850
	May	199	120	53	25	92	66	477	78
	June	94	11	9	1	26	29	160	10
	July	700	546	253	90	169	507	1,923	343
	August	970	624	338	81	255	380	2,229	419
	September	1,964	1,469	1,005	269	739	1,607	5,779	1,274
	October	502	300	74	43	134	250	1,186	117
	November	395	253	141	45	135	259	1,042	186
	December	1,291	738	445	150	487	794	3,311	595

	Zone 8[1]	Zone 9[2]
Waste Load Allocations:	**1,320**	**710**

Calculated CSO Total Nitrogen Load, 12-Month Moving Average (lbs/day)[3]

Year	Month	Bowery Bay	Hunts Point	Newtown Creek	Red Hook	Tallman Island	Wards Island	Zone 8(1) Waste Load Allocation 1,320	Zone 9(2) Waste Load Allocation 710
2023	January	500	274	145	61	186	285	1,245	205
	February	482	270	141	58	181	276	1,209	199
	March	494	278	146	58	187	284	1,244	204
	April	554	328	187	66	222	325	1,428	253
	May	521	320	181	61	212	310	1,364	242
	June	498	293	175	57	202	291	1,284	232
	July	522	284	179	64	203	287	1,296	243
	August	586	331	204	70	220	312	1,449	274
	September	689	420	251	83	247	418	1,774	334
	October	674	424	242	77	229	412	1,739	319
	November	664	423	241	76	227	412	1,726	317
	December	722	458	269	83	250	441	1,871	351

(1) Long Island Sound Study Zone 8 - Upper East River WWTP drainage areas: Bowery Bay, Hunts Point, Tallman Island, Wards Island.

(2) Long Island Sound Study Zone 9 - Lower East River WWTP drainage areas: Newtown Creek and Red Hook.

(3) 12-month rolling averages for 12-month period ending with month shown. Example: June 2023 is the average of July 2022 through June 2023.

Table 2 - Summary of Jamaica Bay Monthly CSO Total Nitrogen Loadings by WWTP Drainage Area

		Calculated CSO Total Nitrogen Load (lbs/day)				
Year	Month	26th Ward	Jamaica	Rockaway[2]	Coney Island	Total
2022	January	50	127	0	75	251
	February	1	69	0	0	70
	March	2	59	0	0	61
	April	37	121	0	119	277
	May	15	132	0	47	193
	June	26	102	0	22	149
	July	0	47	0	0	48
	August	0	5	0	0	5
	September	21	138	0	70	229
	October	65	225	0	92	382
	November	10	123	0	0	133
	December	6	133	0	1	140
2023	January	22	202	0	44	268
	February	0	29	0	0	29
	March	6	128	0	26	160
	April	235	355	0	451	1,041
	May	30	95	0	1	125
	June	0	11	0	0	11
	July	16	130	0	171	317
	August	19	173	0	0	192
	September	495	548	0	557	1,599
	October	24	143	0	0	168
	November	15	90	0	42	147
	December	217	370	0	214	801
	Calculated CSO Total Nitrogen Load, 12-Month Moving Average (lbs/day) [1]					
Year	Month	26th Ward	Jamaica[1]	Rockaway[2]	Coney Island[3]	Total
2023	January	17	113	0	33	163
	February	17	110	0	33	159
	March	17	115	0	35	168
	April	34	135	0	63	231
	May	35	132	0	59	226
	June	33	124	0	57	214
	July	34	131	0	71	237
	August	36	145	0	71	252
	September	75	179	0	112	366
	October	72	172	0	104	349
	November	72	170	0	108	350
	December	90	189	0	125	405

(1) 12-month rolling averages for 12-month period ending with month shown. Example: July 2022 is the average of August 2021 through July 2022.

(2) The Rockaway WWTP drainage area has undergone a major sewer separation effort and has been modeled as a separate system since CY2005.

(3) CSOs from the 26th Ward, Jamaica, and Coney Island WWTP systems, were estimated using the InfoWorks model.

Table 3. SPDES Waste Load Allocations and Estimated CSO TN Loadings for CY2023

Phase	Implementation Date	Zone 8 Upper East River TN Waste Load Allocations (lbs/day)[1]	Zone 9 Lower East River TN Waste Load Allocations (lbs/day)[2]	Combined East River CSO TN Waste Load Allocations (lbs/day)[3]
No net increase	Current	3,170	1,720	3,600
I	August 2004	2,430	1,320	2,760
II	August 2009	1,780	960	2,020
III	August 2014	1,320	710	1,498
CY2023 CSO TN Estimates (annual average) [5]		**1,871**	**351**	**1,959**

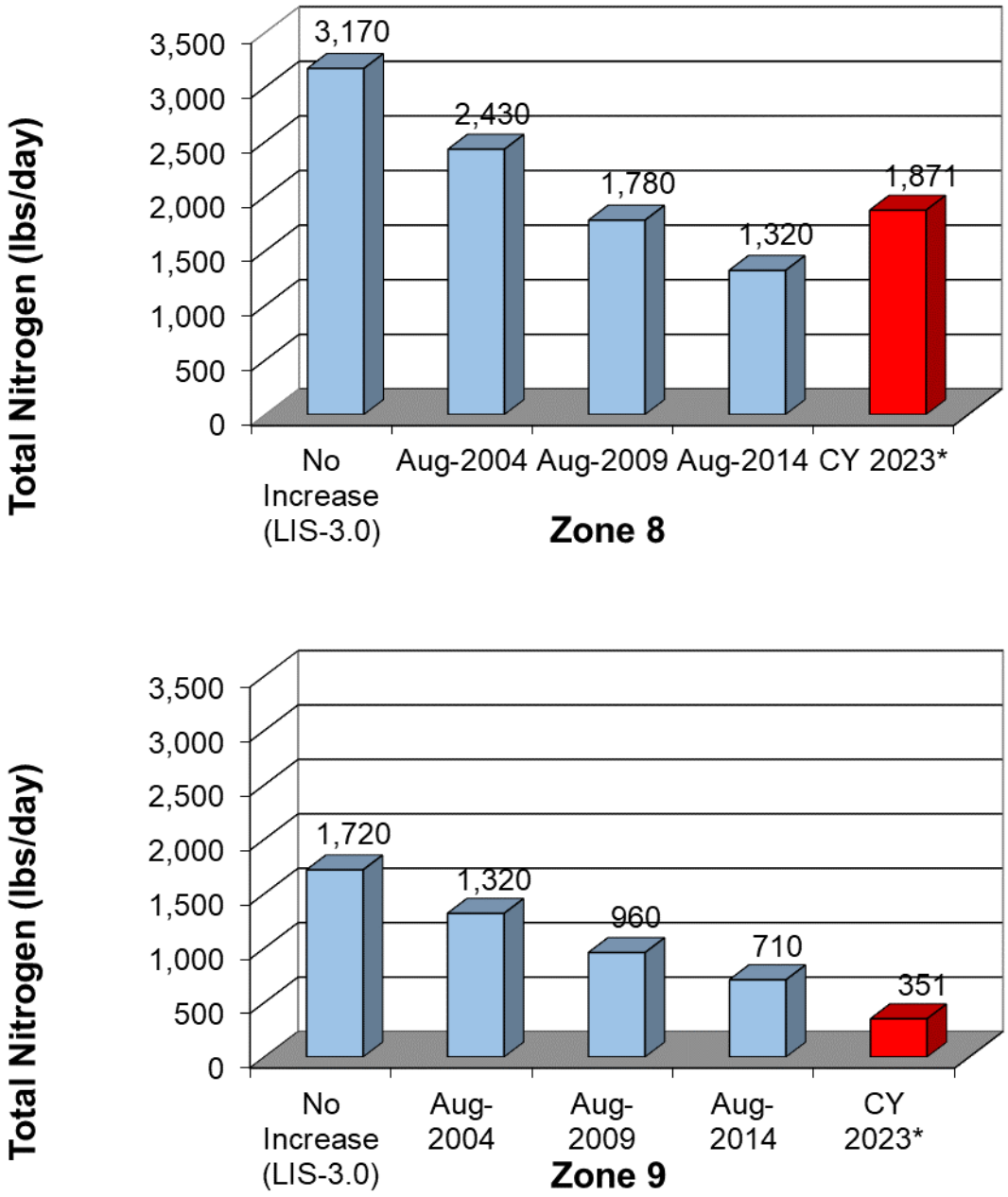
(1) Upper East River WWTPs New York State Department of Environmental Conservation State Pollutant Discharge Elimination System Discharge Permits (SPDES Permits), April 2011

(2) Lower East River WWTPs SPDES Permits, April 2011

(3) Calculated based on a Zone 8 to Zone 9 equivalency factor of 4:1.

(4) Upper and Lower East River WWTPs SPDES Permits, April 2011

(5) Per the April 2011 SPDES Permits for the Upper and Lower East River WWTPs, the annual averages for CSO TN are to be monitored and no permit limits are established for CSO TN loadings. However, annual CSO TN loadings are to be combined with the WWTP loadings from LISS Zones 8 and 9 to calculate a "Total Nitrogen LISS Zone 8 + 9 Aggregate, including CSOs." "Enforceable Effluent Limitations" for TN only exist for "Total Nitrogen (LISS Zone 8+9 Aggregate, including CSOs)" and "Total Nitrogen (LISS Zone 8+9 Aggregate WWTPs only)."



CY2023 Estimated CSO TN Load

SPDES Waste Load Allocations (Phase I, Phase II, Phase III)

Figure 1
Comparison of Calculated CSO TN Load to SPDES Waste Load Allocations
(Each year's rainfall pattern is different, and plays a pivotal role in the load discharged)

ATTACHMENT

SUPPORTING DOCUMENTATION FOR COMBINED SEWER OVERFLOW TOTAL NITROGEN LOADING CALCULATIONS

INTRODUCTION

This documentation has been developed to summarize the technical approach used to calculate total nitrogen (TN) loadings from New York City (NYC) combined sewer overflows (CSOs) discharging to the East River and Jamaica Bay. The InfoWorks watershed modeling frameworks used for calculation of the TN loadings are summarized, followed by specific assumptions and factors used in this analysis.

InfoWorks was the primary model used to calculate CSO TN loading since 2013, and accounted for all the ten wastewater treatment plants drainage area calculations. InfoWorks is the model that has been selected for development as the Citywide modeling platform for sewershed related planning initiatives and regulatory reporting requirements.

STUDY AREAS

The CSOs subject to the calculation of TN loadings include those associated with the six wastewater treatment plants (WWTP) drainage areas tributary to the East River and the four WWTP drainage areas tributary to Jamaica Bay, shown in Table A-1.

Table A-1. East River WWTP CSO Management Zones and Jamaica Bay WWTP Drainage Areas

LISS Zone 8 – Upper East River WWTP Drainage Areas	LISS Zone 9 – Lower East River WWTP Drainage Areas	Jamaica Bay WWTP Drainage Areas
Bowery Bay	Newtown Creek	26th Ward
Hunts Point	Red Hook	Coney Island
Tallman Island		Jamaica
Wards Island		Rockaway

MODELING APPROACH FOR TN LOADING CALCULATIONS

The NYC State Pollution Discharge Elimination System (SPDES) discharge permits for the WWTPs with CSOs that discharge into the lower and upper reaches of the East River and Jamaica Bay require annual reporting of the monthly TN mass that is discharged through the CSOs. Because of the number of CSO locations, the number of storms that create overflows, and the difficulty in sampling these overflows, reporting can not be done through direct measurement of overflow volume and total nitrogen concentration. Therefore, monthly CSO TN loads are developed each year for the Zone 8, Zone 9, and Jamaica Bay WWTP drainage areas through the use of mathematical models of the sewer systems.

Other regulatory requirements and planning initiatives (i.e., SPDES, CSO Consent Order, and CSO Long Term Control Plan) also necessitate the reporting of CSO related flow volumes and mass loadings for parameters other than TN. Given the wide range of reporting needs, a uniform approach to urban watershed/sewer system modeling has been developed to calculate CSO flows and pollutant loads to support facility planning, load allocation studies, and reporting requirements for New York City.

As part of the Long Term Control Planning (LTCP) project to minimize the impacts of CSO discharges, the NYCDEP has adopted a system-wide usage of the InfoWorks model as the uniform approach to support facility planning analyses. The recently calibrated InfoWorks models from 2014 provide the most sophisticated and accurate representations of the NYC drainage areas. In CY2023, the loadings have been developed using the calibrated InfoWorks models for all the 10 drainage areas tributary to the East River and Jamaica Bay. Brief description of this model is provided below.

InfoWorks Model

The InfoWorks model, distributed by Innovyze from the U.K., has been used in DEP projects since 2001. The model engine is a FORTRAN program, linked with a front interface that contains both relational databases of the sewer network and GIS databases of the geographic attributes such as latitude, longitude, and ground elevations. Based on comparative evaluations performed in 2002-03 by the DEP and its consultants, this interface appeared to offer several advantages over other commercial models such as easy interfacing with GIS for graphical and input/output data analysis and faster computational times for annual simulations. The model uses an implicit finite difference-based numerical solution technique to provide more stable modeling of key elements of the sewer systems. The model incorporates full Saint-Venant's equations for continuity and momentum for hydraulic routing and, as such, is well suited for modeling of the

backwater effects and reverse flow, open channels, sewers, detention ponds, complex pipe connections and complex ancillary structures such as culverts, orifices and weirs.

Similar to other urban drainage models, the InfoWorks model calculates runoff volumes first using the same algorithms used in the SWMM model and routes the runoff over sub-areas (subcatchments) to generate runoff hydrographs. The hydrographs are then applied to the channel-sewer system for hydraulic routing. Dry weather flows are added at the respective manholes for routing towards the treatment plant.

A major component of the 2014 InfoWorks model update was the satellite-imagery based imperviousness estimate. This process was well documented in the 2012 recalibration report submittal to the DEC. Although this estimate represents the total impervious area in each subcatchment, the flow monitoring performed by DEP confirmed that only a fraction of this area was contributing runoff directly to the sewer system. This fraction is referred to as the directly connected impervious area (DCIA) for each subcatchment, which is one of the calibration parameters. The DCIA, in essence, is equivalent to the runoff coefficient used in traditional sewer design principles with a standard rational approach. Hydrologic parameters included in the InfoWorks model for impervious surfaces are DCIA, depression storage (initial losses), and surface roughness.

TOTAL NITROGEN LOAD DEVELOPMENT

Elements that are required in the model to develop the loads accurately that could possibly change from year to year or month to month are listed below.

- Rainfall
- WWTP wastewater flows
- Dry weather sewage TN concentrations
- Runoff/stormwater TN concentrations

As discussed in the next section of this document, these items are developed for each month to provide an accurate representation of the factors influencing the TN concentrations and loadings in the CSOs.

Step-by-step procedures for computing the monthly TN loadings are summarized as follows.

1. *Develop model inputs for rainfall, dry weather and maximum wet weather WWTP wastewater flows, dry weather sewage TN concentrations, and runoff/stormwater TN concentrations.*

2. *Set-up InfoWorks for the 26th Ward, Bowery Bay, Hunts Point, Newtown Creek, Red Hook, Rockaway, Tallman Island, and Wards Island drainage areas using the appropriate hourly rainfall data, dry weather sewage TN concentrations and stormwater TN concentrations.*
3. *Adjust the per-capita, dry-weather sewage flows for each regulator drainage area so that the total dry-weather sewage flow for each WWTP area totals the daily average dry-weather flow received at the individual WWTPs for each month of the year of interest and the year preceding the year of interest.*
4. *Set the maximum WWTP hydraulic capacity for each month based on the WWTP maximum capacity analysis.*
5. *Execute the models to calculate the hourly CSO overflow volumes, associated TN concentrations and TN mass loadings for each hour of the year for each outfall within the WWTP drainage area.*
6. *Sum the individual hourly TN mass loadings at each outfall for each month of the year.*
7. *Sum the monthly mass TN loading for all outfalls.*
8. *Divide the monthly mass for each WWTP area by the days in each month to produce an average daily mass TN loading for each month in pounds per day.*
9. *Calculate a 12-month rolling average for each month in the year of interest by averaging the TN loading value from step 8 for the month of interest with the TN loading values from step 8 for the previous 11 months.*
10. *Accumulate the 12-month rolling average daily mass loadings from step 9 for each month from the Red Hook and Newtown Creek WWTP area CSOs for Zone 9 and the Tallman Island, Bowery Bay, Wards Island and Hunts Point WWTP area CSOs for Zone 8.*
11. *The annual average CSO TN mass loading for a given calendar year will be represented by the 12-month rolling average for December of that year as calculated in step 9 for each WWTP drainage area and step 10 for each LIS management zone.*

MODEL INPUTS DEVELOPMENT

The input parameters for InfoWorks application include: (a) maximum WWTP capacity; (b) precipitation at hourly intervals; (c) dry weather flow and its diurnal pattern at each regulator; and (d) stormwater and sanitary TN concentrations. These inputs are summarized below for various WWTP service areas.

