

Boston Water & Sewer Commission

2023 Stormwater Management Report



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NPDES Phase I Permit Annual Report

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TABLE OF CONTENTS

1.0 INTRODUCTION

1.1	Permit History.....	1-1
1.2	Annual Report Requirements.....	1-1
1.3	Commission Jurisdiction and Legal Authority for Drainage System and Stormwater Management.....	1-2
1.4	Storm Drains Owned and Stormwater Activities Performed by Others.....	1-3
1.5	Characterization of Separated Subcatchment Areas.....	1-4
1.6	Mapping of Subcatchment Areas and Outfall Locations	1-4

2.0 FIELD SCREENING, SUBCATCHMENT AREA INVESTIGATIONS AND ILLICIT DISCHARGE REMEDIATION

2.1	Field Screening.....	2-1
2.2	Subcatchment Area Prioritization.....	2-4
2.3	Status of Subcatchment Investigations.....	2-7
2.4	Illicit Discharge Detection and Elimination Plan	2-8
2.5	Illicit Discharge Investigation Contracts.....	2-8
2.6	Correction/Repair of Illicit Discharges.....	2-8
2.7	Supplemental Environmental Project.....	2-9
2.8	2023 Illicit Discharge Remediation Summary.....	2-9

3.0 STORMWATER MANAGEMENT ACTIVITIES

3.1	Operation and Maintenance and Structural Controls.....	3-1
3.2	Sewer System Overflow Control and Response.....	3-3
3.3	Illegal Dumping and Emergency Spill Response.....	3-4
3.4	Drainage Discharge Permits.....	3-4
3.5	Development and Redevelopment.....	3-5
3.6	Controls for Construction Sites.....	3-9
3.7	Industrial Facility Stormwater Pollution Prevention.....	3-10
3.8	Roadways.....	3-11
3.9	Pesticide, Herbicide and Fertilizer Application.....	3-12
3.10	Other Non-structural Stormwater Management Measures.....	3-13
3.11	Public Education and Outreach.....	3-14
3.12	Support for Watershed Organizations.....	3-21

4.0 STORMWATER BEST MANAGEMENT PRACTICES AND GREEN INFRASTRUCTURE

4.1	Stormwater Model Report.....	4-1
4.2	Stormwater BMP Proposal and Phase I BMP Implementation Plan ...	4-1

4.3	BMP Recommendations Report.....	4-2
4.4	Talbot Avenue Drainage Retrofit Project.....	4-3
4.5	Daisy Field Green Infrastructure.....	4-3
4.6	BMP/GI Project Development and On-Call BMP/GI Contract.....	4-3
4.7	Green Infrastructure at Five Boston Public Schools.....	4-3
4.8	Green Infrastructure for Three Tributary Areas.....	4-4
4.9	Boston Complete Streets Initiative.....	4-4
5.0	ASSESSMENT OF STRUCTURAL CONTROLS	
5.1	Assessment of Stormwater BMP/GI.....	5-1
5.2	Catch Basins.....	5-2
6.0	WATER QUALITY MONITORING	
6.1	Outfall Monitoring.....	6-1
6.2	Stormwater Monitoring and Model Validation.....	6-1
6.3	Urban Runoff Water Quality Project.....	6-2
6.4	Other Past Water Quality Monitoring Projects.....	6-3
7.0	WATER QUALITY IMPROVEMENTS	
7.1	Stormwater Model Alternatives Analysis.....	7-1
7.2	Pollutant Loadings and Reductions.....	7-2
7.3	Illicit Discharge Elimination.....	7-3
7.4	Sewer, Drain, Catch Basin and Particle Separator Cleaning.....	7-3
7.5	BMPs on Private Property.....	7-3
8.0	ENFORCEMENT	
9.0	FINANCING STORMWATER MANAGEMENT	
9.1	Current Expense Budget.....	9-1
9.2	Capital Expenditures.....	9-2
10.0	PROGRAM MODIFICATIONS	

APPENDIX A - TABLES

Table 1-1	BWSC Stormwater Outfalls
Table 1-2	BWSC Interconnections
Table 1-3	BWSC Combined Sewer Overflow Outfalls
Table 2-1	2023 Dry Weather Outfall Screening Results
Table 2-2	2023 Dry Weather Screening Samples Collected vs. Not Collected (Page 2-3)

Table 2-3	2023 Wet Weather Outfall Screening Results
Table 2-4	2023 Wet Weather Screening Samples Collected vs. Not Collected (Page 2-3)
Table 2-5	2024 Revised Priority Ranking
Table 2-6	Priority Ranking Criteria-Discharge Locations (Page 2-5)
Table 2-7	Priority Ranking Criteria-Dry Weather Outfall Screening (Page 2-6)
Table 2-8	Priority Ranking Criteria-Wet Weather Outfall Screening (Page 2-6)
Table 2-9	Priority Ranking Criteria-Date of Last Inspection (Page 2-6)
Table 2-10	Criteria Weighting (Page 2-7)
Table 2-11	Scoring, Ranking and Color-Coding Scheme (Page 2-7)
Table 2-12	Direct Illicit Connections 2023
Table 2-13	Indirect Illicit Discharges 2023
Table 3-1	Brook Inlet and Outlet Cleaning
Table 3-2	BWSC Particle Separators 2023
Table 3-3	2023 HazMat Spill & Sewer Use Violations
Table 3-4	Private Infiltration Devices Approved 2023
Table 3-5	Private Grit Chambers Approved 2023
Table 7-1	2012 Stormwater Model-Mean Annual Pollutant Loads for Boston's 27 Reporting Areas
Table 7-2	2023 Stormwater Model-Mean Annual Pollutant Loads for Boston's 27 Reporting Areas

APPENDIX B - FIGURES

- Figure 1-1 Locations of Outfalls and Sub-Catchment Areas**
- Figure 2-1 IDDE Priority Ranking Map-January 2024**

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 2023. 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 2023. To the extent they occurred in 2023, 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 Boston Redevelopment Authority; 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 Agreement (MOAs) 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. In 2022, the Commission executed Amendment No. 2 to the MOA with Brookline and the DCR through December 31, 2026.

The Commission is currently working to also extend the MOAs with the other parties though December 31, 2026.

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 SUBCATCHMENTS

The Commission's storm drain outfalls are listed in Table 1-1 in Appendix A. The subcatchment tributary to CSO outfall 25MCSO005 was separated in 2022, and the regulator was sealed. Outfall 25MCSO005 now conveys only storm drainage, so going forward it will be included on the storm drain outfall list. 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 active combined sewer overflow outfalls. There are currently only 28 active CSO outfalls in the Commission's CSO system. Combined sewer overflow 19MCSO083 was eliminated from the Commission's combined sewer system several years ago, and 25MCSO005 has been moved to the storm drain outfall list.

1.6 MAPPING OF SUBCATCHMENT 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, SUBCATCHMENT 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 subcatchment areas that demonstrate contamination; implement a subcatchment investigation program based on the priorities and schedules established; and, correct or repair illicit discharges within deadlines established in the Consent Decree. The Commission has been performing illicit discharge investigations and elimination since 1986, prior to entry of the Consent Decree in 2012, and continued to do so in 2023, in accordance with Consent Decree requirements.

2.1 FIELD SCREENING

The Commission's protocols for dry and wet weather screening of subcatchments 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 2023:

- 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 2023 were collected by Commission’s consultant, Stacey DePasquale Engineering, under sub-contract to Stantec, Inc.

The purpose of the dry weather subcatchment 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 2023 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 subcatchments included in the 2023 wet weather program were based on the 2022 dry weather screening data.

Field screening during 2023 included inspection and sampling of 256 Commission-owned subcatchments, which included 210 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.¹

All the results of the 2023 dry weather screening program are provided in Table 2-1 in Appendix A, and a summary of dry weather screening and sampling performed during 2023 is shown in Table 2-2 below. Dry weather field screening took place at 30 CSO locations² in 2023. Dry weather samples were collected at 23 CSO locations. Seven (7) locations were not sampled because there was no flow to sample, or the outfall had standing water or was submerged, and the upstream manholes also had standing water or were submerged.

Dry weather screening took place at 232 SDO and interconnection locations in 2023. Four (4) SDOs had a second sample collected during screening. Outfall 6DSDO184 was also not screened because it is a cross-culvert only with no connected storm drain infrastructure.

Dry weather samples were collected at 133 of the locations visited. The remaining 99 locations were not sampled because there was no flow or insufficient flow to sample, and the upstream manholes also had standing water or were submerged or the outfall and

¹ 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 2023.

² The Stony Brook Conduit 21HCSO046 was screened in three locations in 2023. All three locations were ranked in the 2024 prioritization.

upstream features could not be located. 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
2023 Dry Weather Screening Samples Collected versus Not Collected

Results of Dry Weather Sampling CSOs	2023
Total CSO Screenings Performed	30
Samples Collected	23
Samples Not Collected	7
No flow, dry	2
No flow, standing water/submerged	5
Could not access outfall/no suitable sampling location	0
Results of Dry Weather Sampling SDO/Interconnections	2023
Total SDOs/Interconnect Screenings Performed	232
Samples Collected	133
Samples Not Collected	99
No flow, dry	67
No flow, standing water/submerged	30
Could not access outfall/no suitable sampling location	2

All the results of the 2023 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 five (5) CSO locations in 2023. Wet weather samples were collected at four (4) of the CSO locations. The remaining one (1) location was not sampled because the outfall had standing water or was submerged.

Wet weather screening took place at 115 SDO and interconnection locations in 2023. Wet weather samples were collected at 96 of the locations visited. Samples could not be collected at 19 locations because there was no flow or insufficient flow to sample, or the outfall had standing water or was submerged, and upstream manholes also had standing water or were submerged.

TABLE 2-4
2023 Wet Weather Screening Samples Collected versus Not Collected

Results of Wet Weather Sampling CSOs	2023
Total CSO Screenings Performed	5
Samples Collected	4
Samples Not Collected	1
No flow, dry	0
No flow, standing water/submerged	1

Could not access outfall/no suitable sampling location	0
Results of Wet Weather Sampling SDO/Interconnections	2023
Total SDOs/Interconnect Screenings Performed	115
Samples Collected	96
Samples Not Collected	19
No flow, dry/insufficient flow	4
No flow, standing water/submerged	15
Could not access outfall/no suitable sampling location	0

2.2 SUBCATCHMENT AREA PRIORITIZATION

On November 21, 2012, the Commission submitted to EPA, DEP and CLF the first required subcatchment 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 subcatchment areas for investigation; the priority ranking of the subcatchments which resulted; and a schedule for completing subcatchment 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 2024 are shown in Table 2-5 and a map illustrating the 2024 rankings of the subcatchments is provided as Figure 2-1.

As of August 23, 2019, illicit discharge investigations in all the Commission’s subcatchments were complete. The prioritization methodology was updated for the 2021 priority ranking and continued in the 2022, 2023, and 2024 priority ranking as the Commission moves toward a long-term IDDE maintenance program.

As required by the Consent Decree, 12 subcatchments discharging to beach areas were given first priority. Interconnections with other MS4s were ranked next, and then all remaining subcatchments followed. Subcatchments 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 2023 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 (CW11/2)	5
	Jan 2013 - present (CW13/4/5)	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 2022 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 2024 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 subcatchments were completed in 2019, the 2023 outfall screening results show discharges from some subcatchments 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 subcatchments 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 subcatchments to provide to EPA by January 31, each year. The duration of the Phase 5 contract has been extended until December 31, 2024.

During Phase 5 the Commission is focusing its efforts on investigating subcatchments 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 2023, follow-up investigations focused heavily on the Upper Stony Brook catchments, 7HSDO105, 7HSDO285, 12BSDO124, 12HSDO92, 13LSDO090 and 18GSDO233, 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 2024, the Commission will continue to focus its investigative efforts on those subcatchments with the highest priority rankings.

2.3 STATUS OF SUBCATCHMENT INVESTIGATIONS

IDDE investigations in all of the Commission’s subcatchments were complete as of August 23, 2019. It is noted however, that recent field screening results indicate

contamination is still present in some subcatchments. Follow-up IDDE investigations in those subcatchments are ongoing.

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 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 five years. As of December 31, 2023, \$1,266,586 had been spent for services under the CWI5 contract.

Since 1999, the Commission has spent over \$11,000,000 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 2023, 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 amended program, owners of verified leaking sewer laterals may be reimbursed up to \$8,000 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 2023 ILLICIT DISCHARGE REMEDIATION SUMMARY

This section summarizes the Commission's 2023 Illicit Discharge Identification and Elimination Program. Table 2-12 lists the direct illicit connections that were outstanding

(not corrected) as of January 1, 2023; it includes those that were verified and corrected in 2023, and it includes those that were verified but not corrected at the end of 2023.

Table 2-13 lists the indirect illicit connections (verified leaking laterals) that were outstanding (not corrected) as of January 1, 2023; it includes those that were verified and corrected in 2023; and it includes those that were verified but not corrected at the end of 2023.

Below is a summary of 2023 Illicit Discharge Remediation Program.

2023 Illicit Discharge Remediation Program Summary

Direct Illicit Connections Verified in 2023	11
Direct Illicit Connections Corrected in 2023	11
Direct Illicit Connections Outstanding December 31, 2023	3
Leaking Laterals Verified in 2023	7
Leaking Laterals Repaired in 2023	4
Leaking Laterals Outstanding as of December 31, 2023	8

In 2023, a total of 11 new direct illicit connections were verified, and 11 direct illicit connections were corrected.

In 2023, a total of 7 new leaking laterals were verified; 4 leaking laterals were repaired by the property owners.

In total, 18 new direct connections or leaking laterals were verified in 2023, and 15 direct illicit connections or leaking laterals were corrected/repaired. As of the end of 2023, 11 illicit discharges remained to be corrected/ repaired.

