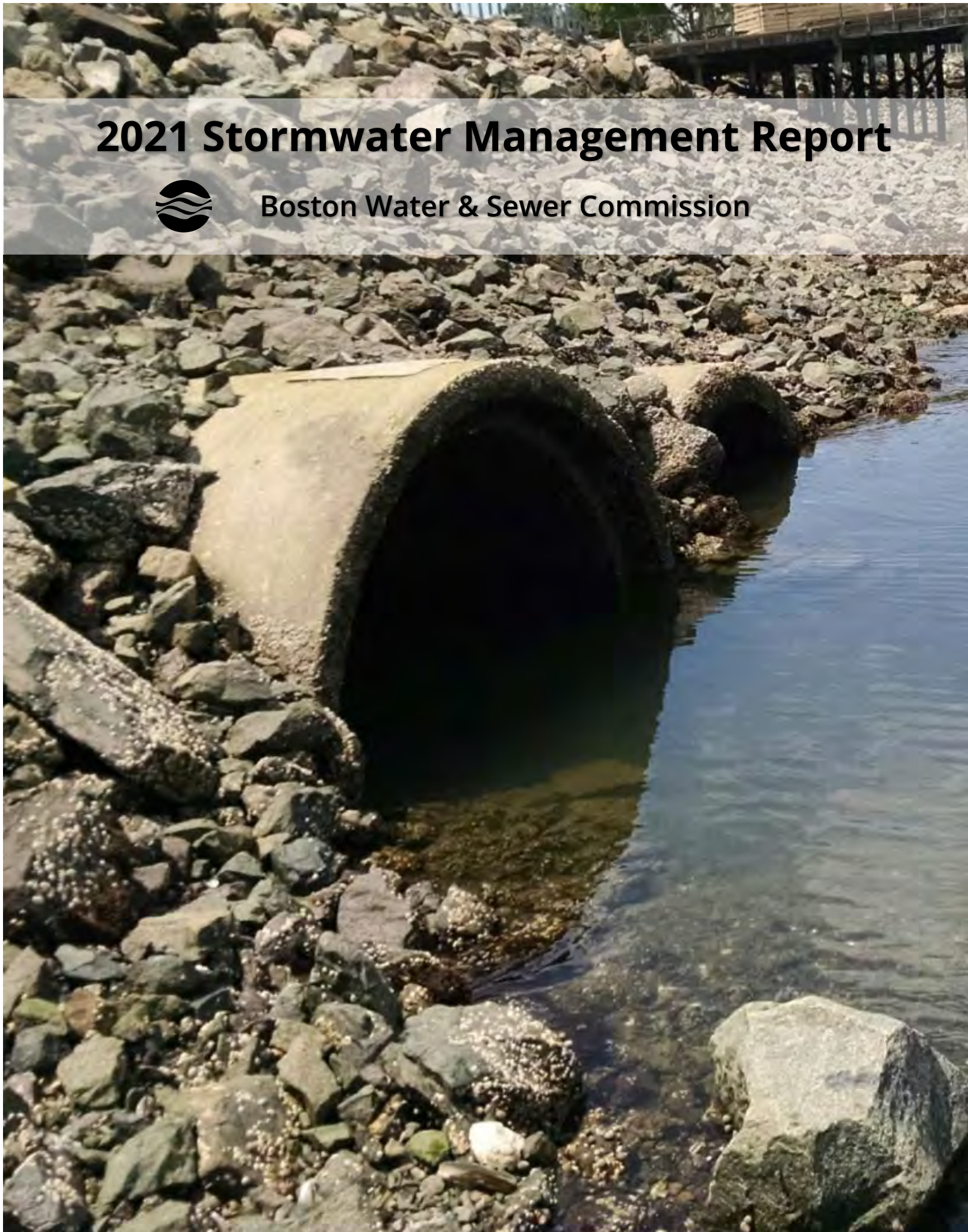


2021 Stormwater Management Report



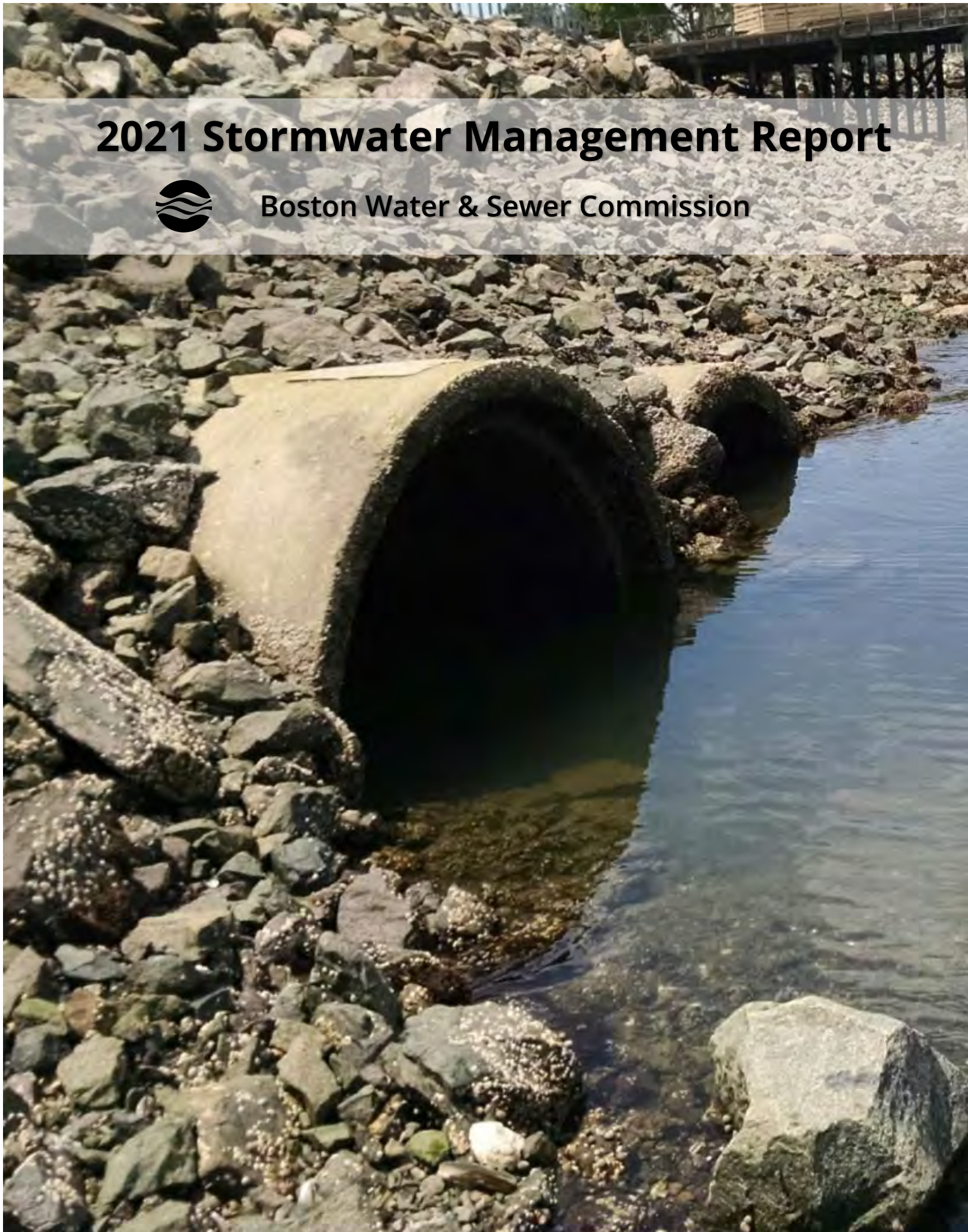
Boston Water & Sewer Commission



2021 Stormwater Management Report



Boston Water & Sewer Commission



**Boston Water and
Sewer Commission**

980 Harrison Avenue
Boston, MA 02119-2540
617-989-7000



VIA EMAIL

February 24, 2022

Mr. Todd Borci
US EPA/Region 1
5 Post Office Square
Suite 100 (OES 04-4)
Boston, MA 02109-3912

Mr. Kevin Brander
Massachusetts Department of Environmental Protection
205B Lowell Street
Wilmington, MA 01887

**Re: Annual Stormwater Management Report
MAS010001 – Boston Water and Sewer Commission**

Dear Messrs. Borci and Brander:

The Boston Water and Sewer Commission is pleased to provide you with the enclosed Stormwater Management Report for the year 2021. To save resources the Commission is distributing the report by email. Paper copies of the report are available upon request. Also, the document will be posted on our website at www.bwsc.org.

The Commission's NPDES Stormwater Permit (MAS010001) was issued by Environmental Protection Agency and the Massachusetts Department of Environmental Protection on September 29, 1999 and became effective on October 29, 1999. The five year permit expired on October 29, 2004, but the EPA administratively continued the permit as allowed by the regulations, and its terms remain in effect. The Commission's 2003 Stormwater Management Report, which was submitted to the EPA on February 27, 2004, constituted the Commission's reapplication for an NPDES Stormwater Permit.

If you have any questions or comments regarding this Annual Report, please contact Ms. Amy M. Schofield, Project Manager at extension 617-989-7432.

Yours truly,

A handwritten signature in blue ink, appearing to read "John P. Sullivan".

John P. Sullivan, P.E.
Chief Engineer

JPS/AS

cc: N. Tedder, EPA, via email
M. Vuto, EPA, via email
C. Jewell, BWSC, via email
R. Orthman, BWSC, via email

Municipality/Organization: Boston Water and Sewer Commission

EPA NPDES Permit Number: MAS010001

Report/Reporting Period: January 1, 2021-December 31, 2021

NPDES Phase I Permit Annual Report

General Information

Contact Person: Amy M. Schofield

Title: Project Manager

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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 gather and evaluate 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.

Signature:  .

Printed Name: John P. Sullivan, P.E .

Title: Chief Engineer .

Date: Feb 24, 2022 .

1.0 INTRODUCTION

1.1 PERMIT HISTORY

Discharges to the Boston Water and Sewer Commission's (Commission) municipal separate storm sewer system (MS4) are regulated under the U.S. Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Stormwater Permit Regulations. The Commission's NPDES Stormwater Permit (MAS010001) was issued by the EPA and the Massachusetts Department of Environmental Protection (DEP) on September 29, 1999, and became effective on October 29, 1999. The five year permit expired on October 29, 2004, but the EPA administratively continued the permit as allowed by the regulation, and its terms remain in effect until a new permit is issued. The Commission's 2003 Stormwater Management Report, which was submitted to the EPA on February 27, 2004, constituted the Commission's reapplication for an NPDES Stormwater Permit.

In August 2012, the Commission entered into a Consent Decree following two years of negotiations with the U.S. Environmental Protection Agency, U.S. Department of Justice and the Conservation Law Foundation (CLF) regarding discharges of pollutants from the Commission's MS4 and wastewater collection system. The Consent Decree, lodged in the U.S. District Court on August 23, 2012, outlines a series of short-term and long-term remedial measures that the Commission is implementing to further its compliance with its existing NPDES permit and the Clean Water Act. They include enhancements to the Commission's Illicit Discharge Detection and Elimination Program and its Capacity, Management Operation and Maintenance (CMOM) Program; expansion of the Commission's stormwater related public education and outreach activities; requirements for developing and implementing Green Infrastructure and Stormwater Best Management Projects within the City; updating the Commission's stormwater model; executing intergovernmental agreements with various state and local agencies; improvements to the tracking and reporting of sewer system overflows; development of an SSO Emergency Response Plan; and development of programs to inspect Construction Sites and Industrial Facilities to confirm that they are in compliance with the terms of their own NPDES Stormwater Permits.

1.2 ANNUAL REPORT REQUIREMENTS

In accordance with the NPDES Stormwater Permit (Permit), the Commission is required to report annually to EPA and DEP regarding the status of its pollution prevention and stormwater management programs. This report provides a summary of the stormwater management program activities undertaken by the Commission in 2021. Provided herein

are descriptions of the Commission's outfall monitoring and illicit discharge remediation programs, stormwater related enforcement actions, discussions regarding modifications to these programs, annual expenditures, water quality improvements and an assessment of structural controls.

Many of the programs, plans and activities described in this report are required under the Consent Decree. Separate Consent Decree compliance reports are submitted to EPA, the U.S. Department of Justice, DEP and the CLF on a semi-annual basis. Some of the deadlines for submittals of reports, plans and implementation of programs required under the Consent Decree occurred before 2021. To the extent they occurred in 2021, they are reported herein.

1.3 COMMISSION JURISDICTION AND LEGAL AUTHORITY FOR DRAINAGE SYSTEM AND STORMWATER MANAGEMENT

The Commission was created pursuant to an act of the Massachusetts Legislature under Chapter 436 of the Acts of 1977, as a political subdivision of the Commonwealth, separate and apart from the City of Boston. The enabling act charged the Commission with the responsibility for the operation and maintenance of the water distribution system and the wastewater collection and stormwater drainage systems which serve the City of Boston. Through its enabling legislation the Commission is empowered to promulgate rules and regulations in order to perform its statutory functions and duties. The Commission's Regulations Governing the Use of Sanitary and Combined Sewers and Storm Drains and Requirements for Site Plans are briefly described below. Downloadable copies of the documents are available from the Commission's web site located at www.bwsc.org.

Pursuant to the Consent Decree, the Commission is exercising greater authority over stormwater discharges originating from construction sites and industrial facilities. These programs are discussed further in Section 3.

Sewer Use Regulations: The majority of the Commission's stormwater management controls are enforced through its Regulations Governing the Use of Sanitary and Combined Sewers and Storm Drains (the Sewer Use Regulations). The Sewer Use Regulations were adopted in 1983 and amended in 1989. They were amended again in 1998 to strengthen and clarify the requirements, particularly as they pertain to stormwater discharges. In 1998, the Commission also amended its Penalty Schedule by adding and increasing the fines for several Sewer Use Regulation violations.

General Service Applications and Requirements for Site Plans: The Commission requires that a General Service Application and a site plan be submitted for every new or reconstructed water, sewer, or storm drain service connection. The Requirements for Site Plans are to assist developers, builders, architects, engineers, and others in preparing site plans that conform to the Commission's Sewer Use Regulations and to help them secure the necessary approvals from the Commission.

The site plan must be approved by the Commission's Chief Engineer before construction may begin, and it will not be approved unless it complies with the Commission's Requirements for Site Plans and Sewer Use Regulations. The site plan review provides an opportunity to review the components of the project and condition the approval on compliance with the Commission's Sewer Use Regulations, Requirements for Site Plans, and other requirements. The Commission's Requirements for Site Plans are updated as needed, generally about once a year. In accordance with Section VII, Part K of the Consent Decree, the Commission revised its Requirements for Site Plans to require developers of Construction Sites (over 1 acre or plan to disturb more than 1 acre) to apply for a Notice of Intent with EPA for a Construction General Permit and also require the submission of a Stormwater Pollution Prevention Plan (SWPPP), which will be summarily reviewed by the Commission with the site plan application.

1.4 STORM DRAINS OWNED AND STORMWATER ACTIVITIES PERFORMED BY OTHERS

The Commission controls most of the municipal storm drains in Boston. However, some storm drains and outfalls are owned by other city agencies. For example, drains and outfalls located in the Marine Industrial Park in South Boston are owned and operated by the Economic Development and Industrial Corporation of Boston; the Boston Parks Department owns drains in Franklin Park and Boston Common, and in other city parks.

Other storm drains and outfalls in the city are owned by state agencies, such as the Massachusetts Department of Transportation and the Department of Conservation and Recreation; these drains and outfalls are not controlled by the Commission. In several locations Commission owned storm drains interconnect with those owned by the Town of Brookline, Town of Dedham, Town of Milton, the City of Newton and the City of Somerville. The Commission does not have jurisdiction or control over the discharges originating from these municipalities, nor does it have jurisdiction and/or control over roadways, roadway maintenance, city parks or city or state facilities which may impact the Commission's separate storm system. Further, the Commission does not manage or control some of the stormwater programs and activities required under its NPDES. For example, the Household Hazardous Waste Collection Program is managed by the Boston Public Works Department.

To help address jurisdictional issues, and in compliance with terms of the Consent Decree, in 2013, the Commission established Memorandums of Understanding (MOUs) with the following: Boston Public Works Department, Boston Parks and Recreation Department, Boston Inspectional Services Department, Boston Redevelopment Authority (now called the Boston Planning and Development Agency), Economic Development and Industrial Corporation, Boston Housing Authority, Brookline, Dedham, Milton and Newton, Massachusetts Department of Transportation and Massachusetts Department of Conservation and Recreation. In 2016, the Commission executed Amendment No. 1 to the MOA with each of the twelve (12) existing inter-agency agreements to extend the term of the agreements through December 31, 2021. The Commission is currently working to further extend those MOUs.

The Commission also executed a MOU with the Boston Public Schools Department for a pilot Best Management Practice, Green Infrastructure project.

The Commission coordinates with these entities as necessary to meet the requirements of the Commission's NPDES Stormwater Permit and the Consent Decree.

1.5 CHARACTERIZATION OF SEPARATED SUB-CATCHMENT AREAS

The Commission's storm drain outfalls are listed in Table 1-1 in Appendix A. Two outfalls were added in 2021. They are 26LSDO109 located near Clippership Lane in East Boston and 12HSDO02 which discharges near Canterbury Brook in Mattapan. This brings the total of Commission owned storm drain outfalls up to 210. Table 1-2 lists locations where Commission owned storm drains interconnect with (discharge to) storm drains owned by others. There are currently 18 interconnection locations. Table 1-3 lists the Commission's 30 combined sewer overflow outfalls. Combined sewer overflow 19MCSO083 has been eliminated from the Commission's combined sewer system; however, it is still listed in the Commission's NPDES CSO Permit; therefore, it is included on the list.

1.6 MAPPING OF SUB-CATCHMENT AREAS AND OUTFALL LOCATIONS

Figure 1-1 in Appendix B contains a map showing the locations of the Commission's storm drain outfalls, the interconnections and the combined sewer overflow (CSO) outfalls. The sub-catchment areas tributary to the storm drain outfalls, the interconnections and the separated portion of the Stony Brook Conduit are also shown.

2.0 FIELD SCREENING, SUB-CATCHMENT AREA INVESTIGATIONS AND ILLICIT DISCHARGE REMEDIATION

Under the terms of the Consent Decree the Commission is required to: annually perform wet and dry weather field screening of its storm drain outfalls, CSO outfalls and storm drain manholes that discharge to (interconnect with) other MS4 drain systems; establish priorities and schedules for investigating sub-catchment areas that demonstrate contamination; implement a sub-catchment investigation program based on the priorities and schedules established; and, correct or repair illicit discharges within deadlines established in the Consent Decree. The Commission performed illicit discharge investigations and elimination prior to entry of the Consent Decree in 2012, and continued to do so in 2020, in accordance with Consent Decree requirements.

2.1 FIELD SCREENING

The Commission's protocols for dry and wet weather screening of sub-catchments were updated in 2020. The screening protocols were established for conducting visual inspections; screening and sampling of outfalls/interconnections; monitoring weather conditions and tides in order to select appropriate days to conduct screening and sampling visits; and mobilizing field staff. The protocols also define required sampling procedures, including: specific parameters to be sampled in the field vs. in the lab, equipment calibration and operation, communications, record keeping, and health and safety concerns. The documents also include analytical requirements for collecting water quality samples, sample blanks, and duplicates; sample preservation and holding time requirements; and laboratory analytical quality assurance/quality control (QA/QC) procedures. In general, the following protocols were followed in 2021:

- Visual inspections were conducted to confirm outfall/interconnection locations, collect inspection data, and plan sampling.
- Screening and sampling was performed during dry and wet weather for collection of samples for field and lab analysis.
- Ammonia, surfactants, pH, temperature, specific conductivity, total chlorine and salinity were measured using field test kits.
- Samples were delivered by courier to G&L Laboratories for bacterial analysis.
- Bacterial analysis consisted of *E. coli* for freshwater samples and *Enterococci* for marine water samples.
- All samples were taken as grab samples. No confined space entry was required.

All the screening data in 2021 were collected by Commission’s consultant, Stacey DePasquale Engineering, under sub-contract to Stantec, Inc.

The purpose of the dry weather sub-catchment screening and inventory effort was to:

- Confirm the location of the outfalls/interconnections.
- Characterize the current condition (size, material, flow, etc.) of each outfall or interconnection.
- Identify outfalls/interconnections with dry weather flow and determine if the flow was potentially contaminated.

The purpose of the wet weather screening was to collect a wet weather sample at all locations where flow was not observed during dry weather screening, as well as locations where dry weather flow was below the Illicit Discharge Detection and Elimination (IDDE) limits established by the Consent Decree. The 2021 wet weather screening followed the modified program set forth in the Commission’s Proposed Wet Weather Outfall Monitoring Program, which was approved by EPA in a letter dated April 22, 2014. Under the modified program the same wet weather protocols, parameters and thresholds identified in the Consent Decree were used. However, in order to start wet weather screening earlier in the year the selection of sub-catchments included in the 2021 wet weather program were based on the 2020 dry weather screening data.

Field screening during 2021 included inspection and sampling of 257 Commission-owned sub-catchments, which included 210¹ storm drain outfalls (SDOs), 18 storm drain manholes where storm drainage is conveyed to other municipality’s MS4s or non-BWSC outfalls (referred to as “interconnections”), and 29 Combined Sewer Overflow (CSO) outfalls.²

All the results of the 2021 dry weather screening program are provided in Table 2-1 in Appendix A, and a summary of dry weather screening and sampling performed during 2021 is shown in Table 2-2 below. Dry weather field screening took place at 31 CSO locations³ in 2021. Dry weather samples were collected at 26 CSO locations. Five (5) locations were not sampled because there was no flow to sample (4 locations); or the outfall had standing water or was submerged, and the upstream manholes also had standing water or were submerged (1 location).

Dry weather screening took place at 225 SDO and interconnection locations in 2021, including two (2) new outfalls added this year—12HSDO2 and 26LSDO109. Two (2) storm drain outfalls were not screened (12LSDO195 and 23LSDO202) due to access issues related to long-term construction activities. Outfall 6DSDO184 was also not screened because it appears to be a cross-culvert only with no connected storm drain infrastructure.

¹ Outfalls 21HSDO001 and 21HSDO002 were created as part of the Muddy River Restoration Project and added to the Commission’s list in 2019. Outfalls 12HSDO2 and 26LSDO109 were added to the list in 2021.

² There are still 30 CSO outfalls listed in the Commission’s NPDES CSO Permit. However, CSO 19MCSO083 has been eliminated; therefore, it was not screened in 2021.

³ The Stony Brook Conduit 21HCSO046 was screened in three locations in 2021. All three locations were ranked in the 2022 prioritization.

Dry weather samples were collected at 123 of the locations visited. The remaining 102 locations were not sampled because there was no flow or insufficient flow to sample (81 locations); the outfall had standing water or was submerged, and the upstream manholes also had standing water or were submerged (20 locations); or the outfall and upstream features could not be located (1 location). Outfalls 13LSDO090, 12HSDO1, 12HSDO2, and 12HSDO92 were sampled on multiple occasions as part of the ongoing re-investigated of 13LSDO090 and Upper Stony Brook catchment areas. Results from all screening events are provided in Table 2-1; however, each outfall was only counted once in the numbers presented in the following tables for consistency with prior reports.

TABLE 2-2
2021 Dry Weather Screening Samples Collected versus Not Collected

Results of Dry Weather Sampling CSOs		2021
Total CSO Screenings Performed		31
Samples Collected		26
Samples Not Collected		5
	No flow, dry	4
	No flow, standing water/submerged	1
	Could not access outfall/no suitable sampling location	0
Results of Dry Weather Sampling SDO/Interconnections		2021
Total SDOs/Interconnect Screenings Performed		225
Samples Collected		123
Samples Not Collected		102
	No flow, dry	81
	No flow, standing water/submerged	20
	Could not access outfall/no suitable sampling location	1

All the results of the 2021 wet weather screening program are provided in Table 2-3 in Appendix A, and a summary of the wet weather screening and sampling performed is shown in Table 2-4 below.

Wet weather field screening took place at seven (7) CSO locations in 2021. Wet weather samples were collected at five (5) of the CSO locations. The remaining two (2) locations were not sampled because the outfall had standing water or was submerged, and upstream manholes also had standing water or were submerged.

Wet weather screening took place at 114 SDO and interconnection locations in 2021. Wet weather samples were collected at 90 of the locations visited. Samples could not be collected at 24 locations because there was no flow or insufficient flow to sample (3 locations), the outfall had standing water or was submerged and upstream manholes also had standing water or were submerged (17 locations); or there was no access or suitable location to sample (4 locations).

One outfall, 4ESDO64 was sampled twice during wet weather at the request of the Commission. Both inspections are included in Table 2-3; however, it was only counted once in the numbers presented in the following tables for consistency with prior reports.

TABLE 2-4
2021 Wet Weather Screening Samples Collected versus Not Collected

Results of Wet Weather Sampling CSOs		2021
Total CSO Screenings Performed		7
Samples Collected		5
Samples Not Collected		2
	No flow, dry	0
	No flow, standing water/submerged	2
	Could not access outfall/no suitable sampling location	0
Results of Wet Weather Sampling SDO/Interconnections		2021
Total SDOs/Interconnect Screenings Performed		114
Samples Collected		90
Samples Not Collected		24
	No flow, dry/insufficient flow	3
	No flow, standing water/submerged	17
	Could not access outfall/no suitable sampling location	4

2.2 SUB-CATCHMENT AREA PRIORITIZATION

On November 21, 2012, the Commission submitted to EPA, DEP and CLF the first required sub-catchment Prioritization and Schedule for Completion of Investigations report (Priority Report). Revised Priority Reports have been submitted each January since then.

The Priority Reports described the protocols used for collecting the screening data; the methodology for prioritizing sub-catchment areas for investigation; the priority ranking of the sub-catchments which resulted; and a schedule for completing sub-catchment area investigations.

IDDE screening thresholds as defined in the Commission’s Consent Decree are as follows.

Bacteria:

Class A and Class B waters

E. coli: greater than 235 cfu/ 100 mL

Enterococcus: greater than 61 cfu/ 100 mL

Class SA and Class SB waters

Enterococcus: greater than 104 cfu/ 100 mL

Ammonia: = >0.5 mg/L

Surfactants: = > 0.25 mg/L via field kits; => 0.1 mg/L via laboratory analysis

Chlorine: greater than non-detect (0.02 mg/L method detection limit)

The results of the priority ranking for 2022 are shown in Table 2-5 and a map illustrating the 2021 rankings of the sub-catchments is provided as Figure 2-1.

As of August 23, 2019, illicit discharge investigations in all the Commission’s sub-catchments were complete. The prioritization methodology was updated for the 2021 priority ranking and continued in the 2022 priority ranking as the Commission moves toward a long-term IDDE maintenance program.

As required by the Consent Decree, 12 sub-catchments discharging to beach areas were given first priority. Interconnections with other MS4s were ranked next, and then all remaining sub-catchments followed. Sub-catchments in each of these groupings were scored against four criteria as follows:

- Discharge location: Discharge to a beach or interconnection discharging to another MS4.
- Dry weather screening: Based on 2021 dry weather screening data. Considers flow conditions at sampling location, bacteria type and bacteria result. Score is given based on where the bacteria result falls in the criteria table.
- Wet weather screening: If a wet weather sample is taken, it is currently weighted 20%, and the dry weather is weighted 60%. If no wet weather sample is taken, the dry weather is weighted 80%. A lack of a wet weather screening means that the threshold was already exceeded in the dry weather sample from the previous year. Outfalls contaminated in dry weather are given the highest priority.
- Most recent inspection date: A score is assigned by comparing the most recent date of inspection (dye test or pipe inspection) to the criteria table. Areas that haven’t had inspections since 2004, including the upper Stony Brook, receive a higher score.

Scores were assigned to each outfall in each of the four categories from zero to ten as indicated in Tables 2-6 through 2-9 below.

TABLE 2-6. Priority Ranking Criteria – Discharge Location

CRITERIA		SCORE
Discharge Location	Public Beach	10
	Interconnections	10
	Not a Public Beach or Interconnection	0

TABLE 2-7. Priority Ranking Criteria – Dry Weather Outfall Screening

CRITERIA			SCORE
Dry Weather Outfall Screening Flow Conditions and Bacteria Sampling Results	E.coli	Enterococci	
	≥80,000	≥80,000	10
	50,000 - 79,999	40,000 - 79,999	9
	40,000 - 49,999	30,000 - 39,999	8
	30,000 - 39,999	20,000 - 29,999	7
	20,000 - 29,999	10,000 - 19,999	6
	10,000 - 19,999	5,000 - 9,999	5
	5,000 - 9,999	1,000 - 4,999	4
	1,000 - 4,999	500 - 999	3
	235 - 999	104 - 499	2
	Standing Water/Submerged		1
	No Access/CNL		1
	<235	<104	0
	Dry		0

TABLE 2-8. Priority Ranking Criteria – Wet Weather Outfall Screening

CRITERIA			SCORE
Wet Weather Outfall Screening Flow Conditions and Bacteria Sampling Results	E.coli	Enterococci	
	≥80,000	≥80,000	10
	50,000 - 79,999	40,000 - 79,999	9
	40,000 - 49,999	30,000 - 39,999	8
	30,000 - 39,999	20,000 - 29,999	7
	20,000 - 29,999	10,000 - 19,999	6
	10,000 - 19,999	5,000 - 9,999	5
	5,000 - 9,999	1,000 - 4,999	4
	1,000 - 4,999	500 - 999	3
	235 - 999	104 - 499	2
	Standing Water/Submerged		1
	No Access/CNL		1
	<235	<104	0
	Dry		NA
Not Required/Incomplete		NA	

TABLE 2-9. Priority Ranking Criteria – Date of Last Inspection

CRITERIA		SCORE
Date of Last Manhole or Building Inspection	Prior to November 2004 (SBI)	10
	Nov 2004 - Dec 2012 (CWI1/2)	5
	Jan 2013 - present (CWI3/4/5)	0

Each of the four criteria were weighted in accordance with Table 2-10 to arrive at an overall score for each outfall. The weighting is such that the 2021 outfall screening results as a whole account for 80% of the score, regardless of whether wet weather screening was required. For locations that had a field duplicate bacteria sample collected or were sampled more than once, the higher bacteria result was used for prioritization purposes.

TABLE 2-10. Criteria Weighting

CRITERIA	Weight with 2020 wet weather screening data	Weight without 2020 wet weather screening data
Discharge Location	10%	10%
Dry Weather Outfall Screening	60%	80%
Wet Weather Outfall Screening	20%	0%
Date of Last Inspection	10%	10%

The 2022 Priority Ranking includes a scoring, ranking and color-coding scheme as follows:

TABLE 2-11. Scoring, Ranking and Color-Coding Scheme

RANKING	RANKING SCORE	NUMBER OF SUBCATCHMENTS BY RANK	MAP COLOR CODE
1	Beach	12	Orange
2	Interconnection	16	Yellow
3	High ≥ 2	38	Green
4	Medium < 2 and ≥ 1	64	Blue
5	Low < 1	125	Purple
6	CSO or Unranked	NA	Gray

Although investigations in all of the Commission’s sub-catchments were completed in 2019, the 2021 outfall screening results show discharges from some sub-catchments still demonstrate levels of contamination above the thresholds established in the Consent Decree.

In August 2020, the Commission contracted with Stantec, Inc. to perform the next phase of its Illicit Connection Investigation Program (Phase 5). The primary purpose of Phase 5 is to perform follow-up investigations in sub-catchments still demonstrating elevated levels of contamination, and to explore alternative methods for identifying sources of sewage contamination in the Commission’s storm drain system. The CWI5 contract includes annual wet and dry weather field screening of the Commission’s outfalls and interconnections, field investigations to identify illicit connections, and annual

compilation of field screening data to produce Revised Priority Rankings of sub-catchments to provide to EPA by January 31, each year. The duration of the Phase 5 contract is three years.

During Phase 5 the Commission is focusing its efforts on investigating sub-catchments that discharge to beach outfalls and interconnections, and those that had a ranking equal to, or greater than 2, as shown in Table 2-5. During 2021, follow-up investigations focused heavily on the Upper Stony Brook catchments, 13LSDO090, 12BSDO124, and Brookline interconnections including 21DMH319, 21EMH064, and 21EMH086. In addition to the Commission's standard manhole sampling procedures, bacteria samples were collected at strategic locations to further prioritize sub-areas within some of the large subcatchments and to pinpoint remaining sources of contamination. During 2022, the Commission will continue to focus its investigative efforts on those subcatchments with the highest priority rankings.

The COVID-19 pandemic restricted access to buildings for internal plumbing inspections and dye testing during a much of 2021. During that time period, field crews focused on investigations that didn't require coming in direct contact with customers (e.g. manhole inspections). Starting in the third quarter of 2021, the Commission resumed residential dye testing although the situation will continue to be monitored and restrictions may be considered again in the future if deemed necessary.

2.3 STATUS OF SUB-CATCHMENT INVESTIGATIONS

Tables 2-12 and 2-13 provide the "percent complete" for IDDE investigations within each sub-catchment area in the Commission's system as of January 1, 2022. IDDE investigations in all of the Commission's sub-catchments were complete as of August 23, 2019.

The percent complete by manholes for Table 2-12 was calculated based on the total number of stormwater and common manholes in the sub-catchment area that were systematically investigated⁴, divided by the total number of stormwater and common manholes in the sub-catchment area. The percent complete by linear footage of pipe for Table 2-13 was calculated based on the total footage of storm drain pipe in the sub-catchment area that was systemically investigated, divided by the total footage of storm drain pipe in the sub-catchment.

2.4 ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN

Under the Consent Decree the Commission was required to submit to EPA, DEP and CLF a revised Illicit Discharge Detection and Elimination Plan (IDDE Plan). The IDDE Plan was submitted to EPA, DEP and CLF on December 18, 2012. The IDDE Plan detailed and updated the Commission's approach, including modifications as appropriate, to address investigations of CSO outfalls. It described the investigation methods and

⁴ As described in the Commission's IDDE Plan, not every storm drain manhole in a sub-catchment area is inspected. Some manholes are inferred to be void of contamination based on the results of inspections of manholes upstream and downstream, or on dye tests of adjacent buildings.

analytical techniques that the Commission employs to locate and verify illicit discharges and methods by which sources of illicit discharges would be removed.

Most illicit discharge investigations are performed by Commission consultants. The contracts for investigations performed by consultants are described further below.

2.5 ILLICIT DISCHARGE INVESTIGATION CONTRACTS

Since 1999, the Commission has executed five contracts to have consultants perform illicit discharge investigations of the Commission's drainage system. The Stony Brook Illegal Connection Investigation (SBI) Program was carried out between 1999 and 2005, at a cost of \$1,478,709. The Citywide Illegal Connection Investigation (CWI) Program overlapped with the SBI and was carried out between 2004 and 2009, at a cost of \$1,536,000. The Citywide Illegal Connection Investigation Program, Phase 2 (CWI2) was carried out between 2009 and 2012, at a cost of \$1,660,000. The Citywide Illegal Connection Investigation Program, Phase 3 (CWI3) was carried out between 2012 and 2016, at a cost of \$3,147,817. The Citywide Illegal Connection Investigation Program, Phase 4 (CWI4) was carried out between 2016, at a cost of \$2,105,414. The contract for the Citywide Illegal Connection Investigation Program, Phase 5 (CWI5) was executed on August 17, 2020, for a contract price of \$2,345,000. The contract duration for CWI5 is three years. As of December 31, 2021, \$553,000 had been spent for services under the CWI5 contract.

Since 1999, the Commission has spent over \$10,000,000 just to locate illicit connections. These costs do not include costs to correct the illicit discharges found, nor do they include other costs borne by the Commission for activities such as testing sewer laterals to determine whether they leak; CCTV of sewers and drains to identify defects or cross-contamination; police details; pipe and manhole cleaning; contract management by staff; and other support services.