Maximum WWTP Capacity

The maximum capacity of a treatment plant varies within a year due to operation and maintenance requirements or construction related upgrades (e.g., capacity decreases when a pump is replaced or capacity increases when upgrade construction is completed). Hourly plant inflow data were used as guidance to estimate the maximum plant capacity. For InfoWorks model for the ten drainage areas, the plant capacities are expressed as a pump-rating curve showing the variation in discharges with respect to elevation changes in wet wells of the WWTP pumping station. Therefore, the actual plant inflow record for each month was reviewed to develop the elevation-discharge curves on a monthly basis for use in the InfoWorks model. See Table A-2.

Table A-2. As-Modeled[1] WWTP Service Area Characteristics
Calendar Year 2023

WWTP	Combined Sewage Drainage Area (acres)	Imp%	Cimp x Imp%	Average Dry Weather Flow (MGD)	Design Dry Weather Flow (MGD)	Maximum Wet Weather Flow[2] (MGD)	Permitted Wet Weather Flow (MGD)
26	4,472	86.8	0.43	40	85	179	170
BB	12,157	87.1	0.54	91	150	321	300
CI	7,090	83.0	0.54	82	110	220	220
HP	11,738	80.8	0.55	116	200	411	400
JA	5,645	79.6	0.40	73	100	206	200
NC	13,452	86.5	0.65	197	350	720	700
RH	2,991	90.2	0.63	29	60	127	120
TI	11,475	66.0	0.35	51	80	170	160
WI	12,853	84.1	0.58	189	275	612	550[6]
Separate Areas							
RO[4]	NA	NA	NA	19	45	63	90

[1] All drainage areas modeled with InfoWorks.
[2] Maximum of calibrated monthly values used as InfoWorks input.
[3] These plants are operating at a reduced capacity due to ongoing construction in accordance with their approved WWOP.
[4] Certain statistics excluded for Rockaway (RO) WWTP because this area is separately sewered.
[5] Requirement per Second Modified Judgment on Consent, Index No. 196/88 (Newtown Creek) (Sup. Ct Kings County) (Spodek, J.).
[6] Requirement per First Amended Nitrogen Consent Judgment, Index No. 04-402174 (Sup. Ct. New York Court, P. Feinman) dated April 27, 2011.

Precipitation

For the CY2023 analysis, rainfall dataset from NOAA/NSSL called Quantitative Precipitation Estimates (QPE) was used instead of DEP or NOAA rain gauges, similar to CY2021 analysis. This decision was made for several reasons. First, the NOAA rain gauges in CPK, JFK, LGA, and EWR are often very far from the WRRFs model areas to which they are applied. Second, the DEP WRRF rain gauges frequently suffer from outages and other reporting issues, leading to incomplete or inaccurate datasets. Therefore, the new NOAA/NSSL QPE data was used, which is described below:

- The new NOAA/NSSL product provides spatially distributed, hourly estimates of precipitation is based on multiple radars, satellite and numerical weather prediction models, surface and upper air observations, lightning detection systems and rain gauges. In addition to hourly, QPE is available in other time increments (such as 3 hr, 6 hr, 12 hr, daily, 48 hr and 72 hr) and in spatial resolution of roughly 1 km x 1 km.
- Most common application of radar QPE data is to simulate or predict flash flood events using rainfall-runoff models [Willie, D. et al. 2017; Zhang et al. 2016; Rafieeinasab et al. 2015; Chen and Chandrasekar 2015].
- Validation of the high resolution radar QPE data was made against the ground-based precipitation data obtained from the NOAA stations rain gauge data: Central Park (CPK), Newark Airport (EWR), JFK Airport (JFK) and LaGuardia Airport (LGA).
- The high resolution and broad spatial coverage of the radar QPE data provides more realistic forcing at the time scales relevant to the CY2023 wet-weather capture modeling analysis.

Monthly distribution of the rainfall at various WWTP service areas, along with the 2008 precipitation data observed at the JFK Airport, which is considered as “typical” precipitation pattern in NYC, are shown in Table A-3. The raw rainfall data were used in the InfoWorks model (which does explicitly account for travel time).

Table A-3, Comparison of Annual and Monthly Distribution of Precipitation (inches)

Rain	Year	Annual Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
26W	2023	54.51	4.49	1.59	3.75	7.58	1.64	1.17	4.36	5.49	11.95	3.30	2.01	7.18
BB	2023	56.71	4.50	1.52	3.47	7.19	1.15	1.42	5.23	6.74	12.59	3.79	2.17	6.94
CI	2023	57.41	4.27	1.63	3.92	7.88	1.64	1.27	6.31	5.55	12.64	3.17	1.74	7.39
HP	2023	61.40	4.50	1.67	3.72	7.30	1.36	1.43	6.78	6.75	13.57	4.51	2.49	7.32
JA	2023	55.09	4.73	1.67	3.70	6.82	2.06	1.30	4.21	5.22	11.71	3.89	2.01	7.77
NC	2023	56.18	4.47	1.45	3.84	7.60	1.15	1.63	5.06	6.06	12.10	3.43	2.28	7.11
RH	2023	57.84	4.49	1.38	4.01	8.22	1.20	1.28	5.59	5.84	13.06	3.44	2.16	7.17
TI	2023	57.98	5.01	1.83	3.67	7.19	1.73	1.53	5.16	6.59	11.20	4.31	2.27	7.49
WI	2023	60.14	4.44	1.52	3.66	7.20	1.02	1.84	6.26	5.68	14.35	4.05	2.63	7.49
JFK Airport	2008	46.25	2.33	4.70	3.60	2.74	3.25	3.55	3.30	3.21	6.74	3.52	3.34	5.97

Dry-Weather Flow

The dry-weather flows assigned for model input at each regulator were developed from various sources of information. At each WWTP, DEP records hourly flows and analyzes the data to determine the hourly diurnal variation of dry weather flow as well as the overall average flow for each month. The dry-weather flow distribution among the different regulators in the WWTP service area was herein developed based on the flow information at the WWTP, together with other available information such as the regulator drainage area population, Regulator Improvement Program reports, field inspections, and the existing hydraulic model. The diurnal pattern at the WWTP was assigned to all regulators within a service area.

Dry-Weather Sewage TN Concentrations

The dry-weather sewage TN concentration data at all ten WWTPs within the Zone 8, Zone 9, and Jamaica Bay drainage areas need to be developed and used together with model-calculated flows to calculate TN CSO loads. DEP samples each WWTP for various forms of influent nitrogen on a daily basis and maintains a database of these concentrations. Since the TN concentrations during wet periods are typically lower due to dilution with stormwater runoff, the hourly precipitation data were used in conjunction with the hourly plant flows to identify "dry days," and the corresponding dry-weather influent TN concentrations represent the sanitary-sewage TN concentrations at each WWTP. The product of these sanitary-sewage TN concentrations and the corresponding sanitary-sewage component of the CSO volume discharged from each WWTP drainage area (as generated by the sewer-system model) were then calculated to yield the TN load associated with the sanitary-sewage component of the CSO discharges.

Runoff/Stormwater TN Concentrations

Stormwater concentrations of TN are not regularly measured and information about stormwater TN concentrations is very limited. To characterize typical stormwater TN concentrations in NYC, several studies were reviewed, including 2002 DEP measurements compiled as part of the municipal separate stormwater sewer system (MS4) permit process for separately sewered areas. Based on this information, a stormwater TN concentration of 2.28 mg/L was selected as a representative constant for stormwater generated from all the drainage areas discharging into the Zone 8, Zone 9 and Jamaica Bay zones.

Model-Specific Inputs

In addition to the above common inputs, the InfoWorks models require specific inputs that are summarized below.

CSO storage/treatment facilities in the interceptor/combined sewers (InfoWorks) were used to store and/or treat excess flow from the collection system during wet weather, thus reducing the CSO volume and/or pollutant discharge to the receiving water. Due to explicit characterization of backwater and surcharging effects, the InfoWorks model accounts for in-line storage automatically. Storage/treatment facilities and their operation in terms of capture and dewatering of wet weather flows are explicitly included in the InfoWorks models. All the four storage/treatment facilities (Paerdegat, Spring Creek, Flushing Creek and Alley Creek) are included in the respective models.

Percent imperviousness calculations (InfoWorks), for each subcatchment were performed in the recalibrated InfoWorks models using satellite imagery data from Columbia University. Although this data provided total impervious areas, the effective impervious area (fraction that directly contributes runoff to sewers) was a calibration parameter in the recalibration effort.

Tide data (InfoWorks) were developed from the three permanent tide gages maintained by the NOAA near New York City – namely, Kings Point, The Battery, and Sandy Hook. NOAA also publishes tidal correction factors in terms of differences in time and amplitude at several locations in the New York-New Jersey Harbor. The correction factors were tabulated for the locations of the waterbody near each or a set of outfalls, and then the data from the nearest NOAA station were used to develop the tidal boundary conditions for each or a set of outfalls within a drainage area.

OTHER FACTS/ ASSUMPTIONS USED IN THE TN LOADING CALCULATIONS

Beginning in CY2005, the Rockaway WWTP drainage area has operated as a separately sewered system influenced by rainfall-induced inflow and infiltration. As such, there is no CSO TN load from this area.

Calculation of the 12-month moving averages required use of the monthly loads calculated for CY2023 (as reported in the previous year's version of this report) as well as the monthly loads calculated for CY2023 as described herein. For example, the 12-month moving average load for June 2023 represents the average of the monthly loads from July 2022 through June 2023.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water
625 Broadway, Albany, New York 12233-3500
P: (518) 402-8233 | F: (518) 402-9029
www.dec.ny.gov

NYSDEC State Pollution Discharge Elimination System (SPDES)
Combined Sewer Overflow Best Management Practices Annual Report

OWNER/OPERATOR CERTIFICATION

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, to 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.

Angela M. De Lillo, P.E.	Angela De Lillo	4/23/2024
Name (please print or type)	Signature	Date

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8K59-EZB7F, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report 26th Ward 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026212
Submission ID	HQ0-8K59-EZB7F
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026212

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
26th Ward Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
4

Number of CSO Events Occurring in Reporting Year
19

Total Volume of CSO Discharged in Reporting Year (MG)
1,030.00

Percentage of Collection System, owned by the permittee, that is combined (%)
76

Approximate length (mi) of combined sewers in permittee-owned system
174

Population served by the permittee-owned system
318,262

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
3

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
Yes

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
There is an existing Spring Creek CSO storage tank that was originally constructed in 1970s. High Level storm sewers were also constructed in 2021 to reduce CSO discharges into Fresh Creek.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measureme Method
26W001	40.651	-73.894	HENDRIX CREEK	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: WRRI Outfall, not a CSO Outfall
26W003	40.649	-73.891	FRESH CREEK BASIN	I	1	Fixed Weir	None	47	15	20	494	97	443	Modeled
26W004	40.655	-73.880	HENDRIX CREEK	I	1	Other: Tide Gate	Surface Boom / Net	16	24	33	36	45	152	Modeled
26W005	40.657	-73.879	OLD MILL CREEK	I	2	Fixed Weir	Overflow Retention / Settling	5	2	5	98	30	435	Modeled

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
26W002	40.651	-73.894	HENDRIX CREEK	I	2021	Other: Outfall was listed as a Plant Outfall, however it does not exist

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
73

Baseline - Approximate length (mi) of combined sewers owned by the permittee
174

Baseline - Number of CSO Outfalls owned by the permittee
4

Baseline - Number of CSO Events
23

Baseline - Annual CSO Volume discharged (MG)
628

Baseline - Population Served by the CSS
294,391

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
73

Future - Approximate length (mi) of combined sewers owned by the permittee
174

Future - Number of CSO Outfalls owned by the permittee
4

Future - Number of CSO Events
15

Future - Annual CSO Volume Discharged (MG)
657

Future - Population Served by the CSS
331,590

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
No

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,

b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide.
b) 0
c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
No

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Tidegate Maintenance/Repair/Replacement
Removal of Flow Obstructions
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Replaced aging Tide Gate with new stainless steel pontoon tidegate.
In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
170.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
170.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
128.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
170.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods
Screens
In-line Netting
Booming & Skimming of Open Waters

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

There are screens at the Spring Creek CSO Retention Tank. As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
Yes

In the past year, were there any discharges or releases of septage or hauled waste INTO the collection system upstream of a CSO?
No

Are there restrictions on when the POTW accepts hauled waste or septage?
Yes

Is there a dedicated location to discharge septage at the WWTP?
Yes

Does the facility have authorization from NYSDEC to accept hauled waste or septage at a location other than the WWTP?
No

Have there been, or will there be, any changes to the POTW's policy on septage and hauled waste?
No

Use the space below to provide a narrative description of how septage and hauled waste are received by the POTW, where remote acceptance locations are, any POTW restrictions on when these wastes can be received, and the total volume of these wastes received at remote locations during the reporting year.

DEP issues scavenger permits that allow discharges at designated scavenger manhole(s) at POTW AKA Wastewater Resource Recovery Facility (WRRF). DEP currently accepts only scavenger waste defined as the sludge (i.e., septage) derived from sanitary wastewater discharged into cesspools, septic tanks or privies located within the City of New York. For 2023, 26th Ward WRRF received at total of 6.16 million gallons of waste from permitted scavenger haulers.

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 02:49 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 2:49 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 1:09:41 PM	Vernanda Francis	Draft
4/23/2024 2:49:58 PM	Frances Leung	Submitted
4/23/2024 2:49:58 PM	Frances Leung	Deemed Complete

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 2:49:57 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8K37-96G4N, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Bowery Bay 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026158
Submission ID	HQ0-8K37-96G4N
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026158

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Bowery Bay Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
43

Number of CSO Events Occurring in Reporting Year
44

Total Volume of CSO Discharged in Reporting Year (MG)
4,382.00

Percentage of Collection System, owned by the permittee, that is combined (%)
69

Approximate length (mi) of combined sewers in permittee-owned system
327

Population served by the permittee-owned system
894,311

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
9

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2016

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
Sewer system improvements were made pre-LTCP and completed in 2018. The approved LTCP includes a 25 MG Flushing Bay Storage Tunnel and expansion of the Borden Avenue Pump Station with a wet weather force main to NC WRRF.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measu Met
BB001	40.781	-73.909	EAST RIVER	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: \ Outfall, CSO C
BB002	40.779	-73.909	BOWERY BAY	I	1	Other: Tide Gate/ Diversion Chamber	None	0	74	74	988	145	206	Modele
BB003	40.776	-73.891	BOWERY BAY	I	1	Other: Tide Gate/Diversion Chamber	None	0	47	46	54	23	49	Modele
BB004	40.739	-73.959	DUTCH KILLS	SD	2	Fixed Weir	None	0	1	2	0	0	0	Modele
BB005	40.774	-73.889	BOWERY BAY	I	1	Other: Diversion Chamber	Surface Boom / Net	0	54	66	1520	257	515	Modele
BB006	40.76	-73.855	EAST RIVER	I	3	Other: Diversion Chamber	Surface Boom / Net	0	60	64	1434	676	1216	Modele
BB007	40.766	-73.879	EAST RIVER	I	1	Other: Diversion Chamber	None	0	65	66	3	131	170	Modele
BB008	40.763	-73.876	EAST RIVER	I	4	Other: Diversion Chamber	Surface Boom / Net	0	62	65	534	854	1093	Modele
BB009	40.741	-73.94	DUTCH KILLS	SD	5	Other: Diversion Chamber	None	35	38	44	35	28	65	Modele
BB010	40.739	-73.941	DUTCH KILLS	SD	1	Fixed Weir	None	16	6	10	2	0	1	Modele
BB011	40.734	-73.94	NEWTOWN CREEK	SD	1	Fixed Weir	None	24	18	29	3	1	2	Modele
BB012	40.734	-73.94	NEWTOWN CREEK	SD	1	Fixed Weir	None	0	3	4	0	0	0	Modele
BB013	40.74	-73.94	NEWTOWN CREEK	SD	1	Fixed Weir	None	44	41	55	39	12	23	Modele
BB014	40.74	-73.953	NEWTOWN CREEK	SD	1	Fixed Weir	None	35	26	48	3	1	3	Modele
BB015	40.739	-73.958	NEWTOWN CREEK	SD	1	Fixed Weir	None	39	35	54	3	1	2	Modele
BB017	40.744	-73.976	EAST RIVER	I	1	Fixed Weir	None	0	25	39	2	1	2	Modele
BB018	40.744	-73.976	EAST RIVER	I	1	Fixed Weir	None	0	19	33	2	0	1	Modele
BB021	40.746	-73.976	EAST RIVER	I	1	Fixed Weir	None	0	38	46	31	13	27	Modele
BB022	40.748	-73.955	EAST CHANNEL	I	1	Fixed Weir	None	0	28	45	2	0	1	Modele
BB023	40.75	-73.956	EAST CHANNEL	I	1	Fixed Weir	None	0	32	46	27	10	22	Modele
BB024	40.754	-73.952	EAST CHANNEL	I	1	Fixed Weir	None	0	34	49	97	19	43	Modele
BB025	40.757	-73.966	EAST CHANNEL	I	1	Fixed Weir	None	0	34	46	18	5	11	Modele
BB026	40.743	-73.939	DUTCH KILLS	SD	4	Other: Diversion Chamber	None	47	42	49	187	84	159	Modele