Calculations of cost to remove illicit discharges

Tables 2-12 and 2-13 also provide the costs to the Commission to correct or repair illicit discharges in 2023. The cost to the Commission to correct 11 direct illicit connections was \$117,723. The cost to the Commission to verify 4 leaking sewer laterals was \$7,332. The cost to the Commission to reimburse owners for repairing 4 leaking laterals was \$24,000.

In total, \$149,055 was expended by the Commission to verify and correct or repair illicit discharges in 2023. 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 2023, an estimated 2,184 gallons per day (gpd) of wastewater was removed from the storm drainage system and receiving waters by correcting direct illicit connections, and an estimated 136 gpd of wastewater was removed from the storm drainage system and receiving waters by repairing leaking sewer laterals. In total, an estimated 2,320 gpd of wastewater was removed from the storm drainage system and receiving water by correcting or repairing illicit discharges in 2023.

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 2023, the Commission utilized six (6) large and one (1) small “vactor” cleaning truck to clean accumulated materials from sewers and drains; Five (5) jet trucks; one (1) multi-rodder truck; and one (1) CCTV truck. In 2023, the Commission jetted, vactored or rodded 304,346 linear feet of pipe (58 miles). To determine where structural deficiencies exist and where repairs are needed, Commission crews and contract forces performed television inspections of 353,884 linear feet (67 miles) of sewer and drainpipe in 2023.

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 2023, the Commission and contract resources performed 21,615 inspections/cleanings of catch basins. Catch basin cleanings were transported to the Commission’s Material Handling Facility where they were temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. In 2023, the Commission removed approximately 2,304 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 and receiving waters is summarized in Table 3-2. Because yearly cleaning is labor and equipment intensive and only low volumes of material were removed on an annual basis in the past, Operations is investigating what capture results would be on a 2-year cleaning cycle. Therefore, the separators were not cleaned in 2023. All the separators will be inspected and cleaned by the second quarter of 2024.

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 2023-2025 CIP included \$178.8 million for sewer, drain and stormwater related projects, of which \$64.8 million was earmarked for 2023. A copy of the 2023-2025 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 2023, the Commission responded to, investigated, and/or reported to EPA and DEP, a total of 125 SSO events. These included 65 reportable SSO events (35 public SSOs and 30 reportable private/building backups), and 60 non-reportable private/building backup events. Additionally, the Commission reported three (3) dry weather combined sewer overflow 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 2023, the Commission responded to 30 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 lists the incidences to which the Commission responded in 2023. No violation/enforcement notices were issued in 2023 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 2023, the Commission issued 17 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 2023, 350 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 2023, and 60 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 2023, the Commission performed 457 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 2023, the Commission approved installations of 281 infiltration devices. Table 3–4 provides the addresses of the devices approved in 2023.

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 2023, the Commission approved installation of nine (9) particle separators. Table 3–5 provides the addresses of the devices approved in 2023.

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 2023, the Commission issued 17 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 2023, the Commission issued 558 catch basin castings to

contractors and other parties. Of those issued, 221 were for Boston Harbor, 116 for the Charles River and 221 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 59 projects in 2023. 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 25 projects contained comments regarding the Commission requirements for particle separators. Letters for 49 projects contained comments about the Commission's requirement for retaining stormwater on site. Letters for 55 projects contained comments regarding the requirement for Stormwater Management Plans. Fifty (50) 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 (MOA) 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 2023, the Commission performed 78 construction site inspections. One (1) violation notice was issued.

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 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 2023 was 155. The Commission conducted a total of 100 inspections of industrial facilities in 2023. 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 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 hosts Saturday drop-offs for used motor oil and surplus paint 9 a.m. to 1 p.m. 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 four (4) Saturday drop-offs for household hazardous waste, from 8:30 a.m. to 12 p.m. 2023, on the following dates: May 20, June 24, August 12 and September 23.

c. Yard Waste/Composting

In 2023, the Boston Public Works Department picked up leaf and yard waste from April to December on scheduled days and hosted drop off events throughout the year. Leaf and yard waste is turned into compost and used throughout the city as soil for community gardens, parks, and schools.

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 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 2023 featured the following items:

January/February Currents

- Grease Lid Giveaway
- Tips to Prevent Frozen Pipes
- Financial Assistance Programs for Qualified Homeowners
- Adopt a Catch Basin and Fire Hydrants
- Hydration to Go-BWSC Water Truck

February Inserts

- Don't Dump, Help Protect Our Waterways
- Go Green and Save Time with Paperless Billing

March/April Notice to Customers

- Annual Notice to Customers

April Insert

- What is Stormwater, and how does it become a source of pollution?

May/June Currents

- What is a Rain Garden?
- Why Plant a Rain Garden? How to get Started
- Help Prevent Stormwater Pollution
- Don't Forget - Pick Up After Your Pet
- Don't Dump! - Protect our Waterways

June Inserts

- Scoop the Poop
- Don't Dump
- Keep Wipes out of Pipes! Wipes Belong in the Trash
- Can the Grease! Fats Oils and Grease Should Never go Down the Drain

July/August Currents

- What is Stormwater, and how does it become a source of pollution?
- A New Way to Charge for Stormwater Service
- How Will Your Bill Change
- Credits and Grants are Coming
- What can Residents do to Help Prevent Stormwater Runoff from polluting our Waterways

August Inserts

- Avoid Sewage Backups with a Backwater Valve

A Backwater Valve Can Protect Your Property
Keep Wipes out of Pipes! Wipes Belong in the Trash
Report Sanitary Sewer Overflows

September

The No Cost Private Lead Replacement Incentive Program Brochure

October Insert

We're Changing How Your Pay for Stormwater
Slow the Flow with green infrastructure

November

Important Information About Lead in Your Drinking Water (October 2023 brochure)

December Inserts

Scoop the Poop
Don't Dump
Keep Wipes out of Pipes! Wipes Belong in the Trash
Can the Grease! Fats Oils and Grease Should Never go Down the Drain

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 2023:

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

- What is Stormwater? Stormwater runoff is water from rain or other precipitation that does not soak into the ground. As stormwater flows over hard (impervious) surfaces, it collects trash, sediment, and pollutants like motor oil and fertilizer.

Boston Harbor, its rivers, brooks, and streams are all affected by how well we maintain our stormwater systems. BWSC's stormwater system minimizes pollution from entering waterways.

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

May

- A sanitary sewer overflow (SSO) is an unintentional discharge of untreated sewage into the environment or a property. If you encounter a sewer overflow, call BWSC's 24 Hour Emergency Service at 617-989-7000.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

June

- Dog owners citywide can help prevent the contamination of beaches and other waterways from dog waste by picking up after their pets. Remember to Scoop the Poop! Visit www.bwsc.org for more information.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

July

- Changes are coming to stormwater management and funding. Visit <https://www.bwsc.org/stormwater>.
- 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 información.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

September

- Autumn can be a rainy season. We are investing in our Stormwater system to prevent flooding. To learn more, visit <https://www.bwsc.org/stormwater>
- 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

- Avoid disposing of grease, including cooking oil and meat scraps into your plumbing system through sink drains or toilets. These items can cause sewer backups. Can the Grease! Learn more about FOG prevention at www.bwsc.org.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

December

- We're separating sewer and stormwater charges next year. Learn more at www.bwsc.org/stormwater.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

d. Stormwater Ads

Communications staff spent significant time and effort during 2023 creating print ads aimed at educating members of the BWSC public on stormwater runoff, how it pollutes, and why it is important to manage and reduce it. During the Reporting Period, these ads began appearing in local papers, with the additional purpose and benefit of informing our constituents of BWSC's upcoming Stormwater Charge. Of all the ads, the most prominent was the quarter-page stormwater ad that appeared in the 2023 New England Patriots Yearbook. This comprehensive Yearbook is distributed to hundreds of thousands of fans, both those who attend games in person and those who order the Yearbook online or purchase at the Patriots Pro Shop. These ads were also included on listservs distributed by various City of Boston Main Streets organizations.

e. 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

gained 123 followers and the Twitter account gained 179 new followers during the Reporting Period. The Commission's Instagram account gained 103 new followers since the last Reporting Period. 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.

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 — 19,926 (views)
Scoop the Poop — 5,685
FOG - Fats, Oils, and Grease — 2,720
BWSC New CSS Tutorial video — 1,788
BWSC's New Website — 1,740
About BWSC — 831
BWSC's New Customer Portal — Full Tour 744
Keep Wipes Out of Pipes — 702
BWSC - Where Does the Water Go? — 586
Downspout Disconnection — 307
Tastes Great! Less Wasteful! — 216
Lead Replacement PSA — 161
STAY CONNECTED — 115
Dudley Square Sewer Separation Project Interview — 108
BWSC's New Customer Portal – Quick Tour — 105
Water Ways: BWSC Catch Basins — 97
The Water Cycle Is — 84
One Financial Center Installation Video — 73
FOG Plumber (with subtitles) — 42
Boston Tea Party PSA — 41
Culinary FOG Video — 37
What's Happening on Boston Harbor? — 31
FOG Plumber — 19
Keep FOG out of the pipes. Fats, Oils, and Grease causes sewer backups — 20,060
Scoop the Poop — 5,805
FOG - Fats, Oils, and Grease — 2,726
BWSC New CSS Tutorial video — 2,052
BWSC's New Website — 1,743
About BWSC — 856
BWSC's New Customer Portal — Full Tour 756
Keep Wipes Out of Pipes — 704
BWSC - Where Does the Water Go? — 594
Downspout Disconnection — 314

Tastes Great! Less Wasteful! — 262
STAY CONNECTED — 115
BWSC's New Customer Portal – Quick Tour — 113
Dudley Square Sewer Separation Project Interview — 108
Water Ways: BWSC Catch Basins — 97
The Water Cycle Is — 84
One Financial Center Installation Video — 78

f. 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. The list below details the numbers and types of presentations held from January to December 2023.

- January: 27 adults, 2 schools, 188 students, 11 presentations
- February: 4 adults, 1 school, 76 students, 4 presentations
- April: 28 adults, 1 school, 40 students, 1 presentation
- May: 28 adults, 6 schools, 251 students, 9 presentations
- June: 7 adults, 2 schools, 87 students, 4 presentations
- January: 19 adults, 2 presentations
- February: 17 adults, 1 presentation
- April: 55 adults, 1 presentation
- July: 40 adults, schools, 112 students, 5 presentations
- August: 37 adults, 5 groups, 255 students, 6 presentations
- October: 10 adults, 3 schools, 140 students, 6 presentations
- November: 28 adults, 4 schools, 336 students, 15 presentations
- December: 5 adults, 1 school, 28 students, 2 presentations

g. Environmental Events

During 2023, the Commission participated in many virtual meetings with environmental groups and community groups such as the Boston Housing Authority, MWRA Water Supply Citizens Advisory Committee (WSCAC), MWRA Wastewater Advisory Committee (WAC), Sacred Heart Roslindale Leader's monthly meeting, New England Water Environmental Association, the Water Infrastructure Alliance monthly meeting. these organizations work collectively towards addressing infrastructure issues such as combined sewer separation and other activities which work to reduce the occurrence of combined sewer overflows along with educating customers and users of our waterways and the importance of pollution prevention efforts.

h. 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 2022 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 2023 the Commission issued 558 catch basin castings to contractors and other parties. Of those issued, 221 were for Boston Harbor, 116 for the Charles River and 221 were for the Neponset River.

i. Water Truck

In 2023 the Commission water truck was back in full operation in support of in-person environmental events and requests for the truck increase. The goal of the water truck is to promote awareness of water quality and share with residents our "Don't Dump" message along with the overall theme of encouraging residents to share in the responsibility of taking care of our waterways. The truck was very visible at about 162 events. The Commission recently received the J.D. Power Award for the second time in a row for customer service.

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 and Mystic River Watershed Association's each received \$25,000 from the Commission in 2023; Boston Harbor Now received \$30,000; the Trustees of Reservations received \$10,000; the Boston Ground Water Trust received \$48,000.

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 STORMWATER 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 are described in this section.

4.1 STORMWATER MODEL REPORT

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 subcatchments, 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. Construction of the City Hall Plaza was completed in 2022. 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. 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 TALBOT AVENUE DRAINAGE STRUCTURE RETROFIT PROJECT

In 2023, the Commission constructed a drainage structure retrofit with phosphorus removal technology on Talbot Avenue in Dorchester. The area is tributary to the Charles River. During the year, the structure underwent monitoring to determine the pollutant removal efficiency of the proprietary technology. Preliminary results of the monitoring study show that the technology is cost-effective and capable of removing a significant amount of trash and pollutants from stormwater.

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 discharges to Leverett Pond through the Commission's outfall 18GSDO233. The project will involve installation of a subsurface gravel filter under the baseball fields. The conceptual design was completed in 2016.

Daisy Field is owned by the City of Boston and managed through its Parks and Recreation Department (BPRD); therefore, authorization by the city is necessary to proceed with the construction of the GI. In 2023, the Commission completed 90% design of the Daisy Field green infrastructure. In 2023, The Commission continued discussions with the BPRD came to an agreement on a Memorandum of Understanding to advance the project.

4.6 BMP/GI PROJECT DEVELOPMENT AND ON-CALL BMP/GI CONTRACT

BWSC continued to work with other city agencies in 2023, 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. The Commission also continued working with Nitsch Engineering Inc., under an on-call contract to design structural GI/BMPs for collaboration project with city agencies. Ongoing projects with Nitsch include design of a subsurface gravel filter at Daisy Field (as mentioned above), and design of bioretention and subsurface infiltration along Coolidge Road in Brighton. Additionally, a GI maintenance manual was written to complement the GI design manual completed by the Commission in 2022.

4.7 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.

4.8 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.

4.9 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 greenscapes, 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 2023 in that regard.

5.1 ASSESSMENT OF STORMWATER BMP/GI

The Talbot Avenue drainage structure retrofit project described in Section 4 includes pre- and post-construction water quality monitoring to assess the effectiveness of the structure in removing Total Suspended Solids and Phosphorus. The final results of the monitoring study are expected to be available in mid-2024.