2.6 CORRECTION/REPAIR OF ILLICIT DISCHARGES

Correction and repair of illicit discharges is discussed in the Commission's IDDE Plan, which was submitted to EPA, DEP and CLF on December 18, 2012. The Commission identifies two types of illicit discharges: direct illicit connections and sanitary sewer defects such as leaking sewer laterals. Direct illicit connections include sanitary sewer laterals that are directly connected to storm drains in the public way; these are usually corrected by a Commission contractor. Direct connections also include sanitary connections, such as from a single toilet or washing machine, to an internal building drain; these require the owner of the property to correct. The leaking sewer lateral illicit discharges are laterals that are properly connected to the sewer system; however, testing of the sewer laterals by the Commission confirm that they leak sewage into the drain system. The methods used by the Commission to eliminate illicit discharges are described in more detail in the IDDE Plan.

In November 2012, the Commission amended its Sewer Lateral Assistance Program to provide financial assistance to property owners to line or relay leaking sewer laterals, including those sections on private property. Under the program, owners of verified

leaking sewer laterals may be reimbursed up to \$4,000 to have a licensed bonded contractor line or relay their leaking sewer lateral. A leaking lateral must be lined or relayed from inside the building foundation to the public sewer in the public way in order to be eligible for reimbursement. To obtain reimbursement the lateral must be confirmed as leaking by the Commission and the owner must obtain three or more quotes from contractors to repair or relay the leaking lateral. The Commission reviews the submission, the owner signs a waiver, and the Commission authorizes the owner to proceed with the work. After the owner reports repair of the sewer lateral the Commission or its contractor performs a post correction dye test to confirm that the lateral is not still leaking into the drain system.

2.7 SUPPLEMENTAL ENVIRONMENTAL PROJECT

In accordance with the terms of the Consent Decree, the Commission implemented a Sewer Lateral Lining Program Supplemental Environmental Project (SEP). The project was undertaken in connection with the settlement of an enforcement action, Conservation Law Foundation and the United States of America v. Boston Water and Sewer Commission, et al., taken on behalf of the U.S. Environmental Protection Agency under the Clean Water Act.

As required by Section VIII of the Consent Decree, the Commission agreed to line a minimum of twenty-five (25) laterals and spend a minimum of \$160,000.00 by December 31, 2014. The Commission completed all construction activities for the SEP contract on December 10, 2014. The Commission structurally lined twenty-six (26) leaking laterals at a total cost of \$237,149.00. Two laterals inspected under the SEP could not be lined due to their condition. The two laterals were fully relayed at an additional cost \$33,195.00. Lining and repair of the laterals removed an estimated 1,950 gallons per day of sewage from the Commission's drainage system. The Commission filed its SEP Completion Report pursuant to Section VIII, Paragraph 69 on December 23, 2014.

2.8 2020 ILLICIT DISCHARGE REMEDIATION SUMMARY

This section summarizes the Commission's 2021 Illicit Discharge Identification and Elimination Program. Table 2-14 lists the direct illicit connections that were outstanding (not corrected) as of January 1, 2021; it includes those that were verified and corrected in 2021, and it includes those that were verified but not corrected at the end of 2021.

Table 2-15 lists the indirect illicit connections (verified leaking laterals) that were outstanding (not corrected) as of January 1, 2021; it includes those that were verified and corrected in 2021; and it includes those that were verified but not corrected at the end of 2021.

Below is a summary of 2021 Illicit Discharge Remediation Program.

2021 Illicit Discharge Remediation Program Summary

Direct Illicit Connections Outstanding as of January 1, 20217

Direct Illicit Connections Verified in 202116

Direct Illicit Connections Corrected in 202110

Direct Illicit Connections Outstanding December 31, 202113

Leaking Laterals Outstanding as of January 1, 20214

Leaking Laterals Verified in 20216

Leaking Laterals Repaired in 20212

Leaking Laterals Outstanding as of December 31, 20218

In 2021, a total of 16 new direct illicit connections were verified, and 10 direct illicit connections were corrected. Of the direct connections corrected in 2021, five (5) were corrected by a Commission contractor and three (3); one (1) direct illicit connection required both the Commission and the property owner to correct. One illicit connection, which consisted of both a direct internal illicit connection and a leaking lateral, was corrected by the just the owner.

In 2021, a total of six (6) new leaking laterals were verified; two (2) leaking laterals were repaired by the property owners.

In total, 22 new direct connections or leaking laterals were verified in 2021, and 13 direct illicit connections or leaking laterals were corrected/repaired. As of the end of 2021, 21 illicit discharges remained to be corrected/ repaired.

Calculations of cost to remove illicit discharges

Tables 2-14 and 2-15 also provide the costs to the Commission to correct or repair illicit discharges in 2021. The cost to the Commission to correct six (6) direct illicit connections was \$102,620, which includes \$7,500 reimbursed to an owner for redirecting internal plumbing so that the correction could be made. The cost to the Commission to verify two (2) leaking sewer laterals was \$3,855. The cost to the Commission to reimburse owners for repairing two (2) leaking laterals was \$8,000.

In total, \$114,475 was expended by the Commission to verify and correct or repair illicit discharges in 2021. These costs do not include: the cost of permits, inspection fees, pavement restoration or police details; costs incurred by the Commission to clean and televise sewer mains adjacent to suspected leaking laterals before they were tested; costs

covered by property owners who were responsible for making corrections to direct internal connections on their own property; and costs to owners to repair leaking laterals over and above what was reimbursed by the Commission.

Calculations of sewage removed

The Commission estimates the wastewater removed by elimination of an illicit discharge based upon water use records for the property where the illicit discharge was located. Average daily water consumption is calculated based on the previous 24-month period. For direct illicit connections it is assumed ten (10) percent of the water is consumed and only ninety (90) percent discharges to the drain system. If only a portion of the building contributed to the direct illicit discharge the figure is adjusted accordingly.

It is not possible to know exactly how much sewage is leaking into a drain from a leaking sewer lateral so for a leaking sewer lateral it is assumed that, because a proper sewer lateral exists at the location, only one-third (33%) of the sanitary flow is entering the drain system from the leaking lateral.

Due to the Commission's efforts in 2021, an estimated 2,879 gallons per day (gpd) of wastewater was removed from the storm drainage system and receiving waters by correcting direct illicit connections, and an estimated 124 gpd of wastewater was removed from the storm drainage system and receiving waters by repairing leaking sewer laterals. In total, an estimated 3,003 gpd of wastewater was removed from the storm drainage system and receiving water by correcting or repairing illicit discharges in 2021.

3.0 STORMWATER MANAGEMENT ACTIVITIES

The Stormwater Management Program consists of a variety of programs, activities, and best management practices aimed at preventing the discharge of pollutants to storm drains and receiving waters. These measures include maintenance, structural, managerial, regulatory, and educational programs. Key elements of the Commission's Stormwater Management Program and Stormwater Management Plan implementation are described in this section.

3.1 OPERATION AND MAINTENANCE OF STRUCTURAL CONTROLS

Combined sewer overflows, sanitary sewer overflows, sewage infiltration into storm drains and system backups can be prevented by maintaining the capacity and structural integrity of the sewerage and drainage systems. The Commission accomplishes this by cleaning, repairing or replacing sanitary and combined sewers and storm drains, separating combined sewers, preventing and correcting sewer system overflows, and by preventing and removing infiltration and inflow to the sewer system. To determine where structural deficiencies exist and where repairs are needed the Commission performs television inspections of sewers and drains.

Pursuant to the Consent Decree the Commission performed a Capacity Management, Operations, and Maintenance Program (CMOM) Assessment or "Self-Assessment", and submitted a Self-Assessment Report and Corrective Action Plan to EPA in July, 2013. The purpose of the Self-Assessment was to assess the overall performance of the Commission's collections system and determine whether improvements were necessary to maintain the collection system and prevent future sewer system overflows. It included, but was not limited to, the evaluation of operations, maintenance, emergency response, collection system performance, communications, financial and capital planning. The Corrective Action Plan described the findings of the Self-Assessment and identified specific short and long-term actions to be taken by the Commission to remedy deficiencies identified by the Self-Assessment.

In 2014, the Commission completed a CMOM Program Document (Program Document). The Program Document summarized the Commission's existing and planned preventative, corrective and capital planning practices for supporting its CMOM Program going forward and consolidated all of the Commission's collection system preventative maintenance and capital improvement plans into a single document.

a. Storm Drain and Sewer Maintenance by BWSC Staff

The Commission’s Operations Division is responsible for smaller sewer and drain related repair, maintenance and cleaning jobs, as well as some television inspections of sewers and drains. In 2021, the Commission owned five (4) large and one (1) small “vactor” cleaning trucks to clean accumulated materials from sewers and drains; Six (6) jet trucks; one (1) multi-rodder truck; and two (2) CCTV trucks. In 2021, the Commission jetted, vactored or rodded 405,597 linear feet of pipe. To determine where structural deficiencies exist and where repairs are needed, Commission crews and contract forces performed television inspections of 102.43 miles sewer and drain pipe in 2021.

In conjunction with the storm drain and catch basin cleaning programs, the Commission routinely clears debris from 11 brook inlets and outlets throughout the City. Since the primary purpose of this practice is to prevent upstream flooding, the cleaning is typically performed immediately prior to major storm events and usually they are checked after storm events to determine if follow up cleaning is needed. The locations and frequency of cleaning is provided in Table 3-1.

b. Catch Basin Maintenance

The Commission has over 30,000 catch basins in its sewer and drainage systems. Other catch basins in the city are owned by other public agencies such as the state Department of Conservation and Recreation, Mass Department of Transportation, or are located on private property. The Commission currently owns six (6) clamshell trucks for cleaning catch basins.

Commission catch basin cleaning forces have been augmented by contract resources and equipment since 2001. In 2021, the Commission and contract resources performed 22,790 inspections/cleanings of catch basins. Catch basin cleanings are transported to the Commission’s Material Handling Facility where they are temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. In 2021, the Commission removed approximately 3,177 tons of debris from catch basins, as recorded at the Commission’s Material Handling Facility.

c. Commission Particle Separators

The Commission currently owns (20) particle separators. Information regarding the various particle separators, including their locations, receiving waters and inspection dates in 2021 is summarized in Table 3-2. All 20 particle separators were inspected in 2021 and cleaned if warranted.

d. Large Storm Drain and Sewer Programs under BWSC’s CIP

Large cleaning and maintenance jobs are performed by outside contractors under the Commission’s Capital Improvement Program. The Commission’s three-year Capital Improvement Program (CIP) is updated annually. The 2021-2023 CIP included \$84.3

million for sewer, drain and stormwater related projects, of which \$34.4 million was earmarked for 2021. An additional \$9.1 million was included under a separate line item in the 2021-2023 CIP specifically for Green Infrastructure/Low Impact Development projects. Of that amount \$4.6 million was earmarked for 2021. A copy of the 2021-2024 Capital Improvement Program is available from the Commission's website.

3.2 SEWER SYSTEM OVERFLOW CONTROL AND RESPONSE

In compliance with the Consent Decree the Commission has improved its response and oversight over sewer system overflows (SSOs). On September 23, 2012, the Commission instituted a program (including iPad application and Oracle SSO database) to track and report all public and private SSOs to EPA and DEP within 24 hours pursuant to Part E of the Consent Decree. Prior to the program's commencement, the Commission performed internal training of Commission personnel in Engineering Services and Operations Division related to SSO response.

On November 21, 2012, the Commission submitted an SSO Emergency Response Plan (SSOERP). The objective of the SSOERP is to provide a standardized set of actions for the Commission to follow in the event of an unpermitted discharge (overflow) from the sanitary and combined sewer system. In addition, the implementation of the SSOERP accomplishes the following objectives:

- Minimize an SSO's impact on public health, public safety, and property damage.
- Comply with regulatory and enforcement reporting and public notification requirements.
- Minimize the reoccurrence of SSOs.
- Minimize the Commission's liability.

The following elements are included in the SSOERP:

- Description of the types of sewers and discharges addressed by the SSOERP.
- An outline of the Commission's collection system inventory and staff, equipment and hardware/software for responding to SSOs.
- Procedures for receiving notifications of a possible SSO, and protocols for internal notifications about confirmed SSOs with the Commission's collection system and initial notifications to DEP, EPA and other authorities such as the MWRA.
- Procedures for responding to SSOs.
- Procedures for documenting and reporting SSOs.
- Descriptions of the means of notifying the public affected by an SSO.
- Description of the activities to be taken after an SSO has been remedied.
- Objectives and methods for training and preparing staff regarding the SSOERP.

Once it has been confirmed that there has been an SSO event by field personnel, within 24 hours the Commission notifies EPA and DEP. EPA and DEP are notified for any SSOs caused by BWSC sewer lines as well as any caused by privately owned sewer lines

and sewer laterals with SSO amounts exceeding 100 gallons or any amount not contained inside the building or discharging to the environment. Other parties may be notified depending on the extent and potential impact of the overflow.

Within five days of an SSO, BWSC also submits to EPA and DEP, a DEP SSO notification form. The report includes any updated information as well as planned actions to either further investigate the SSO location or correct the SSO. All SSO locations both BWSC caused and private caused are documented and tracked in the SSO database via the SSO IPAD application.

In 2021, the Commission responded to, investigated, and/or reported to EPA and DEP, a total of 148 SSO events. These included 76 reportable SSO events (46 public SSOs and 29 reportable private/building backups, and one (1) dry weather combined sewer overflow), and 72 non-reportable private/building backup events. Details regarding SSOs addressed by the Commission are provided in the Commission's semi-annual Consent Decree Compliance Reports. Information regarding SSOs and maps showing the locations of recent SSO events are also provided on the Commission's website.

3.3 ILLEGAL DUMPING AND EMERGENCY SPILL RESPONSE

The Commission's Sewer Use Regulations prohibit the dumping of any material into a catch basin, including any solid waste, construction debris, paint or painting product, antifreeze, hazardous waste, oil, gasoline, grease and all other automotive and petroleum products, solvents and degreasers, drain cleaners, commercial and household cleaners, soap, detergent, ammonia, food and food waste, grass or yard waste, leaves, animal feces, dirt, sand, gravel or other pollutant. Illegal dumping to catch basins carries a fine of up to \$5,000 per day of violation under the Commission's Sewer Use Regulations.

Commission crews are available 24-hours a day to assist the Department of Environmental Protection, the Boston Fire Department and the U.S. Coast Guard in determining where a hazardous spill has entered or could potentially enter the Commission's wastewater or storm drainage systems. If the spill has entered either system, Commission personnel determine how far the contamination has traveled and whether there is the risk of an overflow to a waterway. The Commission also attempts to trace the spill upstream to locate and identify its source. When the source of the spill cannot be determined, the Commission pays for a licensed contractor to clean up the spill.

In 2021, the Commission responded to 10 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 lists the incidences to which the Commission responded in 2021. No violation/enforcement notices were issued in 2021 relating to illegal dumping or spills.

3.4 DRAINAGE DISCHARGE PERMITS

Article C, Section 5 of the Commission's Sewer Use Regulations describes the discharge prohibitions and restrictions applicable to the Commission's storm drainage system.

Under the Sewer Use Regulations any discharge of wastewater or other waters not composed entirely of stormwater into a building storm drain or a Commission storm drain is prohibited, except as authorized by the regulations. Authorized discharges include discharges for which the owner has obtained both a Drainage Discharge Permit from the Commission and an NPDES Permit or NPDES Permit Exclusion from EPA, as well as such discharges as river or stream flow, rising groundwater, uncontaminated groundwater, waters from hydrant flushing, and other potable water sources associated with the maintenance of the water distribution system or firefighting, irrigation water, and street and pavement wash waters.

Discharges requiring a Drainage Discharge Permit include permanent subsurface drainage, non-contact cooling water, non-contact industrial process water, or waters associated with hydrological testing, groundwater treatment/remediation, and removal and installation of an underground storage tank. The Commission may deny or condition a Drainage Discharge Permit to prevent the discharge of contaminants to the storm drainage system. Failure to obtain a Drainage Discharge Permit from the Commission carries a fine of up to \$1,000 per day of violation under Sewer Use Regulations. In 2021, the Commission issued 16 Drainage Discharge Permits for discharges to storm drains.

The requirements for Drainage Discharge Permits are described in the Commission's Requirements for Site Plans, and developers and potential dischargers are informed of the requirements when they request a General Service Application for a building sewer or building storm drain connection. In addition, owners and developers are informed of the Drainage Discharge Permit requirements through comment letters submitted by the Commission to Massachusetts Environmental Policy Act (MEPA) Unit and the Boston Planning and Development Agency in response to Environmental Impact Reports.

3.5 DEVELOPMENT AND REDEVELOPMENT

a. Sewer Use Regulations and Site Plan Review

The majority of the Commission's stormwater management controls are enforced through its Regulations Governing the Use of Sanitary and Combined Sewers and Storm Drains (the Sewer Use Regulations). The Sewer Use Regulations were adopted in 1983 and amended in 1989. They were amended again in 1998 to strengthen and clarify the requirements, particularly as they pertain to stormwater discharges. In 1998, the Commission also amended its Penalty Schedule by adding and increasing the fines for several Sewer Use Regulation violations.

The Commission requires that a General Service Application and a site plan be submitted for every new or reconstructed water, sewer, or storm drain service connection. The Commission's Requirements for Site Plans assist developers, builders, architects, engineers, and others in preparing site plans that conform to the Commission's Sewer Use Regulations and to help them secure the necessary approvals from the Commission.

The site plan must be approved by the Commission's Chief Engineer before construction may begin, and it will not be approved unless it complies with the Commission's Requirements for Site Plans and Sewer Use Regulations. The site plan review provides an opportunity to review the components of the project and condition the approval on compliance with the Commission's Sewer Use Regulations, Requirements for Site Plans, and other requirements. The Commission's Requirements for Site Plans are updated as needed. In 2021, 583 site plans were approved by the Commission's Chief Engineer.

Requirements contained in the Sewer Use Regulations and Requirements for Site Plans relating to developments in Boston include the following:

Filing Notices of Intent and Stormwater Pollution Prevention Plans

The Commission's Requirements for Site Plans include provisions for stormwater management at Construction Sites (as defined in the Consent Decree). The Requirements for Site Plans specifically require construction site operators, where applicable, to file Notices of Intent with EPA for NPDES General Construction Permits, and they must submit to the Commission Stormwater Pollution Prevention Plans (SWPPP). Also, construction site operators, where applicable, are required to use and maintain appropriate structural and non-structural BMPs to minimize the discharge of pollutants from construction sites to the Commission's MS4. The Commission's Construction Site Inspection and Enforcement Program also requires regular updates regarding developers SWPPP activities.

Drain Layers License: Persons installing new building sewers and storm drains or repairing or maintaining existing pipes must possess a Drain Layers License issued by the Commission. To obtain a Drain Layers License, persons must pass a written test given by the Commission. Test questions are typically drawn from the requirements provided in the Commission's Sewer Use Regulations, including those pertaining to illegal sanitary connections to storm drains, non-stormwater discharges, requirements for new construction and catch basin dumping. Drain Layers Licenses are renewed annually. The Drain Layers Licensing requirement provides the opportunity to educate drain layers in Boston as to the Commission's rules and regulations, including those pertaining to stormwater. Fifteen (15) new Drain Layers Licenses were issued in 2021, and 231 were renewed.

Inspections of New Connections: Connection of a building sewer to a storm drain is prohibited under the Commission's Sewer Use Regulations and carries a fine of up to \$5,000 per day of violation. To ensure proper connection, the Commission requires that all new, repaired or modified service connections be inspected by a Commission inspector before the services are covered over by the contractor. Failure to have the connection inspected before covering it over carries a fine of up to \$750 per day under the Commission's Sewer Use Regulations.

As an added measure, new sewer connections must be dye tested by the Commission once construction is completed. Failure to have a new sewer connection dye tested

carries a fine of up to \$500 per day. The Commission may require that a repaired or modified service connection be dye tested. In 2021, the Commission performed 479 GSA related dye tests.

On-site Retention of Stormwater: Under the Commission’s Site Plan Requirements and Sewer Use Regulations, for all development or redevelopment projects in the City it is mandatory to retain and infiltrate stormwater on site. A volume of runoff equal to one inch of rainfall multiplied by the total impervious area on site must be infiltrated prior to discharge to a storm drain or a combined sewer system for projects less than 100,000 square feet of floor area. For all projects which are at or above 100,000 square feet of floor area, the project must use a volume of runoff equal to 1.25 inches of rainfall multiplied by the total impervious area on site. On-site infiltration of stormwater serves to limit peak discharge rates, recharge groundwater, and remove total suspended solids in the flow. This requirement is consistent with the Department of Environmental Protection’s Stormwater Management Policy which establishes standards for stormwater management for development, and the Commission’s Stormwater BMP Guidance document.

GI/LID practices that utilize infiltration are necessary in order to meet the water quality requirements outlined in the Total Maximum Daily Load (TMDL) for the Charles River and the BWSC Consent Decree. Any project with an infiltration system and/or a catch basin addition must also include an Operations and Maintenance (O&M) plan with their site plan material.

In 2021, the Commission approved installations of 277 infiltration devices. Table 3–4 provides the addresses of the devices approved in 2021.

Controls for New Parking Lots: In order to prevent oil, grease and sediments from discharging to open waterways, the Commission may require developers to install particle separators on newly constructed storm drains that serve large outdoor parking areas. The Commission may require particle separators on existing storm drains from existing outdoor parking areas, where appropriate. This requirement has been in place since 1992.

Parking lot particle separators are typically located on private property; therefore, their maintenance is the responsibility of the property owner. Design criteria for particle separators are set forth in the Commission’s *Guidelines for Developers for the Installation, Operation and Maintenance of Grit and Oil Separators*, a copy of which is included in the Commission’s Requirements for Site Plans.

In 2021, the Commission approved installation of eight (8) particle separators. Table 3–5 provides the addresses of the devices approved in 2021.

Drainage Discharge Permits: The Commission requires a Drainage Discharge Permit for all non-stormwater discharges to its drainage system, including construction site dewatering, permanent subsurface drainage, non-contact cooling water, non-contact industrial process water, and waters associated with hydrological testing, groundwater

treatment/remediation, and removal and installation of an underground storage tank. The Commission may deny or condition a dewatering permit to prevent contaminated drainage from entering the sewer or drainage system. Failure to obtain a Drainage Discharge Permit carries a fine of up to \$1,000 a day under the Commission's Sewer Use Regulations. In 2021, the Commission issued 16 Drainage Discharge Permits for discharges to storm drains.

Infiltration/Inflow Control: Newly constructed and substantially renovated buildings must be constructed so as to minimize inflow and infiltration to the Commission's wastewater system. Stormwater, including roof runoff, must be kept separate from sanitary sewage at all times, and the connection of a building storm drain to a sanitary sewer is prohibited.

The Commission has a National Pollutant Discharge Elimination System (NPDES) Permit for its combined sewer overflows and is subject to the regulations [314 CMR 12.00, section 12.04(2)(d)]. The regulations require developers installing new sewer connections with design flows exceeding 15,000 gpd to mitigate the impacts of the development by removing four gallons of infiltration and inflow (I/I) for each new gallon of wastewater flow added. In this regard the Commission requires developers to develop consistent inflow reduction plans, or they can pay a fee to the Commission in lieu of implementing an I/I reduction project. The Commission uses the fees paid to implement capital programs for I/I reduction.

Erosion and Sedimentation Control: Under the Sewer Use Regulations, anyone seeking to construct, repair or modify a sewer or storm drain service connection to the Commission's system, or to discharge under a Drainage Discharge Permit, may be required to prepare and implement an Erosion and Sedimentation Control Plan to prevent the introduction of sediments into the Commission's sewers and storm drains.

Fuel Dispensing Areas: Under the Commission's Requirements for Site Plans, stormwater runoff from fuel dispensing areas not covered by a canopy or other type of roof or enclosure must discharge through a particle separator or an approved oil trap before discharging to the Commission's storm drainage system or receiving waters.

Catch Basin Castings: Commission contractors are required to install metal castings with a "Don't Dump" message on sidewalks near new or reconstructed catch basins. City of Boston contractors also install the castings when new sidewalks are installed. The castings are provided to city hired contractors by the Commission at no cost. The Commission requires that private developers install permanent "Don't Dump" catch basin castings next to any new catch basin installed as part of their projects. The developers, as well as other parties interested in obtaining the castings may purchase them from the Commission's vendor. In 2021, the Commission issued 711 catch basin castings to contractors and other parties. Of those issued, 424 were for Boston Harbor, 188 for the Charles River and 99 were for the Neponset River.

b. Development/Redevelopment Coordination with Boston Planning and Development Agency

The Commission's NPDES Stormwater Permit requires the Commission to "assist, coordinate, and cooperate" with city departments and agencies to ensure that development projects within Boston are conditioned on due consideration of stormwater quality impacts, that they conform to applicable state and local stormwater requirements, and that negative impacts to stormwater quality during the time construction is underway are prevented.

The Commission coordinates with the Boston Planning and Development Agency (BPDA) regarding reviews of Environmental Impact Reports (EIRs) and Master Plans for large projects in Boston. Comments were submitted to the BPDA and/or the MEPA Unit for 85 projects in 2021. Copies of the letters were also sent to the Boston Environment Department and to the project proponents. The project proponents were also informed of the comments by the BRA and MEPA Unit via the Scoping Determinations issued in response to the EIRs and Master Plans for the projects. The Commission refers to these comment letters when proponents come forth with their site plans for the projects.

Letters for 13 projects contained comments regarding the Commission requirements for particle separators. Letters for 51 projects contained comments about the Commission's requirement for retaining stormwater on site. Letters for 70 projects contained comments regarding the requirement for Stormwater Management Plans. Sixty (60) letters contained comments regarding the requirement for 4 to 1 I/I reduction. If appropriate, the letters informed the proponent that a Drainage Discharge Permit may be required for any temporary or permanent non-stormwater discharge to the drainage system.

3.6 CONTROLS FOR CONSTRUCTION SITES

In compliance with its NPDES Permit and the Consent Decree, the Commission oversees stormwater discharges from construction sites. The Commission submitted to EPA a Construction Site Inspection and Enforcement Program (CSIEP) plan in 2012. The program plan set forth procedures for conducting inspection of construction sites, procedures for inspecting and monitoring stormwater Best Management Practices used at construction sites, described the means by which contractors and developers would comply with the Commission's requirements, EPA and DEP regulations and the Clean Water Act, and how the Commission would enforce its requirements. Implementation of the CSIEP commenced in December 2012.

The Commission Requirements for Site Plans specifically require construction site operators to file Notices of Intent (NOIs) with EPA for NPDES General Construction Permits and submit to the Commission Stormwater Pollution Prevention Plans (SWPPP). Also, construction site operators, where applicable, are required to use and maintain appropriate structural and non-structural BMPs to minimize the discharge of pollutants from construction sites to the Commission's MS4.

In accordance with a 2012 Memorandum of Agreement (MOU) between the Commission and the City's Inspectional Services Department (ISD), the Commission and ISD continue to coordinate building permit issuance and site plan approval, whereby the Commission will not approve any construction site over one (1) acre unless the discharge permit has been approved. Also, ISD and the Commission continue to notify building permit and site plan applicants of the requirements to obtain NPDES Stormwater Permits for construction sites from EPA. The Commission notifies project planners of the requirement for NOIs and SWPPP when they submit site plans for projects and refers to the EPA's website to confirm whether NOIs have been submitted. The Commission also confirms that an NOI has been submitted and a SWPPP prepared when performing construction site visits. Information pertaining to the NOI and SWPPP requirements is included in the Commission's Requirements for Site Plans and are provided on the Commission's website.

In 2021, the Commission performed 95 construction site inspections. One (1) violation notice was issued to an operator of a construction project.

3.7 INDUSTRIAL FACILITY STORMWATER POLLUTION PREVENTION

In compliance with its NPDES Permit and the Consent Decree, the Commission continues to implement the IFSP Program. Under the program the Commission identifies and inspects industrial facilities that discharge stormwater to the Commission's drainage system from municipal landfills, hazardous waste treatment, storage, disposal and recovery facilities, facilities that are subject to EPCRA Title III, Section 313, facilities that hold, or are required to hold NPDES stormwater permits, and other industrial or commercial discharger that the Commission determines is contributing a substantial pollutant load to its drainage system.

A consultant (Stantec), under the direction of the Commission, initially developed and implemented the IFSP program. In 2016, the Commission's Enforcement Department within the Operations Division assumed all duties with respect to inspections, enforcement and tracking of the IFSP program. The Commission also included fees for inspection of industrial dischargers into its 2016 Rate Schedule adopted in December 2015.

Under the program the Commission maintains an inventory of industrial facilities and a database to track relevant information, including enforcement and corrective actions. In February, 2013, there were 1,760 potential industrial facilities on the inventory list. During the course of the program the list of industrial facilities has been refined. Businesses that have moved out of the city, closed, or had the incorrect Standard Industrial Classification codes have been removed from the inventory and new facilities have been added as they were discovered through research of records and site visits. The inventory continues to be refined and updated as inspection reports are evaluated.

The active number of industrial facilities on the inventory list at the end of 2020 was 154. The Commission conducted a total of 109 inspections of industrial facilities in 2021 and

issued 21 violation notices. Summaries of inspections performed, and enforcement action taken are provided in the Commission's semi-annual Consent Decree compliance reports.

3.8 ROADWAYS

As contained in its Enabling Act, the Commission's authority is limited to the operation and maintenance of the water distribution system and the wastewater collection and stormwater drainage systems which serve the City of Boston. The Commission's jurisdiction does not extend to the operation and maintenance of roadways. The Commission coordinates with officials from the agencies having the responsibility for the management of city roadways (Boston Public Works Department (PWD), Department of Conservation and Recreation (DCR), and Massachusetts Department of Transportation (MassDOT) as necessary to meet the requirements of the Commission's NPDES Stormwater Permit and the Consent Decree.

a. City of Boston Snow Removal and Road Deicing Practices

Snow plowing and road deicing of most of the public roads in Boston are the responsibility of the PWD. The PWD performs some of the snow removal operations on city streets and also has snow removal contracts. Snow is plowed to the side of the streets but is not typically removed. A sodium chloride salt/sand mixture is used as a deicing agent, and application rates vary based on temperature and precipitation. Contractors use the City's supply of salt and sand during deicing operations. PWD officials have emphasized that public safety is their primary concern in determining how much sand and salt is applied to roadways and that weather conditions dictate application levels.

b. City of Boston Street Cleaning

Sweeping of city owned streets is conducted by the PWD or by its contractors. According to the PWD, the City has two programs for street sweeping: Posted Street Cleaning and Non-posted Street Cleaning. All non-posted streets are cleaned once a week or more if necessary. The Posted Sweeping Program is separated between a Night Program and a Daily Program. Sweepers also clean up before and after special events, such as parades, road races and neighborhood festivals.

The Night Sweeping Program includes an area from Massachusetts Avenue to the Waterfront that is swept on a nightly basis year-round. The Night Sweeping Program also covers the City's major arterial routes throughout the City, which are swept once a week at night year-round.

The Daily Street Sweeping Program typically operates from April 1st through November 30th. PWD recently expanded the Daily Street Sweeping Program in the Beacon Hill, North End and South End, from March 1st through December 31st. Weather and budget conditions permitting, the program may begin earlier in the season and extend later into

the fall. Each side of a posted city street on the Daily Street Cleaning Program is cleaned once every other week. Additional street sweepers may be contracted, and city sweepers run more frequently during the fall leaf season.

Parking bans (signs) posted on streets serve to educate the public and to have vehicles removed on certain days so sweeping can be thorough. The parking bans are enforced by the Boston Transportation Department. If cars are not removed on designated days, owners can be fined. The fine for not removing cars on the designated days is currently \$40, plus an additional \$90 for tow, storage and fees.

Contractors are responsible for providing their own sweeping equipment and for disposal of the collected material. PWD requires its contractors to use vacuum type sweepers that have dust control systems and do not require water to operate. Because these types of sweepers don't require water, they can be operated year-round, even in freezing conditions. The vacuum sweepers are believed to be more efficient at collecting smaller grit particles and dust. The new sweepers have saved the city thousands of gallons in water usage and they comply with DEP regulations.

The PWD also has several small broom sweepers used to sweep small alleys and sidewalks. These sweepers are typically assigned to the more densely developed parts of the City, such as Chinatown, Downtown Crossing, and the North End.

The composition of the material swept up varies seasonally with sand and sediments from winter deicing activities being most evident in the spring, leaf litter during the fall months, and light litter predominating during the summer.

c. DCR/DOT Street Sweeping, Snow Removal and Road Deicing Practices

Roads maintained by the DCR such as the Soldiers Field Road, VFW Parkway, Storrow Drive, the Riverway and the Fenway are served primarily by separate storm drains which are owned and maintained by the DCR. DCR drainage systems in Boston are subject to the EPA's Stormwater Phase 2 program. DCR's stormwater management program includes "good housekeeping" measures, such as street sweeping of parkways, cleaning street drains and associated drainage systems and using control measures to protect sensitive receiving waters. Snow removal and deicing of DCR owned roads are managed jointly by the DCR and MassDOT. Snow removal and deicing of the Massachusetts Turnpike and the Central Artery and Tunnels is the responsibility of MassDOT.

3.9 PESTICIDE, HERBICIDE AND FERTILIZER APPLICATION

In 2001, the Commission completed an evaluation of existing measures to reduce the discharge of pollutants related to the application of pesticides, herbicides and fertilizers (PHFs) applied by municipal or public agencies. The Commission also evaluated the necessity to implement controls to reduce the discharge of pollutants related to the application and distribution of PHFs by commercial and wholesale distributors and applicators. The Commission performed evaluations of existing programs and data in

2001 and reported the results in the 2001 Stormwater Management Report. From the results of the evaluation, it was concluded that additional monitoring and controls for PHF use by municipal agencies and their contractors and for commercial and wholesale distributors was not warranted. Discussion of this analysis can be found in Section 3.6 of the 2009 Stormwater Management Report.

3.10 OTHER NON-STRUCTURAL STORMWATER MANAGEMENT MEASURES

a. Used Motor Oil and Paint Collection Centers

To decrease the amount of illegally disposed of paint and motor oil, the Boston Public Works Department hosted Saturday drop-offs for used motor oil and surplus paint on:

May 15, 280 Highland Avenue, Roxbury DPW
June 19, 32 Dana Avenue, Hyde Park DPW
July 17, 360 Western Avenue, Brighton DPW
August 7, 320 East Eagle Street, East Boston DPW

The events were promoted through the City of Boston's web site, local newspapers, and on signs posted in neighborhood business centers.

b. Household Hazardous Waste Collection

To decrease the amount of illegally disposed of household hazardous waste, the City of Boston Public Works Department hosted five (5) Saturday drop-offs for household hazardous waste, from 9 AM to 1 PM in 2021, at the following locations:

- May 22, South Boston, Central DPW Facility, 400 Frontage Road
- June 26, West Roxbury DPW, 315 Gardner Street
- August 14, Dorchester, UMass Boston
- September 25, South Boston, Central DPW, 400 Frontage Road
- October 9, West Roxbury DPW, 315 Gardner Street

The events were promoted through the City's web site, local newspapers, and on signs posted in neighborhood businesses.

c. Yard Waste/Composting

In 2021, the Boston Public Works Department provided curbside collection of leaves and grass clippings in the residential sections of the city between April and December. Yard waste is collected by Public Works on the same day of week that weekly recycling is picked up. The Commission's May/June and September/October issues of *Currents* promoted the 2021 collection effort. Copies of the *Currents* issues are provided in Appendix B and on the Commission's website.

d. Pet Waste

The City’s dog fouling regulation, Section 16-1.10A of the Boston City Ordinances, also called the “pooper scooper law,” requires dog owners to remove and properly dispose of the waste left by their dog. Penalties under the ordinance are \$50.00 for failure to produce a means of removal and \$50.00 for failure to pick up the waste. The Animal Control Unit in the Boston Property and Construction Management Department is responsible for enforcing the dog fouling ordinance. It is also responsible for following up on reports of vicious dogs, ensuring dogs are properly licensed and leashed, and other animal control issues.