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measu Met
BB027	40.76	-73.964	EAST CHANNEL	I	1	Fixed Weir	None	0	32	43	8	3	6	Modele
BB028	40.761	-73.963	EAST CHANNEL	I	1	Fixed Weir	None	0	46	50	456	107	224	Modele
BB029	40.769	-73.938	EAST CHANNEL	I	1	Fixed Weir	None	0	35	50	180	47	102	Modele
BB030	40.771	-73.935	EAST CHANNEL	I	1	Other: Tide Gate/Diversion Chamber	None	0	68	77	19	18	34	Modele
BB032	40.774	-73.938	EAST RIVER	I	2	Fixed Weir	Other: MH-15 (Not sure if this is a regulator)	0	16	26	3	1	2	Modele
BB033	40.776	-73.937	EAST RIVER	I	1	Fixed Weir	None	0	30	41	9	3	7	Modele
BB034	40.777	-73.945	EAST RIVER	I	1	Fixed Weir	None	0	94	85	223	153	258	Modele
BB035	40.783	-73.92	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	39	51	4	2	5	Modele
BB036	40.784	-73.917	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	36	50	10	5	9	Modele
BB037	40.786	-73.932	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	6	10	1	0	1	Modele
BB040	40.741	-73.941	DUTCH KILLS	SD	1	Other: Diversion Chamber	None	21	21	29	1	1	2	Modele
BB041	40.78	-73.902	LUYSTER CREEK	I	1	Other: Diversion Chamber	None	0	83	80	126	63	104	Modele
BB042	40.739	-73.96	DUTCH KILLS	SD	1	Other: Diversion Chamber	None	29	29	45	2	1	3	Modele
BB043	40.739	-73.952	NEWTOWN CREEK	SD	1	Fixed Weir	None	40	40	53	14	6	13	Modele
BB045	40.776	-73.946	EAST RIVER	I	1	Fixed Weir	None	0	0	1	0	0	0	Modele
BB053	40.786	-73.932	EAST RIVER	I	0	Other: No regulator	None	0	0	0	0	0	0	Modele
BB057	40.743	-73.961	EAST RIVER	I	1	Fixed Weir	None	0	30	42	2	1	2	Modele
BB054	40.769	-73.959	EAST CHANNEL	I	0	Other: No regulator	None	0	0	0	0	0	0	Modele
BB055	40.766	-73.962	EAST CHANNEL	I	0	Other: No regulator	None	0	0	0	0	0	0	Modele
BB056	40.753	-73.957	EAST CHANNEL	I	0	Other: No regulator	None	0	0	0	0	0	0	Modele

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
BB019	40.745	-73.958889	East River	I	2004	Abandoned
BB020	40.745556	-73.958611	East River	I	2004	Abandoned
BB044	40.741944	-73.961944	East River (E)	I	2004	Abandoned
BB050	40.764722	-73.946111	East Channel	I	2004	Other: Outfall was bulkheaded as a part of the Roosevelt Island Main PS upgrade in 2002
BB051	40.768056	-73.943056	East Channel	I	2004	Other: Outfall was bulkheaded as a part of the Roosevelt Island Main PS upgrade in 2002
BB052	40.751944	-73.958056	East Channel	I	2004	Other: Outfall was bulkheaded as a part of the Roosevelt Island Main PS upgrade in 2002
BB038	40.786111	-73.916111	Hell Gate (E)	I	2005	Other: This Outfall has been removed from the list because it is was shown as a Combined Sewer Overflow (CSO) for the Reg. BBLL-34 by the NYC RIP [Regulator Inspection Program] ('85), but after extensive field and desk top investigations it was determined that Reg. BBLL-34 does not have a CSO.
BB046	40.77801528	-73.9326944	EAST RIVER	I	2014	Abandoned
BB047	40.77800833	-73.9348906	EAST RIVER	I	2014	Abandoned
BB049	40.73903278	-73.9503872	NEWTOWN CREEK	SD	2014	Abandoned
BB016	40.74318736	-73.9608005	East River	I	2020	Other: CSO diverted to BB-057
BB039	40.743072	-73.939282	Dutch Kills	SD	2002	Other: Removed, this was a duplication, SAME AS BB-026
BB048	40.740791	-73.940303	Dutch Kills	SD	2002	Other: Removed, this was a duplication, SAME AS BB-026

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
74

Baseline - Approximate length (mi) of combined sewers owned by the permittee
327

Baseline - Number of CSO Outfalls owned by the permittee
43

Baseline - Number of CSO Events
33

Baseline - Annual CSO Volume discharged (MG)
6,083

Baseline - Population Served by the CSS
842,307

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
74

Future - Approximate length (mi) of combined sewers owned by the permittee
327

Future - Number of CSO Outfalls owned by the permittee
43

Future - Number of CSO Events
27

Future - Annual CSO Volume Discharged (MG)
2280

Future - Population Served by the CSS
1,053,300

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection
2- Maximize Use of the Collection System for Storage

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
Yes

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide.
b) 0
c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
Regulator or Weir Adjustment
In-Line Storage
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Regulator modifications have been made in the past. Under the LTCP, DEP will construct a 25 MG CSO Storage Tunnel.

In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
300.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
300.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
225.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
300.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

Ongoing design for Borden Ave Pump Station Expansion; DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures.See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)

(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Catch basin hoods
Booming & Skimming of Open Waters
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

Work order in place as of 9/05/2019 to replace existing infratructure at outfall ID BB-005 in-kind due to age.
As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
Yes

In the past year, were there any discharges or releases of septage or hauled waste INTO the collection system upstream of a CSO?
No

Are there restrictions on when the POTW accepts hauled waste or septage?
Yes

Is there a dedicated location to discharge septage at the WWTP?
Yes

Does the facility have authorization from NYSDEC to accept hauled waste or septage at a location other than the WWTP?
No

Have there been, or will there be, any changes to the POTW's policy on septage and hauled waste?
No

Use the space below to provide a narrative description of how septage and hauled waste are received by the POTW, where remote acceptance locations are, any POTW restrictions on when these wastes can be received, and the total volume of these wastes received at remote locations during the reporting year.

DEP issues scavenger permits that allow discharges at designated scavenger manhole(s) at POTW AKA Wastewater Resource Recovery Facility (WRRF). DEP currently accepts only scavenger waste defined as the sludge (i.e., septage) derived from sanitary wastewater discharged into cesspools, septic tanks or privies located within the City of New York. For 2023, Bowery Bay WRRF received at total of 16.89 million gallons of waste from permitted scavenger haulers.

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 02:54 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 2:54 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 1:06:00 PM	Vernanda Francis	Draft
4/23/2024 2:54:36 PM	Frances Leung	Submitted
4/23/2024 2:54:36 PM	Frances Leung	Deemed Complete

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 2:54:36 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8JYR-9AFC5, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Coney Island 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026182
Submission ID	HQ0-8JYR-9AFC5
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026182

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Coney Island Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
9

Number of CSO Events Occurring in Reporting Year
9

Total Volume of CSO Discharged in Reporting Year (MG)
1,167.00

Percentage of Collection System, owned by the permittee, that is combined (%)
31

Approximate length (mi) of combined sewers in permittee-owned system
210

Population served by the permittee-owned system
647,635

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
0

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2016

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
Yes

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
No additional CSO controls beyond the Avenue V pump station expansion and installation of new wet weather force main along with the Paerdegat CSO Storage Tank.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
In Development

What is the status of the PCCM Sampling Program?
In Progress

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Meas M
CI-001	40.566	-73.948	ROCKAWAY INLET	SB	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other outfal CSO
CI-002	40.566	-73.948	ROCKAWAY INLET	SB	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other outfal CSO
CI-004	40.632	-73.918	PAERDEGAT BASIN	I	0	Other: No regulator	Other: TG #5, also boom	61	0	0	1210	0	0	Mode
CI-005	40.632	-73.917	PAERDEGAT BASIN	I	4	Other: Diversion Chamber/Tide Gate	Surface Boom / Net	61	0	0	973	0	0	Mode
CI-006	40.631	-73.917	PAERDEGAT BASIN	I	1	Fixed Weir	Surface Boom / Net	61	0	0	566	7	211	Mode
CI008A	40.63	-73.916	PAERDEGAT BASIN	I	0	Other: No regulator	Other: Paerdegat basin CSORF Overflow	0	8	15	0	62	239	Mode
CI008B	40.63	-73.916	PAERDEGAT BASIN	I	0	Other: No regulator	Other: Paerdegat basin CSORF Overflow	0	8	15	0	62	239	Mode
CI008C	40.63	-73.916	PAERDEGAT BASIN	I	0	Other: No regulator	Other: Paerdegat basin CSORF Overflow	0	8	15	0	62	239	Mode
CI008D	40.63	-73.916	PAERDEGAT BASIN	I	0	Other: No regulator	Other: Paerdegat basin CSORF Overflow	0	8	15	0	62	239	Mode

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
CI007	40.642222	-73.884167	FRESH CREEK BASIN	I	2008	Abandoned
CI003	40.583502	-73.948374	SHEEPSHEAD BAY	I	2002	Other: Reclassified as CI-677. Item#677 - ILLEGAL CONNECTIONS abated 10/97

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
39

Baseline - Approximate length (mi) of combined sewers owned by the permittee
210

Baseline - Number of CSO Outfalls owned by the permittee
9

Baseline - Number of CSO Events
61

Baseline - Annual CSO Volume discharged (MG)
2,749

Baseline - Population Served by the CSS
648,329

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
39

Future - Approximate length (mi) of combined sewers owned by the permittee
210

Future - Number of CSO Outfalls owned by the permittee
9

Future - Number of CSO Events
9

Future - Annual CSO Volume Discharged (MG)
591

Future - Population Served by the CSS
703,903

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
No additional projects proposed both Ave V PS Expansion and Paerdegat CSO Storage Tanks that were pre-LTCP are in operation.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
No additional projects proposed both Ave V PS Expansion and Paerdegat CSO Storage Tanks that were pre-LTCP are in operation.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
No

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
No

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
No

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
175.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
175.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
165.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
175.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
No

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

If the minimum flows were not achieved for all wet-weather events in the reporting year, has a plan to accomplish this been developed and submitted to the Department?
Yes, developed & submitted

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Catch basin hoods
Screens
Booming & Skimming of Open Waters
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
No

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 02:59 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 2:59 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:58:00 PM	Vernanda Francis	Draft
4/23/2024 2:59:20 PM	Frances Leung	Deemed Complete
4/23/2024 2:59:20 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 2:59:20 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8HPX-HSH1G, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Hunts Point 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026191
Submission ID	HQ0-8HPX-HSH1G
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026191

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Hunts Point Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
34

Number of CSO Events Occurring in Reporting Year
31

Total Volume of CSO Discharged in Reporting Year (MG)
4,169.00

Percentage of Collection System, owned by the permittee, that is combined (%)
74

Approximate length (mi) of combined sewers in permittee-owned system
411

Population served by the permittee-owned system
781,885

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
2

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2015

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
Outfall nets and screens along sewer system enhancements were made pre-LTCP. The LTCP proposes additional sewer system enhancements in Bronx River, a 2.8 MG disinfection conduit for Hutchinson River, and additional floatables control.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
In Development

What is the status of the PCCM Sampling Program?
In Progress

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Mea M
HP-001	40.802	-73.899	EAST RIVER	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Othe Outfa CSO
HP-002	40.805	-73.89	EAST RIVER	I	2	Fixed Weir	None	0	46	61	119	47	80	Mod
HP-003	40.801	-73.875	EAST RIVER	I	1	Fixed Weir	Surface Boom / Net	0	39	50	359	138	268	Mod
HP-004	40.838	-73.896	BRONX RIVER	I	0	Other: No regulator	Other: CSO-28,28-A, ALSO BOOM	56	21	32	100	28	41	Mod
HP-005	40.887	-73.82	EASTCHESTER BAY	SB	0	Other: No regulator	Other: HOLLERS AVE P.S.	0	2	1	0	0	0	Mod
HP-006	40.869	-73.822	EASTCHESTER BAY	SB	0	Other: No regulator	Other: CO-OP CITY SOUTH P.S., ELY AVE P.S.	0	0	0	0	0	0	Mod
HP-007	40.839	-73.895	BRONX RIVER	I	0	Other: No regulator	Other: CSO-27, 27A, also boom	21	13	18	88	46	75	Mod
HP-008	40.819	-73.898	BRONX RIVER	I	0	Other: No regulator	Other: CSO-26	17	4	10	4	4	4	Mod
HP-009	40.814	-73.871	BRONX RIVER	I	1	Fixed Weir	Other: Inlet Net	51	44	53	814	298	547	Mod
HP-010	40.813	-73.87	BRONX RIVER	I	0	Other: No regulator	Other: CSO-25	1	2	2	1	1	2	Mod
HP-011	40.804	-73.854	EAST RIVER	I	3	Fixed Weir	Surface Boom / Net	0	56	59	828	252	468	Mod
HP-012	40.824	-73.841	WESTCHESTER CREEK	I	0	Other: No regulator	Other: CSO-23A	0	10	18	27	30	70	Mod
HP-013	40.814	-73.855	PUGSLEY'S CREEK	I	0	Other: No regulator	Other: CSO-24	54	23	29	144	146	309	Mod
HP-014	40.839	-73.84	WESTCHESTER CREEK	I	0	Other: No regulator	Other: CSO-29,29A	0	43	54	516	389	715	Mod
HP-015	40.838	-73.839	WESTCHESTER CREEK	I	0	Other: No regulator	Other: CSO-22	0	4	3	0	3	2	Mod
HP-016	40.828	-73.859	WESTCHESTER CREEK	I	1	Fixed Weir	None	24	33	44	72	58	116	Mod
HP-017	40.811	-73.843	EAST RIVER	SB	1	Fixed Weir	None	0	42	49	35	43	80	Mod
HP-018	40.812	-73.824	EAST RIVER	SB	1	Fixed Weir	None	0	29	38	2	3	7	Mod
HP-019	40.814	-73.817	EAST RIVER	SB	1	Fixed Weir	None	0	41	56	18	13	26	Mod
HP-020	40.813	-73.828	EAST RIVER	SB	1	Other: TIDE GATE	None	0	12	18	0	1	0	Mod
HP-021	40.809	-73.804	EAST RIVER	SB	1	Fixed Weir	None	0	52	57	298	237	381	Mod
HP-022	40.816	-73.814	LONG ISLAND SOUND	SB	1	Fixed Weir	None	0	33	44	31	28	55	Mod
HP-023	40.881	-73.821	EASTCHESTER BAY	SB	1	Fixed Weir	Other: Connor St. PS	0	48	59	115	137	242	Mod

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Mea M
HP-024	40.888	-73.824	EASTCHESTER BAY	SB	1	Other: DIVISION CHAMBER	None	0	44	54	254	172	318	Mod
HP-025	40.806	-73.909	EAST RIVER	SB	1	Fixed Weir	None	0	67	64	130	103	162	Mod
HP-026	40.824	-73.831	LONG ISLAND SOUND	SB	1	Other: TIDE GATE	None	0	24	35	79	64	122	Mod
HP-028	40.843	-73.831	EASTCHESTER BAY	SB	0	Other: No regulator	Other: CSO-20	0	0	0	0	0	0	Mod
HP-029	40.849	-73.832	EASTCHESTER BAY	SB	0	Other: No regulator	Other: CSO-21	0	27	38	4	9	19	Mod
HP-031	40.874	-73.824	EASTCHESTER BAY	SB	0	Other: No regulator	Other: CSO-32, CONNOR ST. P.S.	0	39	52	83	17	31	Mod
HP-032	40.798	-73.886	EAST RIVER	I	0	Other: No regulator	Other: RIKER'S ISLAND N. P.S.	0	0	0	0	0	0	Mod
HP-033	40.828	-73.859	WESTCHESTER CREEK	I	0	Other: No regulator	Other: CSO-23	5	5	10	78	21	29	Mod
HP-034	40.835	-73.84	WESTCHESTER CREEK	I	0	Other: No regulator	Other: Commerce Ave P.S.	0	0	0	0	0	0	Mod
HP-037	40.867	-73.801	LAGOON	I	0	Other: No regulator	Other: ORCHARD BEACH P.S.	0	0	0	0	0	0	Mod
HP-039	40.804	-73.87	EAST RIVER	I	0	Other: NO regulator	Other: HUNT'S POINT MARKET	0	0	0	0	0	0	Mod

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
HP-036	40.855278	-73.805278	Long Island Sound	SB	2017	Abandoned
HP-035	40.835993	-73.815912	Long Island SOund	SB	2002	Other: Reclassified as HP-648, See capital project SE 342A/556

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
60

Baseline - Approximate length (mi) of combined sewers owned by the permittee
411

Baseline - Number of CSO Outfalls owned by the permittee
34

Baseline - Number of CSO Events
29

Baseline - Annual CSO Volume discharged (MG)
4,199

Baseline - Population Served by the CSS
724,876

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
60

Future - Approximate length (mi) of combined sewers owned by the permittee
411

Future - Number of CSO Outfalls owned by the permittee
34

Future - Number of CSO Events
21

Future - Annual CSO Volume Discharged (MG)
2271

Future - Population Served by the CSS
768,145

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction. Except Westchester Creek that had no proposed LTCP projects but pre-LTCP included regulator optimization.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction. Except Westchester Creek that had no proposed LTCP projects but pre-LTCP included regulator optimization.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
No

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
Regulator or Weir Adjustment
In-Line Storage
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Regulator and sewer modifications have been made and more are planned under LTCP along with a 2.8 MG Storage Conduit at HP-024. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
400.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
400.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
260.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
400.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Catch basin hoods
Screens
Booming & Skimming of Open Waters
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

There are screens and nets at some of the larger Bronx River CSO Outfalls. Work orders in place to replace existing containment infrastructure at outfall ID HP-003, HP-523, HP-004 and HP-014. As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
Yes

In the past year, were there any discharges or releases of septage or hauled waste INTO the collection system upstream of a CSO?
No

Are there restrictions on when the POTW accepts hauled waste or septage?
Yes

Is there a dedicated location to discharge septage at the WWTP?
Yes

Does the facility have authorization from NYSDEC to accept hauled waste or septage at a location other than the WWTP?
No

Have there been, or will there be, any changes to the POTW's policy on septage and hauled waste?
No

Use the space below to provide a narrative description of how septage and hauled waste are received by the POTW, where remote acceptance locations are, any POTW restrictions on when these wastes can be received, and the total volume of these wastes received at remote locations during the reporting year.