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 2023, the Commission and contract resources performed 21,615 catch basin inspections/cleanings. 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 2023 was approximately 2,304 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.

5.3 PARTICLE SEPARATORS

The Commission currently owns 20 particle separators. Information regarding the various particle separators, including their locations and receiving waters is summarized in Table 3-2. Because yearly cleaning is labor and equipment intensive and in the past only low volumes of material were removed on an annual basis, Operations is investigating what capture results would be on a 2-year cleaning cycle. Therefore, the separators were not cleaned in 2023. All the separators will be inspected and cleaned before the end of the second quarter of 2024.

The cleaning data collected over the last several years demonstrated that there are significant differences in the amount of material removed from each separator from year to year, although the reasons were unclear. There are many variables which could affect the amount of material retained in a separator, including, frequency and intensity of rain and snow storms, land use, topography and size of the area tributary to the particle separator, season during which the separator was cleaned and design factors.

The Commission typically uses a vactor truck with a vacuum hose to clean its particle separators and this equipment is not conducive to accurate quantification of material removed. The amount of material removed is visually estimated by the operator and not measured. Each operator may estimate the amount of material removed differently than others. For these reasons it is difficult to establish which factor(s) determine how well a particle separator removes solids, or why one particle separator appears to capture more sediment than another.

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 FOR MODEL UPGRADES

As described in Section 4, on December 28, 2012, the Commission submitted a Stormwater Model Report to the EPA, DEP and CLF, as required under the Consent Decree. Development of the 2012 Stormwater Model involved flow monitoring and water quality sampling at 22 sites in 2011 and 2012, and calibration of the Commission's 2012 Stormwater Model to those data. The 2012 Stormwater Model was modified to simulate dry and wet deposition of 13 pollutants, including nutrients, bacteria and metals, over nine land use categories across 3,600 subcatchments, as well as dry weather contributions from illicit discharges. 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 Boston.

In May 2020, the Commission executed a contract with Kleinfelder for a Stormwater Monitoring and Model Validation Project (the 2020 Model Project). The 2020 Model Project included extensive water quality and flow monitoring, like that which was performed for the 2012 Model. The monitoring data collected was incorporated into the 2020 model. The main purpose of the 2020 Model Project was to update the model to include BMP/GI features installed in Boston since 2012; evaluate whether stormwater quality improvements have resulted since 2012 due to BMP/GI devices installed; and develop the basis for a long-term stormwater quality monitoring program under which historic, current and future pollutant levels can be compared to evaluation whether water quality improvements result. The Project also included development of a tool that will

allow the incorporation of BMP/GI data directly into the Stormwater Model database from site plans, as they are approved by the Commission.

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 subcatchments 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 subcatchment prioritization and use only dry weather FIB data for prioritizing subcatchments 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. Another important means of evaluating water quality improvements over time is the Commission's recently updated Stormwater Model. Analyses performed using the Stormwater Model are described further in this section.

7.1 STORMWATER MODEL ANALYSES

As described in Section 4 and 6, the Commission used its 2012 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 2012 Stormwater Model had the capability to evaluate pollutant loading reductions that resulted from the installation of stormwater BMP/GI. However, the 2012 Stormwater Model had not been updated to include BMP/GI installed since March 2012. In May 2020, the Commission executed a contract with Kleinfelder for a Stormwater Monitoring and Model Validation Project (2022 Model Project) designed 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.
- 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.
- 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.
- 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.
- 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.

The Stormwater Monitoring and Model Validation Project included development of a tool that will allow the incorporation of BMP/GI data obtained from site plans submitted to the Commission’s directly into the Stormwater Model. The tool will expedite and enhance the Commission’s ability to evaluate pollutant loads and reductions achieved due to BMP/GI installations as they are installed.

The 2022 Model Project contract was extended through July 2024, although the stormwater quality monitoring component was completed in 2022. The monitoring data has been incorporated into the model and is currently being analyzed. Final cost for this project is expected to be \$2.1 million.

7.2 POLLUTANT LOADINGS AND REDUCTIONS

The Commission’s 2012 Stormwater Model was used to estimate mean annual pollutant 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 pollutant loads for the Commission’s 27 sub-drainage areas (referred to as “reporting areas”), as they were calculated in 2012.

The Commission recently used the Storm Drain Model to obtain updated estimates of mean annual loads for the same 13 water quality constituents analyzed for the 2012 Stormwater Model. Table 7-2 presents the estimated mean annual pollutant loads by reporting area, based on conditions as of December 31, 2023. The calculations demonstrate that Total Phosphorus had been reduced 25 % from the 2012 baseline.

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 2023, the Commission eliminated illicit discharges at 15 locations, thereby eliminating the discharge of an estimated 2,320 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 2023, the Commission removed 1,947 illicit discharges, thereby eliminating the discharge of an estimated total of 875,192 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 2023, the Commission and its contractors removed an estimated 2,304 tons of material from the Commission's catch basins 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 2023, the Commission approved installations of 254 infiltration devices. Table 3–4 provides the addresses of the devices approved in 2023.

b. Privately Owned Grit Separators

In order to prevent oil, grease and sediments from discharging to open waterways, the Commission requires that developers install grit 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 grit separators on parking lots are included in the project design during site plan review. The Commission may require grit separators on existing storm drains from existing outdoor parking areas, where appropriate. This requirement has been in place since 1992.

Parking lot grit 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 grit 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 2023, the Commission approved installation of nine (9) grit separators. The addresses of the devices approved in 2023 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 2023, the Commission responded to 30 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 lists the incidences to which the Commission responded in 2023. No violation/enforcement notices issued for spills, leaks or dumping in 2023.

In 2023, the Commission performed 78 site inspections of construction projects in Boston. One (1) violation notice was issued for construction related projects.

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 2023 Current Expense Budget totaled \$449 million in revenues, which was offset by an equal amount of expenses. The amount represented a 8.6% increase as compared to the 2022 budget.

Of the total budgeted for 2023, \$101 million was for direct expenses. The remaining funds were budgeted for the assessment by the Massachusetts Water Resources Authority (\$253 million), Debt Service (\$50 million), Capital Improvements (\$29.8 million), Contractual Funding Obligations (\$15.7 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 \$45.6 million or 45 percent of the Commission's 2023 direct expense budget was for the Engineering and Operations Divisions. Of the Engineering and Operations Division's direct expense budget, about \$27.4 million was

for sewer and storm drain related operations. Thus, sewer and drain related work represented about 27 percent of the Commission’s total direct expense budget.

The Current Expense Budget for 2024 had not been finalized as of the writing of this report but is expected to be similar to the 2023 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 2023-2025 CIP included \$124.2 million for sewer, drain and stormwater related projects, of which \$54.9 million was earmarked for 2023.

The Commission’s 2024-2026 identifies \$178.8 million for sewer, drain and stormwater related projects, of which \$64.9 million is earmarked for 2024.

The 2022-2024 and 2023-2025 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 2023-2025 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
- Retrofit of an existing drainage structure on Talbot Avenue to remove phosphorus from stormwater
- 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

Following the lodging of the Consent Decree in August 2012, the Commission undertook 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 2023 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	EASEMENT/LAKESIDE	HYDE PARK	15	SPRAGUE POND/NEPONSET RIVER
01F031	EASEMENT/MILLSTONE RD	HYDE PARK	48X24	NEPONSET RIVER
02E086 (02E005)	WEST MILTON STREET	HYDE PARK	24	UNAMED WETLANDS
02F085	LAWTON STREET	HYDE PARK	12	NEPONSET RIVER RESERVATION
02F093	EASEMENT/SIERRA RD	HYDE PARK	15	NEPONSET RIVER
02F120	EASEMENT/WOLCOTT CT/HYDE PARK AVE EXT	HYDE PARK	54	NEPONSET RIVER
03E185	NORTON ST	HYDE PARK	2-18	WETLANDS/NEPONSET RIVER
03E186	RIVER STREET	HYDE PARK	24	MILL POND/MOTHER BROOK
03E207	RIVER STREET	HYDE PARK	UNKNOWN	MILL POND/MOTHER BROOK
04E064	ALVARDO AVE/RIVER ST BRIDGE	HYDE PARK	12	MILL POND/MOTHER BROOK
04E069	KNIGHT ST DAM	HYDE PARK	36	MOTHER BROOK
04F001	RESERVATION ROAD	HYDE PARK		MOTHER BROOK
04F016	EASEMENT RIVER ST	HYDE PARK	30	MOTHER BROOK/NEPONSET RIVER
04F118	MASON STREET EXT.	HYDE PARK	18	NEPONSET RIVER
04F119	EASEMENT/HYDE PARK AVE/RESERVATION RD	HYDE PARK	24	NEPONSET RIVER
04F189	RESERVATION RD	HYDE PARK	36	MOTHER BROOK/NEPONSET RIVER
04F203	GLENWOOD AVE	HYDE PARK	28	NEPONSET RIVER
04F204	TRUMAN HWY/CHITTICK ST	HYDE PARK	36	NEPONSET RIVER
05C110	EASEMENT/PLEASANTDALE ST EXT	WEST ROXBURY	60	CHARLES RIVER
05E180	GEORGETOWN DRIVE	HYDE PARK	12	NONE SHOWN/CHARLES RIVER
05E181	GEORGETOWN DRIVE	HYDE PARK	12	NONE SHOWN/CHARLES RIVER
05E182	DEDHAM STREET	HYDE PARK	21	UNNAMED STREAM/CHARLES RIVER
05E183	GEORGETOWN PLACE/DEDHAM ST	HYDE PARK	12	UNNAMED STREAM
05E184	TURTLE POND PARKWAY	HYDE PARK	21	UNAMED WETLANDS
05F117	EASEMENT/TRUMAN HWY/WILLIAMS AVE	HYDE PARK	33	NEPONSET RIVER
05F244	HYDE PARK AVE BRIDGE	HYDE PARK	20	MOTHER BROOK/NEPONSET RIVER
05F245	HYDE PARK AVE	HYDE PARK	33	MOTHER BROOK/NEPONSET RIVER
05F253	EASEMENT/BUSINESS ST, NEAR BUSINESS TER	HYDE PARK	48X24	MOTHER BROOK/NEPONSET RIVER
05F254	DANA AVENUE	HYDE PARK	12	NEPONSET RIVER
05G112	EASEMENT/RR ROW/WATER ST EXT	HYDE PARK	30	NEPONSET RIVER
05G115	FAIRMOUNT AVE BRIDGE (NORTH BANK)	HYDE PARK	24	NEPONSET RIVER
05G116	FAIRMOUNT AVE BRIDGE (SOUTH BANK)	HYDE PARK	24	NEPONSET RIVER
05G116A	WARREN AVENUE	HYDE PARK	24	NEPONSET RIVER
06D057	CEDAR CREST CIRCLE	WEST ROXBURY	21	CHARLES RIVER
06D083	MARGARETTA DRIVE	WEST ROXBURY	15	WETLANDS/CHARLES RIVER
06D084	EASEMENT/MARGARETTA DRIVE	WEST ROXBURY	12	WETLANDS/CHARLES RIVER
06D085	GEORGETOWN DRIVE	WEST ROXBURY	12	WETLANDS/CHARLES RIVER
06D086	GEORGETOWN DRIVE	WEST ROXBURY	10	WETLANDS/CHARLES RIVER
06D091	GEORGETOWN DRIVE	WEST ROXBURY	10	WETLANDS/CHARLES RIVER
06D184	GEORGETOWN DRIVE	WEST ROXBURY	18	WETLANDS/CHARLES RIVER
06D187	EASEMENT/GROVE ST	WEST ROXBURY	36	BROOK GROVE ST CEMETERY
06F233	MOUNT ASH ROAD	HYDE PARK	UNKNOWN	WETLAND - STONY BROOK RESERVATION
06G108	EASEMENT/WEST OF WOOD AVE EXT	HYDE PARK	69	NEPONSET RIVER
06G109	RIVER TER EXT, NEAR ROSA ST	HYDE PARK	48	NEPONSET RIVER
06G110	EASEMENT/WEST STREET EXT	HYDE PARK	30	NEPONSET RIVER
06G111	EASEMENT/VOSE ST EXT., TRUMAN HWY	HYDE PARK	24	NEPONSET RIVER
06G165	TRUMAN HWT/METROPOLITAN AVE	HYDE PARK	10	NEPONSET RIVER
06G166	ABOUT 30' FROM GUARDRAIL NORTH SIDE OF TRUMAN HWY NEAR MILTON	HYDE PARK	36X36	NEPONSET RIVER
06H106	OSCEOLA STREET	HYDE PARK	24	NEPONSET RIVER
06H107	EASEMENT/BELNEL RD	HYDE PARK	24	NEPONSET RIVER
07C006	EASEMENT/VFW PARKWAY/BELLE AVE	WEST ROXBURY	126X126	CHARLES RIVER
07H105	EASEMENT/EDGEWATER/S RIVER ST	NEPONSET/MATTAPAN	102X72	NEPONSET RIVER
07H285	BLUE HILL AVE	NEPONSET/MATTAPAN	106X63	NEPONSET RIVER
07H346	EDGEWATER DRIVE/HOLMFIELD AVE	HYDE PARK	18	NEPONSET RIVER
07H347	EDGEWATER DRIVE/BURMAH ROAD	NEPONSET/MATTAPAN	21	NEPONSET RIVER
07H348	EDGEWATER DRIVE/TOPALIAN STREET	NEPONSET/MATTAPAN	24	NEPONSET RIVER
08B122	EASEMENT/NORTH OF SPRING ST.	WEST ROXBURY	30	CHARLES RIVER
08B126	SPRING STREET EXTENDED	WEST ROXBURY	30	CHARLES RIVER
08C025	WEDGEMERE ROAD	WEST ROXBURY	24	CHARLES RIVER
08C026	WEDGEMERE ROAD	WEST ROXBURY	24	CHARLES RIVER
08E031	TURTLE POND PARKWAY	WEST ROXBURY	18	TURTLE POND
08E033	TURTLE POND PARKWAY	WEST ROXBURY	UNKNOWN	TURTLE POND
08E035	WASHINGTON STREET	WEST ROXBURY	15	TURTLE POND
08F001	SHERRIN STREET	HYDE PARK	24	WETLANDS/CHARLES RIVER
08I153	DUXBURY ROAD	NEPONSET/MATTAPAN	15	NEPONSET RIVER
08I154	EASEMENT/RIVER ST/GLADESIDE AVE	NEPONSET/MATTAPAN	18	NEPONSET RIVER
08I155	EASEMENT/RIVER ST/MAMELON CIR	NEPONSET/MATTAPAN	24	NEPONSET RIVER