To encourage dog owners to pick up after their pets and properly dispose of the waste the Commission’s May/June issue of *Currents* included information regarding proper disposal of pet waste. Copies of the *Currents* issues are provided in Appendix B and on the Commission’s website.

e. Site Cleanliness Ordinance

To address litter and rodent control problems, the City of Boston instituted a Site Cleanliness Ordinance in 2000. Under this ordinance, all businesses and large residential establishments using bulk dumpsters, including food and beverage establishments, automotive establishments, and bulk refuse container storage lots, must obtain a Site Cleanliness License from the Boston Inspectional Services Department (ISD). The application for a license must include a site plan showing the location of the dumpster, a plan and schedule for maintenance, a copy of the solid waste disposal contract, and a copy of a rodent/pest control contract. An additional license is required from the PWD if the dumpster is located on a public way.

Inspectional Services officials perform annual inspections of establishments with any license issued by the Department, including a Site Cleanliness license. The Site Cleanliness license will not be renewed unless and until the establishment’s dumpster complies with the city ordinance. Failure to comply with the Site Cleanliness Ordinance and obtain a Site Cleanliness license may result in fines of up to \$1,000 a day. Repeated violations may result in closure of the business.

3.11 PUBLIC EDUCATION AND OUTREACH

On May 17, 2013, the Commission submitted a Public Education and Outreach Program (PEOP) Plan to EPA for review and approval. The document described the Commission’s plans for updating its public education and outreach efforts pursuant to Paragraphs 59, 60, 61 of the Consent Decree. The PEOP Plan was approved by EPA in a letter dated April 22, 2014. Various components of the Commission’s PEOP Program as they pertain to stormwater are described in this section.

a. Commission Web Site

The Commission's web site, located at www.bwsc.org, provides a variety of information concerning the Commission's programs, activities, and requirements for BWSC customers and interested parties. Pertinent examples include the Commission's Sewer Use Regulations and Site Plan Requirements, a page on Stormwater Management with links to past annual stormwater reports, information regarding Stormwater BMP Guidance Document, BMP Recommendations Report, a description of BWSC's Downspout Disconnection program, Grease Trap Guidelines; as well as, a community outreach and education section including pollution prevention advice for residents, businesses and construction, and pet owners.

b. Currents/Billing Inserts

On a bi-monthly basis in the water and sewer bills, the Commission provides customers with an informational newsletter called *Currents*. Copies are also available from the Commission's website and at neighborhood site visits. The newsletter is aimed at providing customers with useful information concerning the Commission's programs and activities. Issues of *Currents* announce upcoming events such as the Commission's community site visits and city sponsored events such as household hazardous waste, and oil and paint collections. In addition, articles feature tips on pollution prevention, and proper disposal of used motor oil, antifreeze, household hazardous materials, yard debris, pet waste and other wastes.

The Commission also inserts messages about water and sewer management into bills and it posts the inserts on its website.

Issues of *Currents* and billing inserts in 2021 featured the following items:

1. January/February *Currents*
 - FOG Grease Lid Giveaway
 - Help Clear Snow after a Storm
 - Important Information about Lead
2. February Inserts
 - Reduce Chemical Use: Nontoxic Alternatives for Household Cleaning
 - Keep Wipes Out of Pipes
 - Residential Cross-Connection and Backflow Protection
3. March/April *Currents*
 - Don't Dump
 - Help Prevent Stormwater Pollution
 - Dispose of Pesticides and Herbicides Properly
 - Fix-a-Leak Week
 - Earth Day
4. April Inserts
 - Annual Notice to Customers 2021
5. May/June *Currents*
 - Keep Wipes out of Pipes

- National Drinking Water Week
- Do Your Part – Scoop the Poop
- 6. June Inserts
 - Scoop the Poop
 - Keep Wipes out of Pipes
- 7. July/August *Currents*
 - Educational Outreach Program about the Waterways
 - Don't Dump! Help Protect our Waterways
 - Lead Incentive Replacement Program
- 8. August Inserts
 - Reduce Chemical Use: Nontoxic Alternatives for Household Cleaning
 - Keep Wipes Out of Pipes
 - Residential Cross-Connection and Backflow Protection
- 9. September/October *Currents*
 - Keeping Catch Basins Clear
 - Water Main Flushing Program Schedule
 - South Boston Sewer Separation Project
 - Imagine a Day Without Water
- 10. October Inserts
 - Backwater Valve
 - Identification Advisory
- 11. November/December *Currents*
 - Keeping FOG Out of Drains
 - Sanitary Sewer Overflow Prevention
 - Winterize Your Home
 - Take Advantage of the Private Lead Replacement Incentive Program
- 12. December Inserts
 - Scoop the Poop
 - Keep Wipes out of Pipes

c. Bill Messages

The Commission distributed the following messages with the monthly bills to its customers (target audience is typically owners) to notify them of programs and information that impact the environment in 2021:

January

- After a snowstorm, shovel out fire hydrants to assist the fire department, in case of an emergency. Clean snow and debris from the tops of storm drains to prevent street flooding. Find a catch basin in your neighborhood at www.bwsc.org.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

February

- Protect your water pipes from freezing. Insulate pipes in basements and unheated spaces. Seal all foundation cracks. Visit www.bwsc.org for more information.

- BWSC meters are scheduled to be read daily by an automatic meter reading system.

March

- BWSC found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For information, please call (617) 989-7888 or visit bwsc.org.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

April

- Disposable wipes, even those labeled “flushable” should be disposed of in the trash, not flushed down the toilet.

July

- Illegal use of fire hydrants can impede the emergency response of firefighters. Do not open fire hydrants. Visit www.bwsc.org for more information.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

August

- Some homes may have elevated lead levels in their drinking water. Lead can pose a significant risk to your health. Please read the enclosed notice and visit www.bwsc.org for further information. Algunas viviendas tienen niveles de plomo muy elevados en su agua potable. El plomo puede ser un riesgo considerable para salud. Les rogamos que lea el aviso para mas informacion.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

September

- BWSC found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information, please call (617) 989-7888 or visit bwsc.org.
- Autumn can be a rainy season. To prevent flooding in your neighborhood, clear leaves, trash, and debris from the top of storm drains.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

October

- Check your vehicle for leaks. Automotive fluids can enter the storm drain system, contaminate runoff, and pollute local waterways. Visit www.bwsc.org for more information.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

November

- BWSC’s Customer Services Department will be closed at 5:00 PM on Wednesday, November 24, 2021.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.
-

December

- BWSC found high levels of lead in drinking water in some homes. Lead can cause serious health problems. For more information, please call (617) 989-7888 or visit bwsc.org. BWSC headquarters is now open to the public Monday-Friday 8-5 and due to Covid -19 safety protocols masks are required to enter the building.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

d. Social Media

Consistent with the Commission’s Public Education and Outreach Program, the Commission’s social media profiles provide real time information to impacted residents while maintaining its goal to distribute its environmental messages. The Facebook page maintained its reach and Twitter account gained 140 new followers during the Reporting Period. The Commission’s Instagram account gained 139 new followers since the last Reporting Period, creating a total of 1081 followers. The Commission also engaged frequently with users on NextDoor, a hyper-local social media platform that allows for direct and proactive communication with residents of activity in specific neighborhoods of the city in real time. Through the NextDoor medium, the Commission engaged with 26,148 residents with notices and updates. The following announcements were posted to NextDoor during the reporting period with the number of people each announcement reached:

- April 12, 2021 Water Main Flushing in East Boston. 1970 People
- April 22, 2021 North Allston Storm Drain Extension Project Meeting Monday, April 26, 2021. 963 People
- April 26, 2021 Water Main Flushing in East Boston. 1999 People
- June 29, 2021 WATER MAIN FLUSHING NOTICE. 9933 People
- June 30, 2021 Project Update: Dudley Sewer Separation Project Contract No. 15-309-011. 1283 People
- July 27, 2021 Project Update: Dudley Sewer Separation Project Contract No. 15-309-011. 1000 People
- August 10, 2021 Virtual Public Information Meeting on the South Boston Sewer Separation Project. Contract 1- 4000 people
- August 13, 2021 Water Main Flushing in Roslindale and parts of Mattapan and Hyde Park. 3,000 People
- September 28, 2021 Water Main Flushing in Dorchester and Mattapan. 2,000 People

In coordination with its social media profiles, the Commission also maintains a YouTube channel to host its public service announcements. The following public service announcements were viewed during the reporting period on YouTube:

- Keep FOG out of the pipes. Fats, Oils, and Grease causes sewer backups – 36,913 Views
- Scoop the Poop – 9,963
- FOG - Fats, Oils, and Grease – 5,346
- Keep Wipes Out of Pipes – 1,383

BWSC - Where Does the Water Go? – 1,060
Downspout Disconnection - 552
Dudley Square Sewer Separation Project Interview - 198
Water Ways: BWSC Catch Basins - 168
Tastes Great! Less Wasteful! – 183
The Water Cycle Is - 162
Lead Replacement PSA- 145
What's Happening on Boston Harbor? - 28
FOG Plumber (with subtitles) - 59
Culinary FOG Video - 47
FOG Plumber – 28

e. Educational Outreach

The Commission's Communications Department includes an educational coordinator who hosts presentations to K-12 public and private schools throughout Boston to share information with students about the water, sewer, and stormwater system.

Communications staff also provides educational presentations to adults who reside in elderly housing developments, civic and diverse neighborhood groups. This period, the presentations were provided virtually due to COVID-19 precautions. Challenges of the pandemic, notwithstanding, this period the Commission presented to a total of 606 students and 105 adults. The list below details the numbers and types of presentations held from January to June 2021.

- January– 7 groups and 1 senior center, 40 adults; 2 schools, 55 students
- February– 3 groups, 14 adults, 3 schools, 49 students
- March – 23 groups, 6 adults; 4 schools, 116 students
- April – 3 groups, 23 adults; 4 schools, 82 students
- May – 10 groups, 9 adults, 4 schools, 136 students
- June- 10 groups, 13 adults, 2 schools, 168 students
- July–805 families
- August–1,185 families
- September – 520 families
- October – 2223 families
- November – 380 families
- December- 2 groups, 13 adults

f. Environmental Events

During 2021, the Commission was active in organized environmental groups and community groups. Some of the groups included the Neponset River Watershed, MWRA Water Supply Citizens Advisory Committee (WSCAC), MWRA Wastewater Advisory Committee (WAC), Haley Elementary School Board, and Sacred Heart Roslindale Leaders Meeting. The Commission participated in evaluating student presentations in observance of World Water Day. Many of these collaborations led to expanded

awareness campaigns which highlighted our key messages of Don't Dump, Keep Wipes out of Pipes, Scoop the Poop, and the Fats, Oils, and Grease (FOG) campaign, "Can the Grease!" These messages were consistent with the environmental messages that are shared across platforms.

January

Water Infrastructure joint meeting with MWRA, WAC, WSCAC
NSP Quarterly Meeting

February

WAC meeting
Madison Park Environmental Career Overviews

March

WAC board meeting
Roslindale Leaders meeting
Haley Elementary Board meeting
ROC Neighborhood meeting

April

Joint WAC/WSCAC meeting
New England Waterworks Educational Committee

May

OMSAP (Outfall Monitoring Overview Science Advisory Panel)
MWRA Educational meeting regarding Summer Learning about the Boston Harbor
Neponset River Watershed Quarterly meeting

June

WSCAC meeting and tour of the Quabbin Reservoir
Boston Parks Department, Frog Pond Opening event

July

Boston Public Schools Summer event - Mattapan
Higher Ground Summer Learning
Save the Harbor Save the Bay event – Constitution Beach, East Boston
Boston Public Schools Wellness event
Green Team – Southwest CDC Hyde Park
Summer Programming at Murphy School - Dorchester

August

Annual Bocci Event with the water truck
Boston Public Schools Wellness Summer
Save the Harbor Save the Bay Carson Beach event
East Boston High School STEAM program
Greenfest table event

Maritime Beach Festival – East Boston

September

Back to School event – Warren Prescott School
Senior Picnic – East Boston Social Center
Neponset River and the Greenway
Department of Energy event
Town Field Part event - Dorchester
WAC meeting

October

Harbor Healing Wellness Fest
Roslindale Parade activity table
Collaboration with Parks Department – Boston Common
Age Strong even with seniors
Neponset Storm Water Quarterly Meeting

November

Parkway Turkey Trot – West Roxbury
Prescott Field Day – Charlestown
WAC meeting

December

WSCAC meeting and tour of the Quabbin Reservoir
Boston Parks Department, Frog Pond Opening event

g. Catch Basin Stenciling and Castings

Public awareness regarding the connection between catch basins and water quality is promoted through the Commission’s Catch Basin Stenciling Program. Through the Catch Basin Stenciling, volunteers are mobilized to stencil “Don’t Dump” messages next to catch basins. Upon request, the Commission coordinates stenciling projects and provides instruction, stencils, paint, rollers, brooms, informational leaflets, and safety equipment.

The Catch Basin Stenciling Program is promoted through the Commission’s web site and billing inserts and through press releases, community events and outreach meetings, presentations to public schools, and through local watershed associations. In 2021 the Commission continued to work with schools and groups within the City of Boston to mark curbs in their neighborhoods with stencils and decals.

Commission contractors are required to install metal castings with a “Don’t Dump” message on sidewalks near new or reconstructed catch basins. City of Boston contractors also install the castings when new sidewalks are installed. The castings are provided to city hired contractors by the Commission at no cost. The Commission requires that private developers install permanent “Don’t Dump” catch basin castings next to any new catch basin installed as part of their projects. The developers, as well as other parties

interested in obtaining the castings may purchase them from the Commission's vendor. In 2021 the Commission issued 711 catch basin castings to contractors and other parties. Of those issued, 424 were for Boston Harbor, 188 for the Charles River and 99 were for the Neponset River.

h. Water Truck

Due to the COVID-19 Pandemic precautionary measures, the Commission delayed its seasonal launch of the water truck to promote awareness of water quality at citywide events. While there were a few events in June in response to a heatwave, activities are expected to increase next year. The goal of the water truck is to motivate residents and visitors to drink and enjoy Boston's drinking water, but also refill single-use bottles, to ultimately conserve plastic bottle usage in the city. Outreach staff at the truck also have an opportunity to promote its public education messages including FOG and other messages, including: 1) Don't Dump: Storm drains flow directly to Boston Harbor and our rivers; and 2) Scoop the Poop: Walking your dog? Take a plastic bag along to pick up pet waste.

3.12 SUPPORT FOR WATERSHED AND ENVIRONMENTAL AGENCIES AND ORGANIZATIONS

Each year the Commission provides funding to Watershed Associations and Environmental Organizations to support their water quality monitoring programs and public education efforts. The Charles River Watershed Association and the Mystic River Watershed Association each received \$10,000 from the Commission in 2021. Boston Harbor Now received \$25,000. The Friends of Fort Point Channel received \$5,000; the Boston Ground Water Trust received \$25,000; and the Trustees of Reservations received \$10,000.

As needed and requested the Commission shares monitoring and rain gauge data, investigates reports of illegal connections or other non-stormwater discharges to waterways, participates in planning meetings, and provides technical advice.

4.0 STRUCTURAL BEST MANAGEMENT PRACTICES AND GREEN INFRASTRUCTURE

Under the Consent Decree the Commission must implement structural Stormwater Best Management Practices and Green Infrastructure (BMP/GI) measures to reduce the discharge of pollutants from the drainage system. The BMP/GI measures and activities implemented by the Commission in 2021 are described in this section.

4.1 STORMWATER MODEL

On December 28, 2012, as required under the Consent Decree, the BWSC submitted a Stormwater Model Report to EPA for review and approval. The Stormwater Model Report contained evaluations of sub-catchments, including the quantification of impervious surface area, directly connected impervious area (DCIA), population density, land use classifications, pollutant loading, and availability of suitable property for the implementation of stormwater BMP/GI. The Stormwater Model Report contained a discussion of potential BMP/GI available for possible implementation. It contained a discussion as to how the BMP/GI would assure consistency with applicable TMDL wasteload allocations and the extent to which the BMP/GI would prevent BWSC discharges from causing or contributing to a violation of water quality standards. The EPA approved the Commission's Stormwater Model Report on July 14, 2015.

4.2 STORMWATER BMP PROPOSAL AND PHASE I BMP IMPLEMENTATION PLAN

On February 1, 2013, as required under the Consent Decree, the Commission submitted to EPA a Stormwater BMP Proposal and Guidance Document which contained a suite of generic BMPs for implementation. Also, on May 17, 2013, the Commission submitted to EPA, DEP and CLF a Phase I BMP Implementation Plan. The Phase I BMP Implementation Plan (BMP Plan) contained recommendations and schedules for the implementation of specific BMP/GI demonstration projects at Central Square (East Boston), Audubon Circle (Beacon Street/Park Drive area), and City Hall Plaza. The Phase I BMP Plan is available from the Commission's website at www.bwsc.org.

Construction of the Central Square project was completed in 2018, and construction of the Audubon Circle project was completed in 2019. The Commission approved the design submitted by the City for the Plaza in 2020, and construction commenced in 2021. The final design of City Hall Plaza includes the installation of almost 23,000 square feet of permeable pavers and an infiltration reservoir capable of storing approximately 24,434 cubic feet of stormwater. Construction of the new City Hall Plaza is anticipated to be

completed in 2022. Information regarding the City Hall Plaza project can be found on the City of Boston's website at the following link:

<https://www.boston.gov/departments/public-facilities/city-hall-plaza-renovation>.

4.3 BMP RECOMMENDATIONS REPORT

Under the Consent Decree the Commission was required to submit a BMP Recommendations Report within 20 months following EPA's approval of the Commission's Stormwater Model Report. The EPA approved the Commission's Stormwater Model Report on July 14, 2015. Fifteen months later on October 12, 2016, the Commission submitted the BMP Recommendations Report (Recommendations Report) to EPA. The Recommendations Report was approved by EPA in a letter dated October 24, 2018.

The Recommendations Report is a watershed-scale stormwater management plan that evaluates systematic implementation of BMPs to cost effectively achieve water quality goals. The Recommendations Report includes plans and schedules for implementing structural BMPs/GI in Boston aimed at reducing pollutant loadings in stormwater discharges sufficient to meet applicable total maximum daily loads. The recommended BMP plan includes the following main components:

- Through the Commission's site plan review and approval process continue to require new development and redevelopment projects to incorporate priority BMPs with high pollutant removal rates to treat 1-inch of runoff from the site prior to discharging into the Commission's MS4.
- Reduce pollutant loads from roads and other large impervious areas by partnering with entities such as MassDOT and the Department of Conservation and Recreation to incorporate BMPs into major transportation projects and highways.
- Identify large impervious areas for retrofit such as parking lots with areas greater than 10,000 square feet that present BMP opportunities.
- Collaborate with the Boston Transportation Department to expand Boston's Complete Streets Initiative and to further define green design guidelines and emphasize implementation of priority BMPs with high pollutant removal efficiency.
- Continue current illicit discharge detection and elimination (IDDE) program.
- Coordinate with neighboring towns to protect and/or restore streams' natural assimilation capability for water quality improvement.
- Retrofit BMPs in large open spaces on public lands, such as those owned by the Boston Public Schools and Boston Parks and Recreation Department.
- Expand public outreach efforts to promote or incentivize implementation of BMPs on residential properties.

The plan provided in the Recommendations Report outlines an adaptive management process that is carried out in three phases over a 30-year period. Each phase adapts to the knowledge obtained from the previous phase(s) via a comprehensive monitoring program and effectiveness evaluations of the completed implementation projects.

4.4 GREEN INFRASTRUCTURE FOR THREE TRIBUTARY AREAS

In 2015 the Commission contracted with three separate consultants to develop conceptual designs and prepare cost estimates for installation of BMP/GI in three areas of Boston tributary to the Charles River. The three areas were: Canterbury Brook (1,115 acres); Lower Stony Brook (1,020 acres); and Allston/North Beacon Street (556 acres). The knowledge and experience gained pursuant to these projects helps guide Commission as it develops more detailed designs and schedules for installation of BMP/GI citywide. The Canterbury Brook and Lower Stony Brook projects were completed in 2017. The Allston/North Beacon Street project was completed in 2018.

4.5 DAISY FIELD GREEN INFRASTRUCTURE

In 2015, the Commission contracted with the University of New Hampshire Stormwater Center to conduct a feasibility analysis and prepare a conceptual design for GI at Daisy Field in Jamaica Plain. Daisy Field is owned by the City of Boston and managed through its Parks and Recreation Department. The upstream tributary area and Daisy Field discharge to Leverett Pond through the Commission's outfall 18GSDO233. The project will involve installation of a subsurface gravel filter under the baseball fields and a rain garden around the perimeter of the existing parking lot. The conceptual design was completed in 2016. Since the Daisy Field property is owned by the City of Boston authorization by the City is necessary to proceed with the project's construction. Coordination with the Boston Parks and Recreation Department for the project is ongoing.

4.6 GREEN INFRASTRUCTURE AT FIVE BOSTON PUBLIC SCHOOLS

In 2015, the Commission contracted with a consultant to conduct site analyses, perform feasibility assessments, and design GI for five Boston public schools. Designs for GI at the five schools were completed in 2017. Construction of GI at the Washington Irving Middle School and the Rafael Hernandez K-8 School was completed in 2018. Bids for the construction of GI at the David A. Ellis Elementary, Jackson/Mann K-8 and Edward M. Kennedy Academy for Health Careers schools were solicited in 2018, and construction was completed at all three schools in 2019.

In 2018, the Commission worked with Boston Public Schools to develop stormwater related curriculum for 5th and 7th graders. The curriculum was completed in 2018 and piloted in two 7th grade classrooms. The curriculum was designed to use the GI constructed at the schools to demonstrate various GI measures and to educate the students regarding GI benefits.

4.7 OTHER BMP/GI PROJECTS AND ON-CALL BMP/GI CONTRACT

BWSC continues to work with other city agencies, including Boston Public Works Department (PWD), Boston Parks and Recreation Department, Boston Transportation

Department, Boston Planning and Development Agency, and others, to design and construct BMP/GI projects at various locations throughout the city. Ongoing projects in conjunction with the PWD include the design of bioretention BMPs at Codman Square in Dorchester, design of BMPs along Coolidge Road in Brighton, and construction of bioretention areas along New England Avenue. In 2020, 100% design plans submitted by PWD for Codman Square were approved by the Commission. Construction of the bioretention BMPs at Codman Square is anticipated to begin in 2022. The Commission also continued working with Nitsch Engineering Inc., under an on-call contract to design GI structural BMPs for collaboration project with city agencies. Ongoing projects with Nitsch include design of a drainage structure retrofit with phosphorus removal technology on Talbot Avenue in Dorchester, and design of a subsurface gravel filter at Daisy Field. Recently Nitsch completed the Commission's Green Infrastructure Planning and Design Manual.

4.8 BOSTON COMPLETE STREETS INITIATIVE

The City of Boston has developed the Complete Streets Initiative, under which incorporation of green infrastructure into street designs is required. Green infrastructure includes green spaces, such as trees, shrubs, grasses and other landscape plantings, as well as rain gardens and vegetative swales, infiltration basins, and paving materials and permeable surfaces. The Commission supports the City in this endeavor and coordinates with the City's Transportation Department as needed to implement the initiative. Information about the Complete Streets Initiative is available on the City's website at <http://bostoncompletestreets.org/>.

5.0 ASSESSMENT OF STRUCTURAL CONTROLS

Under the terms of its NPDES Stormwater Permit and to comply with the Consent Decree, the Commission must evaluate the effectiveness of structural Best Management Practices and Green Infrastructure (BMP/GI). This section describes the Commission's efforts in 2021 in that regard.

5.1 ASSESSMENT OF STORMWATER BMP/GI

The Central Square, Audubon Circle and Green Schools projects (described in Section 4) include water quality sampling and monitoring to assess the effectiveness of the BMPs/GI structures installed. The City Hall Plaza and Daisy Field projects (also described in Section 4) will also include water quality sampling and monitoring to assess the effectiveness of the BMP/GI structures installed. Assessments of other BMP/GI projects will be performed as the structures are installed.

5.2 CATCH BASINS

The Commission relies on catch basins as the primary means for preventing the transport of sediments, debris, and other contaminants to storm drains and receiving waters. In 2021, the Commission and contract resources performed 22,790 inspections/cleanings of catch basins. Catch basin cleanings are transported to the Commission's Material Handling Facility where they are temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. The amount of material removed from the Commission's catch basins in 2021 was approximately 3,177 tons, as recorded at the Commission's Material Handling Facility.

In 2001 through 2004, the Commission monitored sediment levels in several catch basins to evaluate their effectiveness in capturing solids. The results of the demonstration project (described in previous annual reports) indicated that a clean and well-maintained catch basin will remove between 10 to 33 percent of the total solids from stormwater flow through the basin. The data also suggested that a catch basin's ability to remove solids diminishes as the sump of the catch basin approaches half full. These findings are consistent with the conclusions of other similar studies reported in the literature.

Under the Commission's Catch Basin Inspection and Cleaning Program the sediment depths in one hundred catch basins were monitored between January 2002 and April 2003 to determine the factors that affect how quickly catch basins become full. Variables considered in selecting the catch basins to be monitored included slope, land use and the size of the tributary area, the type of road (highly traveled road vs. back road), and tree

cover. The selected catch basins were inspected four times each on a quarterly basis and the depth of sediment measured.

No statistically significant correlation between land use and accumulation rates was observed. Similarly, no correlation was observed based on slope, drainage area, or neighborhood characteristics. Some correlation with tree cover was observed, with the catch basins located in areas of denser tree coverage demonstrating as much as 50 percent higher accumulation rates as compared to basins with little or no tree cover. The data also exhibited a seasonal correlation, with the winter months demonstrating the highest accumulation rates.

Based on the findings of the Commission's catch basin effectiveness analyses, the Commission's catch basins should continue to effectively remove sediments from stormwater runoff, provided that sediment levels are not allowed to exceed one-half of the capacity of each catch basin's sump. In 2013, the Commission modified its catch basin and cleaning frequency consistent with its CMOM program.

6.0 WATER QUALITY MONITORING

Monitoring the quality of flows within, and discharged from the storm drainage system enables the Commission to establish water quality under existing conditions, and to evaluate changes in quality of discharges over time. This Section describes the Commission current and past water quality monitoring programs.

6.1 OUTFALL MONITORING

The Commission is required to annually perform wet and dry weather field screening of its storm drain outfalls, CSO outfalls and storm drain manholes that discharge (interconnect) with other MS4 drain systems. The field screening program is described in more details in Section 2. The results of the water quality sampling performed for the screening are presented Tables 2-1 and 2-3.

6.2 STORMWATER MONITORING AND MODEL VALIDATION

As described in Section 4.1, On December 28, 2012, the Commission submitted a Stormwater Model Report to the EPA, DEP and CLF, as required under the Consent Decree. As part of the Stormwater Model development, the Commission and its contractor CDM Smith performed extensive water quality sampling of the storm drain system. The Stormwater Model was used to estimate flows and loads for 13 key parameters, including nutrients, bacteria and metals. It was used to analyze a set of alternatives that aim to reduce loading of pollutants from the drain system to receiving waters. That analysis was performed as a starting point for more in-depth studies into the feasibility and expected benefits of implementing stormwater Best Management Practices and Green Infrastructure (BMP/GI) measures in the City of Boston. The Stormwater Model was used to simulate the impacts of the alternatives on the loading of phosphorus and bacteria from select watersheds draining to different receiving waters.

In May 2020, the Commission executed a contract with Kleinfelder for a Stormwater Monitoring and Model Validation Project. The main purpose of the project is to develop the basis for a long-term stormwater quality monitoring program and determine whether stormwater quality improvements have resulted due to BMP/GI devices installed since 2012. The project will be designed to acquire the data necessary to:

- Obtain current water quality and flow data to update and validate the Stormwater Model and determine whether recalibration of the Stormwater Model is warranted.

- Obtain baseline water quality data upon which past and future water quality data can be compared and form the basis for a long-term water quality monitoring program.
- Determine whether, and to what extent, reductions in phosphorus and bacteria have actually occurred since 2012, due to installation of BMP/GI devices and elimination of illicit connections.
- Update the Stormwater Model to represent BMP/GI devices installed by the Commission and private developers since 2012. Develop a mechanism within the Stormwater Model to allow for regular updates to represent new BMP/GI devices installed.
- Prepare updated estimates of event mean concentrations and pollutant loadings in discharges from all outfalls and estimate annual cumulative pollutant loadings from the MS4 under current conditions.

This project is expected to conclude in November, 2022, at a cost of \$1,940,000.

6.3 URBAN RUNOFF WATER QUALITY PROJECT

Implementation of the Commission’s Urban Runoff Water Quality Project concluded in 2017. The project included water quality sampling from manholes, outfalls, and gutters. Samples were analyzed for bacterial indicators, Human DNA markers, Pharmaceuticals and Personal Care Products, nutrients and other commonly sampled stormwater parameters. The main purposes of the project were to explore the use and effectiveness of alternative parameters and methods for determining whether bacteria or ammonia in storm drains or outfalls are from non-human sources and to aid the Commission in determining where and to what extent non-human sources of bacteria and phosphorus may be contributing to contamination in the storm drain system. Total cost for the Project was \$581,939.

The Project included:

- 35 unique sampling locations
- Sampling during 6 dry and 6 wet weather sampling events
- 52 weekly sampling events
- 378 samples collected in total
- Up to 25 different parameters analyzed resulting in 2,362 unique sampling results

Major findings of the Project were as follows:

- The Human Marker (HF183) was detected in all sub-catchments during dry weather regardless of IDDE program status.
- Fecal Indicator Bacteria (FIB) were correlated with human marker results during dry weather, confirming the utility of FIB for dry weather outfall prioritization and screening.
- FIB were not effective in detecting human waste during wet weather, when a mixture of waste types and other FIB sources are conveyed.

- Acetaminophen, atenolol, and caffeine were correlated with the human marker in dry weather outfall flows.
- IDDE test kit parameters (ammonia, surfactants, and residual chlorine) in outfall flows were not correlated with human marker results, and were prone to false positive and false negative signals.
- Sewage (as indicated by the HM) was a significant source of TMDL pollutants (FIB and phosphorous) in discharges from storm drains during dry weather, while non-sewage sources were more significant during wet weather.

Recommendations were:

- Consider discontinuing use of wet weather FIB sampling data for sub-catchment prioritization and use only dry weather FIB data for prioritizing sub-catchments for IDDE.
- Consider collecting multiple FIB dry weather samples from each outfall and geometrically average results for prioritization.

6.4 OTHER PAST WATER QUALITY MONITORING PROJECTS

In 2010, the Commission completed the Stormwater Quality Evaluation Program. Under the Stormwater Quality Evaluation Program, the same sites monitored during the first five years of the permit were monitored. The purpose of the monitoring was to evaluate how water quality had changed over time, and to try to determine pollutant sources. The Stormwater Quality Evaluation Program was completed near the end of 2010 and the final report was completed in May 2011 and previously reported.

Other stormwater quality monitoring and demonstration programs required under the Commission NPDES Permit were completed within the Permit's first five years. Descriptions of those programs were provided in previous Stormwater Management Reports.

7.0 WATER QUALITY IMPROVEMENTS

The Commission's Stormwater Management Program is a compilation of programs, activities, and best management practices aimed at preventing the discharge of pollutants to storm drains and receiving waters. Water quality improvements attributable to the Commission's Stormwater Management Program are difficult to quantify, since many of the measures the program contains are non-structural and are aimed at controlling the introduction of pollutants to the storm drain system at their sources, as opposed to end-of-pipe treatment. Therefore, the Commission typically assesses water quality improvements based on measures that are quantifiable, such as how much wastewater is removed from the drainage system when an illegal connection is eliminated, and how much sediment is removed from stormwater runoff by structural devices.

7.1 STORMWATER MODEL ALTERNATIVES ANALYSIS

As described in Section 4.1 and 6.2, the Commission used its Stormwater Model to analyze a set of alternatives aimed at reducing loading of pollutants from the drain system to receiving waters. The analysis was performed as a starting point for more in-depth studies into the feasibility and expected benefits of implementing Stormwater Best Management Practices and Green Infrastructure (BMP/GI) in the City of Boston.

Alternatives considered included expansion of existing programs and policies, new BMP/GI installations, street sweeping, baseline adjustments for illicit discharge removal, and combinations of various options. The alternatives modeling indicated that expansion of current programs and policies would measurably help the Commission comply with its NPDES Permit and meet the terms of the Total Maximum Daily Loads (TMDL) governing receiving waters. However, additional load reductions beyond what the existing programs and policies could achieve would be necessary.

The data and results of the Stormwater Model analysis were included in the Stormwater Model Report submitted to EPA for review and approval in December 2012. The EPA approved the Commission's Stormwater Model Report on July 14, 2015.

The 2012 Stormwater Model has the capability to evaluate pollutant loading reductions that result from the installation of stormwater BMP/GI. However, the 2012 Stormwater Model has not been updated to include pollutant reductions resulting from GI/LID installed since March 2012. To update the model, in May 2020, the Commission executed a contract with Kleinfelder for a Stormwater Monitoring and Model Validation Project. The main purpose of the project is to develop the basis for a long-term

stormwater quality monitoring program and determine whether stormwater quality improvements have resulted due to BMP/GI devices installed since 2012. The Stormwater Monitoring and Model Validation Project is described further in section 4.

Since 2015, the Commission has been maintaining a database of public and private BMPs/GI installed city-wide since March 2012. The database currently contains over 2,500 public and private BMP/GI features located throughout the city. Many of these BMP/GI project locations contain multiple GI/LID devices. Pollutant removal estimates are tabulated for each GI/LID location in the database as they are installed. Pollutant reduction estimates from the database are currently being incorporated into the Commission's updated and enhanced Stormwater Model described above. This will enable the Commission to evaluate water quality benefits resulting from the installation of BMP/GI installed since 2012.

7.2 POLLUTANT LOADINGS AND REDUCTIONS

In 2012, the Storm Drain Model was used to estimate mean annual loads for 13 water quality constituents, including nutrients, bacteria and metals. The annual loads were based on field data collected in 2011 and 2012. Table 7-1 presents the mean annual total loads for the Commission's 27 sub-drainage areas (referred to as "reporting areas"), as they were calculated in 2012.

The Storm Drain Model has been used as the basis to estimate reductions in bacteria and phosphorus resulting from the elimination of illicit discharges each year since 2013. Table 7-2 presents the annual phosphorus loads by reporting area, based on conditions as of December 31, 2020. The numbers in Table 7-2 incorporate all phosphorus reductions due to illicit discharge removals in 2012 through 2020. It is noted that these tables do not incorporate reductions from illicit discharges removed from combined sewer areas downstream of regulators, as those areas are not included in the Commission's storm drain model.

Updates to the Commission's Storm Drain Model are expected to be completed by the end of 2022. The Commission will then use the model to re-calculate and update the mean annual pollutant loading estimates required by the Commission's NPDES Stormwater Permit. The updated mean annual pollutant loads will be provided in the Commission's next annual stormwater report.

7.3 ILLICIT DISCHARGE ELIMINATION

The Commission believes that eliminating illicit discharges to storm drains is the most environmentally beneficial and cost-effective means of improving water quality. The 2012 Drain Model report demonstrated that removing illicit discharges has a significant impact on water quality, especially bacteria and phosphorus loadings.

In 2021, the Commission eliminated illicit discharges at 12 locations, thereby eliminating the discharge of an estimated 3,003 gallons per day (gpd) of wastewater to the drainage

system and receiving waters. Between 1986, when the Commission first began correcting illicit discharges, and the end of 2021, the Commission removed 1,867 illicit discharges, thereby eliminating the discharge of an estimated total of 865,475 gallons of wastewater per day to the storm drainage system and receiving waters.