DEP issues scavenger permits that allow discharges at designated scavenger manhole(s) at POTW AKA Wastewater Resource Recovery Facility (WRRF). DEP currently accepts only scavenger waste defined as the sludge (i.e., septage) derived from sanitary wastewater discharged into cesspools, septic tanks or privies located within the City of New York. For 2023, Hunts Point WRRF received at total of 6.16 million gallons of waste from permitted scavenger haulers.

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:00 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:00 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 11:46:43 AM	Vernanda Francis	Draft
4/23/2024 3:01:06 PM	Frances Leung	Deemed Complete
4/23/2024 3:01:06 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:01:05 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8GWJ-84Z1T, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Jamaica Facility 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026115
Submission ID	HQ0-8GWJ-84Z1T
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026115

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Jamaica Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
6

Number of CSO Events Occurring in Reporting Year
45

Total Volume of CSO Discharged in Reporting Year (MG)
1,495.00

Percentage of Collection System, owned by the permittee, that is combined (%)
19

Approximate length (mi) of combined sewers in permittee-owned system
187

Population served by the permittee-owned system
735,054

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
3

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
Sewer system improvements were made pre-LTCP that included bending weirs in Bergen and Thurston Basins. The LTCP includes environmental dredging, ribbed mussels, and wetland restorations.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measurem Method
JAM001	40.631	-73.815	GRASSY BAY	SB	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: WRF outfall, not a CSO outfal
JAM003	40.662	-73.819	BERGEN BASIN	I	1	Fixed Weir	Surface Boom / Net	47	59	54	319	390	728	Modeled
JAM03A	40.662	-73.819	BERGEN BASIN	I	1	Fixed Weir	Surface Boom / Net	57	27	37	300	81	226	Modeled
JAM005	40.648	-73.755	THURSTON BASIN	I	4	Fixed Weir	Surface Boom / Net	55	30	33	908	110	341	Modeled
JAM006	40.661	-73.828	BERGEN BASIN	I	3	Fixed Weir	Other: Secondary Plant Effluent, also boom	61	17	25	30	0	4	Modeled
JAM007	40.648	-73.755	THURSTON BASIN	I	4	Other: Tide Gate	Surface Boom / Net	0	71	74	0	98	195	Modeled

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
JAM004	40.661944	-73.840556	SHELLBANK BASIN (NW)	I	2001	Sealed

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
22

Baseline - Approximate length (mi) of combined sewers owned by the permittee
187

Baseline - Number of CSO Outfalls owned by the permittee
6

Baseline - Number of CSO Events
55

Baseline - Annual CSO Volume discharged (MG)
1,557

Baseline - Population Served by the CSS
742,955

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
22

Future - Approximate length (mi) of combined sewers owned by the permittee
187

Future - Number of CSO Outfalls owned by the permittee
6

Future - Number of CSO Events
23

Future - Annual CSO Volume Discharged (MG)
580

Future - Population Served by the CSS
828,681

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made in 2023.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Sewer Cleaning and Sediment Removal
Removal of Flow Obstructions
Regulator or Weir Adjustment
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Regulator and sewer modifications have been made in the past. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
200.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
200.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
150.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
200.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
Yes

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
Yes

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. /// Extended wet weather flows caused solids washout leading to high TSS values for the facility.See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Catch basin hoods
Booming & Skimming of Open Waters
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

Work order in place as of 06/06/2017 to replace existing containment infrastructure at outfall ID JAM-006 and JAM-007 in-kind due to age.
As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
No

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:02 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:02 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 10:59:34 AM	Vernanda Francis	Draft
4/23/2024 3:02:57 PM	Frances Leung	Submitted
4/23/2024 3:02:58 PM	Frances Leung	Deemed Complete

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:02:57 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8HB9-SCR8H, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Newtown Creek 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026204
Submission ID	HQ0-8HB9-SCR8H
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026204

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Newtown Creek WRRF

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
82

Number of CSO Events Occurring in Reporting Year
17

Total Volume of CSO Discharged in Reporting Year (MG)
3,709.00

Percentage of Collection System, owned by the permittee, that is combined (%)
81

Approximate length (mi) of combined sewers in permittee-owned system
514

Population served by the permittee-owned system
1,227,810

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
22

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2017

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
Sewer system improvements were made pre-LTCP that included 4 bending weir installations. The LTCP includes a 39 MG Newtown Creek Storage Tunnel and a new wet weather force main to NC WRRF.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Mea
NCB001	40.732	-73.982	EAST RIVER	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Oth Outf CS(
NCB002	40.734	-73.963	WHALE CREEK	SD	0	Other: Not a regulator	Other: WRRF Overflow	0	0	0	0	0	0	Moc
NCB003	40.729	-73.978	EAST RIVER	I	1	Fixed Weir	None	0	5	8	1	0	1	Moc
NCB004	40.726	-73.978	EAST RIVER	I	1	Fixed Weir	None	0	35	43	18	11	21	Moc
NCB006	40.725	-73.979	EAST RIVER	I	1	Fixed Weir	Surface Boom / Net	0	15	17	104	49	113	Moc
NCB007	40.72	-73.981	EAST RIVER	I	1	Fixed Weir	None	0	27	31	9	5	9	Moc
NCB008	40.718	-73.983	EAST RIVER	I	1	Fixed Weir	None	0	29	32	27	13	27	Moc
NCB010	40.716	-73.967	EAST RIVER	I	1	Fixed Weir	None	0	0	1	0	0	0	Moc
NCB012	40.713	-73.968	EAST RIVER	I	1	Fixed Weir	None	0	21	25	27	20	48	Moc
NCB013	40.707	-73.969	WALLABOUT CHANNEL	I	1	Fixed Weir	Surface Boom / Net	0	28	34	42	38	94	Moc
NCB014	40.706	-73.969	WALLABOUT CHANNEL	I	2	Other: Fixed Weir and Diversion Chamber/Tide Gate	Surface Boom / Net	0	34	36	337	472	934	Moc
NCB015	40.709	-73.947	ENGLISH KILLS	SD	1	Fixed Weir	Surface Boom / Net	33	29	32	308	159	321	Moc
NCB019	40.714	-73.924	NEWTOWN CREEK	SD	1	Fixed Weir	Surface Boom / Net	0	15	19	0	2	3	Moc
NCB021	40.739	-73.953	NEWTOWN CREEK	SD	0	Other: No regulator	Other: CSO Next to B-17	0	1	3	0	0	0	Moc
NCB022	40.739	-73.953	NEWTOWN CREEK	SD	1	Fixed Weir	None	42	25	30	8	5	9	Moc
NCB024	40.736	-73.978	EAST RIVER	I	1	Fixed Weir	None	0	0	1	0	0	0	Moc
NCB025	40.734	-73.979	EAST RIVER	I	1	Fixed Weir	None	0	5	8	1	0	1	Moc
NCB026	40.733	-73.979	EAST RIVER	I	1	Fixed Weir	None	0	4	5	0	0	0	Moc
NCB082	40.71	-73.97	WALLABOUT CHANNEL	I	1	Fixed Weir	None	0	5	8	0	0	1	Moc
NCB083	40.714	-73.924	NEWTOWN CREEK	SD	0	Other: No regulator	Other: DB OC	71	52	53	586	309	561	Moc
NCB084	40.737	-73.96	NEWTOWN CREEK	SD	1	Fixed Weir	None	0	0	0	0	0	0	Moc
NCM005	40.761	-73.956	EAST RIVER	I	1	Fixed Weir	None	0	35	43	79	25	51	Moc
NCM011	40.752	-73.981	EAST RIVER	I	1	Other: TIDE GATE	None	0	0	1	0	0	0	Moc
NCM016	40.75	-73.983	EAST RIVER	I	1	Fixed Weir	None	0	5	10	4	1	3	Moc
NCM017	40.748	-73.968	EAST RIVER	I	1	Other: TIDE GATE	None	0	3	4	0	0	1	Moc
NCM018	40.747	-73.968	EAST RIVER	I	1	Fixed Weir	None	0	36	37	14	7	12	Moc
NCM020	40.719	-73.974	EAST RIVER	I	1	Other: TIDE GATE	None	0	11	13	4	3	8	Moc
NCM028	40.715	-73.992	EAST RIVER	I	1	Other: TIDE GATE	None	0	0	0	0	0	0	Moc

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Mea
NCM030	40.765	-73.952	EAST RIVER	I	1	Fixed Weir	None	0	2	8	0	0	0	Mod
NCM031	40.764	-73.952	EAST RIVER	I	2	Other: TIDE GATE	None	0	15	20	1	1	4	Mod
NCM032	40.759	-73.958	EAST RIVER	I	1	Fixed Weir	None	0	2	7	6	1	4	Mod
NCM033	40.757	-73.976	EAST RIVER	I	1	Fixed Weir	None	0	3	4	1	0	0	Mod
NCM034	40.755	-73.978	EAST RIVER	I	1	Fixed Weir	None	0	4	8	0	0	2	Mod
NCM035	40.755	-73.979	EAST RIVER	I	1	Fixed Weir	None	0	9	15	5	1	3	Mod
NCM036	40.752	-73.981	EAST RIVER	I	1	Fixed Weir	None	0	10	16	81	28	86	Mod
NCM037	40.747	-73.968	EAST RIVER	I	1	Fixed Weir	None	0	1	3	0	0	4	Mod
NCM038	40.746	-73.97	EAST RIVER	I	1	Fixed Weir	None	0	11	16	9	3	10	Mod
NCM38A	40.746	-73.97	EAST RIVER	I	1	Fixed Weir	None	0	0	0	0	0	0	Mod
NCM039	40.745	-73.97	EAST RIVER	I	1	Fixed Weir	None	0	2	7	5	1	1	Mod
NCM040	40.744	-73.971	EAST RIVER	I	1	Fixed Weir	None	0	1	1	1	0	0	Mod
NCM041	40.743	-73.972	EAST RIVER	I	1	Fixed Weir	None	0	12	17	45	10	27	Mod
NCM042	40.714	-73.992	EAST RIVER	I	1	Fixed Weir	None	0	4	6	0	0	2	Mod
NCM043	40.74	-73.972	EAST RIVER	I	1	Fixed Weir	None	0	8	16	4	1	4	Mod
NCM044	40.739	-73.973	EAST RIVER	I	1	Fixed Weir	None	0	2	1	1	0	0	Mod
NCM045	40.737	-73.973	EAST RIVER	I	1	Fixed Weir	None	0	12	17	34	8	22	Mod
NCM046	40.735	-73.973	EAST RIVER	I	2	Fixed Weir	None	0	18	26	13	7	16	Mod
NCM047	40.735	-73.974	EAST RIVER	I	1	Fixed Weir	None	0	1	0	1	0	0	Mod
NCM048	40.733	-73.974	EAST RIVER	I	1	Fixed Weir	None	0	10	12	24	3	6	Mod
NCM049	40.731	-73.974	EAST RIVER	I	1	Fixed Weir	None	0	7	12	26	8	17	Mod
NCM051	40.703	-74.008	EAST RIVER	I	1	Other: TIDE GATE	None	0	6	7	0	1	1	Mod
NCM052	40.727	-73.972	EAST RIVER	I	1	Fixed Weir	None	0	17	20	41	16	27	Mod
NCM053	40.724	-73.972	EAST RIVER	I	1	Fixed Weir	None	0	4	7	3	3	10	Mod
NCM054	40.723	-73.973	EAST RIVER	I	1	Fixed Weir	None	0	5	7	3	1	5	Mod
NCM055	40.721	-73.973	EAST RIVER	I	1	Fixed Weir	None	0	10	12	2	1	1	Mod
NCM056	40.719	-73.974	EAST RIVER	I	1	Fixed Weir	None	0	25	25	72	15	26	Mod
NCM057	40.717	-73.974	EAST RIVER	I	1	Fixed Weir	None	0	6	12	11	2	5	Mod
NCM058	40.716	-73.974	EAST RIVER	I	1	Fixed Weir	None	0	19	23	37	8	16	Mod
NCM059	40.713	-73.993	EAST RIVER	I	1	Fixed Weir	None	0	17	21	44	5	8	Mod
NCM060	40.711	-73.995	EAST RIVER	I	1	Fixed Weir	None	0	3	7	4	0	1	Mod
NCM061	40.71	-73.997	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	10	15	2	1	3	Mod
NCM062	40.71	-74	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	35	36	17	8	14	Mod
NCM063	40.709	-73.988	EAST RIVER	I	1	Fixed Weir	None	0	7	13	45	5	16	Mod
NCM064	40.709	-74.011	EAST RIVER	I	1	Fixed Weir	None	0	11	15	9	3	9	Mod
NCM065	40.709	-74.013	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	17	26	53	14	34	Mod
NCM066	40.708	-74.016	EAST RIVER	I	1	Fixed Weir	None	0	5	10	38	2	6	Mod
NCM067	40.705	-74.004	EAST RIVER	I	1	Fixed Weir	None	0	5	10	6	2	6	Mod
NCM068	40.702	-74.026	EAST RIVER	I	1	Fixed Weir	None	0	1	3	0	0	0	Mod
NCM069	40.701	-74.028	EAST RIVER	I	1	Fixed Weir	None	0	5	11	8	3	10	Mod
NCM070	40.704	-74.018	HUDSON RIVER	I	1	Fixed Weir	None	0	13	18	1	2	5	Mod
NCM071	40.71	-74.018	HUDSON RIVER	I	2	Fixed Weir	None	0	12	17	10	3	7	Mod
NCM072	40.715	-74.018	HUDSON RIVER	I	1	Fixed Weir	None	0	8	14	9	4	10	Mod
NCM073	40.719	-74.017	HUDSON RIVER	I	1	Fixed Weir	None	0	16	23	29	12	30	Mod
NCM074	40.723	-74.029	HUDSON RIVER	I	1	Fixed Weir	None	0	9	14	13	5	11	Mod
NCM075	40.725	-74.029	HUDSON RIVER	I	1	Fixed Weir	None	0	18	20	81	35	86	Mod
NCM076	40.73	-74.031	HUDSON RIVER	I	1	Fixed Weir	None	0	40	40	292	124	242	Mod
NCM078	40.708	-74.016	EAST RIVER	I	1	Other: Tide Gate	None	0	2	5	11	0	2	Mod
NCM080	40.727	-74.028	HUDSON RIVER	I	1	Other: Tide Gate	None	0	10	15	2	0	1	Mod
NCM081	40.733	-74.028	HUDSON RIVER	I	1	Other: Tide Gate	None	0	11	14	2	0	1	Mod
NCM087	40.734	-73.974	EAST RIVER	I	1	Other: Tide Gate	None	0	3	6	1	1	4	Mod
NCQ029	40.727	-73.944	NEWTOWN CREEK	SD	1	Other: Diversion Chamber	None	48	47	48	18	15	26	Mod
NCQ077	40.724	-73.92	MASPETH CREEK	SD	1	Fixed Weir	Surface Boom / Net	49	63	55	262	424	640	Mod