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER	LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
08I156	EASEMENT/RIVER ST/MAMELON CIR	NEPONSET/MATTAPAN	24	NEPONSET RIVER
08I158	EASEMENT/RIVER ST/FREMONT ST	NEPONSET/MATTAPAN	18	NEPONSET RIVER
08I207	MEADOWBANK AVE EXT	NEPONSET/MATTAPAN	15	NEPONSET RIVER
08I209	MEADOWBANK AVE EXT	NEPONSET/MATTAPAN	12	NEPONSET RIVER
08J041	RIVER STREET	DORCHESTER	18	NEPONSET RIVER
08J102	ADAMS STREET	DORCHESTER	15X15	NEPONSET RIVER
08J103	EASEMENT/CENTRAL AVE BRIDGE	DORCHESTER	30	NEPONSET RIVER
08J49/50	DESMOND RD	DORCHESTER	2-18&24	NEPONSET RIVER
08K049	BEARSE AVENUE	DORCHESTER	12	NEPONSET RIVER
09B049	EASEMENT/RIVERMOOR ST	WEST ROXBURY	30	COW ISLAND POND/CHARLES RIVER
09E229	GRANDVIEW STREET	WEST ROXBURY	12	NONE SHOWN
09E243	BLUE LEDGE TR/EASEMENT	WEST ROXBURY	30	UNNAMED STREAM
09K016	EASEMENT/BEARSE AVE EXT	DORCHESTER	15	NEPONSET RIVER
09K100	EASEMENT/MELLISH RD	DORCHESTER	34X24	NEPONSET RIVER
09K101	EASEMENT/HUNTOON ST EXT	DORCHESTER	24	NEPONSET RIVER
09L095	GRANITE AVENUE	DORCHESTER	36X48	NEPONSET RIVER
10B015	EASEMENT/CHARLES RIVER ROAD	WEST ROXBURY	21	COW ISLAND POND/CHARLES RIVER
10L094	EASEMENT/GALLIVAN BLVD	DORCHESTER	74X93	NEPONSET RIVER VIA DAVENPORT BROOK
10L096	HILLTOP & LEXONDALE STS	DORCHESTER	36	NEPONSET RIVER
11B123	EASEMENT/EAST OF BAKER ST EXT.	WEST ROXBURY	72	BROOK FARM BROOK/CHARLES RIVER
11G344 (11G318@MH11G247)	CULVERT UNDER WALK HILL STREET	ROSLINDALE	24	CANTERBURY BROOK
11G344 (11G319@MH11G246)	CULVERT UNDER WALK HILL STREET	ROSLINDALE	18	CANTERBURY BROOK
11I577	HARVARD ST	NEPONSET/MATTAPAN	102X102	CANTERBURY BROOK
11M093	NEPONSET AVE AT NW END OF NEPONSET AVE BRIDGE	DORCHESTER	48	NEPONSET RIVER
12B010	BAKER STREET	WEST ROXBURY	15	BROOK FARM BROOK
12B014	BAKER STREET	WEST ROXBURY	12	BROOK FARM BROOK
12B033	EASEMENT/BAKER STREET	WEST ROXBURY	18	BROOK FARM BROOK
12B124	EASEMENT/LAGRANGE STREET	WEST ROXBURY	120	BROOK FARM BROOK
12F305	EASEMENT/ARBOROUGH ROAD	ROSLINDALE	12	UNAMED WETLANDS
12E418	EASEMENT/WALTER STREET (renumbered from 12F322)	ROSLINDALE	18	NONE SHOWN
12H001 (12H085@MH12H26)	MORTON STREET	ROSLINDALE	15	CANTERBURY BROOK
12H001 (12H087@MH12H27)	MORTON STREET	ROSLINDALE	15	CANTERBURY BROOK
12H2	CANTERBURY STREET	ROSLINDALE	21	CANTERBURY BROOK
12H092	AMERICAN LEGION HIGHWAY	WEST ROXBURY	24	CANTERBURY BROOK
12L092	PINE NECK CREEK/TENEAN ST WEST OF LAWLEY	DORCHESTER	72	NEPONSET RIVER
12M091	ERICSSON/WALNUT ST	NEPONSET/MATTAPAN	36	NEPONSET RIVER
13B011	LAGRANGE STREET	WEST ROXBURY	12	UNNAMED STREAM
13D077	WEST ROXBURY PKY/VFW PKY	WEST ROXBURY	60	BUSSEY BROOK
13D078	WEST ROXBURY PKY/VFW PKY	WEST ROXBURY	60	BUSSEY BROOK
13E174	EASEMENT/VFW PARKWAY	ROSLINDALE	24	BUSSEY BROOK
13E175	EASEMENT/VFW PKY	ROSLINDALE	108X86	BUSSEY BROOK
13E176	EASEMENT/WELD ST	ROSLINDALE	15	NONE SHOWN
13F011	ALLANDALE STREET	ROSLINDALE	24	BUSSEY BROOK
13F093 (13F012)	WALTER STREET	ROSLINDALE	15	BUSSEY BROOK
13F095	EASEMENT/BUSSEY STREET	ROSLINDALE	12	BUSSEY BROOK
13F096	SOUTH STREET	ROSLINDALE	12	BUSSEY BROOK
13F097	SOUTH STREET	ROSLINDALE	6	BUSSEY BROOK
13L090	VICTORY RD. 200 FT SOUTH	DORCHESTER	144X180	DORCHESTER BAY
14C009	EASEMENT/WESTGATE RD	WEST ROXBURY	36	UNNAMED WETLANDS
15F288	ARNOLD ARBORETUM/MURRAY CIRCLE	JAMAICA PLAIN	54	GOLDSMITH BROOK
15L088	FREEMONT WAY EXTENDED	DORCHESTER	2-78"	DORCHESTER BAY
15L089	FOX POINT RD EXTENDED	DORCHESTER	2-90X82"	DORCHESTER BAY
16L097	EASEMENT/OFF SAVIN HILL AVE	DORCHESTER	24	PATTEN'S COVE
16L122	MORRISSEY BLVD DRAIN	DORCHESTER	TWIN 9X8	DORCHESTER BAY
17F012	FRANCIS PARKMAN DRIVE	JAMAICA PLAIN	15	JAMAICA POND
17M033	HARBOR POINT PARK (RELOCATED MT VERNON ST DRAIN)	DORCHESTER	72	OLD HARBOR
18G233	X-COUNTRY BTN WILLOW POND RD AND JAMAICAWAY	JAMAICA PLAIN	18	MUDDY RIVER-LEVERETT POND
19G043	HUNTINGTON AVE	ROXBURY/MISSION HILL	45X45	MUDDY RIVER
19G194	SOUTH HUNTINGTON AVE	ROXBURY/MISSION HILL	24	MUDDY RIVER
19G199	JAMAICA WAY	ROXBURY/MISSION HILL	10	MUDDY RIVER
20G161	EASEMENT/BROOKLINE AVE	ROXBURY/MISSION HILL	36	MUDDY RIVER
20G163	EASEMENT/RIVERWAY	ROXBURY/MISSION HILL	20	MUDDY RIVER
20G164	BROOKLINE AVENUE	ROXBURY/MISSION HILL		MUDDY RIVER
21C212	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	30	CHANDLER POND
21H039 (21H045)	FENWAY	BOSTON PROPER	30X30	MUDDY RIVER
21H047	PALACE ROAD EXT	BOSTON PROPER	24	MUDDY RIVER
21H001	BROOKLINE AVENUE	FENWAY/KENMORE	45	MUDDY RIVER

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER	LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
21H002	BROOKLINE AVENUE	FENWAY/KENMORE	51X51	MUDDY RIVER
21H048	EASEMENT/FENWAY/EVANS WAY	BOSTON PROPER	15	MUDDY RIVER
21K069	125' NORTH OF W.FOURTH STREET (RELOCATED BY CA/T)	BOSTON PROPER	48	FORT POINT CHANNEL
21M010	D STREET EXTENDED	SOUTH BOSTON	30	RESERVED CHANNEL
21M050	SUMMER STREET	SOUTH BOSTON	72	RESERVED CHANNEL
22C384	EASEMENT/LAKE SHORE RD	ALLSTON/BRIGHTON	36	CHANDLER POND
22L580	NECCO STREET EXTENDED	SOUTH BOSTON	54	FORT POINT CHANNEL
23G132	EASEMENT/MASS TURNPIKE/WEST OF BU BRIDGE	ALLSTON/BRIGHTON	60	CHARLES RIVER
23H040	RALEIGH STREET EXT	BOSTON PROPER	24	CHARLES RIVER
23H042	DEERFIELD ST	BOSTON PROPER	116X120	CHARLES RIVER
23L015	NORTHERN AVE	SOUTH BOSTON	24	BOSTON INNER HARBOR
23L074	SUMMER ST BRIDGE	SOUTH BOSTON	15	FORT POINT CHANNEL
23L075	CONGRESS ST BRIDGE	SOUTH BOSTON	54	FORT POINT CHANNEL
23L164	CONGRESS ST BRIDGE	BOSTON PROPER	48	FORT POINT CHANNEL
23L195	NORTHERN AVE	SOUTH BOSTON	36	BOSTON INNER HARBOR
23L196	NEW NORTHERN AVE BRIDGE	SOUTH BOSTON	36	FORT POINT CHANNEL
23L202	NORTHERN AVE	SOUTH BOSTON	36	BOSTON INNER HARBOR
24C039	NEWTON ST	ALLSTON/BRIGHTON	21	CHARLES RIVER
24C174	EASEMENT/NEWTON STREET	ALLSTON/BRIGHTON	24	CHARLES RIVER
24D032	N OF BEACON ST, ABOUT 800' E OF PARSONS ST	ALLSTON/BRIGHTON	119X130	CHARLES RIVER
24D150	SOLDIERS FIELD PLACE	ALLSTON/BRIGHTON	36	CHARLES RIVER
24G034	SOLDIERS FIELD ROAD, S OF CAMBRIDGE ST	ALLSTON/BRIGHTON	36	CHARLES RIVER
24G035	SOLDIERS FIELD ROAD/BABCOCK ST	ALLSTON/BRIGHTON	90X84	CHARLES RIVER
24L022	COURTHOUSE WAY	SOUTH BOSTON	48	BOSTON HARBOR
24L233	ROWE'S WHARF/ATLANTIC AVE	BOSTON PROPER	42	BOSTON HARBOR
25D040	ABOUT 390' N OF INTERSECTION OF SOLDIERS FIELD & WESTERN AVE	ALLSTON/BRIGHTON	36	CHARLES RIVER
25E037	EASEMENT/TELFORD ST	ALLSTON/BRIGHTON	66	CHARLES RIVER
25G041	SOLDIERS FIELD RD/NORTH OF WESTERN AVE BRIDGE	ALLSTON/BRIGHTON	24	CHARLES RIVER
25L058	CHRISTOPHER COLUMBUS PARK-WATERFRONT	BOSTON PROPER	84	BOSTON INNER HARBOR
25L144	CLARK STREET	BOSTON PROPER	12	BOSTON INNER HARBOR
25MCSO005	SUMNER STREET/PORZIO PARK	EAST BOSTON		BOSTON HARBOR/INNER HARBOR
25M006	MARGINAL ST EXT	EAST BOSTON	36	BOSTON INNER HARBOR
25M007	MARGINAL ST EXT (NEAR ORLEANS ST)	EAST BOSTON	42	BOSTON INNER HARBOR
26F038	HARVARD ST EXT	ALLSTON/BRIGHTON	36	CHARLES RIVER
26G001	SOLDIERS FIELD ROAD/EAST OF HARVARD UNIVERSITY	ALLSTON/BRIGHTON	36	CHARLES RIVER
26J049	NASHUA STREET	BOSTON PROPER	60	CHARLES RIVER
26J052	MONSIGNOR O'BRIEN HWY	BOSTON PROPER	12	CHARLES RIVER
26J101 (replaced 26J055)	LEVERETT CIRCLE	BOSTON PROPER	36	BOSTON INNER HARBOR
26K035	BEVERLY STREET NEAR WARREN BRIDGE	BOSTON PROPER	48x72	CHARLES RIVER
26K050	NASHUA STREET	BOSTON PROPER	36	CHARLES RIVER
26K052	COMMERCIAL STREET AT CHARTER ST.	BOSTON PROPER	16x24	CHARLES RIVER
26K099	WARREN ST EXT (FORMERLY CHLSEA ST/JOINER EXT)	CHARLESTOWN	84	CHARLES RIVER
26K254	NORTH WASHINGTON ST BRIDGE	CHARLESTOWN	36	BOSTON HARBOR
26L106	NEAR BATTERY WHARF	BOSTON PROPER	24X24	BOSTON INNER HARBOR
26L109	CLIPPER SHIP LANE	EAST BOSTON	48	BOSTON INNER HARBOR
26L070	HANOVER ST EXT	BOSTON PROPER	36	BOSTON INNER HARBOR
26L084	LEWIS STREET	EAST BOSTON	18	BOSTON INNER HARBOR
27J001	EASEMENT/INTERSTATE 93	CHARLESTOWN	72	MILLERS RIVER
27J044	PRISON POINT BRIDGE	CHARLESTOWN	15	MILLERS RIVER
27J096	EASEMENT/INTERSTATE 93	CHARLESTOWN	54	MILLERS RIVER
27L020/22	PIER 4 EASEMENT - NAVY YARD	CHARLESTOWN	2-20&24	BOSTON INNER HARBOR
28K010	OLD LANDING WAY EXT	CHARLESTOWN	42	LITTLE MYSTIC CHANNEL
28K061	EASEMENT/MEDFORD ST/OLD IRONSIDE	CHARLESTOWN	42	LITTLE MYSTIC CHANNEL
28K386	EASEMENT/TERMINAL ST	CHARLESTOWN	30	LITTLE MYSTIC CHANNEL
28L073	EASEMENT/5TH AVE - NAVY YARD	CHARLESTOWN	6	LITTLE MYSTIC CHANNEL
28L074/075/076	16TH ST/5TH AVE - NAVY YARD	CHARLESTOWN	3-30	LITTLE MYSTIC CHANNEL
28L077	EASEMENT/16TH ST - NAVY YARD	CHARLESTOWN	10	LITTLE MYSTIC CHANNEL
28N156	COLERIDGE ST EXT	EAST BOSTON	12	BOSTON HARBOR
28N207	MOORE ST	EAST BOSTON	54X57	BOSTON HARBOR
28O025	COLERIDGE/WADSWORTH ST. EXT	EAST BOSTON	30	BOSTON HARBOR
28P001	EASEMENT/NANCIA STREET	EAST BOSTON	12	BOSTON HARBOR
29J029	ALFORD STREET/Ryan PLGD	CHARLESTOWN	15	MYSTIC RIVER
29J129	ALFORD STREET SOUTH	CHARLESTOWN	15	MYSTIC RIVER
29J212	EASEMENT/MEDFORD ST(NEXT TO CSO 017)	CHARLESTOWN	72	MYSTIC RIVER
29M049	CONDOR STREET	EAST BOSTON	48	CHELSEA RIVER
29N015	CHELSEA STREET	EAST BOSTON	42X44.5	CHELSEA RIVER
29N135	ADDISON ST	EAST BOSTON	30X30	CHELSEA RIVER