7.4 SEWER, DRAIN, CATCH BASIN AND PARTICLE SEPARATOR CLEANING

Cleaning of catch basins and particle separators helps to maintain their sediment removal effectiveness, and cleaning of storm drains helps to maintain their hydraulic capacity. In 2021, the Commission and its contractors removed an estimated 3,177 tons of material from the Commission's catch basins and particle separators that might have otherwise ended up in local rivers and waterways.

7.5 BMPS ON PRIVATE PROPERTY

Under the Commission's Sewer Use Regulations and Requirements for Site Plans there are several provisions requiring the installation of structural BMPs by private entities. These are described below.

a. Privately Owned Retention/Infiltration Devices

Under the Commission's Site Plan Requirements and Sewer Use Regulations, for all development or redevelopment projects in the City it is mandatory to retain and infiltrate stormwater on site. A volume of runoff equal to one inch of rainfall multiplied by the total impervious area on site must be infiltrated prior to discharge to a storm drain or a combined sewer system for projects less than 100,000 square feet of floor area. For all projects which are at or above 100,000 square feet of floor area, the project must use a volume of runoff equal to 1.25 inches of rainfall multiplied by the total impervious area on site. On-site infiltration of stormwater serves to limit peak discharge rates, recharge groundwater, and remove total suspended solids in the flow. This requirement is consistent with the Department of Environmental Protection's Stormwater Management Policy which establishes standards for stormwater management for development, and the Commission's Stormwater BMP Guidance document.

GI/LID practices that utilize infiltration are necessary in order to meet the water quality requirements outlined in the Total Maximum Daily Load (TMDL) for the Charles River and the BWSC Consent Decree. Any project with an infiltration system and/or a catch basin system must also include an Operations and Maintenance (O&M) plan with their site plan material.

On-site infiltration devices are usually owned by the owner of the property where they are located; as such, the owner is responsible for cleaning and maintenance. Owners of on-site devices are not required to provide data regarding solids removal rates to the Commission. However, the devices are expected to remove solids consistent with their designs.

In 2021, the Commission approved installations of 277 infiltration devices. Table 3–4 provides the addresses of the devices approved in 2021.

b. Privately Owned Particle Separators

In order to prevent oil, grease and sediments from discharging to open waterways, the Commission requires that developers install particle separators on all newly constructed storm drains that serve outdoor paved areas of 7,500 square feet in size or greater. The Commission ensures that particle separators on parking lots are included in the project design during site plan review. The Commission may require particle separators on existing storm drains from existing outdoor parking areas, where appropriate. This requirement has been in place since 1992.

Parking lot particle separators are usually owned by the owner of the property where they are located; as such the owner is responsible for their cleaning and maintenance. Owners of on-site particle separators are not required to provide data regarding solids removal rates to the Commission. However, the devices are expected to remove solids consistent with their designs.

In 2021, the Commission approved installation of eight (8) particle separators. The addresses of the devices approved in 2021 are listed on Table 3–5.

8.0 ENFORCEMENT

The Commission pursues enforcement as necessary against violators of its illicit discharge regulations to remove illicit discharges and connections from the Commission's MS4 system. Enforcement commences as follows:

Once the Commission verifies that an illicit discharge must be corrected by the owner of a property, the Commission mails an initial letter of enforcement to the owner. The letter directs the owner to contact the Commission within a given time frame (typically 10 days), submit a plan for correction within a designated time period (typically 30 days), and make the correction within a given time frame (typically 60 days). If the owner fails to respond, and/or does not correct the illicit discharge within those time frames, a second notice is issued. The second notice imposes a deadline or schedule for compliance (typically 30 days), and notifies the owners of fine assessments after a certain date for failure to comply.

If the owner still fails to respond or does not correct the illicit connection within the timeline or schedule the Commission may issue a third notice. The third letter also imposes a deadline or schedule for compliance (typically 10 days) and notifies the owner of fine assessments after a certain date for failure to comply.

If the owner still fails to respond or does not correct the illicit connections within the timeline or schedule identified in the third notice the Commission may issue a "Fifteen Day Notice", pursuant to Chapter 6, Section 6.3 of the Commission Billing, Termination and Appeal regulations for "Termination of Service". Under the Fifteen Day Notice, the owner is given 15 days to correct the illicit connection and notify the Commission. If the owner fails to respond to the Fifteen Day Notice and/or fails to correct the illicit discharge, the Commission mails to the owner, and posts on the premises of the illicit connection, a "Final Notice and Demand". If the owner fails to correct the internal connection within ten (10) days after the posting of the Final Notice and Demand, the Commission may issue fines to the owner and terminate water service.

In 2021, the Commission sent a total of 17 enforcement letters to 14 properties regarding illicit connections and discharges. Of the 17 letters, 10 were regarding direct illicit connections, and seven (7) were for verified leaking sewer laterals.

In 2021, the Commission responded to 10 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 lists the incidences to which the Commission responded in 2020. No violation/enforcement notices issued for spills, leaks or dumping in 2021.

In 2021, the Commission performed 95 site inspections of construction projects in Boston. One (1) violation notice was issued to the operator of a construction project for a violation.

9.0 FINANCING STORMWATER MANAGEMENT

The Commission's Enabling Act empowers the Commission to independently set rates and charges for the services that it provides. The Commission is required to establish fees, rates, rents, assessments, and other charges at a level and amount at least sufficient to pay the principal, premium, and interest on bonds issued by the Commission; to maintain its reserve funds as stipulated by its General Bond Resolution; to provide funds for paying the cost of all necessary repairs, replacements, and renewals of the water and sewer systems; and to pay any and all other amounts which the Commission, by law or by contract, is obligated to pay.

The Commission has sufficient funds and equipment to carry out the stormwater management programs and activities required under the NPDES Stormwater Permit. A major portion of the Commission's Stormwater Management Program and NPDES Stormwater Permit compliance activities are achieved using existing in-house staff and resources. Staffing and equipment are budgeted under the Commission's Current Expense Budget (CEB), which is updated annually. Larger sewer and drain projects are funded under the Commission's Capital Improvement Program Plan (CIP). The Commission's three-year CIP is updated annually.

9.1 CURRENT EXPENSE BUDGET

The 2021 Current Expense Budget totaled \$405.7 million in revenues, which was offset by an equal amount of expenses. The amount represented a 1.7% increase as compared to the 2020 budget.

Of the total budgeted for 2021, \$81.5 million was for direct expenses. The remaining funds were budgeted for the assessment by the Massachusetts Water Resources Authority (\$248.4 million), Debt Service (\$51.8 million), Capital Improvements (\$18.7 million), Contractual Funding Obligations (\$5.1 million), and the Safe Drinking Water Act Assessment (\$0.2 million).

In general, stormwater programs and activities are managed in-house by the Commission's Engineering and Operations Divisions. The Engineering Division consists of the sub-divisions of Planning and Sustainability, Engineering Design and Construction. Approximately \$34.8 million or 42.6 percent of the Commission's 2021 direct expense budget was for the Engineering and Operations Divisions. Of the Engineering and Operations Division's direct expense budget, about \$20.9 million was

for sewer and storm drain related operations. Thus, sewer and drain related work represented about 26 percent of the Commission's total direct expense budget.

The Current Expense Budget for 2022 had not been finalized as of the writing of this report but is expected to be similar to the 2021 budget.

Stormwater related programs and activities supported by the Current Expense Budget funding include:

- Illegal connection investigations and corrections
- Illegal connection prevention
- Illegal dumping and spill response
- SSO and spill response and remediation
- CMOM implementation
- Planning, designing and constructing capital improvements
- Green infrastructure planning and design
- Industrial facility pollution prevention program management
- Construction site pollution prevention inspections
- Sewer and storm drain maintenance and general repair
- Catch basin and particle separator cleaning and maintenance
- Site plan review
- New service inspections and dye tests
- Issuing drain layers licenses
- Issuing Drainage Discharge Permits
- Sewer system evaluations and Master Planning
- Infiltration and inflow identification and reduction
- Reviewing Environmental Notification Forms and Environmental Impact Reports
- Public education
- Rain data collection
- Enforcement of the Commission's Rules and Regulations

9.2 CAPITAL EXPENDITURES

The 2021-2023 CIP included \$84.3 million for sewer, drain and stormwater related projects, of which \$34.4 million was earmarked for 2021. An additional \$9.1 million was included in the 2021-2023 CIP under a separate line item specifically for Green Infrastructure/Low Impact Development projects. Of that amount \$4.6 million was earmarked for 2021.

The Commission's 2022-2024 CIP identifies \$110.9 million for sewer, drain and stormwater related projects, of which \$50.8 million is earmarked for 2021. An additional \$8.6 million is included in the 2022-2024 CIP under a separate line item specifically for Green Infrastructure/Low Impact Development projects. Of that amount \$4.6 million is earmarked for 2022.

The 2021-2023 and 2022-2024 CIP plans are available on the Commission's website at www.bwsc.org.

These costs do not include the cost of CSO separation projects that are funded by the MWRA under the MWRA's CSO Control Plan. However, they do include the Commission's costs for water and sewer work relating to the MWRA's CSO Control Plan that is not eligible for MWRA funding.

Programmatic activities covered under the 2022-2024 CIP include the following:

- Final construction of stormwater BMPs and Green Infrastructure at City Hall Plaza
- Evaluating implementing a stormwater fee
- Design and construction of a constructed wetland in Jamaica Plain
- Design GI/Stormwater detention/retention structures for low lying areas
- Design of a stormwater retention facility in the Arnold Arboretum
- Replacement of an existing drainage overflow structure at Harambee Park and installation of phosphorus removal technology within the drainage structure
- Coastal stormwater impact analysis
- CSO Public Notification Program
- Installation of sensors in sewer and drain to allow real-time monitoring of the systems
- 3-D Depictions of sewer structures
- Fort Point Channel Storage Feasibility Analysis
- Citywide Illegal Connection Investigation Program
- Elimination of illicit discharges to storm drains
- CCTV of sewers/drains for CMOM and illicit discharge investigations
- System-wide Infiltration and Inflow analysis of the sewer system
- Implementation of improvements to the Union Park Pumping Station
- Dorchester Interceptor relief sewer and storage tank design
- Installation of tide gates and backwater prevention devices on storm drain outfalls
- Replace and rehabilitate sewers and drains citywide
- South Boston and East Boston sewer separation
- Sewer separation in Upper Roxbury
- Stormwater monitoring and stormwater model updates and validation
- Downspout disconnect programs
- Projects relating to sewer separation projects that are not eligible for funding by the MWRA. These include renewal and replacement of existing sewers and drains in the areas being separated, rehabilitation or relay of water mains in the areas and associated paving costs.

10.0 PROGRAM MODIFICATIONS

With the lodging of the Consent Decree in August 2012, the Commission has undertaken a number of remedial measures to improve and update its Stormwater Management Program, such as updating its IDDE methodology and practices, establishing a schedule for completing IDDE investigations of sub-catchments, enhanced SSO reporting and tracking, developing an SSO Emergency Response (ERP) plan, developing a Construction Site Inspection Program, developing an Industrial Facility Pollution Prevention Program, executing intergovernmental agreements, and other actions.

No formal modifications to the Commission's Stormwater Management Program were made in 2021 or are being requested at this time. Modifications made in prior years were described in previous annual Stormwater Management Reports.

APPENDIX A: TABLES

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER		LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
01E024	MAJOR	EASEMENT/LAKESIDE	HYDE PARK	15	SPRAGUE POND/NEPONSET RIVER
01F031	MAJOR	EASEMENT/MILLSTONE RD	HYDE PARK	48X24	NEPONSET RIVER
02E086 (02E005)	NON MAJOR	WEST MILTON STREET	HYDE PARK	24	UNAMED WETLANDS
02F085	NON MAJOR	LAWTON STREET	HYDE PARK	12	NEPONSET RIVER RESERVATION
02F093	NON MAJOR	EASEMENT/SIERRA RD	HYDE PARK	15	NEPONSET RIVER
02F120	MAJOR	EASEMENT/WOLCOTT CT/HYDE PARK AVE EXT	HYDE PARK	54	NEPONSET RIVER
03E185	MAJOR	NORTON ST	HYDE PARK	2-18	WETLANDS/NEPONSET RIVER
03E186	NON MAJOR	RIVER STREET	HYDE PARK	24	MILL POND/MOTHER BROOK
03E207	NON MAJOR	RIVER STREET	HYDE PARK	UNKNOWN	MILL POND/MOTHER BROOK
04E064	NON MAJOR	ALVARDO AVE/RIVER ST BRIDGE	HYDE PARK	12	MILL POND/MOTHER BROOK
04E069	MAJOR	KNIGHT ST DAM	HYDE PARK	36	MOTHER BROOK
04F001	NON MAJOR	RESERVATION ROAD	HYDE PARK		MOTHER BROOK
04F016	NON MAJOR	EASEMENT RIVER ST	HYDE PARK	30	MOTHER BROOK/NEPONSET RIVER
04F118	NON MAJOR	MASON STREET EXT.	HYDE PARK	18	NEPONSET RIVER
04F119	MAJOR	EASEMENT/HYDE PARK AVE/RESERVATION RD	HYDE PARK	24	NEPONSET RIVER
04F189	MAJOR	RESERVATION RD	HYDE PARK	36	MOTHER BROOK/NEPONSET RIVER
04F203	NON MAJOR	GLENWOOD AVE	HYDE PARK	28	NEPONSET RIVER
04F204	MAJOR	TRUMAN HWY/CHITTICK ST	HYDE PARK	36	NEPONSET RIVER
05C110	MAJOR	EASEMENT/PLEASANTDALE ST EXT	WEST ROXBURY	60	CHARLES RIVER
05E180	NON MAJOR	GEORGETOWN DRIVE	HYDE PARK	12	NONE SHOWN/CHARLES RIVER
05E181	NON MAJOR	GEORGETOWN DRIVE	HYDE PARK	12	NONE SHOWN/CHARLES RIVER
05E182	NON MAJOR	DEDHAM STREET	HYDE PARK	21	UNNAMED STREAM/CHARLES RIVER
05E183	NON MAJOR	GEORGETOWN PLACE/DEDHAM ST	HYDE PARK	12	UNNAMED STREAM
05E184	NON MAJOR	TURTLE POND PARKWAY	HYDE PARK	21	UNAMED WETLANDS
05F117	MAJOR	EASEMENT/TRUMAN HWY/WILLIAMS AVE	HYDE PARK	33	NEPONSET RIVER
05F244	NON MAJOR	HYDE PARK AVE BRIDGE	HYDE PARK	20	MOTHER BROOK/NEPONSET RIVER
05F245	NON MAJOR	HYDE PARK AVE	HYDE PARK	33	MOTHER BROOK/NEPONSET RIVER
05F253	MAJOR	EASEMENT/BUSINESS ST, NEAR BUSINESS TER	HYDE PARK	48X24	MOTHER BROOK/NEPONSET RIVER
05F254	NON MAJOR	DANA AVENUE	HYDE PARK	12	NEPONSET RIVER
05G112	MAJOR	EASEMENT/RR ROW/WATER ST EXT	HYDE PARK	30	NEPONSET RIVER
05G115	MAJOR	FAIRMOUNT AVE BRIDGE (NORTH BANK)	HYDE PARK	24	NEPONSET RIVER
05G116	NON MAJOR	FAIRMOUNT AVE BRIDGE (SOUTH BANK)	HYDE PARK	24	NEPONSET RIVER
05G116A	NON MAJOR	WARREN AVENUE	HYDE PARK	24	NEPONSET RIVER
06D057	NON MAJOR	CEDAR CREST CIRCLE	WEST ROXBURY	21	CHARLES RIVER
06D083	NON MAJOR	MARGARETTA DRIVE	WEST ROXBURY	15	WETLANDS/CHARLES RIVER
06D084	NON MAJOR	EASEMENT/MARGARETTA DRIVE	WEST ROXBURY	12	WETLANDS/CHARLES RIVER
06D085	NON MAJOR	GEORGETOWN DRIVE	WEST ROXBURY	12	WETLANDS/CHARLES RIVER
06D086	NON MAJOR	GEORGETOWN DRIVE	WEST ROXBURY	10	WETLANDS/CHARLES RIVER
06D091	NON MAJOR	GEORGETOWN DRIVE	WEST ROXBURY	10	WETLANDS/CHARLES RIVER
06D184	NON MAJOR	GEORGETOWN DRIVE	WEST ROXBURY	18	WETLANDS/CHARLES RIVER
06D187	MAJOR	EASEMENT/GROVE ST	WEST ROXBURY	36	BROOK GROVE ST CEMETERY
06F233	NON MAJOR	MOUNT ASH ROAD	HYDE PARK	UNKNOWN	WETLAND - STONY BROOK RESERVATION
06G108	MAJOR	EASEMENT/WEST OF WOOD AVE EXT	HYDE PARK	69	NEPONSET RIVER
06G109	MAJOR	RIVER TER EXT, NEAR ROSA ST	HYDE PARK	48	NEPONSET RIVER
06G110	MAJOR	EASEMENT/WEST STREET EXT	HYDE PARK	30	NEPONSET RIVER
06G111	NON MAJOR	EASEMENT/VOSE ST EXT., TRUMAN HWY	HYDE PARK	24	NEPONSET RIVER
06G165	NON MAJOR	TRUMAN HWT/METROPOLITAN AVE	HYDE PARK	10	NEPONSET RIVER
06G166	MAJOR	ABOUT 30' FROM GUARDRAIL NORTH SIDE OF TRUMAN HWY NEAR MILTON	HYDE PARK	36X36	NEPONSET RIVER
06H106	NON MAJOR	OSCEOLA STREET	HYDE PARK	24	NEPONSET RIVER
06H107	NON MAJOR	EASEMENT/BELNEL RD	HYDE PARK	24	NEPONSET RIVER
07C006	MAJOR	EASEMENT/VFW PARKWAY/BELLE AVE	WEST ROXBURY	126X126	CHARLES RIVER
07H105	MAJOR	EASEMENT/EDGEWATER/S RIVER ST	NEPONSET/MATTAPAN	102X72	NEPONSET RIVER
07H285	MAJOR	BLUE HILL AVE	NEPONSET/MATTAPAN	106X63	NEPONSET RIVER
07H346	NON MAJOR	EDGEWATER DRIVE/HOLMFIELD AVE	HYDE PARK	18	NEPONSET RIVER
07H347	NON MAJOR	EDGEWATER DRIVE/BURMAH ROAD	NEPONSET/MATTAPAN	21	NEPONSET RIVER
07H348	NON MAJOR	EDGEWATER DRIVE/TOPALIAN STREET	NEPONSET/MATTAPAN	24	NEPONSET RIVER
08B122	MAJOR	EASEMENT/NORTH OF SPRING ST.	WEST ROXBURY	30	CHARLES RIVER
08B126	NON MAJOR	SPRING STREET EXTENDED	WEST ROXBURY	30	CHARLES RIVER
08C025	MAJOR	WEDGEMERE ROAD	WEST ROXBURY	24	CHARLES RIVER
08C026	NON MAJOR	WEDGEMERE ROAD	WEST ROXBURY	24	CHARLES RIVER
08E031	NON MAJOR	TURTLE POND PARKWAY	WEST ROXBURY	18	TURTLE POND
08E033	NON MAJOR	TURTLE POND PARKWAY	WEST ROXBURY	UNKNOWN	TURTLE POND
08E035	NON MAJOR	WASHINGTON STREET	WEST ROXBURY	15	TURTLE POND
08F001	NON MAJOR	SHERRIN STREET	HYDE PARK	24	WETLANDS/CHARLES RIVER
08I153	NON MAJOR	DUXBURY ROAD	NEPONSET/MATTAPAN	15	NEPONSET RIVER
08I154	NON MAJOR	EASEMENT/RIVER ST/GLADESIDE AVE	NEPONSET/MATTAPAN	18	NEPONSET RIVER
08I155	NON MAJOR	EASEMENT/RIVER ST/MAMELON CIR	NEPONSET/MATTAPAN	24	NEPONSET RIVER
08I156	NON MAJOR	EASEMENT/RIVER ST/MAMELON CIR	NEPONSET/MATTAPAN	24	NEPONSET RIVER
08I158	NON MAJOR	EASEMENT/RIVER ST/FREMONT ST	NEPONSET/MATTAPAN	18	NEPONSET RIVER
08I207	NON MAJOR	MEADOWBANK AVE EXT	NEPONSET/MATTAPAN	15	NEPONSET RIVER

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER		LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
08I209	NON MAJOR	MEADOWBANK AVE EXT	NEPONSET/MATTAPAN	12	NEPONSET RIVER
08J041	NON MAJOR	RIVER STREET	DORCHESTER	18	NEPONSET RIVER
08J102	NON MAJOR	ADAMS STREET	DORCHESTER	15X15	NEPONSET RIVER
08J103	NON MAJOR	EASEMENT/CENTRAL AVE BRIDGE	DORCHESTER	30	NEPONSET RIVER
08J49/50	MAJOR	DESMOND RD	DORCHESTER	2-18&24	NEPONSET RIVER
08K049	NON MAJOR	BEARSE AVENUE	DORCHESTER	12	NEPONSET RIVER
09B049	MAJOR	EASEMENT/RIVERMOOR ST	WEST ROXBURY	30	COW ISLAND POND/CHARLES RIVER
09E229	NON MAJOR	GRANDVIEW STREET	WEST ROXBURY	12	NONE SHOWN
09E243	NON MAJOR	BLUE LEDGE TR/EASEMENT	WEST ROXBURY	30	UNNAMED STREAM
09K016	NON MAJOR	EASEMENT/BEARSE AVE EXT	DORCHESTER	15	NEPONSET RIVER
09K100	MAJOR	EASEMENT/MELLISH RD	DORCHESTER	34X24	NEPONSET RIVER
09K101	NON MAJOR	EASEMENT/HUNTOON ST EXT	DORCHESTER	24	NEPONSET RIVER
09L095	MAJOR	GRANITE AVENUE	DORCHESTER	36X48	NEPONSET RIVER
10B015	MAJOR	EASEMENT/CHARLES RIVER ROAD	WEST ROXBURY	21	COW ISLAND POND/CHARLES RIVER
10L094	MAJOR	EASEMENT/GALLIVAN BLVD	DORCHESTER	74X93	NEPONSET RIVER VIA DAVENPORT BROOK
10L096	MAJOR	HILLTOP & LEXONDALE STS	DORCHESTER	36	NEPONSET RIVER
11B123	MAJOR	EASEMENT/EAST OF BAKER ST EXT.	WEST ROXBURY	72	BROOK FARM BROOK/CHARLES RIVER
11G344 (11G318@MH11G247)	NON MAJOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	24	CANTERBURY BROOK
11G344 (11G319@MH11G246)	NON MAJOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	18	CANTERBURY BROOK
11I577	MAJOR	HARVARD ST	NEPONSET/MATTAPAN	102X102	CANTERBURY BROOK
11M093	MAJOR	NEPONSET AVE AT NW END OF NEPONSET AVE BRIDGE	DORCHESTER	48	NEPONSET RIVER
12B010	NON MAJOR	BAKER STREET	WEST ROXBURY	15	BROOK FARM BROOK
12B014	NON MAJOR	BAKER STREET	WEST ROXBURY	12	BROOK FARM BROOK
12B033	NON MAJOR	EASEMENT/BAKER STREET	WEST ROXBURY	18	BROOK FARM BROOK
12B124	MAJOR	EASEMENT/LAGRANGE STREET	WEST ROXBURY	120	BROOK FARM BROOK
12F305	NON MAJOR	EASEMENT/ARBOROUGH ROAD	ROSLINDALE	12	UNAMED WETLANDS
12E418	NON MAJOR	EASEMENT/WALTER STREET (renumbered from 12F322)	ROSLINDALE	18	NONE SHOWN
12H001 (12H085@MH12H26)	NON MAJOR	MORTON STREET	ROSLINDALE	15	CANTERBURY BROOK
12H001 (12H087@MH12H27)	NON MAJOR	MORTON STREET	ROSLINDALE	15	CANTERBURY BROOK
12H2	NON MAJOR	CANTERBURY STREET	ROSLINDALE	21	CANTERBURY BROOK
12H092	MAJOR	AMERICAN LEGION HIGHWAY	WEST ROXBURY	24	CANTERBURY BROOK
12L092	MAJOR	PINE NECK CREEK/TENEAN ST WEST OF LAWLEY	DORCHESTER	72	NEPONSET RIVER
12M091	MAJOR	ERICSSON/WALNUT ST	NEPONSET/MATTAPAN	36	NEPONSET RIVER
13B011	NON MAJOR	LAGRANGE STREET	WEST ROXBURY	12	UNNAMED STREAM
13D077	MAJOR	WEST ROXBURY PKY/VFW PKY	WEST ROXBURY	60	BUSSEY BROOK
13D078	MAJOR	WEST ROXBURY PKY/VFW PKY	WEST ROXBURY	60	BUSSEY BROOK
13E174	NON MAJOR	EASEMENT/VFW PARKWAY	ROSLINDALE	24	BUSSEY BROOK
13E175	MAJOR	EASEMENT/VFW PKY	ROSLINDALE	108X86	BUSSEY BROOK
13E176	NON MAJOR	EASEMENT/WELD ST	ROSLINDALE	15	NONE SHOWN
13F011	NON MAJOR	ALLANDALE STREET	ROSLINDALE	24	BUSSEY BROOK
13F093 (13F012)	NON MAJOR	WALTER STREET	ROSLINDALE	15	BUSSEY BROOK
13F095	NON MAJOR	EASEMENT/BUSSEY STREET	ROSLINDALE	12	BUSSEY BROOK
13F096	NON MAJOR	SOUTH STREET	ROSLINDALE	12	BUSSEY BROOK
13F097	NON MAJOR	SOUTH STREET	ROSLINDALE	6	BUSSEY BROOK
13L090	MAJOR	VICTORY RD. 200 FT SOUTH	DORCHESTER	144X180	DORCHESTER BAY
14C009	MAJOR	EASEMENT/WESTGATE RD	WEST ROXBURY	36	UNNAMED WETLANDS
15F288	MAJOR	ARNOLD ARBORETUM/MURRAY CIRCLE	JAMAICA PLAIN	54	GOLDSMITH BROOK
15L088	MAJOR	FREEPORT WAY EXTENDED	DORCHESTER	2-78"	DORCHESTER BAY
15L089	MAJOR	FOX POINT RD EXTENDED	DORCHESTER	2-90X82"	DORCHESTER BAY
16L097	NON MAJOR	EASEMENT/OFF SAVIN HILL AVE	DORCHESTER	24	PATTEN'S COVE
16L122	MAJOR	MORRISSEY BLVD DRAIN	DORCHESTER	TWIN 9X8	DORCHESTER BAY
17F012	NON MAJOR	FRANCIS PARKMAN DRIVE	JAMAICA PLAIN	15	JAMAICA POND
17M033	MAJOR	HARBOR POINT PARK (RELOCATED MT VERNON ST DRAIN)	DORCHESTER	72	OLD HARBOR
18G233	NON MAJOR	X-COUNTRY BTN WILLOW POND RD AND JAMAICAWAY	JAMAICA PLAIN	18	MUDDY RIVER-LEVERETT POND
19G043	MAJOR	HUNTINGTON AVE	ROXBURY/MISSION HILL	45X45	MUDDY RIVER
19G194	MAJOR	SOUTH HUNTINGTON AVE	ROXBURY/MISSION HILL	24	MUDDY RIVER
19G199	NON MAJOR	JAMAICA WAY	ROXBURY/MISSION HILL	10	MUDDY RIVER
20G161	MAJOR	EASEMENT/BROOKLINE AVE	ROXBURY/MISSION HILL	36	MUDDY RIVER
20G163	NON MAJOR	EASEMENT/RIVERWAY	ROXBURY/MISSION HILL	20	MUDDY RIVER
20G164	NON MAJOR	BROOKLINE AVENUE	ROXBURY/MISSION HILL		MUDDY RIVER
21C212	NON MAJOR	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	30	CHANDLER POND
21H039 (21H045)	NON MAJOR	FENWAY	BOSTON PROPER	30X30	MUDDY RIVER
21H047	NON MAJOR	PALACE ROAD EXT	BOSTON PROPER	24	MUDDY RIVER
21H001	MAJOR	BROOKLINE AVENUE	FENWAY/KENMORE	45	MUDDY RIVER
21H002	MAJOR	BROOKLINE AVENUE	FENWAY/KENMORE	51X51	MUDDY RIVER
21H048	NON MAJOR	EASEMENT/FENWAY/EVANS WAY	BOSTON PROPER	15	MUDDY RIVER
21K069	MAJOR	125' NORTH OF W.FOURTH STREET (RELOCATED BY CA/T)	BOSTON PROPER	48	FORT POINT CHANNEL
21M010	MAJOR	D STREET EXTENDED	SOUTH BOSTON	30	RESERVED CHANNEL
21M050	MAJOR	SUMMER STREET	SOUTH BOSTON	72	RESERVED CHANNEL
22C384	MAJOR	EASEMENT/LAKE SHORE RD	ALLSTON/BRIGHTON	36	CHANDLER POND

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER		LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
22L580	MAJOR	NECCO STREET EXTENDED	SOUTH BOSTON	54	FORT POINT CHANNEL
23G132	MAJOR	EASEMENT/MASS TURNPIKE/WEST OF BU BRIDGE	ALLSTON/BRIGHTON	60	CHARLES RIVER
23H040	NON MAJOR	RALEIGH STREET EXT	BOSTON PROPER	24	CHARLES RIVER
23H042	MAJOR	DEERFIELD ST	BOSTON PROPER	116X120	CHARLES RIVER
23L015	NON MAJOR	NORTHERN AVE	SOUTH BOSTON	24	BOSTON INNER HARBOR
23L074	NON MAJOR	SUMMER ST BRIDGE	SOUTH BOSTON	15	FORT POINT CHANNEL
23L075	MAJOR	CONGRESS ST BRIDGE	SOUTH BOSTON	54	FORT POINT CHANNEL
23L164	MAJOR	CONGRESS ST BRIDGE	BOSTON PROPER	48	FORT POINT CHANNEL
23L195	MAJOR	NORTHERN AVE	SOUTH BOSTON	36	BOSTON INNER HARBOR
23L196	MAJOR	NEW NORTHERN AVE BRIDGE	SOUTH BOSTON	36	FORT POINT CHANNEL
23L202	MAJOR	NORTHERN AVE	SOUTH BOSTON	36	BOSTON INNER HARBOR
24C039	NON MAJOR	NEWTON ST	ALLSTON/BRIGHTON	21	CHARLES RIVER
24C174	NON MAJOR	EASEMENT/NEWTON STREET	ALLSTON/BRIGHTON	24	CHARLES RIVER
24D032	MAJOR	N OF BEACON ST, ABOUT 800' E OF PARSONS ST	ALLSTON/BRIGHTON	119X130	CHARLES RIVER
24D150	MAJOR	SOLDIERS FIELD PLACE	ALLSTON/BRIGHTON	36	CHARLES RIVER
24G034	MAJOR	SOLDIERS FIELD ROAD, S OF CAMBRIDGE ST	ALLSTON/BRIGHTON	36	CHARLES RIVER
24G035	MAJOR	SOLDIERS FIELD ROAD/BABCOCK ST	ALLSTON/BRIGHTON	90X84	CHARLES RIVER
24L022	MAJOR	COURTHOUSE WAY	SOUTH BOSTON	48	BOSTON HARBOR
24L233	MAJOR	ROWE'S WHARF/ATLANTIC AVE	BOSTON PROPER	42	BOSTON HARBOR
25D040	MAJOR	ABOUT 390' N OF INTERSECTION OF SOLDIERS FIELD & WESTERN AVE	ALLSTON/BRIGHTON	36	CHARLES RIVER
25E037	MAJOR	EASEMENT/TELFORD ST	ALLSTON/BRIGHTON	66	CHARLES RIVER
25G041	NON MAJOR	SOLDIERS FIELD RD/NORTH OF WESTERN AVE BRIDGE	ALLSTON/BRIGHTON	24	CHARLES RIVER
25L058	MAJOR	CHRISTOPHER COLUMBUS PARK-WATERFRONT	BOSTON PROPER	84	BOSTON INNER HARBOR
25L144	NON MAJOR	CLARK STREET	BOSTON PROPER	12	BOSTON INNER HARBOR
25M006	MAJOR	MARGINAL ST EXT	EAST BOSTON	36	BOSTON INNER HARBOR
25M007	MAJOR	MARGINAL ST EXT (NEAR ORLEANS ST)	EAST BOSTON	42	BOSTON INNER HARBOR
26F038	MAJOR	HARVARD ST EXT	ALLSTON/BRIGHTON	36	CHARLES RIVER
26G001	MAJOR	SOLDIERS FIELD ROAD/EAST OF HARVARD UNIVERSITY	ALLSTON/BRIGHTON	36	CHARLES RIVER
26J049	MAJOR	NASHUA STREET	BOSTON PROPER	60	CHARLES RIVER
26J052	NON MAJOR	MONSIGNOR O'BRIEN HWY	BOSTON PROPER	12	CHARLES RIVER
26J101 (replaced 26J055)	MAJOR	LEVERETT CIRCLE	BOSTON PROPER	36	BOSTON INNER HARBOR
26K035	MAJOR	BEVERLY STREET NEAR WARREN BRIDGE	BOSTON PROPER	48x72	CHARLES RIVER
26K050	MAJOR	NASHUA STREET	BOSTON PROPER	36	CHARLES RIVER
26K052	NON MAJOR	COMMERCIAL STREET AT CHARTER ST.	BOSTON PROPER	16x24	CHARLES RIVER
26K099	MAJOR	WARREN ST EXT (FORMERLY CHELSEA ST/JOINER EXT)	CHARLESTOWN	84	CHARLES RIVER
26K254	MAJOR	NORTH WASHINGTON ST BRIDGE	CHARLESTOWN	36	BOSTON HARBOR
26L106	MAJOR	NEAR BATTERY WHARF	BOSTON PROPER	24X24	BOSTON INNER HARBOR
26L109	MAJOR	CLIPPER SHIP LANE	EAST BOSTON	48	BOSTON INNER HARBOR
26L070	MAJOR	HANOVER ST EXT	BOSTON PROPER	36	BOSTON INNER HARBOR
26L084	MAJOR	LEWIS STREET	EAST BOSTON	18	BOSTON INNER HARBOR
27J001	MAJOR	EASEMENT/INTERSTATE 93	CHARLESTOWN	72	MILLERS RIVER
27J044	MAJOR	PRISON POINT BRIDGE	CHARLESTOWN	15	MILLERS RIVER
27J096	MAJOR	EASEMENT/INTERSTATE 93	CHARLESTOWN	54	MILLERS RIVER
27L020/22	MAJOR	PIER 4 EASEMENT - NAVY YARD	CHARLESTOWN	2-20&24	BOSTON INNER HARBOR
28K010	MAJOR	OLD LANDING WAY EXT	CHARLESTOWN	42	LITTLE MYSTIC CHANNEL
28K061	MAJOR	EASEMENT/MEDFORD ST/OLD IRONSIDE	CHARLESTOWN	42	LITTLE MYSTIC CHANNEL
28K386	MAJOR	EASEMENT/TERMINAL ST	CHARLESTOWN	30	LITTLE MYSTIC CHANNEL
28L073	NON MAJOR	EASEMENT/5TH AVE - NAVY YARD	CHARLESTOWN	6	LITTLE MYSTIC CHANNEL
28L074/075/076	MAJOR	16TH ST/5TH AVE - NAVY YARD	CHARLESTOWN	3-30	LITTLE MYSTIC CHANNEL
28L077	NON MAJOR	EASEMENT/16TH ST - NAVY YARD	CHARLESTOWN	10	LITTLE MYSTIC CHANNEL
28N156	NON MAJOR	COLERIDGE ST EXT	EAST BOSTON	12	BOSTON HARBOR
28N207	MAJOR	MOORE ST	EAST BOSTON	54X57	BOSTON HARBOR
28O025	NON MAJOR	COLERIDGE/WADSWORTH ST. EXT	EAST BOSTON	30	BOSTON HARBOR
28P001	NON MAJOR	EASEMENT/NANCIA STREET	EAST BOSTON	12	BOSTON HARBOR
29J029	NON MAJOR	ALFORD STREET/RYAN PLGD	CHARLESTOWN	15	MYSTIC RIVER
29J129	MAJOR	ALFORD STREET SOUTH	CHARLESTOWN	15	MYSTIC RIVER
29J212	MAJOR	EASEMENT/MEDFORD ST(NEXT TO CSO 017)	CHARLESTOWN	72	MYSTIC RIVER
29M049	MAJOR	CONDOR STREET	EAST BOSTON	48	CHELSEA RIVER
29N015	MAJOR	CHELSEA STREET	EAST BOSTON	42X44.5	CHELSEA RIVER
29N135	MAJOR	ADDISON ST	EAST BOSTON	30X30	CHELSEA RIVER
29O001	MAJOR	BENNINGTON ST (CONSTITUTION BEACH)	EAST BOSTON	66	BOSTON HARBOR NEAR CONSTITUTION BEACH
29P005	NON MAJOR	SARATOGA STREET	EAST BOSTON	12	BOSTON HARBOR
29P044	NON MAJOR	SHAWSHEEN ST	EAST BOSTON	12	BOSTON HARBOR
30J006	MAJOR	EASEMENT/ALFORD ST/EVERETT	CHARLESTOWN	18	MYSTIC RIVER
30J019	MAJOR	ALFORD ST/NORTH	CHARLESTOWN	15	MYSTIC RIVER
30J030	MAJOR	EASEMENT/ARLINGTON AVE	CHARLESTOWN	42	MYSTIC RIVER
30P062	NON MAJOR	PALERMO AVE EXT	EAST BOSTON	12	WETLANDS
30P107	NON MAJOR	WALDEMAR AVENUE	EAST BOSTON	15	WETLANDS
31O004	NON MAJOR	EASEMENT/WALDEMAR AVE	EAST BOSTON	15	CHELSEA RIVER
31P084	NON MAJOR	EASEMENT/BENNINGTON ST	EAST BOSTON	30	BELLE ISLE INLET, REVERE