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Mea
NCB088	40.732307	-73.9621	NEWTOWN CREEK	SD	1	Fixed Weir	None	0	0	0	0	0	0	Mod

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
NCM079	40.700833	-74.015556	HUDSON RIVER	I	2003	Abandoned
NCB009	40.718056	-73.967	EAST RIVER	I	2008	Abandoned
NCM050	40.708611	-73.996389	EAST RIVER	I	2008	Abandoned
NCB023	40.737201	-73.959639	NEWTOWN CREEK	SD	2020	Abandoned
NCB027	40.732376	-73.961867	NEWTOWN CREEK	SD	2024	Abandoned

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
87

Baseline - Approximate length (mi) of combined sewers owned by the permittee
514

Baseline - Number of CSO Outfalls owned by the permittee
82

Baseline - Number of CSO Events
49

Baseline - Annual CSO Volume discharged (MG)
2,974

Baseline - Population Served by the CSS
1,116,923

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
87

Future - Approximate length (mi) of combined sewers owned by the permittee
514

Future - Number of CSO Outfalls owned by the permittee
82

Future - Number of CSO Events
16

Future - Annual CSO Volume Discharged (MG)
2307

Future - Population Served by the CSS
1,292,926

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made in 2023.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Tidegate Maintenance/Repair/Replacement
Sewer Cleaning and Sediment Removal
Removal of Flow Obstructions
Regulator or Weir Adjustment
In-Line Storage
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Replace leaking tide gates. Regulator and sewer modifications have been made in past. Under the LTCP, DEP will be constructing a 39 MG CSO Storage Tunnel and expanding capacity of Borden Avenue Pump Station. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
700.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
700.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
700.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
700.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
No

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

If the minimum flows were not achieved for all wet-weather events in the reporting year, has a plan to accomplish this been developed and submitted to the Department?
Yes, developed & submitted

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

Ongoing design for Borden Ave Pump Station Expansion; DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
Yes

Were all dry weather overflows reported via NY-Alert, in accordance with 6 NYCRR 750-2.7?
Yes

Did dry weather overflows lead to improvement of procedures or equipment?
Yes

Has the likelihood of future dry weather overflows been eliminated? If not, describe why below in the narrative box.
No

Use the space below to provide a narrative description of the both the causes of any dry weather events that occurred in the reporting year and resulting changes or improvements that were made to procedures or equipment (e.g. routine inspection schedule, OMIP, inter-municipal agreements, FOG program, removal of illicit connections, I/I Control program, leaky tidegates, adjustment and/or repair of regulators, upgraded auxiliary power, elimination of hydraulic bottlenecks, etc.).

There was a dry weather discharge from NC-Reg. NCB-05A and NC-Reg. NCM-038 due to a blockage of grease and rags. Corrective actions were taken to resolve the discharges

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Catch basin hoods
Booming & Skimming of Open Waters
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

Work orders in place to replace containment infrastructure at outfall ID-NCQ-077, NCB-083 and NCB-015. As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:04 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:04 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 11:26:00 AM	Vernanda Francis	Draft
4/23/2024 3:04:45 PM	Frances Leung	Deemed Complete
4/23/2024 3:04:45 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:04:45 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8JBS-RTW99, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report North River 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026247
Submission ID	HQ0-8JBS-RTW99
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026247

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
North River Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
53

Number of CSO Events Occurring in Reporting Year
11

Total Volume of CSO Discharged in Reporting Year (MG)
570.00

Percentage of Collection System, owned by the permittee, that is combined (%)
83

Approximate length (mi) of combined sewers in permittee-owned system
186

Population served by the permittee-owned system
649,549

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
63

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
LTCP includes some regulator optimization in the collection system.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measure Meth
NR001	40.825	-73.975	HUDSON RIVER	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: W outfall, nc CSO out
NR002	40.833	-73.951	HUDSON RIVER	I	4	Fixed Weir	None	0	38	55	54	17	32	Modeled
NR003	40.837	-73.966	HUDSON RIVER	I	1	Fixed Weir	None	0	4	6	9	1	6	Modeled
NR004	40.846	-73.963	HUDSON RIVER	I	1	Fixed Weir	None	0	3	5	7	1	5	Modeled
NR005	40.858	-73.939	HUDSON RIVER	I	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
NR006	40.869	-73.949	HUDSON RIVER	I	1	Fixed Weir	None	0	16	18	76	15	46	Modeled
NR007	40.875	-73.919	SPUYTEN DUYVIL CREEK	I	1	Fixed Weir	None	0	3	7	2	0	1	Modeled
NR008	40.869	-73.928	HARLEM RIVER	I	1	Other: Diversion Chamber/Tide Gate	None	0	34	37	27	12	23	Modeled
NR009	40.868	-73.928	HARLEM RIVER	I	1	Other: Diversion Chamber/Tide Gate	None	0	16	18	3	1	2	Modeled
NR010	40.866	-73.93	HARLEM RIVER	I	3	Other: Tide Gate	None	0	12	15	14	3	10	Modeled
NR011	40.864	-73.932	HARLEM RIVER	I	1	Fixed Weir	None	0	6	9	3	0	2	Modeled
NR012	40.863	-73.932	HARLEM RIVER	I	1	Fixed Weir	None	0	4	8	2	0	1	Modeled
NR013	40.863	-73.933	HARLEM RIVER	I	1	Fixed Weir	None	0	4	8	1	0	1	Modeled
NR014	40.862	-73.917	HARLEM RIVER	I	1	Fixed Weir	None	0	5	9	3	0	2	Modeled
NR016	40.861	-73.918	HARLEM RIVER	I	1	Fixed Weir	None	0	5	9	3	0	2	Modeled
NR017	40.859	-73.919	HARLEM RIVER	I	1	Fixed Weir	None	0	17	18	67	13	32	Modeled
NR018	40.857	-73.922	HARLEM RIVER	I	1	Fixed Weir	None	0	1	0	0	0	0	Modeled
NR019	40.736	-74.027	HUDSON RIVER	I	1	Fixed Weir	None	0	13	17	5	1	4	Modeled
NR020	40.738	-74.028	HUDSON RIVER	I	1	Fixed Weir	None	0	16	18	18	5	13	Modeled
NR021	40.739	-74.028	HUDSON RIVER	I	1	Fixed Weir	None	0	9	14	6	1	4	Modeled
NR022	40.744	-74.026	HUDSON RIVER	I	1	Fixed Weir	None	0	10	14	16	2	8	Modeled
NR023	40.746	-74.028	HUDSON RIVER	I	1	Fixed Weir	None	0	6	10	41	5	26	Modeled
NR024	40.748	-74.028	HUDSON RIVER	I	2	Other: Diversion Chamber/Tide Gate	None	0	9	13	18	3	11	Modeled
NR025	40.751	-74.028	HUDSON RIVER	I	1	Fixed Weir	None	0	9	12	19	3	11	Modeled

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measure Meth
NR026	40.753	-74.026	HUDSON RIVER	I	1	Fixed Weir	None	0	19	20	26	6	17	Modeled
NR027	40.755	-74.007	HUDSON RIVER	I	1	Fixed Weir	None	0	9	13	72	29	107	Modeled
NR028	40.759	-74.007	HUDSON RIVER	I	1	Fixed Weir	None	0	5	8	13	1	3	Modeled
NR029	40.761	-74.003	HUDSON RIVER	I	1	Fixed Weir	None	0	5	11	7	1	5	Modeled
NR030	40.764	-74.004	HUDSON RIVER	I	2	Fixed Weir	None	0	5	8	3	0	2	Modeled
NR031	40.764	-74.001	HUDSON RIVER	I	1	Fixed Weir	None	0	5	9	4	1	3	Modeled
NR032	40.766	-74.002	HUDSON RIVER	I	2	Fixed Weir	None	0	4	5	2	0	2	Modeled
NR033	40.766	-74.015	HUDSON RIVER	I	2	Fixed Weir	None	0	5	8	24	5	29	Modeled
NR034	40.769	-74.001	HUDSON RIVER	I	1	Fixed Weir	None	0	13	18	8	2	5	Modeled
NR035	40.771	-74.012	HUDSON RIVER	I	1	Fixed Weir	None	0	14	18	10	2	8	Modeled
NR036	40.774	-74.013	HUDSON RIVER	I	1	Fixed Weir	None	0	12	16	20	3	12	Modeled
NR037	40.782	-73.988	HUDSON RIVER	I	1	Fixed Weir	None	0	1	2	1	0	3	Modeled
NR038	40.787	-73.985	HUDSON RIVER	I	1	Fixed Weir	None	0	3	5	6	1	6	Modeled
NR039	40.794	-73.996	HUDSON RIVER	I	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
NR040	40.797	-73.994	HUDSON RIVER	I	2	Fixed Weir	None	0	5	10	33	4	23	Modeled
NR041	40.805	-73.972	HUDSON RIVER	I	1	Fixed Weir	None	0	3	5	3	0	1	Modeled
NR042	40.809	-73.969	HUDSON RIVER	I	1	Fixed Weir	None	0	6	9	4	1	2	Modeled
NR043	40.818	-73.979	HUDSON RIVER	I	1	Fixed Weir	None	0	16	18	132	16	61	Modeled
NR044	40.824	-73.976	HUDSON RIVER	I	1	Fixed Weir	None	0	4	5	2	0	1	Modeled
NR045	40.86	-73.921	HARLEM RIVER	I	1	Other: Tide Gate	None	0	9	11	17	4	14	Modeled
NR046	40.778	-73.991	HUDSON RIVER	I	1	Fixed Weir	None	0	6	11	8	2	6	Modeled
NR047	40.765	-74.015	HUDSON RIVER	I	1	Other: Tide Gate	None	0	0	1	0	0	0	Modeled
NR048	40.762	-74.002	HUDSON RIVER	I	2	Other: Tide Gate	None	0	11	14	4	1	4	Modeled
NR049	40.743	-74.026	HUDSON RIVER	I	1	Other: Tide Gate	None	0	15	17	14	3	11	Modeled
NR050	40.741	-74.028	HUDSON RIVER	I	1	Other: Diversion Chamber/Tide Gate	None	0	0	4	0	0	0	Modeled
NR051	40.766	-74.014	HUDSON RIVER	I	0	Other: No regulator	None	0	0	0	0	0	0	Modeled
NR052	40.757	-74.006	HUDSON RIVER	I	1	Other: Tide Gate	None	0	2	5	2	0	2	Modeled
NR055	40.863	-73.932	HARLEM RIVER	I	2	Other: Diversion Chamber/Tide Gate	None	0	4	9	1	0	1	Modeled
NR056	40.826	-73.955	HUDSON RIVER	I	1	Fixed Weir	None	0	0	0	0	0	0	Modeled

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
NR015	40.869444	-73.933	HUDSON RIVER	I	2000	Abandoned

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
81

Baseline - Approximate length (mi) of combined sewers owned by the permittee
186

Baseline - Number of CSO Outfalls owned by the permittee
53

Baseline - Number of CSO Events
NONE PROVIDED

Baseline - Annual CSO Volume discharged (MG)
806

Baseline - Population Served by the CSS
617,791

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
81

Future - Approximate length (mi) of combined sewers owned by the permittee
186

Future - Number of CSO Outfalls owned by the permittee
53

Future - Number of CSO Events
11

Future - Annual CSO Volume Discharged (MG)
431

Future - Population Served by the CSS
718,876

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
No

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Under the LTCP, DEP will make some modifications to the regulators to reduce CSO further. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
340.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
340.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
255.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
340.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.
b) N/A
c) N/A
d) N/A

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures.See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
Yes

Were all dry weather overflows reported via NY-Alert, in accordance with 6 NYCRR 750-2.7?
Yes

Did dry weather overflows lead to improvement of procedures or equipment?
Yes

Has the likelihood of future dry weather overflows been eliminated? If not, describe why below in the narrative box.
No

Use the space below to provide a narrative description of the both the causes of any dry weather events that occurred in the reporting year and resulting changes or improvements that were made to procedures or equipment (e.g. routine inspection schedule, OMIP, inter-municipal agreements, FOG program, removal of illicit connections, I/I Control program, leaky tidegates, adjustment and/or repair of regulators, upgraded auxiliary power, elimination of hydraulic bottlenecks, etc.).

There was a dry weather discharge from NR-Reg. No. 36 due to a blockage of rags. Corrective actions were taken to resolve the discharges.

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:06 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:06 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:24:06 PM	Vernanda Francis	Draft
4/23/2024 3:07:16 PM	Frances Leung	Deemed Complete

	User	Processing Status
4/23/2024 3:07:16 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:07:16 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8J5C-ES988, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Owls Head 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026166
Submission ID	HQ0-8J5C-ES988
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026166

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Owls Head Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
16

Number of CSO Events Occurring in Reporting Year
36

Total Volume of CSO Discharged in Reporting Year (MG)
4,238.00

Percentage of Collection System, owned by the permittee, that is combined (%)
66

Approximate length (mi) of combined sewers in permittee-owned system
384

Population served by the permittee-owned system
923,524

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
4

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
LTCP includes some regulator optimization and real time controls.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measure Meth
OH-001	40.642	-74.037	UPPER NEW YORK BAY	SB	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: W Outfall, n CSO Ou
OH-002	40.645	-74.048	UPPER NEW YORK BAY	SB	3	Fixed Weir	None	0	43	44	413	366	636	Modeled
OH-003	40.653	-74.021	UPPER NEW YORK BAY	SB	3	Fixed Weir	None	0	97	108	397	335	502	Modeled
OH-004	40.656	-74.017	UPPER NEW YORK BAY	SB	1	Other: Tide Gate	Other: 19th St. P.S.	0	12	18	1	3	15	Modeled
OH-007	40.676	-73.991	GOWANUS CANAL	SD	0	Other: No regulator	Other: 2nd Ave P.S.	47	58	57	69	61	117	Modeled
OH-015	40.601	-74.029	GRAVESEND BAY	I	3	Other: Division Chamber	None	0	80	67	1140	1190	1760	Modeled
OH-017	40.621	-74.042	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	44	46	235	418	733	Modeled
OH-018	40.632	-74.04	UPPER NEW YORK BAY	SB	2	Fixed Weir	None	0	42	46	163	92	198	Modeled
OH-019	40.637	-74.038	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	38	40	42	27	45	Modeled
OH-020	40.639	-74.037	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	25	33	1	1	3	Modeled
OH-021	40.583	-73.984	CONEY ISLAND CREEK	I	2	Fixed Weir	Other: Ave.V P.S., also boom	0	22	24	292	50	134	Modeled
OH-022	40.66	-74.008	GOWANUS BAY	SD	0	Other: No regulator	Other: 2nd Ave Sewer Relief	0	0	0	0	0	0	Modeled
OH-024	40.664	-74	GOWANUS BAY	SD	0	Other: No regulator	Other: 3rd Ave Sewer Relief	35	36	46	23	28	53	Modeled
OH-025	40.662	-74.006	GOWANUS BAY	SD	0	Other: No regulator	Other: Bush Terminal PS	0	0	0	0	0	0	Modeled
OH-026	40.664	-74.016	GOWANUS BAY	SD	0	Other: No regulator	Other: 3rd Ave Sewer Relief	0	0	0	0	0	0	Modeled
0H-006	40.668	-74.001	GOWANUS CANAL	SD	0	Other: nO regulator	Other: 3rd Ave Sewer Relief	33	35	45	13	18	38	Modeled

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
OH-008	40.674	-73.997	GOWANUS CANAL (E)	SD	2005	Other: As a result of the field investigations by DEP and its Consultants, OH-008 outfall was identified as a storm sewer outfall since no CSO was detected. Action: Outfall OH-008 was reclassified as MS4 Outfall OH-607 and added to the MS4 list as follows: Lat.; Long.: 40°40' 30"; 73°59' 36"; Location: Gowanus Canal & E. 9th Street; Size: 12"; Waterbody: Gowanus Canal
OH-009	40.675833	-73.993833	GOWANUS CANAL (SE)	SD	2005	Abandoned
OH-023	40.661833	-74.005167	GOWANUS BAY (e)	SD	2005	Abandoned
OH-005	40.678064	-73.989007	GOWANUS CANAL (SE)	SD	2024	Abandoned

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
69

Baseline - Approximate length (mi) of combined sewers owned by the permittee
384

Baseline - Number of CSO Outfalls owned by the permittee
17

Baseline - Number of CSO Events
30

Baseline - Annual CSO Volume discharged (MG)
2,791

Baseline - Population Served by the CSS
867,031

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
69

Future - Approximate length (mi) of combined sewers owned by the permittee
384

Future - Number of CSO Outfalls owned by the permittee
17

Future - Number of CSO Events
28

Future - Annual CSO Volume Discharged (MG)
2527

Future - Population Served by the CSS
949,064

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW s with POSS s, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
No

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
No

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Under the LTCP, DEP will make some modifications to the regulators to reduce CSO further.
In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
240.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
240.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
180.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
240.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.
b) N/A
c) N/A
d) N/A

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
Yes

Were all dry weather overflows reported via NY-Alert, in accordance with 6 NYCRR 750-2.7?
Yes

Did dry weather overflows lead to improvement of procedures or equipment?
Yes

Has the likelihood of future dry weather overflows been eliminated? If not, describe why below in the narrative box.
No

Use the space below to provide a narrative description of the both the causes of any dry weather events that occurred in the reporting year and resulting changes or improvements that were made to procedures or equipment (e.g. routine inspection schedule, OMIP, inter-municipal agreements, FOG program, removal of illicit connections, I/I Control program, leaky tidegates, adjustment and/or repair of regulators, upgraded auxiliary power, elimination of hydraulic bottlenecks, etc.).