Table 1-1. BWSC Stormwater Outfalls

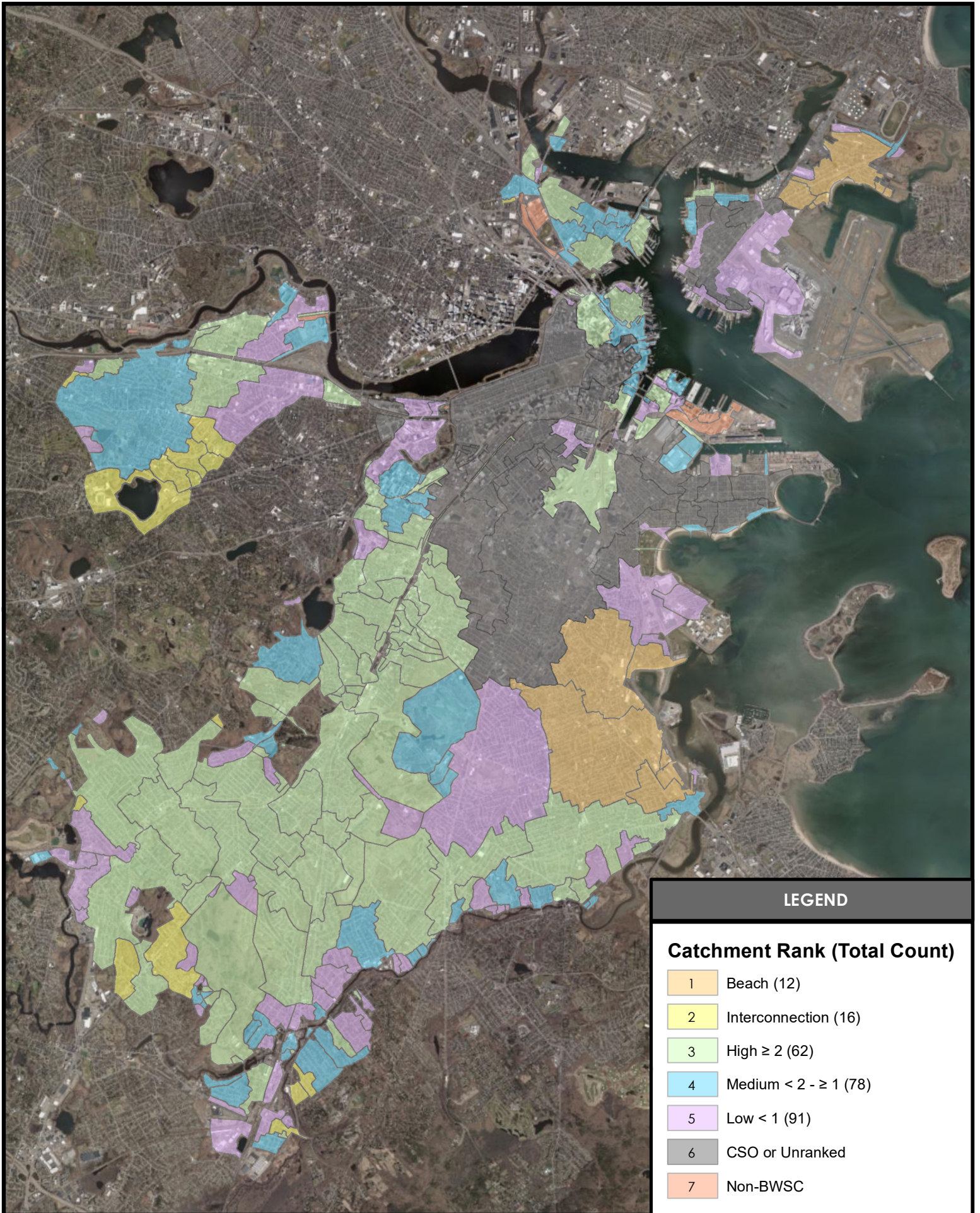
OUTFALL NUMBER	LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
29O001	BENNINGTON ST (CONSTITUTION BEACH)	EAST BOSTON	66	BOSTON HARBOR NEAR CONSTITUTION BEACH
29P005	SARATOGA STREET	EAST BOSTON	12	BOSTON HARBOR
29P044	SHAWSHEEN ST	EAST BOSTON	12	BOSTON HARBOR
30J006	EASEMENT/ALFORD ST/EVERETT	CHARLESTOWN	18	MYSTIC RIVER
30J019	ALFORD ST/NORTH	CHARLESTOWN	15	MYSTIC RIVER
30J030	EASEMENT/ARLINGTON AVE	CHARLESTOWN	42	MYSTIC RIVER
30P062	PALERMO AVE EXT	EAST BOSTON	12	WETLANDS
30P107	WALDEMAR AVENUE	EAST BOSTON	15	WETLANDS
31O004	EASEMENT/WALDEMAR AVE	EAST BOSTON	15	CHELSEA RIVER
31P084	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	CLASS
18LCSO086	Day Blvd @ Carson Beach Bath House	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY	SB
19LCSO084	Day Blvd @ H St	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY	SB
19LCSO085	Day Blvd @ Babe Ruth Park Dr	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY	SB
19MCSO082	Day Blvd @ N St	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY	SB
19NCSO081	Day Blvd @ Farragut Rd	SOUTH BOSTON	BOSTON HARBOR/DORCHESTER BAY	SB
21KCSO070	West 4th Street	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
21LCSO076	Pappas Way	SOUTH BOSTON	BOSTON HARBOR/RESERVED CHANNEL	SB-CSO
21MCSO078	East First Street	SOUTH BOSTON	BOSTON HARBOR/RESERVED CHANNEL	SB-CSO
21MCSO079	Summer St	SOUTH BOSTON	BOSTON HARBOR/RESERVED CHANNEL	SB-CSO
21NCSO080	Conley Marine Terminal	EAST BOSTON	BOSTON HARBOR/RESERVED CHANNEL	SB-CSO
22KCSO065	25 Dorchester Ave	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
22KCSO068	Fort Point Channel North of Broadway Bridge	CENTRAL	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
22KCSO072	Dorchester Avenue	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
22LCSO073	1 Gillette Pk	SOUTH BOSTON	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
23LCSO062	Under Seaport Blvd Bridge	CENTRAL	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
23LCSO064	245 Summer St	CENTRAL	BOSTON HARBOR/FORT POINT CHANNEL	SB-CSO
24LCSO060	Long Wharf/Aquarium	CENTRAL	BOSTON HARBOR/INNER HARBOR	SB-CSO
24NCSO003	Harborside Drive near Hyatt	EAST BOSTON	BOSTON HARBOR/INNER HARBOR	SB-CSO
25LCSO057	Eastern Ave	CENTRAL	BOSTON HARBOR/INNER HARBOR	SB-CSO
25NCSO004	Maverick Street	EAST BOSTON	BOSTON HARBOR/INNER HARBOR	SB-CSO
26LCSO009	Sumner St at New St	EAST BOSTON	BOSTON HARBOR/INNER HARBOR	SB-CSO
27LCSO010	141 Border St	EAST BOSTON	BOSTON HARBOR/INNER HARBOR	B-CSO
28LCSO012	Border St at Middle School	EAST BOSTON	BOSTON HARBOR/INNER HARBOR	SB-CSO
28LCSO019	Chelsea St at 16th St	CHARLESTOWN	BOSTON HARBOR/INNER HARBOR	SB-CSO
29JCSO017	545 Medford St	CHARLESTOWN	MYSTIC RIVER	SB-CSO
29MCSO013	Under Meridian St Bridge	EAST BOSTON	CHELSEA CREEK	SB-CSO
29NCSO014	Chelsea St. at East Eagle	EAST BOSTON	CHELSEA CREEK	SB-CSO
21HCSO046	The Fenway	FENWAY	CHARLES VIA MUDDY RIVER	B-CSO

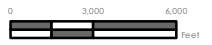


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Notes:
 1. Coordinate System: NAD 1983 StatePlane Massachusetts Mainland FIPS 2001 Feet
 2. Source data: Boston Water Subcatchment Data
 3. Imagery: USGS 2019 Ortho Imagery

Figure 1: Subcatchment Priority Ranking Map

Boston Water and Sewer Commission
 January 2024



**Table 2-12. Direct Illicit Connections
1/1/23 - 12/31/23**

Status	Bldg Number	Address	Bldg Type	Sub-Catchment Area	Subwatershed	Date Corrected	Sewage Removed (gpd)	BWSC Cost	Reimbursed to owner
Repaired	68	Bradeen Street	R-1	23I023 Healy	Charles via Stony Brook Conduit	5/11/2023	185	19,712	
Repaired by Owner	31	Braeburn Road	R-1	23I023 Cleary	Charles via Stony Brook Conduit	5/22/2023	34		
Repaired	1107-1111	Dorchester Avenue	Commercial	15L088	Neponset River/Dorchester Bay	9/21/2023	1482	20,546	
Repaired	17-19	Dyer Street	R-2	07H285 Blue Hill Ave	Neponset River	11/07/2023	102	15,399	
Repaired	8	Granfield Avenue	R-2	23I023 Healy	Charles via Stony Brook Conduit	4/17/2023	156	15,157	
Repaired by Owner	19	Hallron Street	R-1	23I023 Cleary	Charles via Stony Brook Conduit	3/30/2023	35		
Repaired by Owner	323	Hyde Park Avenue	R-3	23I023 Philbrick	Charles via Stony Brook Conduit	5/22/2023	23		
Repaired	1082	Morton Street	R-1	10L094 Davenport	Neponset River (Davenport Brook)	7/05/2023	105	15,615	
Repaired	324	Park Street	R-1	23I023 West Roxbury	Charles via Stony Brook Conduit	11/08/2023	7	15,477	
Repaired by Owner	562	Poplar Street	R-1	23I023 Cleary	Charles via Stony Brook Conduit	6/22/2023	5		
Repaired	89	Rockdale Street	R-1	07H105 Edgewater	Neponset River	11/09/2023	50	15,817	
Owner has been notified	364	Corey Street	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)				
Owner has been notified	480	Truman Parkway	R-1	06G165 Metropolitan	Neponset River				
Under BWSC Contract	651	West Roxbury Parkway	R-1	23I023 West Roxbury	Charles via Stony Brook Conduit				

	Illicit Connection was Corrected
	Correction of Illicit Connection is Pending

Total Sewage Removed (gpd)	2,184
BWSC Cost to Correct Illicit Connection**	\$117,723

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

**Table 2-13. Indirect Illicit Connections
1/1/23 - 12/31/23**

Status	Bldg Number	Address	Bldg Type	Sub-Catchment Area	Subwatershed	Date Corrected	Sewage Removed (gpd)	BWSC Cost	Reimbursed to owner
Owner Repaired Lateral	4	Asheville Road	R-1	23I023 Cleary	Charles via Stony Brook Conduit	11/02/2023	32	\$1,826	\$6,000
Owner Repaired Lateral	22	Halliday Street	R-1	23I023 Philbrick	Charles via Stony Brook Conduit	9/29/2023	13	\$1,826	\$8,000
Owner Repaired Lateral	27	Murray Hill Road	R-1	23I023 Healy	Charles via Stony Brook Conduit	11/02/2023	41	\$1,835	\$6,000
Owner Repaired Lateral	123	Saint Andrew Road	R-2	28P001 Nancia	Boston Harbor	2/17/2023	50	\$1,845	\$4,000
Verified - Dye In Both	382	Centre Street	R-2	18MH271SB	Charles via Stony Brook Conduit				
Verified - Dye In Both	62	Harold Street	R-2	18MH200SB	Charles via Stony Brook Conduit				
Verified - Dye In Both	17	Jewett Street	R-1	23I023 Philbrick	Charles via Stony Brook Conduit				
Verified - Dye In Both	1090	Morton Street	R-1	10L094 Davenport	Neponset River (Davenport Brook)				
Verified - Dye In Both	68	Perham Street	R-1	12B124 LaGrange	Charles River (Brook Farm Brook)				
Verified - Dye In Both	434	Poplar Street	R-1	23I023 Monterey Hill	Charles via Stony Brook Conduit				
Verified - Dye In Both	15-17	Rowe Street	R-2	23I023 Barron School	Charles via Stony Brook Conduit				
Verified - Dye In Both	45	Sunset Hill Road	R-1	23I023 Fallon Field	Charles via Stony Brook Conduit				