Table 1-2. BWSC Interconnections

INTERCONNECTION	INTERCONNECT- ING MANHOLE NUMBER	LOCATION	NEIGHBORHOOD	RECEIVING WATER
DCR 02F099	02FMH120	NEPONSET VALLEY PARKWAY	HYDE PARK	DCR DRAIN TO NEPONSET
DCR 03F159	03FMH056	WAKEFIELD AVENUE	HYDE PARK	DCR DRAIN TO NEPONSET
DCR 03F162	04FMH090	FARADAY STREET	HYDE PARK	DCR DRAIN TO NEPONSET
Dedham Drains	06CMH117	WASHINGTON ST NEAR MESHAKA ST	WEST ROXBURY	INTO DEDHAM
Dedham Drains	06DMH097	EDGEMERE RD. EXTENDED	WEST ROXBURY	INTO DEDHAM
DCR 11B028	11BMH049	VFW PKWY @ GLENHAM ST	WEST ROXBURY	DCR DRAIN TO CHARLES
DOT 12L296	12LMH374	CONLEY STREET	DORCHESTER	DCR DRAIN TO DORCHESTER BAY
DCR 13L137	12LMH304	TENEAN STREET	DORCHESTER	DCR DRAIN TO DORCHESTER BAY
Brookline Drains	14EMH036	PAYSON ROAD @ HACKENSACK ROAD	WEST ROXBURY	TO BROOKLINE DRAINS
Brookline Drains	20DMH019	PRENDERGAST AVE (BC/CHESTNUT HILL RESERVOIR)	BRIGHTON	TO BROOKLINE DRAINS
Brookline Drains	20DMH055	VILLAGE BROOK-STRATHMORE	BRIGHTON	BROOKLINE DRAINS TO VILLAGE BROOK
Brookline Drains	20DMH062	VILLAGE BROOK-ENGLEWOOD AT KILSYTH	BRIGHTON	BROOKLINE DRAINS TO VILLAGE BROOK
Brookline Drains	21DMH319	VILLAGE BROOK-KILSYTH	BRIGHTON	BROOKLINE DRAINS TO VILLAGE BROOK
Brookline Drains	21EMH064	TANNERY BROOK	BRIGHTON	BROOKLINE DRAINS TO TANNERY BROOK
Brookline Drains	21EMH086	VILLAGE BROOK-CUMMINGS	BRIGHTON	BROOKLINE DRAINS TO VILLAGE BROOK
Newton Drains	23BMH089	HUNNEWELL AVENUE	BRIGHTON	TO NEWTON DRAINS
DCR 23I019	23HMH081	BEACON STREET	BACK BAY	DCR DRAIN TO MUDDY RIVER
Somerville Drains	28IMH015	ROLAND STREET	CHARLESTOWN	TO SOMERVILLE DRAINS

Table 1-3. Combined Sewer Overflow Outfalls

CSO OUTFALL NUMBER	STREET LOCATION	NEIGHBORHOOD	RECEIVING WATERS
18LCSO086	Day Blvd @ Carson Beach Bath House	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY
19LCSO084	Day Blvd @ H St	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY
19LCSO085	Day Blvd @ Babe Ruth Park Dr	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY
19MCSO082	Day Blvd @ N St	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY
19MCSO083	Day BLVD @ N St	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY
19NCSO081	Day Blvd @ Farragut Rd	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY
21KCSO070	West 4th Street	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL
21LCSO076	Pappas Way	SOUTH BOSTON	BOSTON HARBOR/RESERVED CHANNEL
21MCSO078	East First Street	SOUTH BOSTON	BOSTON HARBOR/RESERVED CHANNEL
21MCSO079	Summer St	SOUTH BOSTON	BOSTON HARBOR/RESERVED CHANNEL
21NCSO080	Conley Marine Terminal	EAST BOSTON	BOSTON HARBOR/RESERVED CHANNEL
22KCSO065	25 Dorchester Ave	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL
22KCSO068	Fort Point Channel North of Broadway Bridge	CENTRAL	BOSTON HARBOR/FORT POINT CHANNEL
22KCSO072	Dorchester Avenue	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL
22LCSO073	1 Gillette Pk	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL
23LCSO062	Under Seaport Blvd Bridge	CENTRAL	BOSTON HARBOR/FORT POINT CHANNEL
23LCSO064	245 Summer St	CENTRAL	BOSTON HARBOR/FORT POINT CHANNEL
24LCSO060	Long Wharf/Aquarium	CENTRAL	BOSTON HARBOR/INNER HARBOR
24NCSO003	Harborside Drive near Hyatt	EAST BOSTON	BOSTON HARBOR/INNER HARBOR
25LCSO057	Eastern Ave	CENTRAL	BOSTON HARBOR/INNER HARBOR
25MCSO005	Sumner Street/Porzio Park	EAST BOSTON	BOSTON HARBOR/INNER HARBOR
25NCSO004	Maverick Street	EAST BOSTON	BOSTON HARBOR/INNER HARBOR
26LCSO009	Sumner St at New St	EAST BOSTON	BOSTON HARBOR/INNER HARBOR
27LCSO010	141 Border St	EAST BOSTON	BOSTON HARBOR/INNER HARBOR
28LCSO012	Border St at Middle School	EAST BOSTON	BOSTON HARBOR/INNER HARBOR
28LCSO019	Chelsea St at 16th St	CHARLESTOWN	BOSTON HARBOR/INNER HARBOR
29JCSO017	545 Medford St	CHARLESTOWN	MYSTIC RIVER
29MCSO013	Under Meridian St Bridge	EAST BOSTON	CHELSEA CREEK
29NCSO014	Chelsea St. at East Eagle	EAST BOSTON	CHELSEA CREEK
21HCSO046	The Fenway	FENWAY	CHARLES VIA MUDDY RIVER

Table 2-5. 2022 Revised Priority Ranking

FACILITY ID ^A	CRITERIA	Beach	Discharge Location SCORE	2021 Data				2021 Data				Most Recent Insp Date ^B	Most Recent Insp SCORE	TOTAL SCORE	Ranking
				Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)	Wet Weather SCORE				
28PSDO1	SDO	Yes	10	Flow	Enterococci	>80000	10	Not Required				10/28/2021	0	9.00	1.00
13LSDO090	SDO	Yes	10	Flow	Enterococci	22000	7	Not Required				12/14/2021	0	6.60	1.00
15LSDO089	SDO	Yes	10	Flow	Enterococci	3700	4	Not Required				10/6/2015	0	4.20	1.00
29PSDO44	SDO	Yes	10	Flow	Enterococci	910	3	Not Required				10/28/2021	0	3.40	1.00
12LMH374	Interconnection	Yes	10	Dry			0	Flow	Enterococci	2400	4	3/16/2015	0	1.80	1.00
28NSDO156	SDO	Yes	10	Dry			0	Flow	Enterococci	1200	4	10/17/2012	0	1.80	1.00
12LMH304	Interconnection	Yes	10	Flow	Enterococci	10	0	Not Required				8/12/2014	0	1.00	1.00
12LSDO092	SDO	Yes	10	Flow	Enterococci	10	0	Not Required				12/4/2014	0	1.00	1.00
29OSDO001	SDO	Yes	10	Flow	Enterococci	<10	0	Not Required				7/25/2016	0	1.00	1.00
28NSDO207	SDO	Yes	10	Flow	Enterococci	90	0	Not Required				11/7/2016	0	1.00	1.00
15LSDO088	SDO	Yes	10	Flow	Enterococci	90	0	Not Required				12/14/2021	0	1.00	1.00
28OSDO25	SDO	Yes	10	Flow	Enterococci	10	0	Not Required				7/22/2014	0	1.00	1.00
21DMH319	Interconnection	No	10	Flow	E.coli	37000	7	Not Required				4/12/2021	0	6.60	2.00
20DNP140	Interconnection	No	10	Flow	E.coli	5000	4	Not Required				3/17/2021	0	4.20	2.00
6DMH97	Interconnection	No	10	Flow	E.coli	1500	3	Not Required				7/19/2016	0	3.40	2.00
3FMH56	Interconnection	No	10	Flow	E.coli	3500	3	Not Required				11/9/2015	0	3.40	2.00
21EMH64	Interconnection	No	10	Flow	E.coli	2900	3	Not Required				11/23/2021	0	3.40	2.00
20DMH19	Interconnection	No	10	Flow	E.coli	270	2	Not Required				12/8/2020	0	2.60	2.00
23BMH89	Interconnection	No	10	Flow	E.coli	250	2	Not Required				11/17/2021	0	2.60	2.00
23HMH81	Interconnection	No	10	Dry			0	Standing Water				Pre-Consent Decree	10	2.20	2.00
2FMH120	Interconnection	No	10	Dry			0	Flow	E.coli	1800	3	9/30/2005	5	2.10	2.00
6CMH117	Interconnection	No	10	Dry			0	Flow	E.coli	15000	5	5/30/2018	0	2.00	2.00
20DMH62	Interconnection	No	10	Dry	E.coli	7000	4	Flow	E.coli	7000	4	9/16/2019	0	1.80	2.00
28IMH15	Interconnection	No	10	Standing Water			1	Submerged				7/17/2018	0	1.80	2.00
11BMH49	Interconnection	No	10	Dry			0	Flow	E.coli	6200	4	2/28/2017	0	1.80	2.00
14EMH36	Interconnection	No	10	Dry			0	Flow	E.coli	140	0	3/7/2016	0	1.00	2.00
4FMH90	Interconnection	No	10	Flow	E.coli	40	0	Not Required				10/29/2015	0	1.00	2.00
21EMH86	Interconnection	No	10	Dry			0	Not Required				3/15/2021	0	1.00	2.00
19GSDO043	SDO	No	0	Flow	E.coli	>80000	10	Not Required				9/28/2021	0	8.00	3.00
6GSDO109	SDO	No	0	Flow	E.coli	>80000	10	Not Required				6/9/2020	0	8.00	3.00
10LSDO096	SDO	No	0	Flow	Enterococci	73000	9	Not Required				8/8/2017	0	7.20	3.00
17FSDO12	SDO	No	0	Flow	E.coli	61000	9	Not Required				5/24/2021	0	7.20	3.00
8BSDO122	SDO	No	0	Flow	E.coli	43000	8	Flow	E.coli	25000	6	9/18/2019	0	6.00	3.00
21HCSO046-1 (19HMH222)	CSO	No	0	Flow	E.coli	38000	7	Not Required				11/1/2021	0	5.60	3.00
7HSDO105	SDO	No	0	Flow	E.coli	37000	7	Not Required				10/6/2021	0	5.60	3.00
21HCSO046-1 (23IMH1)	CSO	No	0	Flow	E.coli	32000	7	Not Required				2/13/2020	0	5.60	3.00
25MSDO006	SDO	No	0	Flow	Enterococci	28000	7	Not Required				11/23/2021	0	5.60	3.00
8ISDO156	SDO	No	0	Flow	E.coli	33000	7	Flow	E.coli	5100	4	9/15/2015	0	5.00	3.00
7HSDO285	SDO	No	0	Flow	E.coli	29000	6	Not Required				2/11/2020	0	4.80	3.00
6GSDO111	SDO	No	0	Flow	E.coli	27000	6	Not Required				9/24/2013	0	4.80	3.00
18GSDO233	SDO	No	0	Flow	E.coli	23000	6	Not Required				12/8/2020	0	4.80	3.00
8ESDO31	SDO	No	0	Flow	E.coli	22000	6	Not Required				11/18/2015	0	4.80	3.00
10LSDO094	SDO	No	0	Flow	Enterococci	10000	6	Not Required				8/30/2021	0	4.80	3.00
26KSDO099	SDO	No	0	Flow	Enterococci	10000	6	Not Required				9/29/2015	0	4.80	3.00
5GSDO116	SDO	No	0	Flow	E.coli	13000	5	Not Required				3/23/2009	5	4.50	3.00
22KCSO068	CSO	No	0	Flow	Enterococci	2700	7	Submerged				11/13/2019	0	4.40	3.00
6GSDO108	SDO	No	0	Flow	E.coli	3550	3	Flow	E.coli	80000	10	11/15/2015	0	3.80	3.00
6GSDO165	SDO	No	0	Flow	E.coli	8000	4	Not Required				4/11/2014	0	3.20	3.00
24GSDO035	SDO	No	0	Flow	E.coli	8000	4	Not Required				12/13/2021	0	3.20	3.00
27JSDO001	SDO	No	0	Flow	Enterococci	6700	5	Standing Water				8/23/2018	0	3.20	3.00
28LSDO074/28LSDO075/28LSDO076	SDO	No	0	Flow	Enterococci	4550	4	Not Required				11/7/2018	0	3.20	3.00
21KSDO069	SDO	No	0	Flow	Enterococci	2800	4	Not Required				3/27/2017	0	3.20	3.00
29JSDO212	SDO	No	0	Flow	Enterococci	2300	4	Not Required				11/17/2021	0	3.20	3.00
12MSDO091	SDO	No	0	Flow	Enterococci	2200	4	Not Required				5/9/2018	0	3.20	3.00
28KSDO010	SDO	No	0	Flow	Enterococci	2000	4	Not Required				3/13/2019	0	3.20	3.00
25LCSO057	CSO	No	0	Flow	Enterococci	1500	4	Not Required				7/29/2019	0	3.20	3.00
28KSDO61	SDO	No	0	Flow	Enterococci	1000	4	Not Required				1/11/2016	0	3.20	3.00
4FSDO119	SDO	No	0	Flow	E.coli	1900	3	Flow	E.coli	1600	3	9/18/2007	5	2.90	3.00
12ESDO418	SDO	No	0	Flow	E.coli	3400	3	Flow	E.coli	5400	4	7/17/2019	0	2.60	3.00
24LSDO22	SDO	No	0	Flow	Enterococci	180	2	Not Required				NA	10	2.60	3.00
6DSDO91	SDO	No	0	Submerged			1	Flow	E.coli	66000	9	12/18/2018	0	2.40	3.00
27JSDO044	SDO	No	0	Standing Water			1	Flow	Enterococci	3800	4	NA	10	2.40	3.00
8JSDO103	SDO	No	0	Flow	E.coli	4200	3	Not Required				2/7/2017	0	2.40	3.00
21HCSO046-1 (15GMH290)	CSO	No	0	Flow	E.coli	3400	3	Not Required				12/14/2021	0	2.40	3.00
13SDO0078	SDO	No	0	Flow	E.coli	2200	3	Flow	E.coli	1300	3	3/19/2019	0	2.40	3.00
23GSDO132	SDO	No	0	Flow	E.coli	1800	3	Not Required				11/22/2021	0	2.40	3.00
19GSDO194	SDO	No	0	Flow	E.coli	1800	3	Not Required				1/16/2020	0	2.40	3.00
21HSDO001	SDO	No	0	Flow	E.coli	1600	3	Not Required				1/13/2020	0	2.40	3.00
20GSDO161	SDO	No	0	Flow	E.coli	1500	3	Not Required				8/12/2019	0	2.40	3.00
4FSDO204	SDO	No	0	Flow	E.coli	1400	3	Not Required				8/23/2018	0	2.40	3.00
11ISDO577	SDO	No	0	Flow	E.coli	1000	3	Not Required				10/18/2021	0	2.40	3.00
6GSDO110	SDO	No	0	Flow	E.coli	1000	3	Not Required				11/1/2021	0	2.40	3.00
25LSDO144	SDO	No	0	Flow	Enterococci	900	3	Not Required				4/19/2018	0	2.40	3.00
8JSDO102	SDO	No	0	Dry			0	Flow	Enterococci	41000	9	11/16/2009	5	2.30	3.00
12BDO33	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	20000	6	NA	10	2.20	3.00
24GSDO174	SDO	No	0	Flow	E.coli	370	2	Not Required				4/14/2009	5	2.10	3.00
28KSDO386	SDO	No	0	Flow	Enterococci	140	2	Not Required				4/21/2011	5	2.10	3.00
24NCSO003	CSO	No	0	Standing Water			1	Flow	Enterococci	25000	7	7/15/2019	0	2.00	3.00
6DSDO84	SDO	No	0	Dry			0	Flow	E.coli	19000	5	Pre-Consent Decree	10	2.00	3.00
4FSDO203	SDO	No	0	Dry			0	Flow	E.coli	11000	5	NA	10	2.00	3.00
6DSDO83	SDO	No	0	Dry			0	Flow	E.coli	11000	5	NA	10	2.00	3.00

FACILITY ID ^A	WEIGHT (w/ WW):		10%				60%			20%		10%	TOTAL SCORE	Ranking	
	WEIGHT (w/o WW):		10%				80%			0%		10%			
	CRITERIA:	Beach	Discharge Location SCORE	Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)	Wet Weather SCORE	Most Recent Pipe/Bldg Insp Date ^B	Most Recent Insp SCORE		
4FSDO1	SDO	No	0	Dry			0	Flow	E.coli	11000	5	NA	10	2.00	3.00
23LSDO15	SDO	No	0	Dry			0	Flow	Enterococci	5100	5	NA	10	2.00	3.00
7CSDO006	SDO	No	0	Flow	E.coli	910	2	Flow	E.coli	1500	3	12/2/2021	0	1.80	4.00
13DSDO077	SDO	No	0	Flow	E.coli	600	2	Flow	E.coli	2300	3	3/19/2019	0	1.80	4.00
5ESDO181	SDO	No	0	Dry			0	Flow	E.coli	6400	4	Pre-Consent Decree	10	1.80	4.00
5FSDO254	SDO	No	0	Dry			0	Flow	E.coli	5000	4	Pre-Consent Decree	10	1.80	4.00
29PSDO005	SDO	No	0	Dry			0	Flow	Enterococci	1300	4	NA	10	1.80	4.00
6FSDO233	SDO	No	0	Standing Water			1	Submerged			1	Pre-Consent Decree	10	1.80	4.00
12HSDO1 (12HMH26)	SDO	No	0	Standing Water			1	Submerged			1	NA	10	1.80	4.00
12HSDO1 (12HMH27)	SDO	No	0	Standing Water			1	Submerged			1	Pre-Consent Decree	10	1.80	4.00
27JSDO096	SDO	No	0	Standing Water			1	Submerged			1	NA	10	1.80	4.00
28LSDO077	SDO	No	0	Submerged			1	Submerged			1	NA	10	1.80	4.00
2FSDO85	SDO	No	0	Dry			0	Flow	E.coli	23000	6	6/11/2012	5	1.70	4.00
22CSDO384	SDO	No	0	Flow	E.coli	410	2	Not Required				11/12/2015	0	1.60	4.00
19LCSO084	CSO	No	0	Flow	Enterococci	410	2	Not Required				6/21/2018	0	1.60	4.00
23LSDO075	SDO	No	0	Flow	Enterococci	400	2	Not Required				8/21/2018	0	1.60	4.00
13FSDO12	SDO	No	0	Flow	E.coli	400	2	Not Required				2/21/2017	0	1.60	4.00
22LCSO073	CSO	No	0	Flow	Enterococci	360	2	Not Required				8/22/2019	0	1.60	4.00
31OSDO4	SDO	No	0	Flow	Enterococci	270	2	Not Required				4/5/2021	0	1.60	4.00
27LSDO020/27LSDO022	SDO	No	0	Flow	Enterococci	260	2	Not Required				12/7/2020	0	1.60	4.00
26KSDO35	SDO	No	0	Flow	Enterococci	250	2	Not Required				8/2/2019	0	1.60	4.00
22KCSO065	CSO	No	0	Flow	Enterococci	200	2	Not Required				1/10/2019	0	1.60	4.00
21MSDO50	SDO	No	0	Flow	Enterococci	170	2	Not Required				5/14/2015	0	1.60	4.00
29MCSO013	CSO	No	0	Flow	Enterococci	170	2	Not Required				1/23/2020	0	1.60	4.00
16LSDO097	SDO	No	0	Flow	Enterococci	170	2	Not Required				9/21/2021	0	1.60	4.00
21KCSO070	CSO	No	0	Flow	Enterococci	140	2	Not Required				8/18/2021	0	1.60	4.00
18LCSO086	CSO	No	0	Flow	Enterococci	120	2	Not Required				1/9/2019	0	1.60	4.00
12HSDO92	SDO	No	0	Flow	E.coli	50	0	Flow	E.coli	1900	3	NA	10	1.60	4.00
5GSDO112	SDO	No	0	Dry			0	Flow	E.coli	42000	8	11/16/2015	0	1.60	4.00
13FSDO95	SDO	No	0	Dry			0	Flow	E.coli	3400	3	NA	10	1.60	4.00
13BSDO11	SDO	No	0	Dry			0	Flow	E.coli	2900	3	Pre-Consent Decree	10	1.60	4.00
20GSDO163	SDO	No	0	Dry			0	Flow	E.coli	1900	3	Pre-Consent Decree	10	1.60	4.00
3ESDO207	SDO	No	0	Dry			0	Flow	E.coli	1700	3	NA	10	1.60	4.00
26KSDO050	SDO	No	0	Dry			0	Flow	Enterococci	700	3	NA	10	1.60	4.00
1FSDO31	SDO	No	0	Dry			0	Flow	E.coli	11000	5	12/17/2011	5	1.50	4.00
4FSDO189	SDO	No	0	Dry			0	Flow	E.coli	11000	5	6/6/2012	5	1.50	4.00
11BSDO123	SDO	No	0	Flow	E.coli	700	2	Standing Water			1	3/16/2021	0	1.40	4.00
23LCSO062	CSO	No	0	Flow	Enterococci	20	0	Flow	Enterococci	190	2	NA	10	1.40	4.00
29JSDO029	SDO	No	0	Flow	Enterococci	<10	0	Flow	Enterococci	160	2	NA	10	1.40	4.00
5ESDO183	SDO	No	0	Dry			0	Flow	E.coli	31000	7	6/15/2015	0	1.40	4.00
26LSDO106	SDO	No	0	Dry			0	Flow	Enterococci	22000	7	5/1/2018	0	1.40	4.00
25MSDO007	SDO	No	0	Dry			0	Flow	Enterococci	22000	7	1/11/2016	0	1.40	4.00
26KSDO052	SDO	No	0	Dry			0	Flow	Enterococci	21000	7	5/30/2017	0	1.40	4.00
12FSDO305	SDO	No	0	Standing Water			1	Flow	E.coli	8000	4	10/27/2015	0	1.40	4.00
3ESDO186	SDO	No	0	Standing Water			1	Flow	E.coli	6000	4	8/21/2017	0	1.40	4.00
26JSDO101	SDO	No	0	Standing Water			1	Flow	Enterococci	4500	4	7/22/2019	0	1.40	4.00
8KSDO49	SDO	No	0	Dry			0	Flow	Enterococci	4900	4	11/16/2009	5	1.30	4.00
9KSDO16	SDO	No	0	Dry			0	Flow	Enterococci	4700	4	4/5/2012	5	1.30	4.00
5FSDO244	SDO	No	0	Submerged			1	Submerged			1	5/19/2009	5	1.30	4.00
26FSDO038	SDO	No	0	Standing Water			1	Standing Water			1	1/11/2007	5	1.30	4.00
6DSDO85	SDO	No	0	Dry			0	Flow	E.coli	26000	6	11/18/2015	0	1.20	4.00
26LSDO70	SDO	No	0	Dry			0	Flow	Enterococci	13000	6	6/26/2018	0	1.20	4.00
23LCSO064	CSO	No	0	Dry			0	Flow	Enterococci	11000	6	1/17/2019	0	1.20	4.00
22KCSO072	CSO	No	0	Dry			0	Flow	Enterococci	11000	6	5/6/2019	0	1.20	4.00
25ESDO037	SDO	No	0	Standing Water			1	Flow	E.coli	1200	3	11/11/2021	0	1.20	4.00
12BSDO10	SDO	No	0	Dry			0	Standing Water			1	Pre-Consent Decree	10	1.20	4.00
6DSDO86	SDO	No	0	Dry			0	Standing Water			1	NA	10	1.20	4.00
8ISDO153	SDO	No	0	Dry			0	Flow	E.coli	2500	3	6/2/2009	5	1.10	4.00
1ESDO24	SDO	No	0	Dry			0	Flow	E.coli	1700	3	1/18/2012	5	1.10	4.00
2ESDO5	SDO	No	0	Dry			0	Flow	E.coli	1700	3	1/9/2012	5	1.10	4.00
28LCSO012	CSO	No	0	Flow	Enterococci	30	0	Not Required				NA	10	1.00	4.00
26LSDO109	SDO	No	0	Flow	Enterococci	10	0	Not Required				NA	10	1.00	4.00
9BSDO49	SDO	No	0	Flow	E.coli	<10	0	Flow	E.coli	170	0	NA	10	1.00	4.00
19NCSO081	CSO	No	0	Dry			0	Flow	Enterococci	8000	5	1/16/2019	0	1.00	4.00
13FSDO97	SDO	No	0	Dry			0	Flow	E.coli	90	0	NA	10	1.00	4.00
13FSDO96	SDO	No	0	Dry			0	Flow	E.coli	10	0	NA	10	1.00	4.00
5ESDO180	SDO	No	0	Dry			0	Flow	E.coli	<10	0	NA	10	1.00	4.00
20GSDO164	SDO	No	0	Dry			0	Dry				NA	10	1.00	4.00
21HSDO048	SDO	No	0	Dry			0	Dry				NA	10	1.00	4.00
21CSDO212	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	510	2	3/19/2012	5	0.90	5.00
7HSDO346	SDO	No	0	Dry			0	Flow	E.coli	670	2	3/24/2009	5	0.90	5.00
8ISDO155	SDO	No	0	Dry			0	Flow	E.coli	250	2	6/2/2009	5	0.90	5.00
8JSDO41	SDO	No	0	Dry			0	Flow	E.coli	8000	4	9/15/2015	0	0.80	5.00
21HSDO047	SDO	No	0	Standing Water			1	Not Required				10/25/2018	0	0.80	5.00
21HSDO045	SDO	No	0	Standing Water			1	Not Required				10/25/2018	0	0.80	5.00
12BSDO124	SDO	No	0	Standing Water			1	Not Required				12/9/2021	0	0.80	5.00
5FSDO245	SDO	No	0	Standing Water			1	Submerged			1	5/8/2018	0	0.80	5.00
21HSDO002	SDO	No	0	Standing Water			1	Standing Water			1	1/13/2020	0	0.80	5.00
2FSDO93	SDO	No	0	Submerged			1	Submerged			1	11/3/2015	0	0.80	5.00
19GSDO199	SDO	No	0	Standing Water			1	Standing Water			1	8/22/2013	0	0.80	5.00
6HSDO106	SDO	No	0	Dry			0	Submerged			1	9/6/2011	5	0.70	5.00
23HSDO042	SDO	No	0	Flow	E.coli	<10	0	Flow	E.coli	1300	3	1/13/2020	0	0.60	5.00
11GSDO344 (11GMH246)	SDO	No	0	Dry			0	Flow	E.coli	4200	3	10/2/2018	0	0.60	5.00
8ESDO33	SDO	No	0	Dry			0	Flow	E.coli	3400	3	11/18/2015	0	0.60	5.00

FACILITY ID ^A	WEIGHT (w/ WW):		10%				60%			20%		10%	TOTAL SCORE	Ranking	
	WEIGHT (w/o WW):		10%				80%		0%		10%				
	CRITERIA:	Beach	Discharge Location SCORE	Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)	Wet Weather SCORE	Most Recent Pipe/Bldg Insp Date ^B	Most Recent Insp SCORE		
11GSDO344 (11GMH247)	SDO	No	0	Dry			0	Flow	E.coli	3200	3	10/2/2018	0	0.60	5.00
8BSDO126	SDO	No	0	Dry			0	Flow	E.coli	3200	3	1/14/2014	0	0.60	5.00
14CSDO9	SDO	No	0	Dry			0	Flow	E.coli	3100	3	5/13/2010	0	0.60	5.00
23HSDO040	SDO	No	0	Dry			0	Flow	E.coli	2200	3	1/13/2020	0	0.60	5.00
5GSDO115	SDO	No	0	Dry			0	Flow	E.coli	2100	3	11/16/2015	0	0.60	5.00
8ISDO207	SDO	No	0	Dry			0	Flow	E.coli	1500	3	3/2/2017	0	0.60	5.00
8FSDO1	SDO	No	0	Dry			0	Flow	E.coli	1100	3	3/14/2019	0	0.60	5.00
13ESDO174	SDO	No	0	Dry			0	Flow	E.coli	1000	3	8/23/2018	0	0.60	5.00
23LSDO074	SDO	No	0	Dry			0	Flow	E.coli	1000	3	11/14/2018	0	0.60	5.00
24DSDO032	SDO	No	0	Standing Water			1	Flow	E.coli	20	0	11/26/2019	0	0.60	5.00
30PSDO62	SDO	No	0	Flow	Enterococci	30	0	Not Required				9/20/2012	5	0.50	5.00
29NSDO135	SDO	No	0	Flow	Enterococci	30	0	Not Required				8/1/2007	5	0.50	5.00
31PSDO84	SDO	No	0	Flow	Enterococci	20	0	Not Required				5/18/2009	5	0.50	5.00
24DSDO150	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	<10	0	1/9/2006	5	0.50	5.00
30PSDO107	SDO	No	0	Flow	Enterococci	10	0	Not Required				5/18/2009	5	0.50	5.00
24GSDO034	SDO	No	0	Flow	E.coli	<10	0	Not Required				5/18/2009	5	0.50	5.00
25GSDO041	SDO	No	0	Flow	E.coli	<10	0	Not Required				5/18/2009	5	0.50	5.00
2FSDO120	SDO	No	0	Flow	E.coli	<10	0	Not Required				10/22/2007	5	0.50	5.00
4ESDO64	SDO	No	0	Dry			0	Flow	E.coli	230	0	4/28/2009	5	0.50	5.00
8ISDO158	SDO	No	0	Dry			0	Flow	E.coli	170	0	6/2/2009	5	0.50	5.00
7HSDO347	SDO	No	0	Dry			0	Flow	E.coli	50	0	3/25/2009	5	0.50	5.00
23LSDO195	SDO	No	0	Pending ^D			0	Not Required				5/20/2006	5	0.50	5.00
4ESDO69	SDO	No	0	Dry			0	Not Required				1/9/2012	5	0.50	5.00
4FSDO118	SDO	No	0	Dry			0	Not Required				8/11/2011	5	0.50	5.00
30JSDO19	SDO	No	0	Flow	Enterococci	30	0	Flow	Enterococci	420	2	5/13/2015	0	0.40	5.00
8ISDO50	SDO	No	0	Flow	E.coli	<10	0	Flow	E.coli	600	2	5/29/2019	0	0.40	5.00
6GSDO166	SDO	No	0	Flow	E.coli	<10	0	Flow	E.coli	410	2	3/25/2019	0	0.40	5.00
7HSDO348	SDO	No	0	Dry			0	Flow	E.coli	740	2	5/20/2019	0	0.40	5.00
6HSDO107	SDO	No	0	Dry			0	Flow	E.coli	500	2	5/9/2017	0	0.40	5.00
26KSDO254	SDO	No	0	Dry			0	Flow	Enterococci	150	2	1/0/1900	0	0.40	5.00
29JCSO017	CSO	No	0	Flow	Enterococci	70	0	Standing Water			1	7/19/2018	0	0.20	5.00
12BSDO14	SDO	No	0	Dry			0	Cannot Open			1	12/11/2018	0	0.20	5.00
13ESDO176	SDO	No	0	Insufficient Flow			0	Cannot Locate			1	11/2/2015	0	0.20	5.00
6DSDO184	SDO	No	0	NA ^C			0	Standing Water			1	NA	0	0.20	4.00
5CSDO110	SDO	No	0	Flow	E.coli	210	0	Not Required				5/30/2018	0	0.00	5.00
5FSDO117	SDO	No	0	Flow	E.coli	100	0	Flow	E.coli	45	0	12/10/2013	0	0.00	5.00
9LSDO095	SDO	No	0	Flow	Enterococci	100	0	Not Required				5/23/2018	0	0.00	5.00
13ESDO175	SDO	No	0	Flow	E.coli	90	0	Not Required				1/14/2015	0	0.00	5.00
21NCSO80	CSO	No	0	Flow	Enterococci	90	0	Not Required				4/16/2019	0	0.00	5.00
19MCSO082	CSO	No	0	Flow	Enterococci	80	0	Not Required				5/24/2021	0	0.00	5.00
22LSDO580	SDO	No	0	Flow	Enterococci	80	0	Not Required				1/11/2016	0	0.00	5.00
8CSDO25	SDO	No	0	Flow	E.coli	70	0	Not Required				7/12/2018	0	0.00	5.00
23LSDO164	SDO	No	0	Flow	Enterococci	60	0	Not Required				3/16/2016	0	0.00	5.00
17MSDO33	SDO	No	0	Flow	Enterococci	55	0	Not Required				12/18/2019	0	0.00	5.00
16LSDO122	SDO	No	0	Flow	Enterococci	50	0	Not Required				7/22/2021	0	0.00	5.00
21MCSO079	CSO	No	0	Flow	Enterococci	50	0	Not Required				8/2/2021	0	0.00	5.00
27LCSO010	CSO	No	0	Flow	Enterococci	50	0	Not Required				12/11/2018	0	0.00	5.00
9KSDO101	SDO	No	0	Flow	Enterococci	45	0	Not Required				9/23/2021	0	0.00	5.00
24LSDO233	SDO	No	0	Flow	Enterococci	45	0	Not Required				7/22/2019	0	0.00	5.00
25LSDO058	SDO	No	0	Flow	Enterococci	40	0	Not Required				8/27/2018	0	0.00	5.00
5ESDO184	SDO	No	0	Flow	E.coli	30	0	Flow	E.coli	20	0	2/1/2018	0	0.00	5.00
5FSDO253	SDO	No	0	Flow	E.coli	30	0	Not Required				7/16/2015	0	0.00	5.00
24LCSO060	CSO	No	0	Flow	Enterococci	30	0	Not Required				7/25/2019	0	0.00	5.00
21LCSO076	CSO	No	0	Flow	Enterococci	20	0	Not Required				8/2/2021	0	0.00	5.00
25DSDO040	SDO	No	0	Flow	E.coli	20	0	Not Required				9/4/2018	0	0.00	5.00
23LSDO196	SDO	No	0	Flow	Enterococci	20	0	Not Required				6/21/2018	0	0.00	5.00
29MSDO049	SDO	No	0	Flow	Enterococci	20	0	Not Required				7/10/2017	0	0.00	5.00
26GSDO001	SDO	No	0	Flow	E.coli	20	0	Not Required				10/31/2018	0	0.00	5.00
30JSDO6	SDO	No	0	Flow	Enterococci	20	0	Not Required				12/17/2019	0	0.00	5.00
6DSDO187	SDO	No	0	Flow	E.coli	10	0	Not Required				8/10/2017	0	0.00	5.00
21MCSO078	CSO	No	0	Flow	Enterococci	10	0	Not Required				11/25/2019	0	0.00	5.00
8ISDO154	SDO	No	0	Flow	E.coli	10	0	Not Required				6/3/2019	0	0.00	5.00
30JSDO30	SDO	No	0	Flow	Enterococci	10	0	Not Required				3/12/2015	0	0.00	5.00
29JSDO129	SDO	No	0	Flow	Enterococci	10	0	Not Required				5/14/2018	0	0.00	5.00
8ESDO35	SDO	No	0	Flow	E.coli	10	0	Not Required				2/21/2017	0	0.00	5.00
29NCSO014	CSO	No	0	Flow	Enterococci	10	0	Not Required				6/5/2018	0	0.00	5.00
26LCSO009	CSO	No	0	Flow	Enterococci	10	0	Not Required				6/3/2019	0	0.00	5.00
15FSDO288	SDO	No	0	Flow	E.coli	<10	0	Not Required				12/28/2020	0	0.00	5.00
11MSDO093	SDO	No	0	Flow	Enterococci	<10	0	Not Required				6/10/2019	0	0.00	5.00
24CSDO39	SDO	No	0	Flow	E.coli	<10	0	Not Required				3/1/2018	0	0.00	5.00
13FSDO11	SDO	No	0	Flow	E.coli	<10	0	Not Required				12/24/2018	0	0.00	5.00
4FSDO16	SDO	No	0	Flow	E.coli	<10	0	Not Required				7/29/2014	0	0.00	5.00
8CSDO26	SDO	No	0	Flow	E.coli	<10	0	Not Required				7/12/2018	0	0.00	5.00
25NCSO004	CSO	No	0	Flow	Enterococci	<10	0	Not Required				7/15/2019	0	0.00	5.00
28LCSO019	CSO	No	0	Flow	Enterococci	<10	0	Not Required				1/14/2019	0	0.00	5.00
19LCSO085	CSO	No	0	Flow	Enterococci	<10	0	Not Required				3/21/2017	0	0.00	5.00
21MSDO010	SDO	No	0	Flow	Enterococci	<10	0	Not Required				1/31/2019	0	0.00	5.00
29NSDO015	SDO	No	0	Flow	Enterococci	<10	0	Not Required				8/5/2019	0	0.00	5.00
5GSDO116A	SDO	No	0	Flow	E.coli	<10	0	Not Required				12/24/2018	0	0.00	5.00
6DSDO57	SDO	No	0	Flow	E.coli	<10	0	Not Required				4/16/2019	0	0.00	5.00
9ESDO243	SDO	No	0	Flow	E.coli	<10	0	Not Required				3/16/2020	0	0.00	5.00
12HSDO2	SDO	No	0	Flow	E.coli	<10	0	Not Required				8/30/2021	0	0.00	5.00
9ESDO229	SDO	No	0	Dry			0	Flow	E.coli	230	0	4/10/2014	0	0.00	5.00
10BSDO15	SDO	No	0	Dry			0	Flow	E.coli	90	0	2/12/2020	0	0.00	5.00