There was a dry weather discharge from OH-Reg. No. 10 due to a blockage of grease andrags. Corrective actions were taken to resolve the discharges.

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods
Booming & Skimming of Open Waters

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
No

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:08 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:08 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:12:36 PM	Vernanda Francis	Draft
4/23/2024 3:08:48 PM	Frances Leung	Submitted
4/23/2024 3:08:49 PM	Frances Leung	Deemed Complete

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:08:48 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8J29-JD94Q, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Port Richmond 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026107
Submission ID	HQ0-8J29-JD94Q
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026107

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Port Richmond WRRF

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
37

Number of CSO Events Occurring in Reporting Year
21

Total Volume of CSO Discharged in Reporting Year (MG)
856.00

Percentage of Collection System, owned by the permittee, that is combined (%)
12

Approximate length (mi) of combined sewers in permittee-owned system
45

Population served by the permittee-owned system
224,516

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
4

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
LTCP proposes a Hannah Street Diversion sewer to reduce CSO discharges and a reduction amount of wet weather flow that the Hannah Street PS will need to convey to PR WRRF.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measure Meth
PR-001	40.641	-74.125	KILL VAN KULL	SD	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: W Outfall, n CSO Ou
PR-002	40.64	-74.124	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-003	40.642	-74.119	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-004	40.646	-74.126	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-005	40.646	-74.107	KILL VAN KULL	SD	1	Fixed Weir	None	0	1	2	0	0	0	Modeled
PR-006	40.645	-74.115	KILL VAN KULL	SD	1	Fixed Weir	None	0	23	25	6	4	8	Modeled
PR-007	40.646	-74.102	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-008	40.646	-74.11	KILL VAN KULL	SD	1	Other: Diversion Chamber	None	0	0	0	0	0	0	Modeled
PR-009	40.647	-74.089	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-010	40.649	-74.084	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	5	9	0	0	1	Modeled
PR-011	40.647	-74.093	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	1	2	0	0	0	Modeled
PR-013	40.638	-74.073	UPPER NEW YORK BAY	SB	1	Other: Divesion Chamber/Tide Gate	None	0	42	43	28	35	62	Modeled
PR-014	40.631	-74.073	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	55	58	23	30	48	Modeled
PR-015	40.626	-74.073	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	15	20	1	1	2	Modeled
PR-016	40.624	-74.072	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	32	37	0	1	2	Modeled
PR-017	40.623	-74.071	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	54	53	12	11	19	Modeled
PR-018	40.621	-74.069	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	54	51	3	3	4	Modeled
PR-019	40.619	-74.067	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	56	53	26	61	92	Modeled

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measure Meth
PR-020	40.617	-74.081	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	57	55	2	28	34	Modeled
PR-021	40.616	-74.08	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	53	48	0	8	10	Modeled
PR-023	40.612	-74.076	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	41	43	0	34	59	Modeled
PR023A	40.612	-74.077	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	0	0	76	0	0	Modeled
PR023B	40.612	-74.077	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-024	40.645	-74.172	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-025	40.641	-74.183	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-026	40.638	-74.177	KILL VAN KULL	SD	1	Fixed Weir	None	0	3	6	1	0	1	Modeled
PR-027	40.638	-74.158	KILL VAN KULLKILL VAN KULL	SD	1	Fixed Weir	None	0	5	13	1	0	1	Modeled
PR-028	40.638	-74.165	KILL VAN KULL	SD	1	Fixed Weir	None	0	34	40	10	10	18	Modeled
PR-029	40.641	-74.139	KILL VAN KULL	SD	1	Fixed Weir	None	0	55	53	217	141	236	Modeled
PR-030	40.618	-74.082	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	57	54	0	9	11	Modeled
PR-031	40.627	-74.073	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	56	54	139	160	244	Modeled
PR-032	40.637	-74.071	UPPER NEW YORK BAY	SB	1	Fixed Weir	None	0	24	30	0	1	1	Modeled
PR-033	40.644	-74.13	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-034	40.644	-74.131	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-035	40.64	-74.143	KILL VAN KULL	SD	1	Fixed Weir	None	0	0	0	0	0	0	Modeled
PR-036	40.638	-74.144	KILL VAN KULL	SD	1	Other: Tide Gate	None	0	0	0	0	0	0	Modeled
PR-037	40.641	-74.148	KILL VAN KULL	SD	1	Other: Tide Gate	None	0	16	20	4	1	3	Modeled

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
41

Baseline - Approximate length (mi) of combined sewers owned by the permittee
45

Baseline - Number of CSO Outfalls owned by the permittee
37

Baseline - Number of CSO Events
NONE PROVIDED

Baseline - Annual CSO Volume discharged (MG)
550

Baseline - Population Served by the CSS
224,632

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
41

Future - Approximate length (mi) of combined sewers owned by the permittee
45

Future - Number of CSO Outfalls owned by the permittee
37

Future - Number of CSO Events
15

Future - Annual CSO Volume Discharged (MG)
566

Future - Population Served by the CSS
265,406

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW&#65533;s with POSS&#65533;s, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
Yes

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
No

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Tidegate Maintenance/Repair/Replacement
Sewer Cleaning and Sediment Removal
Removal of Flow Obstructions
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Replace aging tidegate with new stainless steel pontoon tidegate. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
90.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
90.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
90.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
90.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
No

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

If the minimum flows were not achieved for all wet-weather events in the reporting year, has a plan to accomplish this been developed and submitted to the Department?
Yes, developed & submitted

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.
b) N/A
c) N/A
d) N/A

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
Yes

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. Extended wet weather flows caused solids washout leading to high TSS values for the facility. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)

(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
No

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:09 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:09 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:07:05 PM	Vernanda Francis	Draft
4/23/2024 3:10:13 PM	Frances Leung	Deemed Complete
4/23/2024 3:10:13 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:10:13 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8JTY-X4KBY, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Red Hook 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0027073
Submission ID	HQ0-8JTY-X4KBY
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0027073

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Red Hook Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
35

Number of CSO Events Occurring in Reporting Year
31

Total Volume of CSO Discharged in Reporting Year (MG)
1,105.00

Percentage of Collection System, owned by the permittee, that is combined (%)
84

Approximate length (mi) of combined sewers in permittee-owned system
138

Population served by the permittee-owned system
257,556

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
1

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
LTCP includes some regulator optimization in the collection system.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Meas M
RH-001	40.704	-73.994	NAVY YARD BASIN	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Othe Outfa CSO
RH-002	40.706	-73.998	EAST RIVER	I	1	Other: Diversion Chamber/Tide Gate	None	0	0	0	0	0	0	Mode
RH-003	40.706	-73.998	EAST RIVER	I	1	Fixed Weir	None	0	9	17	0	1	2	Mode
RH-005	40.706	-73.999	EAST RIVER	I	1	Other: Diversion Chamber/Tide Gate	None	0	46	48	153	113	285	Mode
RH-006	40.705	-73.988	NAVY YARD BASIN	I	1	Other: Diversion Chamber/Tide Gate	None	0	27	37	8	6	15	Mode
RH-007	40.704	-73.988	EAST RIVER	I	1	Fixed Weir	None	0	22	30	1	1	3	Mode
RH-008	40.705	-73.99	EAST RIVER	I	1	Other: Diversion Chamber/Tide Gate	None	0	26	36	2	2	7	Mode
RH-009	40.704	-73.991	EAST RIVER	I	1	Fixed Weir	None	0	26	28	2	2	5	Mode
RH-010	40.7	-74.014	EAST RIVER	I	1	Fixed Weir	None	0	3	5	0	0	0	Mode
RH-011	40.696	-74.016	EAST RIVER	I	1	Fixed Weir	None	0	22	33	3	3	8	Mode
RH-012	40.703	-74.012	EAST RIVER	I	1	Fixed Weir	None	0	22	31	8	7	20	Mode
RH-013	40.694	-74.001	EAST RIVER	I	1	Fixed Weir	None	0	3	8	0	0	1	Mode
RH-014	40.691	-74.001	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	52	53	20	31	51	Mode
RH-016	40.691	-74.001	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	42	44	18	37	72	Mode
RH-018	40.689	-74.004	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	32	42	4	11	20	Mode
RH-019	40.686	-74.008	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	46	47	13	18	27	Mode
RH-020	40.687	-74.006	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	19	20	0	1	2	Mode
RH-021	40.687	-74.008	BUTTERMILK CHANNEL	I	1	Other: Diversion Chamber/Tide Gate	None	0	44	44	0	16	26	Mode
RH-022	40.683	-74.026	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	38	35	2	8	9	Mode
RH-023	40.683	-74.027	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	43	37	2	7	8	Mode
RH-024	40.681	-74.029	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	39	40	2	7	9	Mode
RH-025	40.681	-74.03	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	36	37	5	13	16	Mode
RH-028	40.681	-74.018	BUTTERMILK CHANNEL	I	1	Fixed Weir	None	0	24	34	97	34	53	Mode
RH-029	40.674	-74.017	UPPER NEW YORK BAY	I	1	Fixed Weir	Other: Van Blant St. PS	0	18	24	2	1	4	Mode
RH-030	40.669	-74.007	GOWANUS BAY	I	0	Other: No regulator	Other: CSO-2	0	39	43	18	45	80	Mode

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Meas M
RH030A	40.669	-74.007	GOWANUS BAY	I	0	Other: No regulator	Other: CSO-2	0	0	0	0	0	0	Mode
RH-031	40.671	-74.016	GOWANUS CANAL	I	0	Other: No regulator	Other: Bond-Lorraine SWR Relief	0	37	41	35	42	79	Mode
RH-033	40.681	-73.987	GOWANUS CANAL	I	1	Other: Diversion Chamber/Tide Gate	Surface Boom / Net	0	4	11	0	0	1	Mode
RH-034	40.682	-73.987	GOWANUS CANAL	I	0	Other: No regulator	Other: Gowanus PS, also boom	0	48	53	121	100	228	Mode
RH-035	40.676	-74.009	GOWANUS CANAL	I	0	Other: No regulator	Other: CSO-3, Bond-Lorraine SWR Relief	0	31	37	111	11	25	Mode
RH-036	40.679	-73.989	GOWANUS CANAL	I	1	Other: Diversion Chamber/Tide Gate	None	0	13	22	2	1	3	Mode
RH-037	40.68	-73.988	GOWANUS CANAL	I	1	Other: Diversion Chamber/Tide Gate	None	0	4	13	1	0	1	Mode
RH-038	40.681	-73.987	GOWANUS CANAL	I	1	Fixed Weir	None	0	5	17	1	0	2	Mode
RH-040	40.703	-73.994	NAVY YARD BASIN	I	1	Fixed Weir	None	0	33	42	37	17	43	Mode
RH-041	40.678071	-73.994	GOWANUS CANAL	I	1	Other: Diversion Chamber/Tide Gate	None	0	0	0	0	0	0	Mode

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
RH-004	40.706	-73.983	EAST RIVER (S)	I	2005	Abandoned
RH-032	40.673889	-73.996944	GOWANUS CANAL (w)	SD	2005	Abandoned
RH-039	40.681389	-73.987778	GOWANUS CANAL (w)	SD	2005	Abandoned

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
82

Baseline - Approximate length (mi) of combined sewers owned by the permittee
138

Baseline - Number of CSO Outfalls owned by the permittee
34

Baseline - Number of CSO Events
NONE PROVIDED

Baseline - Annual CSO Volume discharged (MG)
670

Baseline - Population Served by the CSS
201,087

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
82

Future - Approximate length (mi) of combined sewers owned by the permittee
138

Future - Number of CSO Outfalls owned by the permittee
34

Future - Number of CSO Events
17

Future - Annual CSO Volume Discharged (MG)
398

Future - Population Served by the CSS
243,142

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
Yes

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
In-Line Storage
Regulator or Weir Adjustment
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Regulator modifications have been made in the past. Under the LTCP, DEP will make some modifications to the regulators to reduce CSO further. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
120.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
120.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
90.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
120.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.
b) N/A
c) N/A
d) N/A

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
No

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert)

used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:11 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:11 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:51:13 PM	Vernanda Francis	Draft
4/23/2024 3:11:45 PM	Frances Leung	Deemed Complete
4/23/2024 3:11:45 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:11:45 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8JMA-7XRES, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Tallman Island 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026239
Submission ID	HQ0-8JMA-7XRES
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026239

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Tallman Island WRRF

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
19

Number of CSO Events Occurring in Reporting Year
35

Total Volume of CSO Discharged in Reporting Year (MG)
2,496.00

Percentage of Collection System, owned by the permittee, that is combined (%)
36

Approximate length (mi) of combined sewers in permittee-owned system
169

Population served by the permittee-owned system
457,817

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
4

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
Sewer system improvements and construction of the Flushing Creek CSO Storage Tanks were done pre-LTCP. The LTCP includes floatables control and disinfection along with some regulator optimization.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measur Meth
TI-001	40.798	-73.84	EAST RIVER	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: W Outfall, r CSO Ou
TI-003	40.793	-73.846	EAST RIVER	I	2	Fixed Weir	None	0	84	76	127	121	152	Modelec
TI-004	40.797	-73.83	EAST RIVER	I	1	Fixed Weir	None	0	17	23	10	3	6	Modelec
TI-005	40.796	-73.807	EAST RIVER	I	1	Other: Tide Gate/Diversion Chamber	None	0	1	0	0	0	0	Modelec
TI-006	40.782	-73.771	LITTLE NECK BAY	I	0	Other: No regulator	Other: 24 Ave P.S.	0	0	0	0	0	0	Modelec
TI-007	40.763	-73.752	ALLEY CREEK	I	0	Other: No regulator	Other: Old Doug P.S.	0	2	2	0	0	0	Modelec
TI-008	40.762	-73.751	ALLEY CREEK	I	4	Other: Diversion Chamber	None	38	0	0	59	0	0	Modelec
TI-010	40.756	-73.839	FLUSHING CREEK	I	4	Other: Diversion Chamber	Surface Boom / Net	73	57	57	1580	541	1172	Modelec
TI-011	40.766	-73.839	FLUSHING CREEK	I	5	Fixed Weir	Surface Boom / Net	54	72	57	332	450	540	Modelec
TI-012	40.772	-73.866	EAST RIVER	I	0	Other: No regulator	Other: 122nd St PS	0	0	0	0	0	0	Modelec
TI-014	40.779	-73.866	EAST RIVER	I	1	Fixed Weir	None	32	49	51	2	14	20	Modelec
TI-015	40.78	-73.85	EAST RIVER	I	1	Fixed Weir	None	29	34	38	1	3	6	Modelec
TI-016	40.782	-73.866	EAST RIVER	I	1	Fixed Weir	None	45	62	57	28	38	52	Modelec
TI-017	40.784	-73.858	EAST RIVER	I	1	Fixed Weir	None	0	32	38	0	3	5	Modelec
TI-018	40.786	-73.876	EAST RIVER	I	1	Fixed Weir	None	34	46	48	2	6	9	Modelec
TI-022	40.756	-73.839	FLUSHING CREEK	I	4	Fixed Weir	Surface Boom / Net	55	85	65	30	91	120	Modelec
TI-023	40.789	-73.81	EAST RIVER	I	1	Fixed Weir	None	0	47	50	198	105	165	Modelec
TI-025	40.764	-73.753	ALLEY CREEK	I	0	Other: No regulator	Other: Alley Creek CSO Storage Facility	0	24	30	0	143	247	Modelec
TI-026	40.796	-73.806	EAST RIVER	I	0	Other: No regulator	None	0	0	0	0	0	0	Modelec

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
TI-013	40.776389	-73.849444	FLUSHING BAY	I	2003	Other: Does not exist
TI-021	40.790833	-73.832333	POWELLS COVE	I	2003	Other: Bulkheaded
TI-024	40.75663062	-73.74461935	ALLEY CREEK	I	2021	Other: Changed to MS4
TI-019	40.78911036	-73.85446448	EAST RIVER	I	2021	Abandoned

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
TI-009	40.76745778	-73.75159389	Little Neck Bay	I	2019	Abandoned
TI-020	40.794495	-73.848841	EAST RIVER	I	2020	Abandoned

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
53

Baseline - Approximate length (mi) of combined sewers owned by the permittee
169

Baseline - Number of CSO Outfalls owned by the permittee
19

Baseline - Number of CSO Events
45

Baseline - Annual CSO Volume discharged (MG)
2,375

Baseline - Population Served by the CSS
428,316

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
53

Future - Approximate length (mi) of combined sewers owned by the permittee
169

Future - Number of CSO Outfalls owned by the permittee
19

Future - Number of CSO Events
17

Future - Annual CSO Volume Discharged (MG)
1460

Future - Population Served by the CSS
510,639

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
Yes

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
No

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
Yes

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Sewer Cleaning and Sediment Removal
Removal of Flow Obstructions
In-Line Storage
Regulator or Weir Adjustment
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Regulator modifications have been made in the past. Under the LTCP, DEP will make some modifications to the regulators to reduce CSO further. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
160.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
160.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
120.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
160.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.
b) N/A
c) N/A
d) N/A

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
No

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods
Screens
Booming & Skimming of Open Waters

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

There are screens at the Flushing Creek CSO Storage Facility. Work orders in place to replace existing infrastructure at outfalls TI-010 & TI-011 and net system at TI-023 (boom installed for containment until work is complete). As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. Missing/damaged hoods are replaced within 90 days of discovery. Extensive repairs (if required) and hood replacement are made within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert) used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems.