	Leaking Lateral was Corrected
	Repair of Leaking Lateral is Pending

136	
	\$7,332
	\$24,000
	\$31,332

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

Table 3-1. Brook Inlet and Outlet Cleaning 2023

Waterway	Neighborhood	Frequency of Cleaning	Equipment Used
Arboretum Outfall	Jamaica Plain	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck
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
Canterbury Brook Conduit @ American Legion Hwy	Roslindale	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck
Canterbury Brook Outlet at Harvard Street	Mattapan	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck
Centre Street/Lane	West Roxbury	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck
Chandler Pond	Brighton	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck
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 Crew, Catch Basin Truck
Norton Street-intermittent stream	Hyde Park	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck
American Legion Hwy near Wilmot St	Hyde Park	Checked before/after storms; cleaned as needed	Flushing Crew, Catch Basin Truck

Table 3 - 2. BWSC Particle Separators 2023

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

Table 3-3. 2023 HazMat Spill Sewer Use Violations

#	Date	WO Number	Street	Complaint	Type	Cause of Incident / Responsible Party
1	1/22/2023	1729071	CHESTNUT ST & CHARLES ST, BACK BAY/BEACON HILL	INVESTIGATE: GREASE Poured IN THE CB. BOSTON 311 CASE #101004639506.	Grease	"FOUND NO GREASE." "UPON ARRIVAL I DID NOT SEE ILLEGAL DUMPING I CHECK ALL THE CB AT CHARLES ST & CHESTNUT ST NO ACTIVITY THERE" CN
2	1/26/2023	1729329	2 PARLEY VALE	ILLEGAL DUMPING///CUSTOMER STATES NEIGHBOR IS DUMPING WATER THAT FLOWS LIKE A RIVER IN TO BWSC CB	Drain	OWNER OF 2 PARLEY VALE (PRIVATE WAY) IS PUMPING WATER FROM PROPERTY ONTO PRIVATE WAY ROADWAY (NO SWR OR DRAON ON ROADWAY) WATER IS MAKING ITS WAY TO OWNERS PROPERTY AND BASEMENTS ISD NOTIFIED (NO FOLLOW UP)
3	1/26/2023	1729367	92 MOUNT VERNON ST	THICK OILY SUBSTANCE GOING INTO CB IN FRONT OF 92 MT.VERNON	Oil	CB199 HAS SLUDGE BUT OK NEEDS TO BE VACTORED DOWN AND MH FOLLOW UP MADE
4	2/9/2023	1731641	PUBLIC ALLEY NO. 439	inv illegal dumping	Grease	no illegal dumping found trash in basin. no sign of oil or grease
5	2/13/2023	1731894	7 BEACH ST, CENTRAL	INV POSSIBLE ILLEGAL DUMPING (GREASE) IN ALLEYWAY BEHIND RESTAURANTS. CHECK DOWNSTREAM CBS FOR GREASE	Grease	CHECKED CBS AND SURROUNDING AREA. GREASE RESIDUE SHOWING ON STREET & SIDEWALK COMING FROM PRIVATE ALLEY. FOLLOW UP MADE TO CLEAN CB. ISD NOTIFIED AND HEADING TO SITE. ISD ISSUED 2 CITATIONS TO LOCAL RESTAURANTS
6	2/14/2023	1732534	46 LIFE ST & GUEST ST	REPORT OF GREEN AND WHITE HOSES GOING INTO DUMPSTER AND GOING INTO SWR SYSTEM FROM CONSTRUCTION SITE	Dumpster	FOUND A PIPE COMING FROM THE CONSTRUCTION SITE THAT RUNS INTO BWSC BASIN TOOK PICTURES MANGER GAVE ME PERMIT DOCUMENTS
7	2/19/2023	1732870	106 BUNKER HILL ST	INVESTIGATE: PUMPING WATER OUT OF THE BUILDING UNDER CONSTRUCTION INTO THE CB. BOSTON 311 CASE #101004683355.	Water Pumping	BWSC LOCATED THE PUP COMING FROM BUILDING, IT WAS WATER BEING PUMPED JUST WATER BEING PUMPED FOR REPAIRS FOR BUILDING.
8	2/22/2023	1733067	12 HOLIDAY ST	REPORT OF DIRTY SWR WTR BEING PUMPED OUT OF PROP FLOWING DOWN STREET	Sewer Pumping	R.BRYANT-NO ODOR UPON ARRIVAL-WET AREA BUT WTR NO LONGER FLOWING-SPK WITH OWNER SUMP PUMP GROUND WTR NO SWR WTR FOUND-PLACED DISINFECTANT
9	2/24/2023	1733593	70 ASHLEY ST, EAST BOSTON	CLEAN CB		
10	3/6/2023	1735361	78 ROSEWOOD ST, MATTAPAN	received an anonymous complaint on illegal dumping in catch basin at 78 Rosewood St. Mattapan. Man owns a landscaping business washing vehicles of dirt and grease down the catch	Grease	CHECKED CB NO SIGNS OF GREASE OR ANY OTHER OILS
11	3/14/2023	1736219	2 PARLEY VALE	Description: Constituent says that her neighbor is pumping water out of their home and it is flooding the street. Constituent is concerned about the water freezing in the street and uprooting trees.	Water Pumping	CLEAR RAIN WATER BEING PUMPED OUT , PRIVATE WAY. REFER TO ISD.
12	3/20/2023	1736832	SPINWALL RD, SOUTH DORCHEST	CHECK FOR POSSIBLE DUMPING PER BFD/BPW	Sewage	WENT TO INVESTIGATE NO SIGNS OR DUMPING. SPOKE TO OWNER OR RV AID HE'S NOT DUMPING
13	4/26/2023	1742994	OUTHAMPTON ST, NORTH DORCHE	POSSIBLE SEWER DUMPING INTO STREET NEAR FRUITPACK EXPRESS	Sewage	THIS IS A PRIVATE CB ON TOPEKA ST, NO DUMPING FOUND UPON ARRIVAL. MET WITH ISD ON SITE, BUILDING (FOOD-PAK EXPRESS) IS DRAINING EXCESS SPRINKLER SYSTEM WATER.
14	6/13/2023	1751512	181 CAMBRIDGE ST, CENTRAL	CALLER STATES BLEACH AND OTHER CHEMICLES ARE BEING DUMPED IN CB	Bleach	SF121...FOUND NO ISSUES OR ODOR IN CB...11:05AM(VR)
15	6/16/2023	1751781	181 LAKE ST, ALLSTON/BRIGHTON	EPA CRIMINAL DUMPING CALLED TO LET US KNOW THEY RECEIVED A REPORT OF A CONTRACTOR PUTTING SOMETHING INTO CB NOT SURE WHAT THEY WERE DUMPING	Cement	CHECKED NEARBY CB NO PRODUCT SEEN IN ANY CB'S. SOME CEMENT STAINS ON THE STREET
16	7/25/2023	1754694	ERUSALEM PL & SALEM ST, CENTR	catchbasin clogged from grease that was dumped from restaurant	Grease	NO EVIDENCE OF GREASE BEING DUMPED INTO CB
17	8/1/2023	1757584	15 ROWE ST, ROSLINDALE	Description: constituent states sewer company with truck titled "Atlantic Water Services" with plate number 95590 drains water from sewer and dumps it on her street, flooding the sidewalks, and not even water from community	Sewage	
18	8/3/2023	1757765	328 POND ST, JAMAICA PLAIN	Constituent reports company doing work at address is dumping materials into sewer drain in road.	Debris	NO SIGN OF MATERIAL BEING DUMP IN DRAIN
19	8/3/2023	1757797	6 QUINT AV, ALLSTON/BRIGHTON	Paint dumped in storm drain. Keash excavating is the company on site	Paint	NO SIGN OF PAINT BEING DUMPED. SPOKE WITH GM OF THIS PROJECT HE SAID THEY ARE NOT PAINTING STILL DOING DEMO
20	8/21/2023	1761789	TH ST & VAN NESS ST, FENWAY/KEN	Description: COnstituent states that sausage vendor is dumping grease down drains	Drain Dumping	checked nearby basins. sausage vendor has been dumping old ice water from cooler onto street. warned vendor not to drop any liquids on the street
21	8/24/2023	1762603	275 HUMBOLDT AV, ROXBURY	Constituent states that the resident at this location works on vehicles and witnessed him dumping motor oil into the catchbasin near this location. Requesting ticketing and is concerned for safety and health reasons.	Oil	CB'S CLEANED IN AREA, NO SIGN OF OIL IN BASINS 8/24
22	8/31/2023	1763624	65 MOUNTAIN AV, MATTAPAN	Description: Constituent reports that their neighbors are having work being done on their yard. The contractors dumped concrete into the catchbasin.	Concrete	BASINS OBSERVED TO HAVE CONCRETE IN THEM. BOTH BASINS CLEANED ON 10/3/23
23	8/31/2023	1763625	65 MOUNTAIN AV, MATTAPAN	CONSTITUENT STATES WORK BEING DONE ON MOUNTAIN AV. SHE WITNESSED CONTRACTOR DUMPED MATERIALS IN CB	Construction Materials	BASINS OBSERVED TO HAVE CONCRETE IN THEM. BOTH BASINS CLEANED ON 10/3/23
24	9/1/2023	1763679	229 EVERETT ST, EAST BOSTON	311 DOROTHY REPORTED B&S CONSTRUCTION DUMPING MUD INTO C/B	Water Pump	supervisor found contractor pumping out sea water from pipe exposed. crew took water sample, brought to yard. results showed drinking water not ground water
25	9/8/2023	1764792	229 EVERETT ST, EAST BOSTON	STATES CONTRACTOR PUMPING MUD INTO CB	Mud	M CATINO...Pumped out trench no contractor on site nothing major
26	9/19/2023	1767481	231 EVERETT ST, EAST BOSTON	CONTRACTOR DUMPING MUD INTO C/B	Dumping	VICTORIA CONCRETE WAS DUMPING GROUNDWATER INTO CB. IN FRONT OF 231 EVERETT ST. PLATE W71423 COMMERCIAL. EMAILED ENG TO SEE IF THEY HAVE A DISCHARGE PERMIT
27	9/23/2023	1768036	246 BORDER ST, EAST BOSTON	GREASE SPILL LAST NIGHT AT SHAW'S SUPERMARKET (CUSTOMER DID NOT CALL THE OFFICE). INVESTIGATE IF AREA IMPACTED IS PROPERLY CLEANED UP	Grease	investigated all cbs and mhs in the area. disinfected mhs and cbs. no grease detected. line is dlr
28	9/29/2023	1769053	95 LANDSEER ST, WEST ROXBURY	CHECK C/B AT 95 AND OPPOSITE 95 LANDSEER ST FOR DOG FECES AND PLASTIC BAGS.	Animal Waste	
29	10/6/2023	1770047	160 BOYLSTON ST, CENTRAL	caller states company power washing and paint chips going into cb on boylston st happening on edgar allen poe way pls inv	Paint Chips	no evidence of paint in the CB or area on arrival
30	10/23/23	1774889	50 TERMINAL ST, CHARLESTOWN	caller states paint being dumped into drain	Paint Chips	no evidence of paint in the CB or area on arrival. Any basins in parking lot are privately owned