WEIGHT (w/ WW):		10%		60%		20%		10%						
WEIGHT (w/o WW):		10%		80%		0%		10%						
FACILITY ID ^A	CRITERIA: Beach	Discharge Location SCORE	Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)	Wet Weather SCORE	Most Recent Pipe/Bldg Insp Date ^B	Most Recent Insp SCORE	TOTAL SCORE	Ranking
8ISDO209	SDO	No	0 Dry			0	Flow	E.coli	70	0	2/22/2017	0	0.00	5.00
26JSDO052	SDO	No	0 Dry			0	Flow	E.coli	10	0	1/17/2019	0	0.00	5.00
23LSDO202	SDO	No	0 Pending ^D			0	Not Required				12/10/2018	0	0.00	5.00
25MCSO005	CSO	No	0 Dry			0	Not Required				12/10/2018	0	0.00	5.00
9KSDO100	SDO	No	0 Dry			0	Not Required				1/12/2016	0	0.00	5.00
5ESDO182	SDO	No	0 Dry			0	Not Required				11/18/2015	0	0.00	5.00
26LSDO084	SDO	No	0 Dry			0	Not Required				12/10/2018	0	0.00	5.00
3ESDO185	SDO	No	0 Dry			0	Not Required				2/22/2018	0	0.00	5.00
26JSDO049	SDO	No	0 Dry			0	Not Required				7/29/2019	0	0.00	5.00
28LSDO073	SDO	No	0 Dry			0	Dry				8/23/2018	0	0.00	5.00

NOTES:

^AOutfalls in Bold were prioritized by EPA in 2014

^BOutfalls with Date of Last Inspection "NA" were complete based on outfall screening and did not require upstream investigation of manholes or buildings. Outfalls listed as "Pre-Consent Decree" were completed prior to lodging of the Consent Decree in August 2012.

^COutfall 6DSDO184 appears to be a cross-culvert only with no connected storm drain infrastructure. No upstream manholes or catch basins located.

^DOutfalls 23LSDO195 and 23LSDO202 are located within an active construction zone and unaccessible throughout 2021

Table 2-12. Sub-Catchment Area Investigation Status by Manholes

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Manholes Investigated/ Completed ²	% Investigated/ Complete by Manholes ³
06G108	SDO	189	189	100%
06G110	SDO	46	46	100%
07C006	SDO	495	495	100%
07H105	SDO	486	486	100%
09E243	SDO	35	35	100%
09K101	SDO	34	34	100%
10L094	SDO	849	849	100%
11B123	SDO	132	132	100%
11I577	SDO	1354	1354	100%
12B124	SDO	497	497	100%
12F418 (aka 12E418)	SDO	20	20	100%
12H092	SDO	80	80	100%
13L090 (B)	SDO	982	982	100%
15L088 (B)	SDO	465	465	100%
16L097	SDO	23	23	100%
16L122	SDO	254	254	100%
17F012	SDO	5	5	100%
19G043	SDO	80	80	100%
19MCSO082DR	CSO	8	8	100%
20DNP140 (20DMH55)	Interconnection (Brookline)	55	55	100%
21DMH319	Interconnection (Brookline)	66	66	100%
21EMH64	Interconnection (Brookline)	83	83	100%
21EMH86	Interconnection (Brookline)	17	17	100%
21KCSO070DR	CSO	369	369	100%
21LCSO076DR	CSO	3	3	100%
21MCSO078DR	CSO	0	0	100%
21MCSO079DR	CSO	1	1	100%
22LCSO073DR	CSO	44	44	100%
23BMH89	Interconnection (Newton)	11	11	100%
23G132	SDO	67	67	100%
24G035	SDO	338	338	100%
25E037	SDO	424	424	100%
25M006	SDO	19	19	100%
28P001 (B)	SDO	9	9	100%
29J212	SDO	166	166	100%
29P044 (B)	SDO	11	11	100%
31O004	SDO	32	32	100%
Stony Brook-Middle (-SB areas)	CSO	1851	1851	100%
Stony Brook-Upper	SDO	3158	3158	100%
01E024	SDO	12	12	100%
01F031	SDO	30	30	100%
02E086 (aka 02E005)	SDO	9	9	100%
02F085	SDO	4	4	100%
02F093	SDO	6	6	100%

Table 2-12. Sub-Catchment Area Investigation Status by Manholes

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Manholes Investigated/ Completed ²	% Investigated/ Complete by Manholes ³
02F120	SDO	39	39	100%
03E185	SDO	61	61	100%
03E186	SDO	13	13	100%
04E064	SDO	3	3	100%
04E069	SDO	41	41	100%
04F016	SDO	17	17	100%
04F118	SDO	9	9	100%
04F119	SDO	15	15	100%
04F189	SDO	31	31	100%
04F204	SDO	74	74	100%
05E182	SDO	13	13	100%
05E183*	SDO	0	0	100%
05E184 (aka 05E120)	SDO	79	79	100%
05F117	SDO	52	52	100%
05F244	SDO	25	25	100%
05F245	SDO	28	28	100%
05F253	SDO	43	43	100%
05G112	SDO	27	27	100%
05G115	SDO	17	17	100%
05G116	SDO	25	25	100%
05G116A	SDO	61	61	100%
06C110 (aka 05C110)	SDO	55	55	100%
06D057	SDO	12	12	100%
06D085	SDO	2	2	100%
06D091*	SDO	0	0	100%
06D187	SDO	81	81	100%
06F233*	SDO	0	0	100%
06G109	SDO	31	31	100%
06G111	SDO	17	17	100%
06G165	SDO	6	6	100%
06G166	SDO	15	15	100%
06H106	SDO	15	15	100%
06H107	SDO	17	17	100%
07H285	SDO	344	344	100%
07H346	SDO	5	5	100%
07H347	SDO	5	5	100%
07H348	SDO	10	10	100%
08B122	SDO	61	61	100%
08B126	SDO	22	22	100%
08C025/026	SDO	22	22	100%
08E031	SDO	65	65	100%
08E035	SDO	3	3	100%
08I153	SDO	4	4	100%
08I154	SDO	38	38	100%

Table 2-12. Sub-Catchment Area Investigation Status by Manholes

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Manholes Investigated/ Completed ²	% Investigated/ Complete by Manholes ³
08I155	SDO	3	3	100%
08I156	SDO	42	42	100%
08I158	SDO	16	16	100%
08I207	SDO	10	10	100%
08I209	SDO	6	6	100%
08J036/041	SDO	13	13	100%
08J050/049	SDO	77	77	100%
08J102	SDO	26	26	100%
08J103	SDO	32	32	100%
08K049	SDO	3	3	100%
09E229	SDO	2	2	100%
09K016	SDO	16	16	100%
09K100	SDO	26	26	100%
09L095	SDO	29	29	100%
10B015	SDO	52	52	100%
10L096	SDO	22	22	100%
11BMH49 (DCR 11BSDO28)	Interconnection (DCR)	12	12	100%
11G344	SDO	64	64	100%
11M093	SDO	76	76	100%
12B010*	SDO	0	0	100%
12B014	SDO	4	4	100%
12F305	SDO	13	13	100%
12H085	SDO	17	17	100%
12L092 (B)	SDO	163	163	100%
12LMH304 (DCR 13LSDO137) (B)	Interconnection (DCR)	12	12	100%
12LMH374 (DCR 12LSDO296) (B)	Interconnection (DCR)	38	38	100%
12M091	SDO	10	10	100%
13B011	SDO	4	4	100%
13D077/078	SDO	169	169	100%
13E174	SDO	74	74	100%
13E175	SDO	22	22	100%
13E176	SDO	5	5	100%
13F011 (aka 13F185)	SDO	48	48	100%
13F012 (aka 13F093)	SDO	9	9	100%
14C009	SDO	4	4	100%
14EMH36	Interconnection (Brookline)	6	6	100%
15F288	SDO	200	200	100%
15L089 (B)	SDO	73	73	100%
17M033	SDO	145	145	100%
18G233	SDO	87	87	100%
19G194	SDO	58	58	100%
19G199	SDO	1	1	100%
19LCSO084DR	CSO	13	13	100%
19LCSO085DR	CSO	47	47	100%

Table 2-12. Sub-Catchment Area Investigation Status by Manholes

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Manholes Investigated/ Completed ²	% Investigated/ Complete by Manholes ³
19MCSO083DR	CSO	4	4	100%
19NCSO081DR	CSO	10	10	100%
20DMH19	Interconnection (Brookline)	106	106	100%
20DMH62	Interconnection (Brookline)	15	15	100%
20G161	SDO	62	62	100%
20G164*	SDO	0	0	100%
21C212	SDO	15	15	100%
21H047	SDO	145	145	100%
21K069	SDO	98	98	100%
21M010	SDO	17	17	100%
21M050	SDO	28	28	100%
21NCSO080DR	CSO	10	10	100%
22C384	SDO	13	13	100%
22KCSO065DR	CSO	78	78	100%
22KCSO072DR	CSO	11	11	100%
22L580	SDO	44	44	100%
23H040	SDO	23	23	100%
23H042	SDO	314	314	100%
23L074	SDO	5	5	100%
23L075	SDO	61	61	100%
23L164	SDO	37	37	100%
23L195	SDO	21	21	100%
23L196	SDO	15	15	100%
23L202	SDO	25	25	100%
23LCSO062DR	CSO	4	4	100%
23LCSO064DR	CSO	9	9	100%
24C174	SDO	54	54	100%
24CMH014 (24CSO0039)	SDO	16	16	100%
24D032	SDO	1037	1037	100%
24D150	SDO	6	6	100%
24G034	SDO	73	73	100%
24L233	SDO	58	58	100%
24LCSO060DR	CSO	58	58	100%
24NCSO003DR	CSO	740	740	100%
25D040	SDO	27	27	100%
25G041	SDO	19	19	100%
25L058	SDO	157	157	100%
25L144	SDO	5	5	100%
25LCSO057	CSO	14	14	100%
25M007	SDO	25	25	100%
25MCSO005DR	CSO	0	0	100%
26F038	SDO	34	34	100%
26G001	SDO	198	198	100%
26J049	SDO	157	157	100%

Table 2-12. Sub-Catchment Area Investigation Status by Manholes

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Manholes Investigated/ Completed ²	% Investigated/ Complete by Manholes ³
26J052	SDO	2	2	100%
26J055 (aka 26JSDO101)	SDO	20	20	100%
26K035	SDO	48	48	100%
26K050	SDO	23	23	100%
26K052	SDO	1	1	100%
26K099	SDO	206	206	100%
26K254	SDO	7	7	100%
26L055 (aka 26LSDO106)	SDO	4	4	100%
26L070	SDO	6	6	100%
26L084	SDO	6	6	100%
26LC0009	CSO	24	24	100%
27J001	SDO	140	140	100%
27J096	SDO	191	191	100%
27L020/22	SDO	91	91	100%
27LC0010	CSO	17	17	100%
28IMH15	Interconnection (Somerville)	9	9	100%
28K010	SDO	26	26	100%
28K061	SDO	98	98	100%
28K386	SDO	5	5	100%
28L073	SDO	1	1	100%
28L074/076	SDO	92	92	100%
28LC0012DR	CSO	16	16	100%
28LC0019	CSO	12	12	100%
28N156 (B)	SDO	3	3	100%
28N207 (B)	SDO	82	82	100%
28O025 (B)	SDO	22	22	100%
29J129	SDO	6	6	100%
29JCS0017	CSO	12	12	100%
29M049	SDO	22	22	100%
29MCS0013DR	CSO	12	12	100%
29N015	SDO	11	11	100%
29N135	SDO	9	9	100%
29O001 (B)	SDO	282	282	100%
2FMH120 (DCR 2FSDO99)	Interconnection (DCR)	11	11	100%
30J006	SDO	20	20	100%
30J019	SDO	10	10	100%
30J030	SDO	23	23	100%
30P062	SDO	11	11	100%
30P107	SDO	11	11	100%
31P084	SDO	17	17	100%
3FMH56 (DCR 3FSDO159)	Interconnection (DCR)	27	27	100%
4FMH90 (DCR 3FSDO162)	Interconnection (DCR)	20	20	100%
6DMH97	Interconnection (Dedham)	189	189	100%
Stony Brook-Lower (21HCSO046)	CSO	521	521	100%

Table 2-12. Sub-Catchment Area Investigation Status by Manholes

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Manholes Investigated/ Completed ²	% Investigated/ Complete by Manholes ³
03E207*	SDO	0	0	100%
04F001*	SDO	0	0	100%
04F203	SDO	1	1	100%
05E180*	SDO	0	0	100%
05E181*	SDO	0	0	100%
05F254	SDO	1	1	100%
6CMH117	Interconnection (Dedham)	9	9	100%
06D083	SDO	1	1	100%
06D084	SDO	4	4	100%
06D086*	SDO	0	0	100%
06D184	SDO	2	2	100%
09B049	SDO	1	1	100%
12B033	SDO	3	3	100%
12H087	SDO	38	38	100%
13F095	SDO	2	2	100%
13F096	SDO	2	2	100%
13F097*	SDO	0	0	100%
18LC0086DR	CSO	14	14	100%
20G163	SDO	13	13	100%
21H048	SDO	3	3	100%
22KCSO068DR	CSO	28	28	100%
23HMH81 (DCR 23ISDO019)	Interconnection (DCR)	4	4	100%
23L015	SDO	30	30	100%
24L022 (aka 23LSDO022)	SDO	13	13	100%
25NCSO004DR	CSO	23	23	100%
27J044	SDO	6	6	100%
28L077*	SDO	0	0	100%
29J029*	SDO	0	0	100%
29NCSO014DR	CSO	1	1	100%
29P005	SDO	3	3	100%

¹(B) indicates a highest priority beach area; * indicates that there are no storm drain or common manholes located in the sub-catchment area.

²Total number of manholes investigated/completed is based on a manual review process which analyzes the number of manholes that fall within areas designated as complete, therefore it includes manholes that are inferred to be void of contamination based on downstream manhole inspections and/or dye tests.

³The % complete estimate to date is calculated as the total number of storm drain and common manholes investigated/completed to date divided by the total number of storm drain and common manholes within each drainage area.

Table 2-13. Sub-Catchment Area Investigation Status by Storm Drain Pipe

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
06G108	SDO	30,068	30,068	100%
06G110	SDO	6,695	6,695	100%
07C006	SDO	81,391	81,391	100%
07H105	SDO	73,303	73,303	100%
09E243	SDO	6,318	6,318	100%
09K101	SDO	5,245	5,245	100%
10L094	SDO	127,791	127,791	100%
11B123	SDO	20,303	20,303	100%
11I577	SDO	238,332	238,332	100%
12B124	SDO	80,035	80,035	100%
12F418 (aka 12E418)	SDO	3,052	3,052	100%
12H092	SDO	21,371	21,371	100%
13L090 (B)	SDO	154,041	154,041	100%
15L088 (B)	SDO	79,592	79,592	100%
16L097	SDO	2,973	2,973	100%
16L122	SDO	40,954	40,954	100%
17F012	SDO	1,157	1,157	100%
19G043	SDO	11,554	11,554	100%
19MCSO082DR	CSO	1,283	1,283	100%
20DNP140 (20DMH55)	Interconnection (Brookline)	8,749	8,749	100%
21DMH319	Interconnection (Brookline)	9,847	9,847	100%
21EMH64	Interconnection (Brookline)	11,041	11,041	100%
21EMH86	Interconnection (Brookline)	3,263	3,263	100%
21KCSO070DR	CSO	50,657	50,657	100%
21LCSO076DR	CSO	818	818	100%
21MCSO078DR	CSO	0	0	100%
21MCSO079DR	CSO	174	174	100%
22LCSO073DR	CSO	7,859	7,859	100%
23BMH89	Interconnection (Newton)	1,807	1,807	100%
23G132	SDO	9,997	9,997	100%
24G035	SDO	56,096	56,096	100%
25E037	SDO	64,936	64,936	100%
25M006	SDO	2,198	2,198	100%
28P001 (B)	SDO	1,826	1,826	100%
29J212	SDO	23,313	23,313	100%
29P044 (B)	SDO	2,508	2,508	100%
31O004	SDO	4,791	4,791	100%
Stony Brook-Middle (-SB areas)	CSO	271,072	271,072	100%
Stony Brook-Upper	SDO	515,603	515,603	100%
01E024	SDO	2,155	2,155	100%
01F031	SDO	5,710	5,710	100%
02E086 (aka 02E005)	SDO	2,334	2,334	100%
02F085	SDO	682	682	100%
02F093	SDO	991	991	100%

Table 2-13. Sub-Catchment Area Investigation Status by Storm Drain Pipe

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
02F120	SDO	7,389	7,389	100%
03E185	SDO	10,917	10,917	100%
03E186	SDO	2,051	2,051	100%
04E064	SDO	253	253	100%
04E069	SDO	8,768	8,768	100%
04F016	SDO	2,134	2,134	100%
04F118	SDO	1,294	1,294	100%
04F119	SDO	2,569	2,569	100%
04F189	SDO	4,938	4,938	100%
04F204	SDO	14,453	14,453	100%
05E182	SDO	2,445	2,445	100%
05E183*	SDO	58	58	100%
05E184 (aka 05E120)	SDO	11,125	11,125	100%
05F117	SDO	7,703	7,703	100%
05F244	SDO	3,043	3,043	100%
05F245	SDO	4,254	4,254	100%
05F253	SDO	6,757	6,757	100%
05G112	SDO	3,671	3,671	100%
05G115	SDO	1,853	1,853	100%
05G116	SDO	3,623	3,623	100%
05G116A	SDO	11,234	11,234	100%
06C110 (aka 05C110)	SDO	9,579	9,579	100%
06D057	SDO	2,418	2,418	100%
06D085	SDO	236	236	100%
06D091*	SDO	63	63	100%
06D187	SDO	11,280	11,280	100%
06F233*	SDO	49	49	100%
06G109	SDO	4,716	4,716	100%
06G111	SDO	4,292	4,292	100%
06G165	SDO	807	807	100%
06G166	SDO	2,201	2,201	100%
06H106	SDO	2,278	2,278	100%
06H107	SDO	2,453	2,453	100%
07H285	SDO	61,129	61,129	100%
07H346	SDO	705	705	100%
07H347	SDO	519	519	100%
07H348	SDO	743	743	100%
08B122	SDO	11,538	11,538	100%
08B126	SDO	3,474	3,474	100%
08C025/026	SDO	3,152	3,152	100%
08E031	SDO	10,096	10,096	100%
08E035	SDO	899	899	100%
08I153	SDO	425	425	100%
08I154	SDO	5,740	5,740	100%

Table 2-13. Sub-Catchment Area Investigation Status by Storm Drain Pipe

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
08I155	SDO	399	399	100%
08I156	SDO	5,764	5,764	100%
08I158	SDO	1,963	1,963	100%
08I207	SDO	1,400	1,400	100%
08I209	SDO	820	820	100%
08J036/041	SDO	2,439	2,439	100%
08J050/049	SDO	12,006	12,006	100%
08J102	SDO	3,447	3,447	100%
08J103	SDO	6,382	6,382	100%
08K049	SDO	513	513	100%
09E229	SDO	322	322	100%
09K016	SDO	2,062	2,062	100%
09K100	SDO	4,330	4,330	100%
09L095	SDO	4,789	4,789	100%
10B015	SDO	7,123	7,123	100%
10L096	SDO	2,893	2,893	100%
11BMH49 (DCR 11BSDO28)	Interconnection (DCR)	2,130	2,130	100%
11G344	SDO	9,122	9,122	100%
11M093	SDO	9,956	9,956	100%
12B010*	SDO	16	16	100%
12B014	SDO	717	717	100%
12F305	SDO	2,175	2,175	100%
12H085	SDO	2,963	2,963	100%
12L092 (B)	SDO	25,084	25,084	100%
12LMH304 (DCR 13LSDO137) (B)	Interconnection (DCR)	1,617	1,617	100%
12LMH374 (DCR 12LSDO296) (B)	Interconnection (DCR)	4,151	4,151	100%
12M091	SDO	1,238	1,238	100%
13B011	SDO	772	772	100%
13D077/078	SDO	27,404	27,404	100%
13E174	SDO	11,097	11,097	100%
13E175	SDO	4,331	4,331	100%
13E176	SDO	863	863	100%
13F011 (aka 13F185)	SDO	6,716	6,716	100%
13F012 (aka 13F093)	SDO	1,828	1,828	100%
14C009	SDO	822	822	100%
14EMH36	Interconnection (Brookline)	991	991	100%
15F288	SDO	29,831	29,831	100%
15L089 (B)	SDO	13,671	13,671	100%
17M033	SDO	15,162	15,162	100%
18G233	SDO	12,689	12,689	100%
19G194	SDO	9,044	9,044	100%
19G199	SDO	230	230	100%
19LCSO084DR	CSO	1,766	1,766	100%
19LCSO085DR	CSO	5,550	5,550	100%

Table 2-13. Sub-Catchment Area Investigation Status by Storm Drain Pipe

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
19MCSO083DR	CSO	535	535	100%
19NCSO081DR	CSO	2,039	2,039	100%
20DMH19	Interconnection (Brookline)	18,600	18,600	100%
20DMH62	Interconnection (Brookline)	1,542	1,542	100%
20G161	SDO	7,913	7,913	100%
20G164*	SDO	73	73	100%
21C212	SDO	2,494	2,494	100%
21H047	SDO	18,874	18,874	100%
21K069	SDO	14,839	14,839	100%
21M010	SDO	4,053	4,053	100%
21M050	SDO	4,070	4,070	100%
21NCSO080DR	CSO	552	552	100%
22C384	SDO	2,193	2,193	100%
22KCSO065DR	CSO	8,188	8,188	100%
22KCSO072DR	CSO	549	549	100%
22L580	SDO	5,861	5,861	100%
23H040	SDO	3,379	3,379	100%
23H042	SDO	49,657	49,657	100%
23L074	SDO	624	624	100%
23L075	SDO	8,734	8,734	100%
23L164	SDO	3,305	3,305	100%
23L195	SDO	2,899	2,899	100%
23L196	SDO	1,397	1,397	100%
23L202	SDO	2,434	2,434	100%
23LCSO062DR	CSO	82	82	100%
23LCSO064DR	CSO	1,227	1,227	100%
24C174	SDO	12,066	12,066	100%
24CMH014 (24CSDO039)	SDO	2,236	2,236	100%
24D032	SDO	160,361	160,361	100%
24D150	SDO	872	872	100%
24G034	SDO	13,437	13,437	100%
24L233	SDO	5,504	5,504	100%
24LCSO060DR	CSO	5,154	5,154	100%
24NCSO003DR	CSO	92,876	92,876	100%
25D040	SDO	5,390	5,390	100%
25G041	SDO	2,794	2,794	100%
25L058	SDO	15,960	15,960	100%
25L144	SDO	619	619	100%
25LCSO057	CSO	1,219	1,219	100%
25M007	SDO	3,629	3,629	100%
25MCSO005DR	CSO	0	0	100%
26F038	SDO	7,803	7,803	100%
26G001	SDO	36,612	36,612	100%
26J049	SDO	20,940	20,940	100%

Table 2-13. Sub-Catchment Area Investigation Status by Storm Drain Pipe

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
26J052	SDO	559	559	100%
26J055 (aka 26JSDO101)	SDO	2,094	2,094	100%
26K035	SDO	4,792	4,792	100%
26K050	SDO	2,336	2,336	100%
26K052	SDO	303	303	100%
26K099	SDO	23,733	23,733	100%
26K254	SDO	1,096	1,096	100%
26L055 (aka 26LSDO106)	SDO	451	451	100%
26L070	SDO	670	670	100%
26L084	SDO	616	616	100%
26LC0009	CSO	2,476	2,476	100%
27J001	SDO	18,240	18,240	100%
27J096	SDO	15,671	15,671	100%
27L020/22	SDO	12,358	12,358	100%
27LC0010	CSO	2,960	2,960	100%
28IMH15	Interconnection (Somerville)	1,207	1,207	100%
28K010	SDO	4,212	4,212	100%
28K061	SDO	14,489	14,489	100%
28K386	SDO	997	997	100%
28L073	SDO	242	242	100%
28L074/076	SDO	13,535	13,535	100%
28LC0012DR	CSO	3,279	3,279	100%
28LC0019	CSO	1,367	1,367	100%
28N156 (B)	SDO	376	376	100%
28N207 (B)	SDO	11,631	11,631	100%
28O025 (B)	SDO	2,428	2,428	100%
29J129	SDO	1,478	1,478	100%
29JCS0017	CSO	611	611	100%
29M049	SDO	4,237	4,237	100%
29MCS0013DR	CSO	1,541	1,541	100%
29N015	SDO	1,297	1,297	100%
29N135	SDO	1,460	1,460	100%
29O001 (B)	SDO	47,076	47,076	100%
2FMH120 (DCR 2FSDO99)	Interconnection (DCR)	2,748	2,748	100%
30J006	SDO	2,148	2,148	100%
30J019	SDO	1,084	1,084	100%
30J030	SDO	3,145	3,145	100%
30P062	SDO	1,841	1,841	100%
30P107	SDO	2,018	2,018	100%
31P084	SDO	2,974	2,974	100%
3FMH56 (DCR 3FSDO159)	Interconnection (DCR)	4,749	4,749	100%
4FMH90 (DCR 3FSDO162)	Interconnection (DCR)	4,638	4,638	100%
6DMH97	Interconnection (Dedham)	29,408	29,408	100%
Stony Brook-Lower (21HCSO046)	CSO	72,563	72,563	100%

Table 2-13. Sub-Catchment Area Investigation Status by Storm Drain Pipe

Sub-Catchment Area Investigations Completed

Work done in reporting period (2021)

Reporting Period 7/1/2021 - 12/31/2021

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
03E207*	SDO	0	0	100%
04F001*	SDO	0	0	100%
04F203	SDO	78	78	100%
05E180*	SDO	99	99	100%
05E181*	SDO	52	52	100%
05F254	SDO	210	210	100%
6CMH117	Interconnection (Dedham)	720	720	100%
06D083	SDO	200	200	100%
06D084	SDO	694	694	100%
06D086*	SDO	64	64	100%
06D184	SDO	149	149	100%
09B049	SDO	135	135	100%
12B033	SDO	729	729	100%
12H087	SDO	6,747	6,747	100%
13F095	SDO	205	205	100%
13F096	SDO	117	117	100%
13F097*	SDO	0	0	100%
18LC0086DR	CSO	2,143	2,143	100%
20G163	SDO	1,433	1,433	100%
21H048	SDO	968	968	100%
22KC0068DR	CSO	2,996	2,996	100%
23HMH81 (DCR 23ISDO019)	Interconnection (DCR)	439	439	100%
23L015	SDO	3,977	3,977	100%
24L022 (aka 23LSDO022)	SDO	2,096	2,096	100%
25NC0004DR	CSO	3,838	3,838	100%
27J044	SDO	3,425	3,425	100%
28L077*	SDO	602	602	100%
29J029*	SDO	553	553	100%
29NC0014DR	CSO	371	371	100%
29P005	SDO	211	211	100%

¹(B) indicates a highest priority beach area; * indicates that there are no storm drain or common manholes located in the sub-catchment area.

²Total linear feet of pipe investigated/completed is based on a manual review process which analyzes the number of manholes that fall within areas designated as complete, therefore it includes manholes that are inferred to be void of contamination based on downstream manhole inspections and/or dye tests. If a pipe segment falls partially within an area designated as complete and partially within an area designated as incomplete, the entire length of pipe is considered to be incomplete.

³The % complete estimate to date is calculated as the total linear feet of storm drain pipe investigated/completed to date divided by the total linear feet of storm drain pipe within each drainage area.