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:13 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:13 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:39:19 PM	Vernanda Francis	Draft
4/23/2024 3:13:22 PM	Frances Leung	Submitted
4/23/2024 3:13:22 PM	Frances Leung	Deemed Complete

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:13:22 PM

Table of Contents

Combined Sewer Overflow (CSO) Annual Report

version 1.10

(Submission #: HQ0-8JEE-AN250, version 1)

Details

Submission Alias	Combined Sewer Overflow (CSO) Annual Report Wards Island 2023
Originally Started By	Vernanda Francis
Submitted	4/23/2024 (0 days ago) by Frances Leung
Alternate Identifier	NY0026131
Submission ID	HQ0-8JEE-AN250
Status	Deemed Complete

Form Input

Permit Information

SPDES Number
NY0026131

DEC Region
2

Permittee Name
NYC Department of Environmental Protection

Facility Name
Wards Island Wastewater Resource Recovery Facility

Official Name
Angela De Lillo

Official Title
Deputy Commissioner

Official's Phone Number
718-595-5268

Official's Email Address
adelillo@dep.nyc.gov

CSO Program Manager Name
Keith Mahoney

CSO Program Manager Title
Director

CSO Program Manager Phone Number
718-595-5972

CSO Program Manager Email
kmahoney@dep.nyc.gov

Part I - CSO LTCP Information

GENERAL CSO PROGRAM INFORMATION

Use the following questions to provide current general information on the CSO Program

Number of CSO Outfalls in the permittee owned system
75

Number of CSO Events Occurring in Reporting Year
34

Total Volume of CSO Discharged in Reporting Year (MG)
3,662.00

Percentage of Collection System, owned by the permittee, that is combined (%)
88

Approximate length (mi) of combined sewers in permittee-owned system
360

Population served by the permittee-owned system
1,173,448

Number of Publicly-Owned Sewer Systems (POSS) to the permittee-owned system
0

Number of Publicly-Owned Sewer Systems (POSS) to the Combined Sewer System
0

Number of Significant Industrial Users (SIU) connected to the CSS
3

Number of other, non-POSS satellite system connections
0

Long Term Control Plan (LTCP) Information

Was an LTCP Required?
Yes

Year the LTCP was Submitted
2023

What is the LTCP Approval Status?
Approved

What was/is the LTCP selected approach and/or criterion?
Demonstrative

Is the LTCP Implementation completed?
No

Provide a brief list of all the recommendations and CSO controls to be implemented under the Long-Term Control Plan. Be sure to identify the year these items were completed and any remaining milestones dates not yet achieved.
Improvements to WI WRRF were made pre-LTCP. The LTCP includes Tibbett's Brook daylighting but this will be considered a green asset.

Post Construction Compliance Monitoring (PCCM)

What is the status of the PCCM Plan?
Not Yet Required

What is the status of the PCCM Sampling Program?
Not Yet Conducted/Started

Part II - CSO Outfall Information

CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measur Meth
WIB053	40.905	-73.931	HUDSON RIVER	SB	1	Fixed Weir	None	0	75	74	30	48	73	Modelec
WIB054	40.898	-73.917	HUDSON RIVER	SB	1	Fixed Weir	None	0	52	64	28	29	54	Modelec
WIB055	40.888	-73.92	HUDSON RIVER	SB	1	Fixed Weir	None	0	59	66	9	17	27	Modelec
WIB056	40.87	-73.926	HARLEM RIVER	I	1	Fixed Weir	None	0	56	57	1543	662	1064	Modelec
WIB057	40.863	-73.929	HARLEM RIVER	I	1	Fixed Weir	None	0	56	65	179	114	187	Modelec
WIB058	40.856	-73.92	HARLEM RIVER	I	1	Fixed Weir	None	0	40	51	50	27	53	Modelec
WIB059	40.851	-73.924	HARLEM RIVER	I	1	Fixed Weir	None	0	23	29	5	6	13	Modelec
WIB060	40.843	-73.946	HARLEM RIVER	I	1	Fixed Weir	None	0	38	46	228	229	449	Modelec
WIB061	40.84	-73.947	HARLEM RIVER	I	1	Fixed Weir	None	0	15	17	2	3	10	Modelec
WIB062	40.828	-73.95	HARLEM RIVER	I	2	Fixed Weir	None	0	39	43	175	85	148	Modelec
WIB063	40.828	-73.95	HARLEM RIVER	I	1	Fixed Weir	None	0	37	44	13	5	11	Modelec
WIB064	40.82	-73.949	HARLEM RIVER	I	1	Fixed Weir	None	0	29	34	43	16	33	Modelec
WIB065	40.811	-73.949	HARLEM RIVER	I	1	Fixed Weir	None	0	19	18	5	1	1	Modelec
WIB066	40.808	-73.948	HARLEM RIVER	I	1	Fixed Weir	None	0	14	18	2	1	2	Modelec
WIB067	40.806	-73.947	HARLEM RIVER	I	1	Fixed Weir	None	0	23	22	13	5	13	Modelec
WIB068	40.803	-73.923	BRONX KILL	I	2	Fixed Weir	None	0	30	41	222	32	84	Modelec
WIB069	40.799	-73.919	BRONX KILL	I	1	Fixed Weir	None	0	1	2	0	0	0	Modelec
WIB070	40.799	-73.908	EAST RIVER	I	1	Fixed Weir	None	0	32	33	11	6	13	Modelec
WIB071	40.801	-73.906	EAST RIVER	I	1	Fixed Weir	None	0	26	32	29	11	25	Modelec
WIB072	40.805	-73.902	EAST RIVER	I	1	Fixed Weir	None	0	30	39	46	24	48	Modelec
WIB073	40.802	-73.922	BRONX KILL	I	1	Fixed Weir	None	0	19	11	11	0	0	Modelec
WIB075	40.814	-73.949	HARLEM RIVER	I	1	Fixed Weir	None	0	34	39	123	57	108	Modelec
WIB076	40.879	-73.923	SPUYTEN DUYVIL CREEK	I	1	Fixed Weir	None	0	52	54	43	53	80	Modelec
WIB077	40.876	-73.933	SPUYTEN DUYVIL CREEK	I	1	Fixed Weir	None	0	51	60	77	71	124	Modelec
WIB078	40.874	-73.928	SPUYTEN DUYVIL CREEK	I	1	Fixed Weir	None	0	49	53	0	28	45	Modelec
WIB079	40.915	-73.927	HUDSON RIVER	SB	1	Fixed Weir	None	0	0	0	0	0	0	Modelec

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measur Meth
WIM001	40.786	-73.921	EAST RIVER	I	0	Other: Not a regulator	Other: WRRF Outfall	0	0	0	0	0	0	Other: W outfall, n CSO ou
WIM002	40.766	-73.951	EAST RIVER	I	1	Fixed Weir	None	0	52	65	11	6	9	Modelec
WIM003	40.767	-73.95	EAST RIVER	I	2	Other: Tide Gate/Diversion Chamber	None	0	55	68	115	75	134	Modelec
WIM004	40.768	-73.966	EAST RIVER	I	1	Fixed Weir	None	0	49	61	12	5	8	Modelec
WIM005	40.768	-73.966	EAST RIVER	I	1	Fixed Weir	None	0	41	52	10	4	6	Modelec
WIM006	40.769	-73.965	EAST RIVER	I	1	Fixed Weir	None	0	46	54	12	5	6	Modelec
WIM007	40.769	-73.965	EAST RIVER	I	1	Fixed Weir	None	0	41	50	11	4	6	Modelec
WIM008	40.77	-73.964	EAST RIVER	I	1	Fixed Weir	None	0	55	66	224	126	205	Modelec
WIM009	40.773	-73.962	EAST RIVER	I	1	Fixed Weir	None	0	1	1	0	0	0	Modelec
WIM010	40.773	-73.961	EAST RIVER	I	1	Fixed Weir	None	0	0	0	0	0	0	Modelec
WIM011	40.774	-73.96	EAST RIVER	I	1	Fixed Weir	None	0	19	22	3	2	5	Modelec
WIM012	40.776	-73.959	EAST RIVER	I	1	Fixed Weir	None	0	26	31	41	13	17	Modelec
WIM013	40.778	-73.959	EAST RIVER	I	1	Fixed Weir	None	0	22	23	1	0	0	Modelec
WIM014	40.778	-73.959	EAST RIVER	I	1	Fixed Weir	None	0	20	15	1	0	0	Modelec
WIM015	40.78	-73.96	EAST RIVER	I	1	Fixed Weir	None	0	20	16	14	4	4	Modelec
WIM016	40.782	-73.961	EAST RIVER	I	1	Fixed Weir	None	0	35	44	30	14	20	Modelec
WIM017	40.783	-73.96	EAST RIVER	I	1	Fixed Weir	None	0	20	19	17	5	5	Modelec
WIM018	40.785	-73.941	EAST RIVER	I	1	Fixed Weir	None	0	22	11	1	0	0	Modelec
WIM019	40.785	-73.94	EAST RIVER	I	1	Fixed Weir	None	0	20	13	1	0	0	Modelec
WIM020	40.786	-73.939	EAST RIVER	I	1	Fixed Weir	None	0	0	0	0	0	0	Modelec
WIM021	40.787	-73.938	EAST RIVER	I	1	Fixed Weir	None	0	17	11	1	0	0	Modelec
WIM022	40.788	-73.938	EAST RIVER	I	1	Fixed Weir	None	0	18	14	1	0	0	Modelec
WIM023	40.789	-73.938	EAST RIVER	I	1	Fixed Weir	None	0	45	36	79	35	51	Modelec
WIM024	40.791	-73.936	EAST RIVER	I	1	Fixed Weir	None	0	21	16	100	36	41	Modelec
WIM025	40.793	-73.949	EAST RIVER	I	1	Fixed Weir	None	0	54	57	35	23	37	Modelec
WIM026	40.794	-73.949	EAST RIVER	I	1	Fixed Weir	None	0	17	9	1	0	0	Modelec
WIM027	40.794	-73.948	EAST RIVER	I	1	Fixed Weir	None	0	15	9	1	0	0	Modelec
WIM030	40.796	-73.946	EAST RIVER	I	1	Fixed Weir	None	0	20	12	2	0	0	Modelec
WIM031	40.797	-73.946	EAST RIVER	I	1	Fixed Weir	None	0	20	15	5	2	3	Modelec
WIM032	40.798	-73.946	EAST RIVER	I	1	Fixed Weir	None	0	18	8	0	0	0	Modelec
WIM033	40.798	-73.946	BRONX KILL	I	1	Fixed Weir	None	0	22	20	4	2	3	Modelec
WIM034	40.8	-73.946	BRONX KILL	I	1	Fixed Weir	None	0	20	15	1	1	0	Modelec
WIM035	40.801	-73.946	BRONX KILL	I	1	Fixed Weir	None	0	23	19	8	4	6	Modelec
WIM036	40.806	-73.948	HARLEM RIVER	I	1	Fixed Weir	None	0	43	58	3	1	1	Modelec
WIM037	40.807	-73.95	HARLEM RIVER	I	1	Fixed Weir	None	0	20	19	9	4	5	Modelec
WIM038	40.811	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	23	25	39	15	22	Modelec
WIM039	40.816	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	24	25	3	2	2	Modelec
WIM040	40.816	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	27	24	3	1	2	Modelec
WIM041	40.817	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	30	36	13	5	7	Modelec
WIM042	40.818	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	21	25	3	1	1	Modelec

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Number of Regulators Associated	Type of Regulator	Type of Treatment Provided	Number of Overflow Events - BASELINE	Number of Overflow Events - PREVIOUS YEAR	Number of Overflow Events - CURRENT YEAR	Annual CSO Volume (MG) - BASELINE	Annual CSO Volume (MG) - PREVIOUS YEAR	Annual CSO Volume (MG) - CURRENT YEAR	Measur Meth
WIM043	40.786	-73.939	EAST RIVER	I	1	Fixed Weir	None	0	20	15	7	2	1	Modelec
WIM044	40.819	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	29	31	6	2	3	Modelec
WIM045	40.823	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	48	59	63	32	53	Modelec
WIM046	40.825	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	51	64	158	114	177	Modelec
WIM047	40.828	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	52	63	23	16	25	Modelec
WIM048	40.828	-73.935	HARLEM RIVER	I	1	Fixed Weir	None	0	52	64	13	10	15	Modelec
WIM050	40.829	-73.935	HARLEM RIVER	I	1	Fixed Weir	None	0	45	58	69	13	22	Modelec
WIM051	40.837	-73.934	HARLEM RIVER	I	1	Fixed Weir	None	0	35	49	21	16	31	Modelec
WIM052	40.843	-73.947	HARLEM RIVER	I	1	Fixed Weir	None	0	52	67	48	36	64	Modelec

Closed CSO Outfall Information

Outfall Number	Latitude (Decimal)	Longitude (Decimal)	Receiving Water Name	Receiving Water Class	Approximate Year Outfall Closed	Cause / Reason for Closure
WIB049	40.828	-73.934	HARLEM RIVER (E)	I	2008	Other: Does not exist
WIB074	40.870556	-73.909722	HARLEM RIVER (E)	I	2003	Other: Reclassified as Highway Drain
WIB080	40.801111	-73.921944	BRONX KILL (N)	I	2001	Other: Does not exist
WIM028	40.794444	-73.930278	EAST RIVER (w)	I	2006	Other: Does not exist
WIM029	40.795278	-73.929722	EAST RIVER (w)	I	2006	Other: Does not exist

CSO Outfall Explanation
NONE PROVIDED

Part III - Collection System Information

Baseline Information

If Baseline information is unknown, please use a best estimate, then characterize/describe in the narrative box below.

Baseline - Percentage (%) of combined sewers in the collection system owned by the permittee
79

Baseline - Approximate length (mi) of combined sewers owned by the permittee
360

Baseline - Number of CSO Outfalls owned by the permittee
75

Baseline - Number of CSO Events
NONE PROVIDED

Baseline - Annual CSO Volume discharged (MG)
4,181

Baseline - Population Served by the CSS
1,107,417

Baseline - Number of Satellite System Connections
NONE PROVIDED

Post-LTCP Implementation Information

If an LTCP has not yet been developed, or wasn't required, please input the current year information for each field.

Future - Percentage (%) of combined sewers in the collection system owned by the permittee
79

Future - Approximate length (mi) of combined sewers owned by the permittee
360

Future - Number of CSO Outfalls owned by the permittee
75

Future - Number of CSO Events
27

Future - Annual CSO Volume Discharged (MG)
2234

Future - Population Served by the CSS
1,253,104

Future - Number of Satellite System Connections
0

Use the space below to provide any further relevant information on the collection system & to indicate if baseline information is unknown. This should include a description of any unique ownership, operation and maintenance agreements or further explanation and description of POSS/satellite system connections. For POTW's with POSS's, please indicate which municipality owns/operates which infrastructure (Pump Stations, trunk sewers, interceptors, regulators, outfall structures, etc.) as well as who is responsible for reporting CSO events from CSOs within the POSS and who is responsible for reporting SSOs within the POSS.
NONE PROVIDED

Part IV - CSO Control Implementation Information

Reporting Year Information

Provide a summary of any significant LTCP or PCCM projects completed within the reporting year and any milestones for the reporting year that were not achieved.
All LTCP recommended projects are either in design procurement, design, or early construction.

Upcoming Year Information

Summarize significant LTCP and PCCM projects planned and milestones due for the upcoming year.
All LTCP recommended projects are either in design procurement, design, or early construction.