Table 3-4. Private Infiltration Devices Approved 2023

PROJECT NO	ADDRESS NO	STREET NAME	LOCATION	NEIGHBOR HOOD	SIGNATURE DATE	INFILTRATION SYSTEM	INSPECTION DATE	PROJECT STATUS
21047	8-10	MERCER ST	Exist. water acc	SBOS	11/3/2023	LEACHING BASIN	12/28/2023	ACTIVE
21032	34	EAST SPRINGFIELD ST	Exist. water acc	SEND	2/8/2022	LEACHING BASIN	12/22/2023	ACTIVE
20442	17	HELEN ST		ROXB	5/24/2023	CULTEC CHAMBER	12/21/2023	ACTIVE
20454	19	HELEN ST		ROXB	5/24/2023	CULTEC CHAMBER	12/21/2023	ACTIVE
21514	745	ATLANTIC AV		CENT	11/3/2022	TANK/INJECTION WELL	12/21/2023	ACTIVE
22201	284	MAVERICK ST	Four unit buildi	EBOS		STORMTECH CHAMBERS	12/21/2023	ACTIVE
21001	525	LINCOLN ST	3" meter with 2	ALBR	8/21/2023	STORMTECH CHAMBERS	12/20/2023	ACTIVE
20232	282-308	BREMEN ST	Demo exist. bld	EBOS	11/20/2023	LEACHING BASIN	12/19/2023	ACTIVE
22307	51-53	ROSEWAY ST		JAPL	10/20/2022	CULTEC CHAMBER	12/19/2023	ACTIVE
23117	17	SANGER ST		SBOS	7/14/2023	STORMTECH CHAMBERS	12/19/2023	ACTIVE
20494	25	ORLANDO ST	EXIST. WATER A	MATP	8/10/2021	MULTIPLE	12/18/2023	ACTIVE
18515	173-177	MAVERICK ST	water account	EBOS	11/8/2018	DRYWELL	12/13/2023	ACTIVE
21110	92-94	ALEXANDER ST	Four unit	NDOR	7/28/2022	DRYWELL	12/11/2023	ACTIVE
22292	127	BOLTON ST		SBOS	9/12/2022	CULTEC CHAMBER	12/8/2023	ACTIVE
21523	767-769	MORTON ST	4 Story building	MATP	7/29/2022	CULTEC CHAMBER	12/6/2023	ACTIVE
22404	62	WEST MILTON ST		HYDE	3/9/2023	LEACHING BASIN	12/4/2023	ACTIVE
23079	24	DRY DOCK AV		SBOS	10/2/2023	PERFORATED PIPE	12/4/2023	ACTIVE
22118	62	LIVERPOOL ST	Exist. water acc	EBOS	7/8/2022	CULTEC CHAMBER	11/30/2023	ACTIVE
18439	301	BORDER ST	6 story - 64 unit	EBOS	10/31/2023	LEACHING BASIN	11/29/2023	ACTIVE
18609	100	BOARDMAN ST	Phase Two - 84	EBOS	3/20/2020	STORMTECH CHAMBERS	11/28/2023	ACTIVE
19412	1	WILCUTT RD		SDOR	4/18/2023	CULTEC CHAMBER	11/27/2023	ACTIVE
21077	839	SARATOGA ST	Exist. water acc	EBOS	4/27/2021	DRYWELL	11/22/2023	ACTIVE
22018	81	BALLOU AV	New water acc	MATP	2/2/2022	STORMTECH CHAMBERS	11/22/2023	ACTIVE
21367	22	ROGERS ST	Exist. water acc	SBOS	2/15/2022	CULTEC CHAMBER	11/21/2023	ACTIVE
22349	54	PEACEVALE RD		SDOR	9/29/2022	DRYWELL	11/21/2023	ACTIVE
19208	131	CONDOR ST		EBOS	1/26/2023	STORMTECH CHAMBERS	11/20/2023	ACTIVE
21179	872	MORTON ST	Discontinue of	MATP	12/13/2023	STORMTECH CHAMBERS	11/20/2023	ACTIVE
21194	42-44	GLENWAY ST		ROXB	6/3/2021	STORMTANK	11/20/2023	ACTIVE
21296	726	EAST EIGHTH ST	Exist. water acc	SBOS	5/11/2023	CULTEC CHAMBER	11/20/2023	ACTIVE
21468	52	WITHINGTON ST	Proposed 9 unit	SDOR	12/20/2022	STORMTECH CHAMBERS	11/17/2023	ACTIVE
23033	210	NORTH HARVARD ST		ALBR	5/8/2023	STORMTECH CHAMBERS	11/17/2023	ACTIVE
22091	323	MAVERICK ST	Exist. water acc	EBOS	4/7/2022	STORMTECH CHAMBERS	11/16/2023	ACTIVE
22219	108	CHELSEA ST	Six unit building	EBOS	2/6/2023	STORMTECH CHAMBERS	11/16/2023	ACTIVE
22444	27	LEEDSVILLE ST		SDOR	12/29/2022	CULTEC CHAMBER	11/16/2023	ACTIVE
23015	12	HEMENWAY ST	New installExist	FKE	3/1/2023	CULTEC CHAMBER	11/16/2023	ACTIVE
21156	6	QUINT AV	exist. water acc	ALBR	5/18/2021	FILTRATION BASINS	11/14/2023	ACTIVE
21201	17	HOLBORN ST		ROXB		STORMTECH CHAMBERS	11/13/2023	ACTIVE
22081	7	LOUISBURG SQ		BBBH	12/1/2022	PERFORATED PIPE	11/13/2023	ACTIVE
19180	400	SUMMER ST		CENT	9/25/2023	UNKNOWN	11/9/2023	ACTIVE
20533	292	PRINCETON ST	exist. water acc	EBOS	1/27/2021	STORMTECH CHAMBERS	11/7/2023	ACTIVE
21551	40	CHANNEL CENTER ST		SBOS	7/20/2023	MULTIPLE	11/7/2023	ACTIVE
21558	62-64	BAXTER ST	Exist. water acc	SBOS	1/13/2022	STORMTECH CHAMBERS	11/5/2023	ACTIVE
21359	88	WALES ST		ROXB	9/16/2021	DRYWELL	11/3/2023	DONE
21368	15R	HOLBORN ST	Vacant Parcel	ROXB	3/17/2022	STORMTECH CHAMBERS	11/3/2023	ACTIVE
21033	140	CLARENDON ST	Exist. water acc	BBBH	9/29/2022	TANK/INJECTION WELL	10/31/2023	ACTIVE
21604	226	HAVRE ST	Exist. water acc	EBOS	5/1/2023	CULTEC CHAMBER	10/30/2023	ACTIVE
18591	1208D	VFW PKWY		WROX	5/23/2022	LEACHING BASIN	10/26/2023	ACTIVE
20326	16	PLAYSTEAD RD	exist. water acc	NDOR	9/21/2020	CULTEC CHAMBER	10/26/2023	DONE
18459	270	BAKER ST	850-518-0302 H	WROX	11/4/2020	LEACHING BASIN	10/25/2023	ACTIVE
20134	126	D ST	water account	SBOS	9/12/2022	STORMTECH CHAMBERS	10/25/2023	ACTIVE
22456	42	NEWPORT ST	Exist. wtaer acc	NDOR	2/2/2023	STORMTECH CHAMBERS	10/25/2023	OH ACAD
22273	16	CHURCH ST	Vacant Parcel	NDOR	12/20/2022	CULTEC CHAMBER	10/24/2023	ACTIVE
22350	58	PEACEVALE RD		SDOR	10/10/2022	DRYWELL	10/23/2023	DONE
23214	24	BARNARD PL		SBOS	8/21/2023	POROUS PAVEMENT	10/20/2023	DONE
19215	1	HALLECK ST	Previously know	JAPL	4/19/2023	FILTRATION BASINS	10/18/2023	ACTIVE
19268	9	LESTON ST		MATP	11/12/2019	LEACHING BASIN	10/18/2023	DONE
21294	44	COTTAGE ST	Exist. water acc	EBOS	9/14/2022	STORMTECH CHAMBERS	10/18/2023	DONE
21495	157	EVERETT ST		ALBR	1/13/2022	CULTEC CHAMBER	10/18/2023	ACTIVE
22028	5-7	MEYER ST	Exist. water acc	ROSL	3/10/2022	STORMTECH CHAMBERS	10/18/2023	ACTIVE
22174	28	WILDWOOD ST	Four unit buildi	MATP		DRYWELL	10/18/2023	OH ACAD
21417	9-11	GREENMOUNT ST		NDOR	11/30/2021	LEACHING BASIN	10/17/2023	ACTIVE
22476	87	PARKTON RD	Existing water a	JAPL	2/7/2023	STORMTECH CHAMBERS	10/17/2023	DONE
21454	1	MARLIN RD		WROX	1/24/2022	STORMTECH CHAMBERS	10/16/2023	ACTIVE

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PROJECT NO	ADDRESS NO	STREET NAME	LOCATION	NEIGHBOR HOOD	SIGNATURE DATE	INFILTRATION SYSTEM	INSPECTION DATE	PROJECT STATUS
21455	360	COREY ST		WROX	7/20/2023	STORMTECH CHAMBERS	10/16/2023	ACTIVE
21563	12	FARNSWORTH ST		SBOS	11/10/2022	CULTEC CHAMBER	10/16/2023	ACTIVE
22416	665	WEST ROXBURY PKWY	Exist. water acc	ROSL	7/13/2023	CULTEC CHAMBER	10/16/2023	DONE
22417	667	WEST ROXBURY PKWY		WROX	1/11/2023	CULTEC CHAMBER	10/16/2023	ACTIVE
21073	12	EVERETT ST		JAPL	6/16/2023	LEACHING BASIN	10/12/2023	DONE
19031	3-5	WASHINGTON ST		ALBR	10/21/2020	STORMTANK	10/11/2023	ACTIVE
17404	2	EAST DEDHAM ST	water account	SEND	9/16/2019	PERFORATED PIPE	10/10/2023	ACTIVE
22465	107	READVILLE ST	Lot 2	HYDE		CULTEC CHAMBER	10/10/2023	ACTIVE
20446	242	NORWELL ST		SDOR	5/24/2023	CULTEC CHAMBER	10/5/2023	OH ACAD
20452	78	SPENCER ST		SDOR	5/24/2023	CULTEC CHAMBER	10/5/2023	ACTIVE
23077	304	SUMNER ST	Exist. water acc	EBOS	7/3/2023	STORMTECH CHAMBERS	10/4/2023	ACTIVE
19160	71-75	SHERIDAN ST	Exist. water acc	JAPL	3/11/2020	CULTEC CHAMBER	10/3/2023	ACTIVE
22178	57	CHAUCER ST		EBOS	7/1/2022	DRYWELL	10/3/2023	DONE
22016	19-21	MOSELEY ST	Exist. water acc	NDOR	5/10/2022	STORMTECH CHAMBERS	10/2/2023	DONE
22233	903	BEACON ST	Exist. water acc	FEKE	9/1/2022	DRYWELL	10/2/2023	ACTIVE
19127	17	STANDARD ST		MATP	9/19/2019	CULTEC CHAMBER	9/29/2023	DONE
21287	100	MOUNT PLEASANT AV	Exist. water acc	ROXB	10/7/2021	STORMTECH CHAMBERS	9/29/2023	DONE
23055	141	N ST	Exist. water acc	SBOS	2/16/2023	DRYWELL	9/29/2023	DONE
20377	493	WASHINGTON ST	Exist. water acc	SDOR	4/27/2021	DRYWELL	9/28/2023	ACTIVE
19538	425	BORDER ST		EBOS	12/17/2019	CULTEC CHAMBER	9/27/2023	DONE
21138	1463-1467	DORCHESTER AV	Exist. water acc	CENT	5/26/2021	CULTEC CHAMBER	9/26/2023	OH ACAD
21335	55	DELLE AV	Exist. water acc	JAPL	10/7/2022	CULTEC CHAMBER	9/26/2023	OH ACAD
20310	235	OLD COLONY AV		NDOR	7/23/2021	PERFORATED PIPE	9/25/2023	ACTIVE
21076	32	NORWOOD ST		SDOR	5/23/2022	DRYWELL	9/25/2023	DONE
21337	15	HOLBORN ST		ROXB	12/20/2022	STORMTECH CHAMBERS	9/25/2023	DONE
21552	3353	WASHINGTON ST	Exist. water acc	JAPL	4/6/2022	STORMTECH CHAMBERS	9/25/2023	ACTIVE
22001	18	FABYAN ST	Added a 2" fire	MATP	8/25/2022	CULTEC CHAMBER	9/25/2023	ACTIVE
21220	9	LEYLAND ST		ROXB	9/23/2021	STORMTECH CHAMBERS	9/21/2023	ACTIVE
15124	101	WEAVER CT		ROXB	5/14/2015	STORMTECH CHAMBERS	9/20/2023	ACTIVE
22017	65	GOVE ST	Time extension	EBOS	1/28/2022	LEACHING BASIN	9/20/2023	ACTIVE
18033	476-482	WEST BROADWAY		SBOS	5/21/2018	CULTEC CHAMBER	9/19/2023	ACTIVE
20220	71-73	ELLINGTON ST	two 3 family bu	ROXB	8/15/2023	CULTEC CHAMBER	9/18/2023	ACTIVE
19122	67-69	CHURCH ST	exist. water acc	CENT	4/18/2019	CULTEC CHAMBER	9/13/2023	DONE
21019	139	HARRISHOF ST	exist. water acc	ROXB	2/10/2021	CULTEC CHAMBER	9/13/2023	ACTIVE
22042	593	GALLIVAN BLVD	New water acc	SDOR	9/12/2023	CULTEC CHAMBER	9/13/2023	ACTIVE
18598	51	LAWLEY ST		SDOR	3/13/2020	CULTEC CHAMBER	9/12/2023	DONE
19567	86	PRINCETON ST		EBOS	11/3/2022	CULTEC CHAMBER	9/12/2023	DONE
21312	38	CASS ST	Existing water a	WROX	9/20/2023	STORMTECH CHAMBERS	9/12/2023	ACTIVE
23054	183	WEST FIFTH ST	Exist. Water acc	SBOS		CULTEC CHAMBER	9/12/2023	ACTIVE
21142	74	TREMONT ST	Exist. water acc	CHAR	4/6/2022	CULTEC CHAMBER	9/11/2023	ACTIVE
19332	309	CHESTNUT AV	exist. wat4er ad	JAPL	9/30/2020	CULTEC CHAMBER	9/8/2023	DONE
20209	419	FANEUIL ST		ALBR	11/13/2020	PERFORATED PIPE	9/8/2023	ACTIVE
20362	6	PEARL ST	exist. water acc	NDOR	4/12/2021	LEACHING BASIN	9/7/2023	ACTIVE
18411	201	BROOKLINE AV		FEKE	5/10/2021	MULTIPLE	9/5/2023	ACTIVE
17255	33	LEYDEN ST	exist. water acc	EBOS	3/12/2018	STORMTECH CHAMBERS	8/31/2023	DONE
18081	14B	GENEVA ST		EBOS	6/23/2022	CULTEC CHAMBER	8/31/2023	DONE
19074	1	POST OFFICE SQ		CENT	9/29/2023	TANK/INJECTION WELL	8/31/2023	ACTIVE
20434	27	SHEAFE ST	8 unit building	CENT	11/12/2021	CULTEC CHAMBER	8/30/2023	ACTIVE
21510	185	MAVERICK ST	Exist. water acc	EBOS	11/3/2021	STORMTECH CHAMBERS	8/30/2023	ACTIVE
22198	50	DRAPER ST	Exist. water acc	SDOR	6/2/2022	CULTEC CHAMBER	8/30/2023	ACTIVE
19416	456	SARATOGA ST		EBOS	9/30/2020	CULTEC CHAMBER	8/29/2023	DONE
21333	765	EAST THIRD ST	Exist. water acc	SBOS	9/30/2021	CULTEC CHAMBER	8/28/2023	ACTIVE
23076	86	CHELSEA ST	Existing water a	EBOS	3/29/2023	STORMTECH CHAMBERS	8/28/2023	ACTIVE
23159	774	EAST FOURTH ST	Exist. water acc	SBOS	8/2/2023	CULTEC CHAMBER	8/28/2023	ACTIVE
19342	23	MAGNOLIA ST		ROXB	8/24/2020	CULTEC CHAMBER	8/22/2023	DONE
22033	80-84	MOORE ST	Exist. water acc	EBOS	3/10/2022	LEACHING BASIN	8/21/2023	ACTIVE
19526	665	COMMONWEALTH AV		BBBH	3/4/2022	PERFORATED PIPE	8/17/2023	ACTIVE
21084	19-23	CLAPP ST	9 Units	NDOR	2/23/2023	STORMTECH CHAMBERS	8/17/2023	ACTIVE
21301	2	ROSSMORE RD	Exist. water acc	JAPL	5/12/2023	CULTEC CHAMBER	8/17/2023	ACTIVE
22213	286	COMMONWEALTH AV	Five unit buildin	BBBH	7/19/2022	CULTEC CHAMBER	8/17/2023	ACTIVE
22272	26	ARLINGTON ST	Exist. water acc	HYDE	8/25/2022	CULTEC CHAMBER	8/17/2023	ACTIVE
21478	182	SYDNEY ST		NDOR	5/23/2023	STORMTECH CHAMBERS	8/15/2023	ACTIVE
21292	73	BEACON ST	existing water a	CENT	8/13/2021	STORMTECH CHAMBERS	8/14/2023	ACTIVE