Table 2-14. Direct Illicit Connections
1/1/21 - 12/31/21

Status	Bldg Number	Address	Bldg Type	Sub-Catchment Area	Subwatershed	Date Verified	Date Corrected	Days to Correct	If Not Corrected- Days Outstanding as of the end of 2021	Sewage Removed (gallons per day(gpd))	BWSC Cost*	Reimbursed to Owner
Corrected by BWSC	542	Dorchester Avenue	Apts	21KCSO070	Boston Harbor via Fort Point Channel	12/08/2017	3/19/2021	1197		469	\$21,491	
Corrected by BWSC	265	East Cottage Street	R-2	16L122	Boston Harbor	04/30/2019	3/23/2020	328		113	\$1,900	
Corrected by BWSC	32	Gay Head Street	R-2	18HMH2715B	Charles via Stony Brook Conduit	09/18/2019	4/15/2021	575		356	\$21,582	
Corrected by Owner and Commission	30	Gay Head Street	R-3	18HMH2715B	Charles via Stony Brook Conduit	03/12/2018	11/18/2021	1347		305	\$17,705	\$7,500
Corrected by Owner	6	Howland Street	R-1	21KCSO070	Boston Harbor via Fort Point Channel	08/21/2021	9/29/2021	39		0		
Corrected by Owner	230	Maple Street	R-2	12B124 LaGrange	Charles River (Brook Farm Brook)	10/13/2021	10/20/2021	7		42		
Corrected by Owner	256	Marginal Street	Comm	25M006	Boston Harbor	08/05/2019	8/25/2021	751		624		
Corrected by BWSC	276-278	Parker Hill Avenue	R-3	19HMH2535B	Charles via Stony Brook Conduit	09/07/2021	10/18/2021	41		620	\$15,223	
Corrected by BWSC	29-31	South Street	R-2	15GMH2085B	Charles via Stony Brook Conduit	08/29/2019	2/25/2021	546		190	\$17,219	
Lateral and Direct Illicit Corrected by Owner	913	Washington Street	R-2	10L094 Davenport	Neponset River	03/22/21	7/9/2021	109		160	\$0	
Owner has been Notified	364	Corey Street	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)	10/13/2021			79			
Included Under BWSC Contract	369	Corey Street	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)	11/01/2021			60			
Owner has been Notified	76	Dimock Street	Garage	17HMH5235B	Charles via Stony Brook Conduit	10/15/2021			77			
Owner has been Notified	6	Greenwood Circle	R-1	23I023 Greenwood	Charles via Stony Brook Conduit	11/09/2021			52			
Included Under BWSC Contract	40	Hosmer Street	R-2	11F577 Dorchester	Charles River via Canterbury Brook to Stony Brook	11/01/2021			60			
Included Under BWSC Contract	153	LaGrange Street	R-1	07C006 Belle Avenue	Charles River	12/09/2021			22			
Included Under BWSC Contract	39	Lorraine Street	R-1	23I023 Walworth	Charles via Stony Brook Conduit	10/07/2021			85			
Included Under BWSC Contract	55	Northbourne Road	R-1	23I023 Philbrick	Charles via Stony Brook Conduit	09/02/2021			120			
Included Under BWSC Contract	20	Pelton Street	R-1	23I023 West Roxbury	Charles via Stony Brook Conduit	12/29/2021			2			
Included Under BWSC Contract	81	Southbourne Road	R-1	23I023 Philbrick	Charles via Stony Brook Conduit	10/18/2021			74			
Owner has been Notified	480	Truman Parkway	R-1	06G165 Metropolitan	Neponset River	02/28/2019			1037			
Included Under BWSC Contract	602	Walk Hill Street	R-2	07H105 Edgewater	Neponset River	10/18/2021			74			
Owner has been Notified	8	Winborough Street	R-1	07H105 Edgewater	Neponset River	10/13/2021			79			

Illicit Connection was Corrected	
Correction of Illicit Connection is Pending	

Total Sewage Removed (gpd)	2,879
BWSC Cost to Correct Illicit Connection**	\$102,620

**Costs do not include costs for manhole inspections or dye tests used to locate the illicit discharges

Table 2-15. Indirect Illicit Discharges 1/1/21-12/31/21

Status	Bldg Number	Address	Bldg Type	Sub-Catchment Area	Subwatershed	Date Verified	Date Corrected	Days to Correct	If Not Corrected-Days Outstanding at the end of 2021	Sewage Removed (gallons per day (gpd))	BWSC Cost To Test Lateral for Leaking	BWSC Reimbursed to Owner
Lateral Repaired by Owner	51	Mendum Street	R-1	12ESDO418	Unnamed Wetlands	11/28/2018	6/14/2021	929		56	\$1,940	\$4,000
Lateral and Direct Illicit Repaired by Owner	913	Washington Street	R-2	10L094 Davenport	Neponset River	03/22/21	7/9/2021	109		68	\$1,915	\$4,000
Verified Leaking Lateral - Owner has been Notified	44	Avalon Road	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)	11/09/2021			52			
Verified Leaking Lateral - Owner has been Notified	382	Centre Street	R-2	18HMH271SB	Charles via Stony Brook Conduit	08/17/2018			1048			
Verified Leaking Lateral - Owner has been Notified	36	Dalrymple Street	R-4-6	17HMH106SB	Charles via Stony Brook Conduit	09/19/2019			834			
Verified Leaking Lateral - Owner has been Notified	62	Harold Street	R-2	18HMH200SB	Charles via Stony Brook Conduit	11/19/2019			773			
Verified Leaking Lateral - Owner has been Notified	57	Lasell Street	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)	11/09/2021			52			
Verified Leaking Lateral - Owner has been Notified	31	Lorraine Street	R-2	23I023 Walworth	Charles via Stony Brook Conduit	11/09/2021			52			
Verified Leaking Lateral - Owner has been Notified	182	Manthorne Road	R-2	12B124 LaGrange	Charles River (Brook Farm Brook)	12/1/2021			30			
Verified Leaking Lateral - Owner has been Notified	35	Worley Street	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)	12/1/2021			30			

	Illicit Connection was Corrected
	Correction of Leaking Lateral is Pending

Total Sewage Removed (gpd)	124
BWSC Cost to Plug Test Lateral to Verify Leakage*	\$3,855
Total BWSC Cost to Reimburse Owners*	\$8,000
Total BWSC Cost to Verify Leaking Laterals and Reimburse Owners*	\$11,855

*Costs do not include costs for manhole inspections or dye tests used to locate the illicit discharges

Table 3 - 1. Brook Inlet and Outlet Cleaning

Waterway	Neighborhood	Frequency of Cleaning	Equipment Used
Arboretum Outfall	Jamaica Plain	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew
Bussey Brook/Stony Brook Conduit/Treeland	Jamaica Plain	Checked before/after storms; cleaned as needed	Catch Basin Truck
Bussey Brook-Next to Church Of the Annunciation	West Roxbury	Checked before/after storms; cleaned as needed	Catch Basin Truck, Crane
Canterbury Brook Conduit @ American Legion Hwy	Roslindale	Checked before/after storms; cleaned as needed	Rodding/Flushing crew/ Catch Basin Truck
Canterbury Brook Outlet at Harvard Street	Mattapan	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew
Centre Street/Lane	West Roxbury	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew
Chandler Pond	Brighton	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew
Grove Street-Wetlands (particle separator)	West Roxbury	Checked before/after storms; cleaned as needed	Catch Basin Truck, Vactor
Mother Brook	West Roxbury	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew
Norton Street-intermittent stream	Hyde Park	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew
American Legion Hwy near Wilmot St	Hyde Park	Checked before/after storms; cleaned as needed	Flushing/Rodding Crew

Table 3 - 2. BWSC Particle Separators 2021

Nearest Street Number	Location	Neighborhood	Map #	BWSC Facility ID	Outfall #	Receiving Water	2021 Material Removed (cubic yards) Various dates
103	Atlantic Avenue	Boston Proper	25L	25LPA6	25LSDO058	Boston Harbor	0.00
1	Bussey Street/Arboretum	Jamaica Plain	13F	13FPA1 +13FPA2	13FSDO011	Bussy Brook	0.13
430	Canterbury Street	Mattapan	12H	12HPA2	12HSDO2	Unamed Wetlands	0.13
19	Centre Lane	WROX	8C	8CPA1	8CSDO025,8CSDO026	Wetlands	0.00
2664	Centre Street	WROX	6C	6CPA1	6CSDO110	Wetlands	0.00
177	Coleridge Street	East Boston	28O	28OPA1	28OSDO025	Boston Harbor	0.35
35	Coniston Road	Roslindale	12E	12EPA1	13ICSO023	Stony Brook Conduit	0.00
28	Denny Street	Dorchester	15L	15LPA1	15LSDO089	Malibu Beach	0.00
26	Ericsson Street	Dorchester	12M	12MPA1	12MSDO091	Neponset River	0.00
111	Fenwood Road	Roxbury	20G	20GPA1	20GSDO161	Muddy River	0.75
13	Lawley Street	Dorchester	12L	12LPA1	12LSDO092	Pine Neck Creek	0.00
385	Martha Road	Central	26J	26JPA2	26JSDO100	Charles River	0.00
1170	Massachusetts Avenue	Roxbury	18K	18KPA10	21KCSO070	Boston Harbor	0.50
1170	Massachusetts Avenue	Roxbury	18K	18KPA11	21KCSO070	Boston Harbor	0.00
500	Neponset Avenue	Dorchester	11M	11MPA1	11MSDO093	Neponset River	0.40
25	Norton Street	Hyde Park	3E	3EPA1	3ESDO185	Open Channel	0.38
331	Perkins Street	Jamaica Plain	17F	17FPA1	17FSDO012	Jamaica Pond	0.50
15	Waldemar Avenue	East Boston	30P	30PPA105	30PSDO107	Belle Isle Inlet	0.13
240	Waldemar Avenue	East Boston	31O	31OPA1	31OSDO004	Belle Isle Inlet	0.00
110-112	Walter Street	Roslindale	12F	12FPA1	12ESDO418	Wetlands	0.50
	TOTALS						3.76

TABLE 3-3. HAZMAT SPILLS & DUMPING 2021

Date	Street	Complaint	BSWC Personnel	Type	Cause of Incident / Responsible Party
1/4/2021	560 Commonwealth Ave	Oil in catch basin	Taylor/Conran	nothing	Checked all catch basins near 560 Commonwealth Ave, no oil was seen in any catch basin, WO#1603117
1/19/2021	56 Ellery Street	electrical transformer fluid	Taylor	no impact	Checked all BWSC catch basin in area, no impact to any BWSC facilities, some product went into gated private parking lot WO#1606649
5/25/2021	March Ave and Bellevue St, West Roxbury	Sewage	Taylor	Sewage	Checked catch basins at Bellevue and March Ave, found dried paper on top of one, BWSC was sent a video showing Boston Drain dumping something into this catch basin, probably sewage from a back up. Will consult with legal for action. WO#1632778
5/26/2021	Strathmore Rd @ Orkney Rd	cleaners	Taylor	Nothing	Checked catch basins in the area, did not notice any chemical smell or suspect materials in or around the area. WO#1632881
6/1/2021	34 Irving St	Construction Material	ECS	Nothing	No issues found
7/23/2021	1 Rice St	oil sheen	Taylor	nothing	Went to East Boston yacht club, did not observe any sheens in the water, WO#1642071
8/11/2021	290 Main St	charcoal	Todd	grill remnants	Some scrappings from a grill were seen ontop of a catch basin, amount was too small to cause any issues. WO#1647865
9/9/2021	16 Hillock St	oil	Taylor	street runoff	Small amount of street surface runoff seen in gutter, much less than a gallon, gas container on the street was found to be empty and not the source WO#1651363
9/10/2021	Western Ave at Soldiers Field Road, Brighton	oil slick in river	Taylor	very small amount of oil	Met fire and DEP, small sheen of oil seen in the Charles River, outfalls were dry near the sheen, GIS maps do not show any BWSC drains near this area, WO#1651448
10/27/2021	Granby Street	paint	Taylor	paint	Some paint from a construction site on Granby St was washed by rain into a BWSC catch basin, Site supervisor(Suffolk Construction) was made aware of the situation and will clean the impacted catch basin and drain line. WO#1659354

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

PROJECT NO	ADDRESS NO	STREET	INFILTRATION SYSTEM TYPE	INSPECTION DATE
17282	22&24	BROOKFORD ST	STORMTECH CHAMBERS	12/23/2021
19189	1545-1555	VFW PKWY	LEACHING BASIN	12/22/2021
18058	9-11	HILLSBORO ST	CULTEC CHAMBER	12/20/2021
20370	25	CLAREMONT PARK	STORMTECH CHAMBERS	12/15/2021
21181	164	MINOT ST	STORMTECH CHAMBERS	12/15/2021
19385	44	LEXINGTON ST	CULTEC CHAMBER	12/14/2021
19387	46	LEXINGTON ST	CULTEC CHAMBER	12/14/2021
17388	29	COMMONWEALTH AV	CULTEC CHAMBER	12/10/2021
13301	41, 43-47	BERKELEY ST	CULTEC CHAMBER	12/7/2021
18643	40-42	TERRACE ST	DRYWELL	12/7/2021
18200	30-32	REGIS RD	STORMTECH CHAMBERS	12/6/2021
21257	185	LONDON ST	CULTEC CHAMBER	12/2/2021
16174	89	BRIGHTON AV	STORMTECH CHAMBERS	11/30/2021
20247	191	WASHINGTON ST	LEACHING BASIN	11/30/2021
21280	35	COMMONWEALTH AV	UNKNOWN	11/22/2021
17434	3	MELVILLE AV	STORMTECH CHAMBERS	11/19/2021
18129	11	ROBINWOOD AV	STORMTECH CHAMBERS	11/19/2021
18550	3	GROOM ST	CULTEC CHAMBER	11/19/2021
19291	33	MOUNT VERNON ST	STORMTECH CHAMBERS	11/19/2021
19471	109	EUTAW ST	STORMTANK	11/19/2021
20133	31	MONMOUTH ST	STORMTECH CHAMBERS	11/19/2021
20158	58	FRANKFORT ST	STORMTECH CHAMBERS	11/19/2021
20243	112	CHARLES ST	STORMTECH CHAMBERS	11/19/2021
21052	1	CROSTOWN AV	CULTEC CHAMBER	11/19/2021
21113	761-773	CENTRE ST	LEACHING BASIN	11/19/2021
21177	67	CHELSEA ST	STORMTECH CHAMBERS	11/19/2021
17019	717	CENTRE ST	DRYWELL	11/17/2021
18023	191	CONDOR ST	CULTEC CHAMBER	11/17/2021
18625	279	NORTH ST	DRYWELL	11/17/2021
19480	10	MARIE ST	CULTEC CHAMBER	11/17/2021
20078	383	K ST	CULTEC CHAMBER	11/17/2021
18492	144	ADDISON ST	PERFORATED PIPE	11/16/2021
17568	211	CONDOR ST	CULTEC CHAMBER	11/15/2021
20395	1069-1071	DORCHESTER AV	CULTEC CHAMBER	11/5/2021
19262	12	CAWFIELD ST	CULTEC CHAMBER	11/3/2021
21094	150	AMERICAN LEGION HIGHW	PERFORATED PIPE	11/3/2021
17311	771-775	BEACON ST	TANK/INJECTION WELL	11/2/2021
19455	74-76	BROOKS ST	CULTEC CHAMBER	10/29/2021
20480	97-101	CAROLINA AV	STORMTECH CHAMBERS	10/28/2021
10202	24-26	MORELAND ST	DRYWELL	10/27/2021
19270	14-16	LENA TER	LEACHING BASIN	10/27/2021
19328	495-501	GENEVA AV	LEACHING BASIN	10/27/2021
19366	180	RUGGLES ST	PERFORATED PIPE	10/27/2021

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

19379	20	MYRTLE ST	STORMTECH CHAMBERS	10/27/2021
19640	597-599	COLUMBUS AV	LEACHING BASIN	10/27/2021
20069	71	CHARLES ST	CULTEC CHAMBER	10/27/2021
20186	333	MAVERICK ST	STORMTECH CHAMBERS	10/27/2021
20286	37-39	OLD MORTON ST	STORMTECH CHAMBERS	10/27/2021
20313	26	PARKER ST	CULTEC CHAMBER	10/27/2021
19241	35	LEYDEN ST	STORMTECH CHAMBERS	10/25/2021
19628	57	BIGELOW ST	DRYWELL	10/25/2021
20273	210-214	HAVRE ST	STORMTECH CHAMBERS	10/25/2021
20285	34	RIDGEWOOD ST	DRYWELL	10/25/2021
21325	515-519	EAST SECOND ST	PERFORATED PIPE	10/25/2021
20040	160	WEST SEVENTH ST	DRYWELL	10/19/2021
15175	48	WAYLAND ST	DRYWELL	10/18/2021
19025	38-38A	FLEET ST	CULTEC CHAMBER	10/18/2021
19072	16	CHAPPIE ST	MULTIPLE	10/18/2021
19408	360	MERIDIAN ST	CULTEC CHAMBER	10/18/2021
20101	10	MIDLAND ST	CULTEC CHAMBER	10/18/2021
20292	168	H ST	LEACHING BASIN	10/18/2021
19313	2	ABBOTT ST	CULTEC CHAMBER	10/8/2021
21045	174	WEST SEVENTH ST	CULTEC CHAMBER	10/8/2021
21046	176	WEST SEVENTH ST	CULTEC CHAMBER	10/8/2021
21049	178	WEST SEVENTH ST	CULTEC CHAMBER	10/8/2021
19067	316-318	NORTHERN AV	PERFORATED PIPE	10/7/2021
20102	108	MAYWOOD ST	DRYWELL	10/7/2021
20320	251	MINOT ST	STORMTECH CHAMBERS	10/7/2021
20435	157	WEST NINTH ST	DRYWELL	10/6/2021
20088	26	ATKINSON ST	PERFORATED PIPE	10/5/2021
19028	569	BOYLSTON ST	TANK/INJECTION WELL	10/4/2021
19614	71	STANTON ST	STORMTECH CHAMBERS	10/1/2021
19079	300	EAST EAGLE ST	CULTEC CHAMBER	9/27/2021
19453	485	ASHMONT ST	STORMTECH CHAMBERS	9/27/2021
19629	55	BIGELOW ST	CULTEC CHAMBER	9/27/2021
19102	70	AUCKLAND ST	CULTEC CHAMBER	9/24/2021
19109	135	CHELSEA ST	STORMTECH CHAMBERS	9/23/2021
19558	152	LIVERPOOL ST	STORMTECH CHAMBERS	9/22/2021
19043	62	BOYNTON ST	STORMTECH CHAMBERS	9/21/2021
19466	686	MASSACHUSETTS AV	CULTEC CHAMBER	9/21/2021
20030	93-95	PRESCOTT ST	DRYWELL	9/21/2021
19097	319	CHELSEA ST	STORMTECH CHAMBERS	9/20/2021
19175	90	ANTWERP ST	CULTEC CHAMBER	9/20/2021
19098	74	EVERETT ST	STORMTECH CHAMBERS	9/17/2021
20092	347	MAVERICK ST	STORMTECH CHAMBERS	9/17/2021
20218	20-22	FLEET ST	LEACHING BASIN	9/16/2021
17469	37	FARRAGUT RD	CULTEC CHAMBER	9/15/2021
19178	143-145	WARREN AV	CULTEC CHAMBER	9/10/2021

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

14183	56	WILLIAMS AV	STORMTECH CHAMBERS	9/9/2021
18324	49	STRATTON ST	CULTEC CHAMBER	9/8/2021
19616	212	DORCHESTER ST	CULTEC CHAMBER	9/8/2021
21048	54-56	CALLENDER ST	PERFORATED PIPE	9/2/2021
19236	29-31	GREEN ST	CULTEC CHAMBER	9/1/2021
20515	1426	COLUMBIA RD	DRYWELL	9/1/2021
20516	1428	COLUMBIA RD	DRYWELL	9/1/2021
18626	1870	COLUMBUS AV	CULTEC CHAMBER	8/31/2021
18323	10	LYFORD ST	CULTEC CHAMBER	8/30/2021
18325	124	CALLENDER ST	CULTEC CHAMBER	8/30/2021
19443	111	WESTERN AV	POROUS PAVEMENT	8/24/2021
20348	276	ATHENS ST	STORMTECH CHAMBERS	8/24/2021
17248	274	ATHENS ST	CULTEC CHAMBER	8/18/2021
19204	25	PORTER ST	CULTEC CHAMBER	8/18/2021
19340	10	TABER ST	STORMTECH CHAMBERS	8/18/2021
19607	330	SAVIN HILL AV	CULTEC CHAMBER	8/18/2021
20137	4381-4383	WASHINGTON ST	CULTEC CHAMBER	8/18/2021
19231	160	WEST CANTON ST	CULTEC CHAMBER	8/13/2021
16500	130-140	WESTERN AV	MULTIPLE	8/12/2021
19078	217	ALBANY ST	CULTEC CHAMBER	8/12/2021
20164	46	EUTAW ST	INJECTION WELLS	8/12/2021
20195	4	PAYNE ST	STORMTECH CHAMBERS	8/12/2021
21050	7	CROSTOWN AV	CULTEC CHAMBER	8/12/2021
16343	362	MARLBOROUGH ST	CULTEC CHAMBER	8/9/2021
19299	95-97	WEST WALNUT PARK	CULTEC CHAMBER	8/9/2021
18239	317-329	BELGRADE AV	DRYWELL	8/5/2021
19432	325	RESERVOIR RD	PERFORATED PIPE	8/5/2021
20103	138	CENTRE ST	STORMTECH CHAMBERS	7/30/2021
19147	529-535	HARVARD ST	MULTIPLE	7/29/2021
19484	22	NORTHDAL RD	CULTEC CHAMBER	7/29/2021
20067	16	MARLBOROUGH ST	STORMTECH CHAMBERS	7/29/2021
20409	283	CHELSEA ST	STORMTECH CHAMBERS	7/29/2021
20371	46	MELROSE ST	STORMTECH CHAMBERS	7/27/2021
18472	474	HYDE PARK AV	STORMTECH CHAMBERS	7/23/2021
19305	4246	WASHINGTON ST	DRYWELL	7/22/2021
20149	477	MERIDIAN ST	STORMTECH CHAMBERS	7/22/2021
19405	143	TRENTON ST	STORMTECH CHAMBERS	7/21/2021
18620	20	REV RICHARD A BURKE ST	PERFORATED PIPE	7/19/2021
19298	120	WESTVIEW ST	DETENTION POND	7/19/2021
20388	69	FALCON ST	STORMTECH CHAMBERS	7/16/2021
20529	1430	EAST EIGHTH ST	CULTEC CHAMBER	7/16/2021
19172	44	NORTH BEACON ST	MULTIPLE	7/14/2021
20126	21	RUSFIELD ST	STORMTECH CHAMBERS	7/14/2021
20501	45	BROWN AV	CULTEC CHAMBER	7/14/2021
17068	50	WEST TREMLETT ST	STORMTECH CHAMBERS	7/13/2021

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

17443	1	NEWCOMB ST	DRYWELL	7/13/2021
18085	24	BROWNING AV	CULTEC CHAMBER	7/13/2021
18105	10	WINTHROP SQ	PERFORATED PIPE	7/13/2021
18130	152	THORNTON ST	CULTEC CHAMBER	7/13/2021
18131	154	THORNTON ST	CULTEC CHAMBER	7/13/2021
19186	40	WESTMORELAND ST	MULTIPLE	7/13/2021
19275	38	ENGLEWOOD AV	STORMTECH CHAMBERS	7/13/2021
19343	66	LUBEC ST	PERFORATED PIPE	7/13/2021
20385	10	CENTRE AV	DRYWELL	7/13/2021
18189	65	EAST COTTAGE ST	CULTEC CHAMBER	7/12/2021
18190	67	EAST COTTAGE ST	RAIN GARDEN	7/12/2021
19050	30	ARLINGTON ST	STORMTECH CHAMBERS	7/12/2021
19514	80	MINOT ST	STORMTECH CHAMBERS	7/12/2021
20510	102	LITCHFIELD ST	STORMTECH CHAMBERS	7/9/2021
18593	287	MAVERICK ST	STORMTECH CHAMBERS	7/8/2021
19615	605	EAST SIXTH ST	CULTEC CHAMBER	7/7/2021
17629	114-120	BROOKSIDE AV	STORMTECH CHAMBERS	7/6/2021
19202	650-652	HYDE PARK AV	CULTEC CHAMBER	6/30/2021
19544	23	UPTON ST	CULTEC CHAMBER	6/30/2021
19323	216	HAVRE ST	STORMTECH CHAMBERS	6/29/2021
19621	179	RUSKINDALE RD	DRYWELL	6/25/2021
17534	2837-2839	WASHINGTON ST	CULTEC CHAMBER	6/23/2021
19314	12-16	MCLELLAN ST	CULTEC CHAMBER	6/23/2021
19347	57	SARATOGA ST	PERFORATED PIPE	6/23/2021
18222	20	WEST FIFTH ST	DRYWELL	6/21/2021
19426	4623-4627	WASHINGTON ST	CULTEC CHAMBER	6/21/2021
17554	3850	WASHINGTON ST	DRYWELL	6/16/2021
18044	75	SYDNEY ST	STORMTECH CHAMBERS	6/15/2021
18247	71	TENNIS RD	CULTEC CHAMBER	6/10/2021
18248	75	TENNIS RD	CULTEC CHAMBER	6/10/2021
18250	77	TENNIS RD	CULTEC CHAMBER	6/10/2021
16521	19	MOUNT PLEASANT AV	LEACHING BASIN	6/9/2021
19555	21	MOUNT PLEASANT AV	LEACHING BASIN	6/9/2021
20424	1192	MORTON ST	LEACHING BASIN	6/9/2021
20526	2R	PERHAM ST	FILTRATION BASINS	6/7/2021
19003	30	WENTWORTH ST	CULTEC CHAMBER	6/3/2021
20352	5	CEFALO RD	CULTEC CHAMBER	6/3/2021
20353	1	CEFALO RD	CULTEC CHAMBER	6/3/2021
20180	2-4	MOUNT VERNON ST	STORMTECH CHAMBERS	5/28/2021
19575	17	HARVARD TER	PERFORATED PIPE	5/24/2021
17592	70	COLONIAL AV	LEACHING BASIN	5/21/2021
17595	70	NEW ENGLAND AV	LEACHING BASIN	5/21/2021
17596	131	SOUTHERN AV	LEACHING BASIN	5/21/2021
18566	8	CLIFFORD ST	CULTEC CHAMBER	5/21/2021
19166	119	WEST NEWTON ST	PERFORATED PIPE	5/21/2021

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

19304	285	MARLBOROUGH ST	STORMTECH CHAMBERS	5/21/2021
18123	187-189	E ST	CULTEC CHAMBER	5/18/2021
19170	25-27	WARD ST	CULTEC CHAMBER	5/18/2021
19388	180	WEST CANTON ST	CULTEC CHAMBER	5/18/2021
19494	31	WORCESTER ST	CULTEC CHAMBER	5/18/2021
20070	7	GREENWOOD PARK	CULTEC CHAMBER	5/18/2021
19290	23	BROOKS ST	DRYWELL	5/13/2021
19515	82	MINOT ST	STORMTECH CHAMBERS	5/13/2021
19580	8-10	MAPLEWOOD ST	CULTEC CHAMBER	5/13/2021
20034	12	THWING ST	PERFORATED PIPE	5/13/2021
20091	49	EUTAW ST	STORMTECH CHAMBERS	5/13/2021
20163	42A	COMO RD	LEACHING BASIN	5/13/2021
17353	34	DIX ST	STORMTECH CHAMBERS	5/12/2021
19185	10-16	EVERETT ST	STORMTECH CHAMBERS	5/12/2021
19452	102	NEPONSET AV	STORMTECH CHAMBERS	5/12/2021
19210	75-75A	CALL ST	CULTEC CHAMBER	5/7/2021
19152	275	WEBSTER ST	STORMTECH CHAMBERS	5/5/2021
20323	59	APPLETON ST	CULTEC CHAMBER	5/5/2021
20325	6	MANTON TER	CULTEC CHAMBER	4/30/2021
20402	67	AUKLAND ST	CULTEC CHAMBER	4/29/2021
19140	55W	MALCOLM X BLVD	LEACHING BASIN	4/26/2021
17496	254-256	EVERETT ST	DRYWELL	4/23/2021
19032	486 - 490	MEDFORD ST	CULTEC CHAMBER	4/22/2021
19568	17	WEST BELLFLOWER ST	STORMTECH CHAMBERS	4/22/2021
20094	6	KEMBLE PL	CULTEC CHAMBER	4/21/2021
18079	11-19	WALLEY ST	STORMTECH CHAMBERS	4/15/2021
19039	29-31	WARD ST	MULTIPLE	4/15/2021
19161	15	FENTON ST	STORMTECH CHAMBERS	4/15/2021
20138	40	GRAY ST	CULTEC CHAMBER	4/15/2021
20410	103	WARREN AV	CULTEC CHAMBER	4/15/2021
19030	40	DOWNER AV	DRYWELL	4/9/2021
19090	187	LONDON ST	CULTEC CHAMBER	4/9/2021
19414	8	COOPER ST	CULTEC CHAMBER	4/9/2021
18358	49	ROGERS PARK AV	DRYWELL	4/7/2021
20011	27	VINTON ST	STORMTECH CHAMBERS	4/6/2021
20407	561	EAST SIXTH ST	CULTEC CHAMBER	4/6/2021
18514	108-110	LUCERNE ST	CULTEC CHAMBER	4/5/2021
19317	81	WARREN AV	CULTEC CHAMBER	4/5/2021
20408	71	RUTHVEN ST	CULTEC CHAMBER	4/2/2021
20347	128	NEWBURY ST	STORMTECH CHAMBERS	3/31/2021
17624	217	D ST	PERFORATED PIPE	3/30/2021
19377	337	CHELSEA ST	STORMTECH CHAMBERS	3/25/2021
20166	71-75	WEST BROADWAY	CULTEC CHAMBER	3/25/2021
20240	28-30	PARSONS ST	STORMTECH CHAMBERS	3/25/2021
19258	2-4	SINCLAIR RD	LEACHING BASIN	3/24/2021

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

20536	76	WYMAN ST	DRYWELL	3/24/2021
20211	153	FOSTER ST	CULTEC CHAMBER	3/19/2021
19209	73-73A	CALL ST	CULTEC CHAMBER	3/18/2021
19237	10-12	RUTHVEN PARK	CULTEC CHAMBER	3/17/2021
17561	90	BIGELOW ST	CULTEC CHAMBER	3/14/2021
18160	194	K ST	LEACHING BASIN	3/14/2021
17191	216-218	WEST BROADWAY	CULTEC CHAMBER	3/11/2021
19384	11	MINTON ST	DRYWELL	3/9/2021
18474	53	RUTLAND SQ	CULTEC CHAMBER	3/5/2021
18587	16	RONALD ST	MULTIPLE	3/5/2021
19064	1420-1440	SOLDIERS FIELD RD	MULTIPLE	3/4/2021
20486	7	BYRON ST	PERFORATED PIPE	3/4/2021
16285	215-217	WEST FIFTH ST	STORMTECH CHAMBERS	3/3/2021
20055	126	MARLBOROUGH ST	LEACHING BASIN	3/3/2021
18293	1173	ADAMS ST	RAIN GARDEN	3/2/2021
18553	88	TERRACE ST	DRYWELL	3/2/2021
18534	2-4	CROSSMAN ST	CULTEC CHAMBER	3/1/2021
18590	24	UNION PARK	FILTRATION BASINS	3/1/2021
19519	464	SUMNER ST	CULTEC CHAMBER	2/19/2021
19630	19	BLUEVIEW CIR	CULTEC CHAMBER	2/19/2021
20274	536	EAST BROADWAY	STORMTECH CHAMBERS	2/18/2021
19461	123-125	CENTRE ST	STORMTECH CHAMBERS	2/17/2021
19468	30	PREBLE ST	LEACHING BASIN	2/17/2021
19203	18	BEXLEY RD	LEACHING BASIN	2/12/2021
17370	276-278	NEWBURY ST	LEACHING BASIN	2/11/2021
19361	416	BEACON ST	PERFORATED PIPE	2/9/2021
19517	32	ROCKVIEW ST	CULTEC CHAMBER	2/9/2021
19539	170	WEST BROOKLINE ST	CULTEC CHAMBER	2/9/2021
19207	191	TALBOT AV	CULTEC CHAMBER	2/8/2021
19311	183-185	HARVARD ST	CULTEC CHAMBER	2/7/2021
20129	17	GEORGE ST	CULTEC CHAMBER	2/7/2021
20275	229	MAVERICK ST	STORMTECH CHAMBERS	2/5/2021
19259	37	NORTH BEACON ST	MULTIPLE	2/4/2021
18615	23-25	BOWDOIN AV	STORMTECH CHAMBERS	2/2/2021
19315	712-718	BLUE HILL AV	CULTEC CHAMBER	2/2/2021
17565	245	CHELSEA ST	CULTEC CHAMBER	1/28/2021
19499	55-57	MEYER ST	CULTEC CHAMBER	1/28/2021
19576	384-386	COMMONWEALTH AV	CULTEC CHAMBER	1/26/2021
19182	1	COPPERSMITH WY	CULTEC CHAMBER	1/25/2021
17313	231	GOLD ST	LEACHING BASIN	1/21/2021
19181	6	COPPERSMITH WY	BIO FILTER STRIPS	1/21/2021
19546	130	PUTNAM ST	STORMTECH CHAMBERS	1/19/2021
18107	660	SUMMER ST	STORMTECH CHAMBERS	1/14/2021
19636	116	CHANDLER ST	DRYWELL	1/13/2021
17593	68	COLONIAL AV	LEACHING BASIN	1/12/2021

TABLE 3-4. PRIVATE INFILTRATION DEVICES INSTALLED 2021

17594	80	NEW ENGLAND AV	LEACHING BASIN	1/12/2021
17608	60	NEW ENGLAND AV	LEACHING BASIN	1/12/2021
17610	129	SOUTHERN AV	LEACHING BASIN	1/12/2021
18500	133-135	CALLENDER ST	CULTEC CHAMBER	1/11/2021
19023	69-73	PREBLE ST	CULTEC CHAMBER	1/7/2021
19583	2-4	LEXINGTON ST	PERFORATED PIPE	1/6/2021
17406	4	CLEVELAND PL	DRYWELL	1/5/2021
20131	119	PRINCETON ST	STORMTECH CHAMBERS	1/5/2021
20265	199	TRENTON ST	CULTEC CHAMBER	1/5/2021

TABLE 3-5. PRIVATE GRIT SEPARATORS INSTALLED 2021

PROJECT NUMBER	ADDRESS NUMBER	STREET	INSPECTION_DATE
19189	1545-1555	VFW PKWY	12/22/2021
18492	144	ADDISON ST	11/16/2021
16500	130-140	WESTERN AV	8/12/2021
19432	325	RESERVOIR RD	8/5/2021
19305	4246	WASHINGTON ST	7/22/2021
20210	130	CHESTNUT HILL AV	7/16/2021
19064	1420-1440	SOLDIERS FIELD RD	3/4/2021
19181	6	COPPERSMITH WY	1/21/2021

Table 7-1. 2012 Stormwater Model - Mean Annual Pollutant Loads for Boston's 27 Reporting Areas

Reporting Area Name	Drainage Area	Mean Flow	BOD 5	COD	TKN	Nitrate-Nitrite as N	Ammonia as N	Total Phosphorus	Ortho-phosphate as P	Total Copper	Total Zinc	TSS	E Coli	Enterococcus	Fecal Coliform
	Acres	CFS/yr	lb/yr									10 ³ CFU/yr			
West Roxbury	889	2.37	14,028	63,894	2,215	7,695	679	308	82	19	63	29,427	115,093	73,017	99,765
Sawmill Brook	1277	6.12	25,223	111,598	4,610	21,366	1,481	689	194	35	107	53,139	169,381	111,714	147,072
Mid-Charles total	2166	8.49	39,251	175,492	6,824	29,061	2,160	998	276	54	170	82,566	284,474	184,731	246,837
Upper Stony	1832	4.76	25,517	116,162	4,537	11,003	1,462	610	176	35	108	56,961	195,192	118,118	163,714
Canterbury Brook	1889	7.01	102,193	376,759	16,955	21,891	9,627	2,812	909	74	234	145,004	635,362	295,512	890,923
Rosindale Branch	1199	2.09	38,913	165,714	5,930	5,686	2,677	835	249	36	113	70,307	306,891	140,819	314,951
Bussey Brook	839	1.13	6,704	17,754	1,031	2,313	405	148	45	7	15	9,885	18,068	13,573	21,458
Goldsmith Brook	746	1.36	13,530	64,412	2,085	4,068	651	295	69	18	58	30,010	109,971	68,121	87,133
Lower Stony	2165	5.54	72,827	277,964	11,330	16,228	6,266	1,803	601	76	268	110,565	420,530	179,517	491,573
Stony Brook total	8670	22	259,685	1,018,765	41,866	61,189	21,088	6,502	2,051	245	797	422,733	1,686,014	815,660	1,969,753
Village Brook Boston	787	2.65	14,590	50,106	2,390	8,624	1,206	450	130	14	47	20,440	95,024	63,473	139,033
Village Brook Brookline	2061	5.53	47,587	211,867	7,861	18,837	3,231	1,053	339	52	157	90,411	372,252	179,473	317,679
Other Muddy River	1785	7.95	82,671	270,542	12,683	7,733	6,658	2,600	645	99	362	120,510	344,192	212,280	365,787
Muddy River total	4633	16	144,847	532,515	22,935	35,195	11,096	4,103	1,114	165	565	231,362	811,468	455,225	822,499
Faneuil Brook	1316	2.66	40,450	186,467	6,960	7,030	2,750	990	264	47	152	88,573	336,100	169,342	294,366
Shepard Brook	415	1.25	22,114	106,379	3,116	2,876	911	591	90	29	117	48,529	199,314	130,916	152,862
Smelt Brook	846	1.64	32,776	175,163	4,911	4,035	1,168	834	117	47	170	81,245	331,610	211,548	206,479
Allston-Brighton	796	2.30	22,684	80,263	2,767	6,195	1,330	499	133	26	104	33,812	125,438	94,630	165,449
Millers River	208	1.57	15,716	65,888	1,891	3,732	575	383	60	18	76	29,967	119,979	88,372	95,414
Other Lower Charles total	3581	9	133,740	614,159	19,645	23,868	6,734	3,297	664	167	619	282,126	1,112,441	694,808	914,570
Lower Charles Basin total	19050	56	577,523	2,340,931	91,270	149,313	41,078	14,900	4,105	632	2,152	1,018,788	3,894,397	2,150,425	3,953,659
Mother Brook	441	0.89	10,303	40,028	1,604	2,757	775	239	75	9	27	16,586	72,716	39,695	88,018
Hyde Park	1766	3.68	47,075	224,150	7,358	10,903	2,528	1,030	256	54	187	101,006	388,464	213,159	304,092
Oakland Brook	519	1.78	18,211	79,542	2,951	5,882	1,254	407	127	19	57	33,949	149,837	71,668	150,633
Mattapan Brook	304	0.77	13,478	55,661	2,064	2,195	991	286	93	12	40	23,194	99,823	45,419	109,388
Lower Neponset	843	2.24	26,315	115,997	4,100	6,813	1,579	606	159	29	96	51,052	210,044	118,935	192,551
Tenean Creek	873	2.13	106,614	399,865	16,800	5,670	10,123	2,379	897	65	202	149,087	679,235	228,744	895,467
Davenport Creek	712	1.49	24,295	117,246	3,733	4,141	1,267	545	123	29	97	52,691	216,336	116,075	171,873
Neponset River total	5458	11	221,995	915,243	34,877	34,220	17,250	4,946	1,606	187	609	374,873	1,600,119	717,619	1,740,148
Charlestown	556	2.25	69,573	382,135	10,563	5,066	2,619	1,962	255	103	386	174,040	776,735	516,956	512,302
East Boston	438	1.51	43,225	223,062	6,964	4,154	2,250	1,102	214	54	185	99,394	431,965	251,732	313,268
Downtown	473	2.18	58,292	220,832	7,871	3,242	4,004	1,487	360	46	228	90,824	395,945	216,214	484,454
Dorchester	1124	3.79	84,325	372,297	12,981	10,311	5,532	2,303	520	88	334	158,255	689,410	400,141	684,621