Part V - CSO Best Management Practices (BMPs)

Which CSO BMPs does your SPDES permit require?
3- Industrial Pretreatment
2- Maximize Use of the Collection System for Storage
7- Control of Floatables and Settleable Solids
8- Combined Sewer System Replacement
9- Combined Sewer / Extension
12- Control of Runoff
5- Wet Weather Operating Plan (WWOP)
11- Septage and Hauled Waste
13- Public Notification
14- Characterization and Monitoring
10- Connection Prohibitions
6- Prohibition of Dry Weather Overflows
4- Maximize Flow to POTW
1- CSO Maintenance / Inspection

BMP No. 1 CSO Maintenance Inspection

6 NYCRR 750-2.8(a)(2)
(EPA NMC No. 1: Proper Operation and Regular Maintenance)

Is there a written program for the maintenance and inspection of the CSS and CSOs?
Yes

What is the minimum frequency of dry-weather CSO inspections?
Monthly

Are inspections of CSOs/regulators conducted during or following wet weather events?
Yes

Do the inspection reports indicate visual inspection observations, observed or presumed flows, weather conditions, equipment condition, and any repair work recommended?
Yes

Are the inspection reports submitted to the DEC Regional Office?
No

Indicate which of the following additional components are included in the maintenance and inspection program:
Pump Stations
CSO Controls (e.g. regulators, screening/storage/treatment facilities)
Sewer Pipes & Interceptors

Are there existing inter-municipal agreements which specify responsibilities for inspection, maintenance, and/or repair?
No

Is the collection system mapped using GIS?
NONE PROVIDED

Is the collection system monitored using a SCADA system or other flow monitoring system?
Yes, SCADA

In the past year, was progress made to install, upgrade, or expand monitoring with SCADA/Other system?
No

In the upcoming year, is installation, upgrade, or expansion of monitoring with SCADA/Other system planned?
Yes

Does the municipality have an asset management program that includes the collection system?
No

Have any work efforts or problems in the past year resulted in changes in overflows? If yes, describe below in the narrative box.
No

In the past year, was the inspection and maintenance program mostly:
Proactive (focusing on preventative maintenance to avoid problems)?

Use the space below to provide a narrative description of the following:

a) Lengths of sewer cleaned and inspected,
b) Number of manholes and catch basins cleaned and inspected,
c) Any repairs or replacements conducted in the CSS,

a) 131,433.2 feet of intercepting sewers were inspected citywide. b) Zero manholes and catch basins cleaned and inspected. c) No repairs were made.

Use the space below to describe any large equipment purchases made in the reporting year or planned for the upcoming year (e.g. vacuum trucks, pumps, etc.) , as well as, any work efforts or problems in the past year that resulted in changes to the collection system maintenance and inspection program, and any noticeable results of the system changes (e.g. fewer events, less CSO volume, a reduction in floatables or other pollutants discharges, visible improvement in water quality of receiving water).
N/A

BMP No. 2 Maximize Use of the Collection System for Storage

6 NYCRR 750-2.7(f), 750-2.8(a)(2), 750-2.8(a)(5)
(EPA NMC No. 2: Maximization of Storage in the Collection System)

In the past year, was the collection system able to convey the required minimum flows to the treatment plant during ALL wet-weather events?
Yes

Has the hydraulic capacity of the collection system been evaluated?
Yes

When was the hydraulic capacity last evaluated?
2012

Have regulators and weirs ever been adjusted/modified to maximize storage?
No

In the past year, or the upcoming year, indicate if any of the following items have been changed or if changes are planned to improve use of the collection system for storage? If so, describe below in the narrative box.
Removal of Flow Obstructions
FOG Program

Use the space below to provide a narrative description of the changes to structures or procedures that will improve use of the collection system for storage (e.g. tide gate maintenance/repairs/replacement, regulator or weir adjustment, FOG program changes, removal of bottlenecks/flow obstructions, sewer cleaning and sediment removal, in-line storage, etc.).

Under the Cityside GI Program, DEP will be daylighting Tibbett's Brook that will take flow out of combined system and reduce CSO discharges. In 2023, updated BWSO's guideline for FOG referrals and programmatic scheduling. We continue to review and update guidelines as needed.

BMP No. 3 Industrial Pretreatment

6 NYCRR 750-2.7(f) and 2.9(a)(4)
(EPA NMC No. 3 & 7: Review and Modification of Pretreatment Requirements & Pollution Prevention Programs to Reduce Contaminants in CSOs)

Is there an approved pretreatment or mini-pretreatment program or acceptance of flow from non-domestic sources?
Yes, IPP or Mini-IPP

Is there an inventory of industrial or non-domestic dischargers?
Yes

Has the impact on CSOs from non-domestic users that discharge toxic pollutants been evaluated, and steps taken to minimize such impacts?
Yes

Does the pretreatment program consider CSOs in the calculation of local limits?
Yes

Are there any restrictions on industrial user discharges to the collection system during wet-weather events?
Yes

Are there any industrial discharges that could reach CSO outfalls?
Yes

Do industrial users upstream of CSOs discharge any bioaccumulative chemicals of concern (BCCs)?
Yes

Do any industrial users have a holding tank or equalization tank to store wastewater prior to discharge to the CSS?
Yes

In the past year or in the upcoming year, have there been or will there be negotiations or changes to agreements with industrial dischargers, which will potentially reduce impacts during CSO events? Describe these changes below in the narrative box.
No

Use the space below to provide a narrative description of industrial discharges to the collection system, any restrictions on industrial discharges during wet-weather events, and any agreements that will potentially reduce impacts during CSO events.

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains.

BMP No. 4 Maximize Flow to POTW

6 NYCRR 750-2.7(f), 2.8(a)(2), and 2.8(a)(5)
(EPA NMC No. 4: Maximization of Flow to the POTW for Treatment)

What is the permit required minimum flow during wet weather events through the headworks (in MGD)?
500.00

What is the permit required minimum flow during wet weather events through primary treatment (in MGD)?
500.00

What is the permit required minimum flow during wet weather events through secondary treatment (in MGD)?
413.00

What is the permit required minimum flow during wet weather events through disinfection (in MGD)?
500.00

In the past year, were the headworks, primary treatment works and disinfection works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year, was the secondary treatment works able to pass the flows specified in the permit for all wet weather flows?
Yes

In the past year or in the upcoming year, have there been or will there be any physical modifications to the collection system which have allowed more flow to reach the POTW? If yes, describe below in the narrative box.
No

Are there areas of the collection system, including pump stations that need additional study to evaluate capacity, condition, or to determine if illegal connections (i.e. inflow) exist? If yes, list below in the narrative box
No

In the past year, have any new problem areas been identified that restrict flow to the plant? If yes, list the locations below in the narrative box.
No

Use the space below to provide a narrative description of:

a) any physical modifications to the collection system which are completed or anticipated and will allow for more flow to reach the WWTP,
b) any areas of the collection system which need additional study to evaluate capacity or inflow issues,
c) any known problem areas that restrict flow to the WWTP, and
d) any plans to address hydraulic restrictions (e.g. pipe replacement, construction of relief sewer or overflow tanks, pump station improvements, weir adjustment, smoke/dye testing to identify illicit connections).

a) DEP performs routine upgrades to its pipes and pump stations but these aren't linked to any bottlenecks, just state of good repair. Ongoing and Planned Projects: CSO Storage Tunnels (Newtown Creek and Flushing Bay); Disinfection (Flushing Bay, Alley Creek, Hutchinson River); Sewer and Regulator Improvements in Bronx River; Citywide Regulator and Conveyance Improvements; Environmental Dredging of Bergen Basin; Daylighting of Tibbett's Brook; and Ongoing Citywide GI.
b) N/A
c) N/A
d) N/A

BMP No. 5 Wet Weather Operating Plan

6 NYCRR 750-2.8(a)
(EPA NMC: None)

Does the plan identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?
No

In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service? If yes, describe below in the narrative box.
No

If the collection system or plant has been modified or upgraded, has the WWOP been modified to reflect new flow rates or new procedures and the revised plan submitted to the NYSDEC Regional Office?
No, no changes

In the upcoming year, are changes to the WWOP expected? If so, describe below in the narrative box.
No

When was the WWOP last updated?
2022

When was the WWOP last submitted and approved by NYSDEC?
2022

Use the space below to provide a narrative description of any changes to the WWOP during the reporting year or anticipated in the upcoming year.

The WWOP was updated as required by the SPDES Permit to reflect current operating procedures. See also CSO BMP Annual Report.

BMP No. 6 Prohibition of Dry Weather Overflows

6 NYCRR 750-2.7 and 2.8(b)(2)
(EPA NMC No. 5: Elimination of CSOs During Dry Weather)

In the past year, were there any dry weather overflows?
Yes

Were all dry weather overflows reported via NY-Alert, in accordance with 6 NYCRR 750-2.7?
Yes

Did dry weather overflows lead to improvement of procedures or equipment?
Yes

Has the likelihood of future dry weather overflows been eliminated? If not, describe why below in the narrative box.
No

Use the space below to provide a narrative description of the both the causes of any dry weather events that occurred in the reporting year and resulting changes or improvements that were made to procedures or equipment (e.g. routine inspection schedule, OMIP, inter-municipal agreements, FOG program, removal of illicit connections, I/I Control program, leaky tidegates, adjustment and/or repair of regulators, upgraded auxiliary power, elimination of hydraulic bottlenecks, etc.).

There was a dry weather discharge event from WI-Reg. WIM-39 due to a blockage of rags and grease. Corrective actions were taken to resolve the discharges.

BMP No. 7 Control of Floatables and Settleable Solids

6 NYCRR 750-2.8(a)(4)
(EPA NMC No. 6: Control of Solid and Floatable Materials in CSOs)

In the past year, did any outfalls discharge floating solids, oil and grease, or solids of sewage origin?
No

Indicate which of the following engineering controls or control measures, if any, have been implemented or will be implemented in the upcoming year?
Source controls (street cleaning, public education, household hazardous waste collection, solid waste collection, recycling, and/or composting of lawn/leaf/roadkill deer)
Catch basin hoods

Use the space below to provide a narrative description of any ongoing issues with control of floatables and settleable solids from CSO outfalls and any existing or planned engineering controls or control measure to be implemented.

As of 2010, DEP installed hoods in all catch basins that DEP identified as requiring a hood. DEP replaces any missing or damaged hoods within 90 days of discovery. If a catch basin requires extensive repairs before a hood can be installed, DEP will make necessary repairs and install a hood within 24 months.

BMP No. 8 Combined Sewer System Replacement

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers designed or constructed that were not approved by NYSDEC?
No

Are there any plans or current projects to separate combined sewers into sanitary & storm sewers?
No

Were any cross-connections eliminated in the past year or planned for the upcoming year?
Yes

In the past year, how many miles of combined sewer were separated?
0.00

In the upcoming year, how many miles of combined sewer are scheduled to be separated?
0.00

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

Private Drains or Private Sewers are constructed in conformance with Drainage Proposals or Amended Drainage Plans. Any sewers built by private developers are in conformance with their Drainage Proposals or Amended Drainage Plans and do not extend combined sewers beyond the combined sewer area.

BMP No. 9 Combined Sewer / Extension

6 NYCRR 750-2.10(i)
(EPA NMC: None)

In the past year, were any combined sewers extended?
Yes

If separate sewers were extended from combined sewers, was it demonstrated that the sewerage system had the ability to convey, and the treatment plant had the ability to adequately treat, the increased dry-weather flows?
Yes

If determined necessary by the Regional Water Engineer, was an assessment made of the effects of the increased flow of sanitary sewage or industrial waste on the strength of CSOs and their frequency of occurrence, including the impacts upon best usage of the receiving water?
Not Required

Is any development planned upstream of a combined sewer in the near future?
No

If a plan contained a flow credit requiring removal of I/I, what was the requirement or ratio?
N/A

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year.

In 2023, seven private combined sewer extensions were reviewed and approved, and eight previously approved private combined sewer extensions completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan or drainage proposal.

BMP No. 10 Connection Prohibitions

6 NYCRR750-2.9(a)(5)
(EPA NMC: None)

Are new connections prohibited by NYSDEC?
No

In the upcoming year, is any work planned to either increase capacity or reduce hydraulic loading to the WWTP? If so, describe below in the narrative box.
No

BMP No. 11 Septage and Hauled Waste

6 NYCRR750-2.7(f) and 2.8(a)(1)
(EPA NMC: None)

Does the POTW accept septage or hauled waste?
No

BMP No. 12 Control of Runoff

6 NYCRR750- 2.1(e)
(EPA NMC: None)

Is sediment in runoff from construction zones entering catch basins in the combined sewer system?
No

Are impacts of run-off, from development and re-development in areas served by combined sewers, reduced by requiring compliance with the New York Standards for Erosion and Sediment Control and the quantity control requirements included in the New York State Stormwater Management Design Manual?
Yes

Is there adequate communication between the local municipal department that enforces local stormwater codes and ordinances and the collection system staff regarding stormwater runoff?
Yes

Do the municipalities within the combined sewer system have adequate storm water pollution prevention programs to reduce pollutants in stormwater?
Yes

Are any changes needed in the implementation of this BMP to reduce the number of CSO events, the volume discharged, or pollutants in the discharge? If yes, describe below in the narrative box.
No

Use the space below to provide a narrative description of how this BMP was implemented during the reporting year and any planned changes for the upcoming year.

All sewer certifications for new development are consistent with NYCDEP rules and regulations. See CSO BMP Report for more details.

BMP No. 13 Public Notification

6 NYCRR 750-1.12
(EPA NMC No. 8: Public Notification)

In accordance with the Discharge Notification Act Requirements of the SPDES permit, outfall identification signs must be installed and maintained at all permitted CSO outfalls. Are these signs installed and maintained at all permitted CSO outfalls?
Yes

Are all CSO events in accordance with the SPDES permit reported via NY-Alert?
Yes

In accordance with the Sewage Pollution Right to Know Law, as detailed in 6 NYCRR Part 750-2.7, all CSO discharge events must be reported via the NY-Alert electronic notification system.

CSO events not in accordance with the SPDES permit conditions should be reported as a bypass via NY-Alert. When these events occur, are they being reported via NY-Alert?
Yes

Beyond the use of NY-Alert, does the POTW maintain any other public notification systems (e.g. websites, social media, email systems, public media broadcasts) to alert potential users of receiving waters affected by CSOs?
Yes

For all CSOs to receiving waters that are Class B or higher, a written public notification program (PNP) is required to be developed, implemented, and publicly available to inform citizens of the location and occurrence of CSO events. Is there a written PNP?
Not Applicable (no Class B receiving waters)

For all CSO communities within the Great Lakes Basin, a written PNP is required. Is your community within the Great Lakes Basin?
No

Use the space below to provide a narrative description of how any updates to CSO outfall signs and PNPs, as well as a summary of any other public notification systems (beyond NY-Alert)

used to alert the public of CSO events.

There have been no updates to the CSO outfall signs and PNP and other notification systems

BMP No. 14 Characterization and Monitoring

(6 NYCRR 750-1.11(a), 2.5(a) and 2.7(g))
(EPA NMC No. 9: Monitoring to Characterize CSO Impacts and the Efficacy of CSO Controls)

Has the combined sewer system been modeled for use in determining or estimating the frequency of overflows and identifying CSO impacts?
Yes

Was baseline sampling conducted as part of LTCP development?
Yes

Was any Post Construction Compliance Monitoring (PCCM) sampling conducted in the reporting year or planned for the upcoming year?
No

In what years does the SPDES permit, Order on Consent, or other enforcement mechanism require PCCM sampling to be conducted?
Post LTCP Completion

CSO discharge monitoring methods should be specified for each CSO outfall in Part II of this Annual Report. For all CSO outfalls that are not metered, explain how overflow volumes are either modeled or estimated to collect sufficient data and document permit compliance and the success of CSO BMP implementation. In addition, please provide a brief summary of the findings from the most recently submitted PCCM Report (including compliance with the selected CSO Policy Approach criteria and attainment of water quality standards).

Calibrated/validated InfoWorks models are used to project CSO discharges. There was a comprehensive calibration/validation process for both landside and water quality modeling including short term intensives flow monitoring and sampling programs. All the LTCPs that are available on DEP's website have details regarding CSO discharges and water quality attainment.
https://www.nyc.gov/site/dep/water/nyc-waterways.page

Owner/Operator Certification

Owner/Operator Certification Form Download

Download the certification form by clicking the link below. Complete, sign, scan, and upload the form.
Owner/Operator Certification Form (PDF)

Upload Owner/Operator Certification Form
2023 CSO nform cert-signed.pdf - 04/23/2024 03:14 PM
Comment
NONE PROVIDED

Attachments

Date	Attachment Name	Context	User
4/23/2024 3:14 PM	2023 CSO nform cert-signed.pdf	Attachment	Frances Leung

Status History

	User	Processing Status
12/29/2023 12:28:49 PM	Vernanda Francis	Draft
4/23/2024 3:15:03 PM	Frances Leung	Deemed Complete
4/23/2024 3:15:03 PM	Frances Leung	Submitted

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Frances Leung	4/23/2024 3:15:03 PM