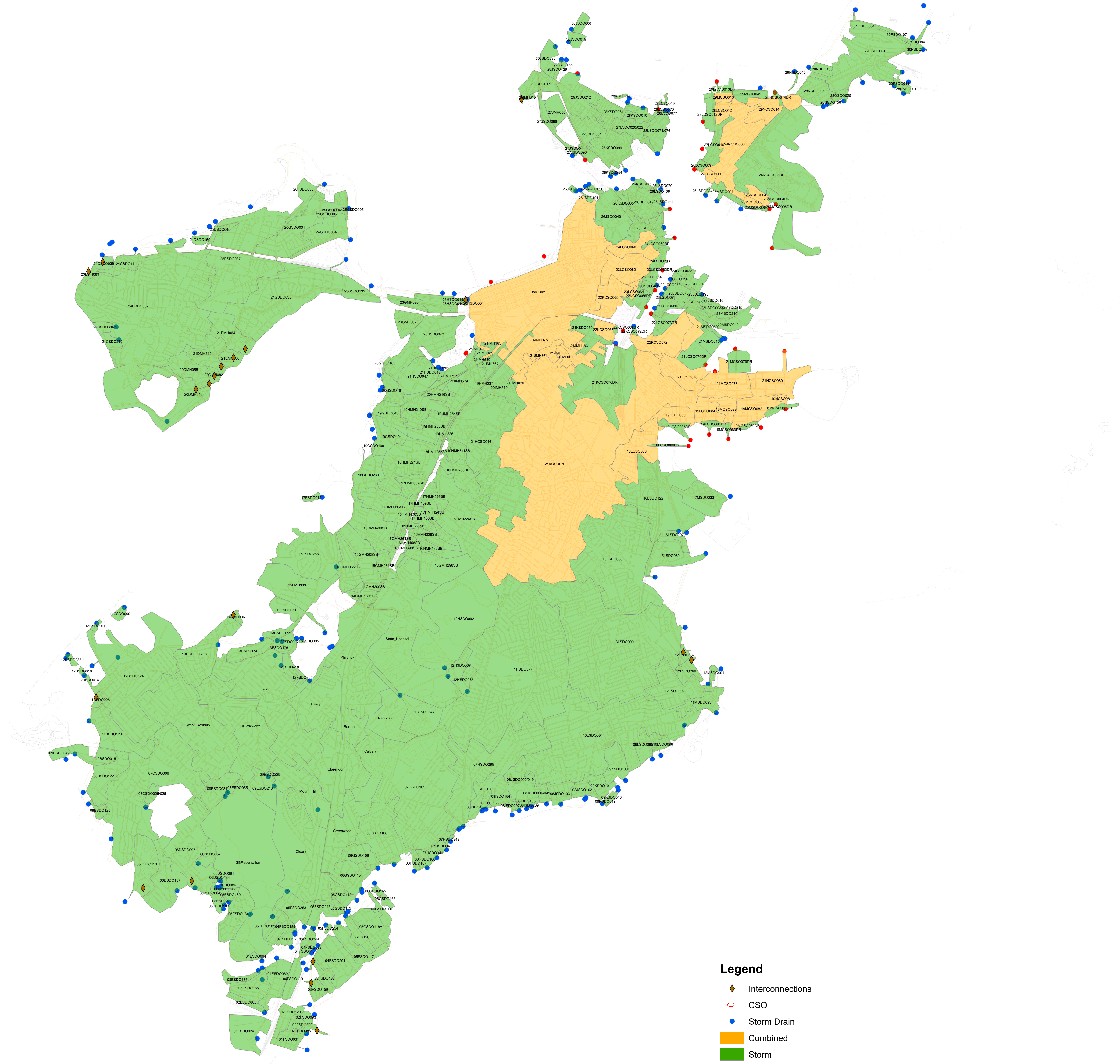
Table 7-2: Annual¹ Loads as of End 2020 Subsequent to Illicit Discharge Removal

Reporting Area Name	Drainage Area	Total Phosphorus	Total Phosphorus
	Acres	lb/yr	lb/yr
		Original Load	After Illicit Removal
West Roxbury	889	308	275
Sawmill Brook	1,277	689	632
Mid-Charles total	2,166	998	907
Upper Stony	1,832	610	534
Canterbury Brook	1,889	2,812	2,275
Roslindale Branch	1,199	835	639
Bussey Brook	839	148	80
Goldsmith Brook	746	295	164
Lower Stony	2,165	1,803	1,167
Stony Brook total	8,670	6,502	4,858
Village Brook Boston	787	450	449
Village Brook Brookline	2,061	1,053	1,019
Other Muddy River	1,785	2,600	2,281
Muddy River total	4,633	4,103	3,749
Faneuil Brook	1,316	990	743
Shepard Brook	415	591	529
Smelt Brook	846	834	785
Allston-Brighton	796	499	0
Millers River	208	383	382
Other Lower Charles total	3,581	3,297	2,439
Lower Charles Basin total	19,050	14,900	11,954
Mother Brook	441	239	200
Hyde Park	1,766	1,030	903
Oakland Brook	519	407	354
Mattapan Brook	304	286	175
Lower Neponset	843	606	569
Tenean Creek	873	2,379	2,202
Davenport Creek	712	545	429
Neponset River total	5,458	4,946	4,832
Charlestown	556	1,962	1,763
East Boston	438	1,102	1,033
Downtown	473	1,487	651
Dorchester	1,124	2,303	2,274
TOTAL	27,099	26,700	22,506

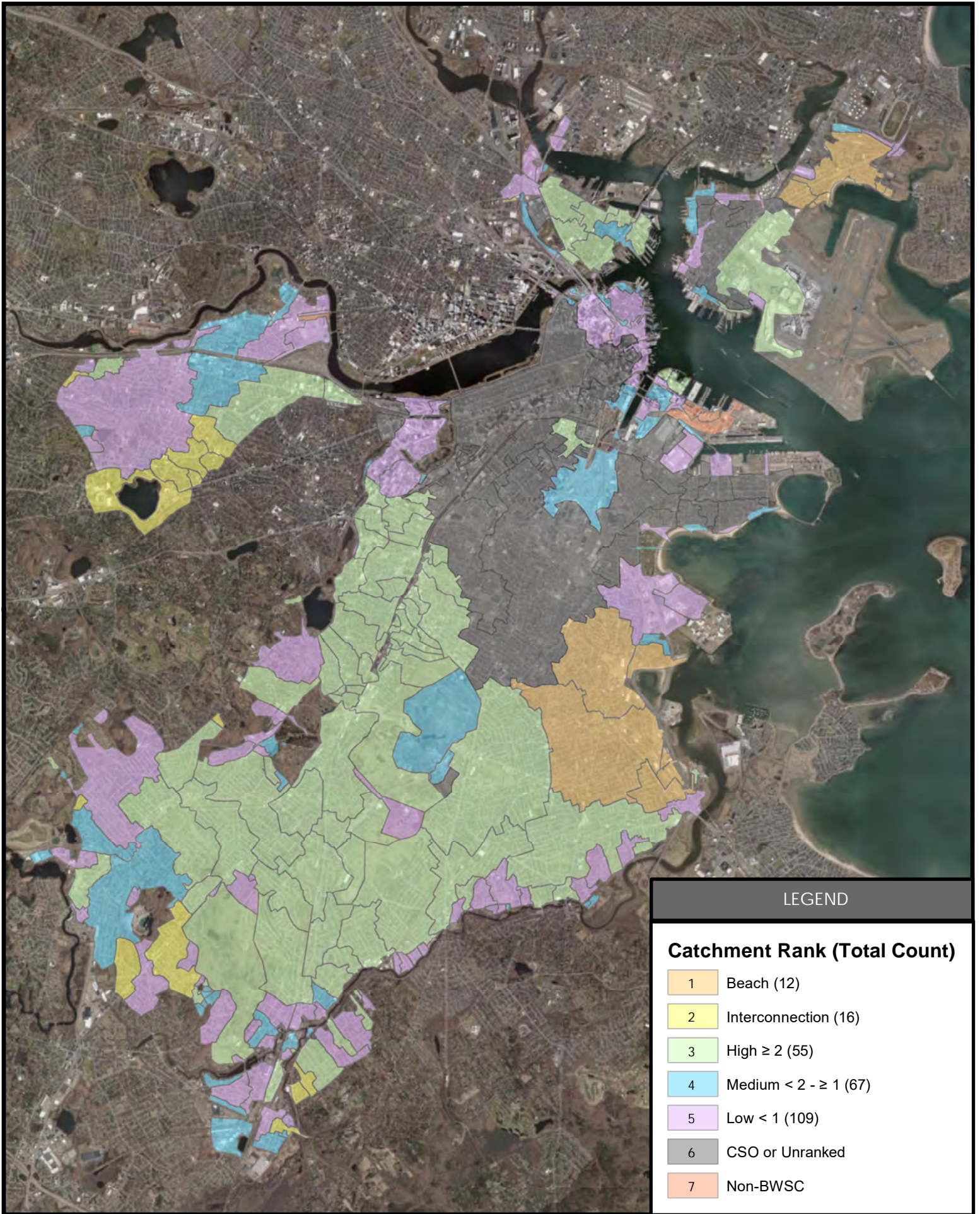
Notes: 1. Based on 2007-2009 precipitation using BWSC precipitation gage network

APPENDIX B: FIGURES

Figure 1: Location of Outfalls and Sub-Catchment Areas



- Legend**
- ◆ Interconnections
 - CSO
 - Storm Drain
 - Combined
 - Storm



Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Notes:
 1. Coordinate System: NAD 1983 StatePlane Massachusetts Mainland FIPS 2001 Feet
 2. Source data: Boston Water Subcatchment Data
 3. Imagery: USGS 2019 Ortho Imagery

Figure1: Subcatchment Priority Ranking Map
 Boston Water and Sewer Commission
 January 2022



Prepared by: B.F. 01/24/2022
 Technical Review by: J.L. 01/24/2022

Currents

BWSC News

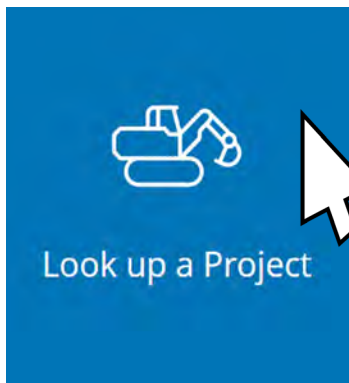
March/April 2021



Discount Increase for Senior Citizens and Disabled Persons

Effective March 2021, in addition to the current 30% discount already received on your water bill, homeowners who are 65 years of age and older, or fully disabled homeowners who live in their 1 – 4 family dwelling, are eligible for a 30% discount on monthly sewer charges as well.

Currently receiving a water discount? No need to do anything, the sewer discount will be automatically deducted from your bill! Think you're eligible but have not applied? Contact Customer Services to apply. Call 617-989-7800 or visit <https://www.bwsc.org/residential-customers/billing-info-and-assistance>.



BWSC @ Work: Construction Season

As warm weather returns to Boston, residents will see BWSC construction improvement projects start up again. Stay up to date on upcoming projects in your neighborhood by logging on to bwsc.org/projects/project-lookup. On our project lookup page, you can filter information by neighborhood and view a map of projects in the area. Also, join Nextdoor on social media where BWSC posts updates and notifications on improvements in your neighborhood.

Remember: BWSC crews and those of its contractors always carry IDs and never ask for money.



DON'T DUMP

Spring Showers

Spring usually brings showers. Boston's storm drains collect rainwater and direct it to nearby waterways such as the Neponset, Mystic, Muddy, and Charles Rivers. The runoff ends up in Boston Harbor. You can help protect Boston's waterways. Do your part to keep these waterways clean by keeping neighborhood catch basins clear of leaves and debris. This will help to ensure proper drainage, prevent local flooding and reduce stormwater pollution. For more information on stormwater maintenance, visit our website at www.bwsc.org.



Help Prevent Stormwater Pollution: Dispose of Pesticides and Herbicides Properly



Insecticides and fertilizers help a garden grow and flourish. When used correctly, these chemicals can protect plants from damage. However, if disposed of improperly, chemicals can pollute stormwater runoff and ultimately contaminate our waterways. If you use fertilizers and pesticides, you need to know the dos and don'ts of their use.

Follow label instructions carefully and only use the specified amount. Avoid watering plants right after applying, unless instructions say to do so. Excess chemicals can wash into waterways. Never dispose of these chemicals in the trash or in the drain. Don't use chemicals in windy conditions or prior to expected rain.



Fix a Leak Week - March 15-21

Save money and reduce your household water usage by finding and fixing leaks in your home. Boston residents can request a free water conservation kit which includes dye tabs to check for toilet leaks at <https://www.bwsc.org/conservation-kits>.



Earth Day - April 22

This year's theme for Earth Day is Restore Our Earth. The message is to take action now, to avoid future disasters on our planet. Everyone is encouraged to take action, not only on Earth Day, but all year. BWSC has developed green infrastructure facilities that act like nature by allowing water to be filtered into the ground and prevent pollution of stormwater runoff. You can check out our green programs at bwsc.org/environment-education.



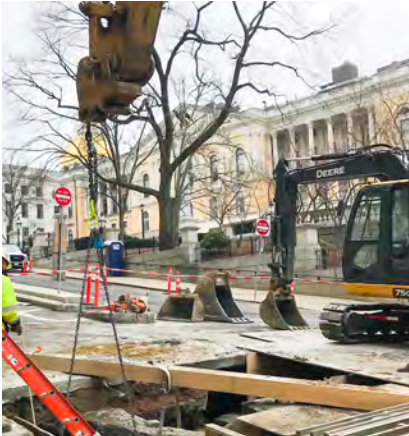
Get Books, DVDs, and CDs with BPL To Go!

Did you know you now can safely check out items from the Boston Public Library? With BPL To Go, patrons can place holds on physical items including books, DVDs, and CDs to pick up at their local branch. Don't have a BPL library card? Sign up for free and get access the Library's online collection of over 23 million items including ebooks, magazines, movies, and more. Get started by visiting www.bpl.org/takeout or call 617-536-5400.

Currents

BWSC News

May/June 2021



BWSC @ Work in Your Neighborhood

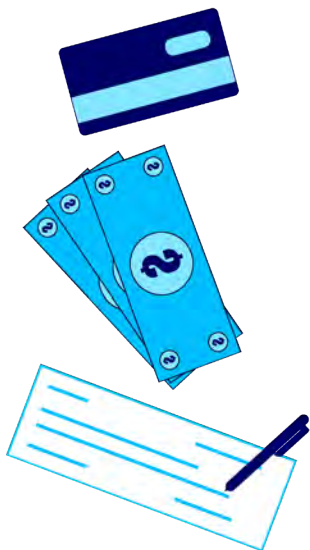
With the onset of warmer weather, residents of the City can expect to see BWSC construction contractors and crews performing maintenance and upgrades to the largest water and sewer system in New England. This work in your community is necessary to ensure the highest quality drinking water and the best sewer services. Please remember not to let anyone enter your home without proper identification. BWSC employees and contractors are required to carry photo ID's. If you are unsure please call our main number (617) 989-7000.



Celebrating Older Americans Month

The Age Strong Commission of Boston offers programs, resources and assistance for seniors. For more information see their website at www.boston.gov to find out about transportation, food resources, volunteer opportunities, housing, events, and more.

BWSC proudly offers a 30% discount on both the water and sewer portion of the bill to seniors and disabled homeowners. Have you signed up yet? Check to see if you or a loved one qualifies: call (617) 989-7000 to speak with a customer service representative. You can also visit www.bwsc.org for information on our senior and disabled discount.



Attention BWSC Customers

Notice to customers Who Pay With a Credit or Debit Card


Beginning June 1, 2021, customers who pay their water and sewer bills using a **credit or debit card** (Visa, Mastercard and Discover) will be assessed a convenience fee of \$4.95 by the third-party payment processor per every increment of \$650. This fee is paid directly to the third-party service provider to cover processing costs and at no time does the fee enter the Commission's records. AutoPay Customers who currently make payments with a credit or debit card will be charged the fee unless they change the form of payment. This is an easy step. AutoPay Customers can continue to enjoy the AutoPay benefit without the fee by simply changing the selected form of payment from credit or debit to electronic check. BWSC continues to offer payment options without convenience fees. **Please note: Payments made by electronic check, by mail with check, or in-person are not subject to a convenience fee.** For more information visit the BWSC's website www.bwsc.org or call customers services at (617) 989-7800.




Leaf and Yard Waste Schedule

2021 May - August Calendar: Also Available online at Boston.gov.

 Yard Waste drop off
500 American Legion Hwy,
Boston, MA 02131

 Leaf and yard waste
curbside collection

 Household hazardous
waste drop-off

MAY

SU	M	TU	W	TH	FR	SA
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

JUNE

SU	M	TU	W	TH	FR	SA
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

JULY

SU	M	TU	W	TH	FR	SA
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

AUGUST

SU	M	TU	W	TH	FR	SA
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				



Keep Wipes Out of Pipes

Disinfectant wipes that claim to be flushable and sewer safe in fact are not. When using wipes be sure to dispose of them properly in the trash and not down the toilet. Wipes when flushed down the toilet can cause blockages in your home's plumbing and in the public sewer system. Do your part: **Keep Wipes Out of Pipes.**

Quabbin Reservoir



May 2 - 8 is National Drinking Water Week

This year's theme for drinking water week is "There when you need it", emphasizing what it takes to deliver safe drinking water every time you turn on the tap. The American Water Works Association encourages us to learn about the vital role that infrastructure and maintenance plays to ensure that your water is there when you need it. Did you know the Quabbin and Wachusett Reservoirs are two of the most abundant and high quality water supplies in the world? These reservoirs deliver water not only to Boston, but to 51 cities and towns! To learn more about the Quabbin and Wachusett water system, visit www.bwsc.org or www.mwra.com.



Spring is Here - DO YOUR PART

Show how much you care about your pet - and the water we rely on for recreation. Please remember to "Scoop the Poop". Help keep Boston streets and waterways clean and clear by picking up after your pet. Pet waste carries harmful bacteria which will pollute our waterways if dumped in catch basins. Dispose of pet waste in the trash. Improper disposal of pet waste is harmful to the environment and our waterways.

CURRENTS

BWSC News

Jul/Aug 2021



Join the Growing Number of Homeowners Who Have Replaced Lead Service Lines

BWSC continues to offer our lead pipe replacement incentive program. This year the credit offered to participants was doubled from \$2,000.00 to \$4,000.00 toward the cost of replacing a lead service line on private property. Qualified property owners have an option for 60-month interest-free payments on any replacement work balance. For information, or to apply, Boston homeowners should call the Lead Hotline at 617-989-7888.



Educational Outreach Program

As a steward of the environment, BWSC is committed to providing Boston with the best quality drinking water and protecting Boston's waterways and harbor. BWSC offers educational presentations for all ages! Here are a few of the topics:

- Where does Boston get its drinking water?
- Where does water go once it flows down the drain?
- What is stormwater and how does it get polluted?

Through interactive engagement members of the public will learn what we all can do to help protect our waterways and Boston Harbor. If you are interested in a presentation, contact BWSC at cilloa@bwsc.org.



Protect Yourself! Always Ask for Identification

BWSC is reminding residents not to allow anyone the ability to gain unauthorized entrance to their home. BWSC employees and contractors are required to carry an official photo identification card. Before allowing anyone into your home or property, always ask for identification. If you are unsure about allowing someone who claims to be a BWSC employee or working for one of our contractors, please call (617) 989-7000 for verification.



Don't Dump! Help Protect our Waterways

Most catch basins in Boston connect to city storm drains that discharge the runoff to the nearest brook, river or Boston Harbor. Do not dump harmful substances such as household chemicals, pesticides, automotive fluids or paints. Remember, pet waste will also contaminate, it should be disposed of properly and never put into a catch basin. **Help keep our rivers and Boston Harbor clean.**

Water Saving Tips

It's always wise to save water, but it's especially important in the summer months when water consumption is at its highest. Below are some water conservation tips that can be useful all year.



Outdoor Water Conservation

- The best times to water plants are dawn and dusk.
- Grass naturally becomes dormant in the summer months and brown patches of grass may appear on your lawn. However, grass will revive quickly after a steady rainfall or cooler weather.
- Raise the mower blade level to 2-3 inches. Longer grass retains more moisture, encourages deeper rooting, requires less fertilizer, and competes better against the weeds.



Indoor Water Conservation

- Fix leaky faucets, pipes and toilets. This can save hundreds of gallons of water per week.
- Turn off the tap while brushing teeth, shaving, or washing dishes.
- Run dishwashers and washing machines only when full, or adjust the water level setting accordingly.
- Keep a jug of water in your refrigerator for drinking rather than running the tap each time you're thirsty.



Request a Free Conservation Kit

Boston residents are encouraged to get their home water conservation efforts into high gear by requesting a free water conservation kit. Conservation kits are available to Boston residents only. To order your kit, go to www.bwsc.org or call us at (617) 989-7500.

Conservation kit Includes:

- Easy to use instructions.
- Kitchen and bathroom faucet aerators.
- A low-flow replacement showerhead.
- A water efficiency gauge bag.
- Dye tablets to check for toilet leaks.



Stay Hydrated This Summer!

For outdoor activities this summer, don't forget to fill your bottle with great tasting Boston tap water. It's important to stay hydrated during the summer months. Whether you are going for a jog or enjoying the sun, you can always take along some refreshing tap water.

Boston Water and Sewer Commission News Currents

Sept/Oct 2021

Interested in AutoPay?



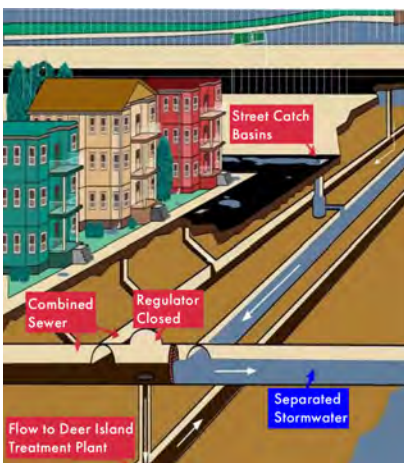
Here's How

Step 1: Register for the Customer Self-Service portal

You will need online access, a valid e-mail address, your account number and an activation code to enroll. Your activation code can be found on your bill.

Step 2: Sign up for AutoPay

Visit www.bwsc.org and click my account in the top right corner. Once you're in the Customer Self-Service portal, The AutoPay icon can be found on your account's main page. After enrolling in AutoPay with your activation code, your bill will be automatically paid each month.



BWSC @ Work

South Boston Sewer Separation Project Is Underway

WHAT HAPPENS AFTER COMBINED SEWERS ARE SEPARATED

- Sanitary sewerage flows to Deer Island Treatment Plant for treatment.
- Stormwater is discharged to Fort Point Channel.
- Water quality is improved.
- Flooding is being mitigated.
- Treatment costs are being reduced.

*Combined Sewer Overflows (CSO) are still possible with a severe storm.



**Imagine a Day
Without Water**
October 21, 2021

Save the Date!

Imagine a Day Without Water

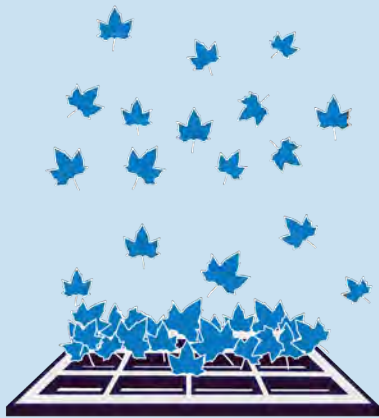
Imagine a Day Without Water is October 21st. This year's theme is learning about where your water comes from, and where it goes. Visit bwsc.org to learn about our water distribution system and for resources on our educational programs. We teach groups of all ages about where we get our water and how to keep pipes and catch basins running smoothly! You can also check out imagineadaywithoutwater.org for information.



Water Main Flushing Program Schedule

Preventive Maintenance Scheduling

Flushing hydrants is an important procedure that insures the continued delivery of high quality water and fire protection to our customers. If your water is discolored after BWSC crews flush, run your faucets for a minute or two, this will clear your water service line. Flushing may also cause a temporary reduction in pressure. It should be noted that these conditions are not permanent or harmful. If, however, these conditions persist, please contact Operations at 617-989-7900. The water main flushing program will begin in September. **The schedule and a full list of streets is available on our website: bwsc.org.**



Keeping Catch Basins Clear

Help BWSC and Public Works Prevent Flooding

Boston is a beautiful place to be for the Autumn season. However, leaves that fall can collect on top of the city's catch basins. These leaves, and other debris, can block rainwater from entering into the storm drain system, potentially causing flooding in our neighborhoods. Residents can help BWSC and the Department of Public Works to keep catch basins clear of debris. All that's needed is a rake, shovel, broom and receptacle.

How You Can Help

- Use gloves when clearing leaves and other debris from the top of catch basins in your neighborhood.
- Put leaves and other yard debris in large paper bags or open barrels labeled "YARD WASTE".
- Place barrels, bags and branches curbside by 7 AM on your neighborhood's designated recycling day.

Leaf and Yard Waste Collection

Leaf and yard waste collection continues through the first week in December. For more information, call the DPW at 617-635-7573 or visit their website at boston.gov/trash-day-schedule. On the website, you can view the dates for your designated collection and drop off days.

CURRENTS

Boston Water and Sewer Commission News

Nov/Dec 2021



Payment Options

The payment options offered by BWSC:

Pay By Mail Send check or money order to: Boston Water and Sewer Commission 980 Harrison Avenue, Boston, MA 02119.

Pay Online Visit www.bwsc.org My Account Page to make electronic payments using your checking/money market account, debit card or credit card. BWSC accepts MasterCard, VISA, and Discover.

Pay by phone or check your balance, by calling 844-470-5881.



Winterize Your Home

Prepare for cold weather ahead and protect you pipes!

- Know where the water shutoff valve is in your home and how to turn it off.
- Keep cabinet doors open during cold spells to allow warm air to circulate around the pipes.
- Seal openings in your home to prevent cold air from leaking through.
- Allow a slow trickle of water to flow through faucets connected to water pipes that run through unheated spaces.
- Insulate pipes in unheated spaces such as garages, basements, and crawl spaces.
- Protect your water meter from icy drafts and freezing temperatures. Most frozen meters are caused by drafts from an open basement door or window.



Take advantage of the Private Lead Replacement Incentive Program

\$4,000 toward the cost of your lead service line replacement

If you have a lead service line, now is the time to take advantage of the Lead Incentive Replacement Program with a grant of up to \$4,000.00 toward replacing the lead service on your property. During the inspection of your water service pipe our inspector will determine if you have a lead service line. The inspector will also give you an estimate of the total cost for replacing the lead service line and if there is a remaining balance, you have 60 months interest-free to pay the remaining balance.

Call the BWSC Lead Hotline at 617-989-7888 to arrange an inspection or if you have any questions about the program. We encourage you to take full benefit of the program.



Keep FOG Out of Drains!

What is FOG?

FOG is the excess of fats, oils and grease from the cooking process left behind from certain foods. During the holidays we tend to cook more resulting in excess FOG. In addition to thanksgiving turkey, FOG is a byproduct of cooking many food products such as:

- Cooking oil
- Butter and margarine
- Lard
- Sauces
- Meat fat
- Dairy products

Excess Fats, Oils, and Grease should never be poured down the sink, or flushed down the toilet. FOG that's poured into the sink or toilet will harden in the pipes and cause backups in your plumbing and Boston's sewer system.

Disposing of FOG is easy: Can the Grease!

After cooking, let FOG cool in the pan. Once cooled, pour or scoop FOG into a can, cover the can with a BWSC Grease Lid and store it in the freezer. When the can is full, remove the lid for reuse, and put the can into the trash on your regular trash collection day.

Boston residents can request a FREE BWSC Grease Lid! Call BWSC at 617-989-7599, or request one online at www.bwsc.org.



Sanitary Sewer Overflow Prevention

Help Prevent Sewage Overflow

A Sanitary Sewer Overflow (SSO) is an unintentional discharge, spill or release of untreated sewage into the environment or a property. The overflow resulting from these sewer backups can cause damage to a property and pollute the environment.

To Help Prevent Sanitary Sewer Overflows, Please:

- **Keep Wipes Out of pipes:** There are many disposable wipes that claim to be "flushable" and "sewer safe." However, these wipes do not break down as they travel through pipes and into the sewer system. Wipes can create clogs in both household plumbing and the public sewer system and result in SSOs.
- **Fats, oils, and grease (FOG) can cause blockages in sewer pipes and lead to SSOs.** Proper Disposal of FOG can help to prevent a SSO. "Can the Grease!"

Report SSOs

A Sanitary Sewer Overflow is an unintentional discharge of untreated sewage into the environment or onto property.

If you encounter a sewer overflow, call BWSC 24 Hour Emergency Service Line **617-989-7000**.



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Boston Water and
Sewer Commission



Let's Protect Boston's Waterways

Report SSOs

A Sanitary Sewer Overflow is an unintentional discharge of untreated sewage into the environment or onto property.

If you encounter a sewer overflow, call BWSC 24 Hour Emergency Service Line **617-989-7000**.



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Boston Water and
Sewer Commission



Let's Protect Boston's Waterways

SSO的报告

卫生下水道溢水是指未经处理的污水无意地排放到环境或财产上。

如果遇到下水道溢水，请拨打
BWSC 24小时紧急服务热线
617-989-7000。



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Boston Water and
Sewer Commission



Let's Protect Boston's Waterways



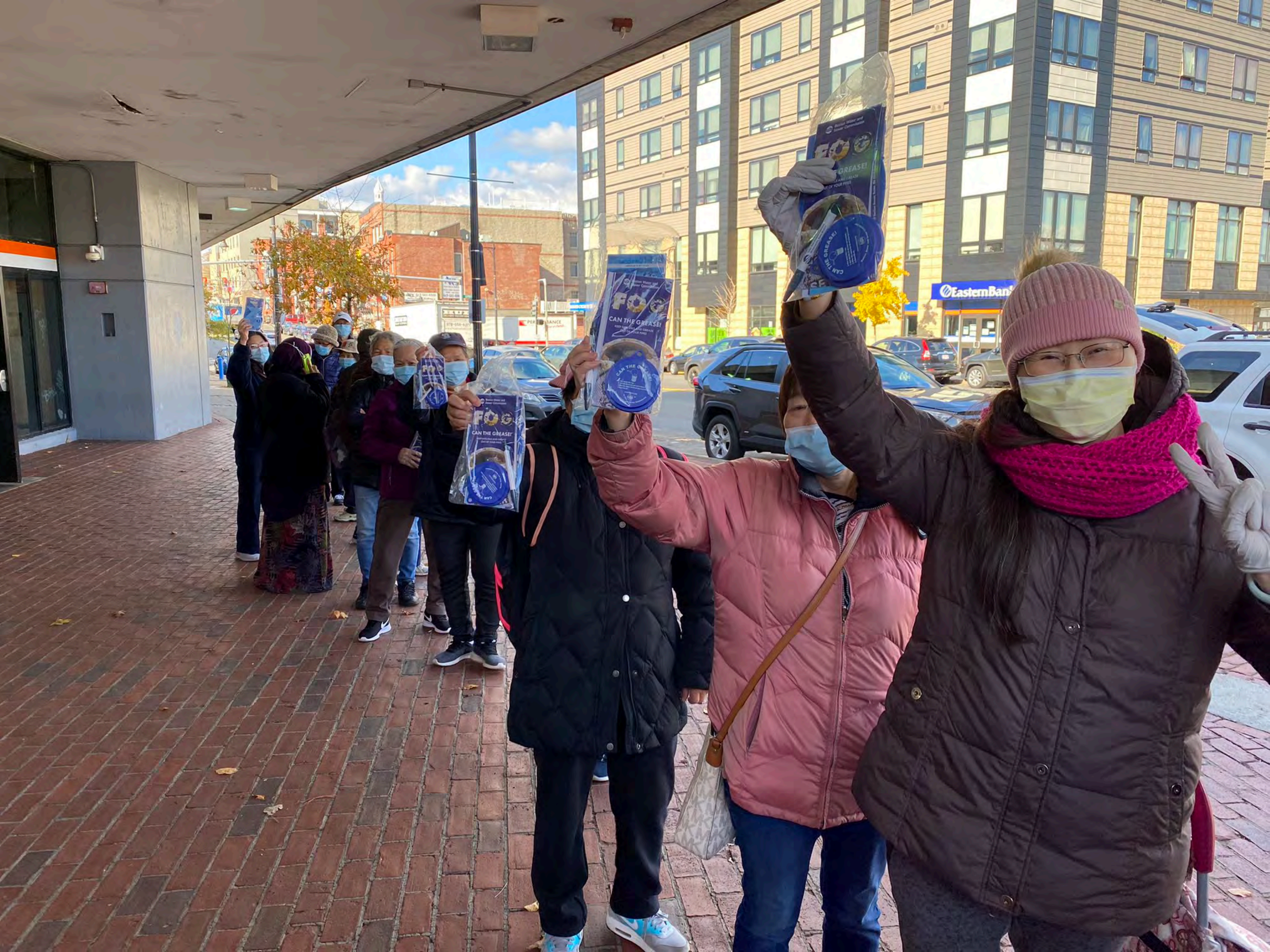
WE ARE ALL CONNECTED
BOSTON WATER

HAMMERMILL
Paper for Life
Great White 30

CAN THE GREASE!
RECYCLE

The Magic Insulated Bag
KEEPS

HC



Reduce Chemical Use: Nontoxic Alternatives for Household Cleaning

Some household cleaners contain chemicals that are toxic to humans, animals, and the environment. Using nontoxic alternatives can reduce your exposure and keep toxic chemicals out of the environment. Some common household products that are effective substitutes for chemical cleaners are:

Baking soda: Cleans, deodorizes, and scours.

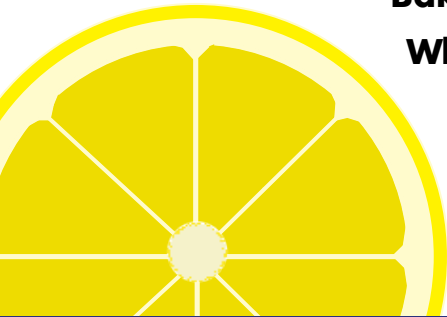
White vinegar: Cuts grease, removes mildew and wax buildup, and kills weeds.

Lemon: Kills household bacteria and removes odors.

Cornstarch: Polishes furniture and removes stains from carpets and rugs.

Unscented soap: Serves as an all-purpose household cleaner.

Olive oil: Can also be used to clean and polish wood.



Keep Wipes out of Pipes! | Wipes Belong in the Trash



DOING THIS



CAUSES THIS



AND THIS!!!

Wipes that claim to be “flushable” and “sewer safe” in fact are not sewer friendly. These wipes do not break down as they travel through pipes and the public sewer system. Instead, they create backups in your home plumbing and can cause sewer overflows in the street. To protect your plumbing and the sanitary sewer system, make sure the following items are disposed of in the trash, not the toilet:

- Bathroom Wipes
- Baby Wipes
- Disinfecting Wipes
- Towelettes





Properly Dispose of Pet Waste

- Take a plastic bag with you when taking your dog for a walk to pick up pet waste. Be sure to place the bag directly into a trash can.
- Never dispose of pet waste in catch basins.
- Remember that dog waste cannot be used as fertilizer.
- Never place dog waste near a tree or in soil because the bacteria in pet waste is potentially harmful.





WE ARE ALL CONNECTED

Let's Protect Boston's Waterways



KEEP WIPES OUT OF PIPES
Only toilet paper is flushable.



SCOOP THE POOP
Walking your dog? Take a plastic bag along to pick up pet waste.



DON'T POUR IT! CAN IT!

WE ARE ALL CONNECTED

BOSTON WATER AND SEWER COMMISSION






DON'T DUMP

Storm drains flow directly to
Boston Harbor and our rivers.
Boston Water and Sewer Commission
WE ARE ALL CONNECTED


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