Table 3-4. Private Infiltration Devices Approved 2023

PROJECT NO	ADDRESS NO	STREET NAME	LOCATION	NEIGHBOR HOOD	SIGNATURE DATE	INFILTRATION SYSTEM	INSPECTION DATE	PROJECT STATUS
22395	409-411	DORCHESTER AV		CENT	7/13/2023	LEACHING BASIN	8/11/2023	ACTIVE
22257	9	LITLEDALE ST	Exist. water acc	ROSL	8/8/2022	STORMTECH CHAMBERS	8/10/2023	ACTIVE
16595	39	WASHBURN ST		NDOR	8/4/2017	STORMTECH CHAMBERS	8/9/2023	DONE
21343	10	HALLET ST		SDOR	10/7/2021	DRYWELL	8/9/2023	ACTIVE
21543	11	RADFORD LN	Exist. water acc	SDOR	5/27/2022	LEACHING BASIN	8/9/2023	DONE
19422	160	PLEASANT ST	1203-1211 DOR	NDOR	3/16/2020	PERFORATED PIPE	8/8/2023	ACTIVE
22155	2601	BEACON ST		ALBR	7/13/2022	STORMTECH CHAMBERS	8/8/2023	ACTIVE
22200	82	ENDICOTT ST	Exist. water acc	CENT	6/8/2022	CULTEC CHAMBER	8/7/2023	DONE
19350	189	BOYLSTON ST		BBBH	11/4/2020	CULTEC CHAMBER	8/3/2023	DONE
22234	16-18	BRECK AV		ALBR	7/14/2022	CULTEC CHAMBER	8/2/2023	ACTIVE
21527	137	WEST NEWTON ST	Exist. water acc	SEND	4/1/2022	CULTEC CHAMBER	7/27/2023	ACTIVE
23088	31	TRAIN ST	Exist. water acc	SDOR	4/27/2023	LEACHING BASIN	7/27/2023	ACTIVE
18405	27-31	WOODFORD ST		ROXB	9/17/2021	STORMTECH CHAMBERS	7/26/2023	DONE
19128	4	MENTON ST		MATP	7/19/2022	CULTEC CHAMBER	7/26/2023	DONE
22007	512-514	POPLAR ST		HYDE	2/7/2022	CULTEC CHAMBER	7/25/2023	ACTIVE
18627	725-727	PARKER ST		HYDE	7/17/2019	CULTEC CHAMBER	7/21/2023	DONE
20097	1252-1270	BOYLSTON ST	Existing flows -	CENT	4/6/2023	CULTEC CHAMBER	7/20/2023	ACTIVE
20543	492	SUMNER ST	sewer video 1/	EBOS	1/27/2021	STORMTECH CHAMBERS	7/20/2023	ACTIVE
20044	815	COLUMBUS AV	Exist. water acc	ROXB	12/15/2021	PERFORATED PIPE	7/19/2023	DONE
21271	20	UFFORD ST		MATP	8/16/2021	DRYWELL	7/19/2023	ACTIVE
21453	31	WABON ST	New water acc	ROXB	10/26/2021	DRYWELL	7/18/2023	ACTIVE
22135	87	PUTNAM ST	Four unit buildi	EBOS	1/17/2023	MULTIPLE	7/18/2023	DONE
19463	951-959	DORCHESTER AV		NDOR	9/20/2021	STORMTECH CHAMBERS	7/13/2023	OH ACAD
22297	194	GREEN ST		JAPL	5/31/2023	CULTEC CHAMBER	7/12/2023	ACTIVE
21603	149	WEST NEWTON ST	Exist. water acc	SEND	11/29/2022	CULTEC CHAMBER	7/11/2023	ACTIVE
23108	277	WEST FIFTH ST		SBOS	6/20/2023	CULTEC CHAMBER	7/11/2023	ACTIVE
20398	100	BYRON ST		EBOS	12/1/2022	DRYWELL	7/10/2023	OH ACAD
21535	407	EAST SEVENTH ST	3 Story building	SBOS	7/28/2022	STORMTECH CHAMBERS	7/6/2023	ACTIVE
22146	248	GOLD ST	Exist. water acc	SBOS	5/2/2022	STORMTECH CHAMBERS	7/5/2023	ACTIVE
21022	648	BEACON ST		BBBH	6/6/2023	MULTIPLE	7/3/2023	ACTIVE
21347	10	UNION PARK	Exist. water acc	SEND	9/15/2022	PERFORATED PIPE	7/3/2023	ACTIVE
21189	28-30	DIGHTON AV	Exist. water acc	ALBR	5/11/2021	STORMTECH CHAMBERS	6/29/2023	DONE
21401	1069	WASHINGTON ST	Exist. water acc	SDOR	10/7/2021	STORMTECH CHAMBERS	6/29/2023	ACTIVE
20473	584	EAST FOURTH ST		SBOS	12/7/2020	STORMTECH CHAMBERS	6/27/2023	ACTIVE
21369	73-75	DE SOTO RD		WROX	11/19/2021	LEACHING BASIN	6/27/2023	ACTIVE
21555	37	MONMOUTH ST	Exist. water acc	EBOS	12/16/2021	STORMTECH CHAMBERS	6/27/2023	ACTIVE
22326	10	LAMSON ST	Exist. water acc	EBOS	12/20/2022	STORMTECH CHAMBERS	6/23/2023	ACTIVE
21067	1744	CENTRE ST		WROX	5/3/2023	CULTEC CHAMBER	6/21/2023	ACTIVE
17212	303	SILVER ST		SBOS	5/2/2022	STORMTECH CHAMBERS	6/20/2023	DONE
20259	173	MAGNOLIA ST	exist. water acc	ROXB	11/30/2020	DRYWELL	6/20/2023	ACTIVE
21108	104-106	WARREN ST		ALBR		MULTIPLE	6/20/2023	ACTIVE
21284	14	HOLYOKE ST	exist. water acc	BBBH	6/30/2021	CULTEC CHAMBER	6/20/2023	ACTIVE
18141	5245-5251	WASHINGTON ST		WROX	3/13/2020	MULTIPLE	6/16/2023	DONE
20242	16	HIGHGATE ST	exist. water acc	ALBR	12/14/2020	STORMTECH CHAMBERS	6/14/2023	ACTIVE
20383	120	LENOX ST	Building address	SEND	6/30/2022	STORMTECH CHAMBERS	6/13/2023	ACTIVE
21238	149	NEWBURY ST		BBBH	10/20/2021	STORMTECH CHAMBERS	6/13/2023	ACTIVE
21411	47	ELM ST		CHAR	1/24/2022	CULTEC CHAMBER	6/13/2023	ACTIVE
21412	45	ELM ST		CHAR		CULTEC CHAMBER	6/13/2023	ACTIVE
21413	43	ELM ST		CHAR	1/24/2022	CULTEC CHAMBER	6/13/2023	ACTIVE
21242	12	BOWDOIN AV		SDOR	6/30/2021	DRYWELL	6/12/2023	ACTIVE
21397	20	DWIGHT ST		SEND	9/29/2022	STORMTECH CHAMBERS	6/12/2023	ACTIVE
21542	8	LILLY ST	Exist. water acc	SBOS	12/1/2021	CULTEC CHAMBER	6/12/2023	ACTIVE
22045	80-80A	BUNKER HILL ST	Exist. water acc	CHAR	2/23/2022	CULTEC CHAMBER	6/12/2023	ACTIVE
19334	51-53	FOREST HILLS ST		ROXB	9/24/2020	CULTEC CHAMBER	5/26/2023	DONE
20140	31-33	BOARDMAN ST	9 units	EBOS	7/19/2022	PERFORATED PIPE	5/26/2023	ACTIVE
21298	353	DORCHESTER ST	Exist. water acc	SBOS	8/30/2021	CULTEC CHAMBER	5/26/2023	ACTIVE
22130	362	MERIDIAN ST		EBOS	7/19/2022	CULTEC CHAMBER	5/26/2023	ACTIVE
21299	10	GOVE ST	Exist. water acc	EBOS	10/20/2021	LEACHING BASIN	5/25/2023	ACTIVE
20482	198	MAVERICK ST		EBOS	12/16/2020	LEACHING BASIN	5/24/2023	DONE
20416	411	EAST THIRD ST		SBOS	12/31/2020	MULTIPLE	5/23/2023	DONE
22106	122	PEMBROKE ST	Exist. water acc	SEND		CULTEC CHAMBER	5/22/2023	ACTIVE
19641	279	LAMARTINE ST		JAPL	6/30/2022	DRYWELL	5/19/2023	ACTIVE
20003	281	LAMARTINE ST		JAPL	6/21/2022	DRYWELL	5/19/2023	ACTIVE

Table 3-4. Private Infiltration Devices Approved 2023

PROJECT NO	ADDRESS NO	STREET NAME	LOCATION	NEIGHBOR HOOD	SIGNATURE DATE	INFILTRATION SYSTEM	INSPECTION DATE	PROJECT STATUS
19285	13	HOSMER ST		MATP	12/10/2019	LEACHING BASIN	5/15/2023	ACTIVE
19269	11	HOSMER ST		MATP	9/20/2019	LEACHING BASIN	5/12/2023	DONE
20297	484	TREMONT ST		SEND	2/23/2022	DRYWELL	5/12/2023	ACTIVE
19605	225	WASHINGTON ST		SDOR	1/15/2020	STORMTECH CHAMBERS	5/11/2023	ACTIVE
21276	2	OAKLAND ST	Exist. water acc	ALBR	11/24/2021	STORMTECH CHAMBERS	5/10/2023	ACTIVE
19283	532-534	DORCHESTER AV	also known as S	SBOS	4/22/2022	STORMTECH CHAMBERS	5/4/2023	ACTIVE
20257	321-323	MARLBOROUGH ST		BBBH	4/24/2021	PERFORATED PIPE	5/3/2023	ACTIVE
20151	11	TAFT HILL TER	exist. water acc	ROSL	1/7/2021	STORMTECH CHAMBERS	5/2/2023	ACTIVE
21088	99	WILLIAMS ST	6 units	JAPL	12/17/2021	STORMTECH CHAMBERS	5/1/2023	DONE
19130	81	CHESTNUT HILL AV	Exist. water acc	ALBR	10/6/2020	STORMTECH CHAMBERS	4/28/2023	DONE
22310	711	BOYLSTON ST		BBBH	11/1/2022	TANK/INJECTION WELL	4/28/2023	ACTIVE
19111	425	LA GRANGE ST		WROX	7/23/2020	LEACHING BASIN	4/26/2023	ACTIVE
20090	250	LEVERETT CIR	exist. water acc	CENT	8/13/2021	BIO RETENTION	4/26/2023	ACTIVE
22226	32	TAYLOR ST	Four unit buildi	SDOR	7/7/2022	LEACHING BASIN	4/26/2023	ACTIVE
21582	7	STARLING ST		WROX	1/13/2022	STORMTECH CHAMBERS	4/24/2023	ACTIVE
21584	5	STARLING ST		WROX	1/13/2022	STORMTECH CHAMBERS	4/24/2023	ACTIVE
21585	3	STARLING ST		WROX	1/13/2022	STORMTECH CHAMBERS	4/24/2023	ACTIVE
20500	10	O ST	Exist. water acc	SBOS	5/2/2022	STORMTECH CHAMBERS	4/21/2023	DONE
21376	765	WASHINGTON ST		SDOR	9/22/2022	PERFORATED PIPE	4/20/2023	ACTIVE
21004	142	CHELSEA ST		CHAR	2/17/2021	STORMTECH CHAMBERS	4/19/2023	DONE
20271	666	METROPOLITAN AV	exist. water acc	HYDE	6/14/2021	UNKNOWN	4/13/2023	ACTIVE
21085	4	ANAWAN AV	exist. water acc	ROSL	6/26/2021	STORMTECH CHAMBERS	4/13/2023	ACTIVE
20541	130-132	ARLINGTON ST	Shared Infiltrat	ALBR	11/29/2021	STORMTECH CHAMBERS	4/11/2023	ACTIVE
21116	46-48	WYVERN ST	exist. water acc	ROSL	4/6/2021	CULTEC CHAMBER	4/11/2023	ACTIVE
21450	5	BELLFLOWER ST		NDOR	8/2/2023	DRYWELL	4/10/2023	ACTIVE
22361	43	MONMOUTH ST	Existing water a	EBOS	11/2/2022	CULTEC CHAMBER	4/10/2023	ACTIVE
19034	1403	DORCHESTER AV		SDOR	8/26/2021	PERFORATED PIPE	4/5/2023	DONE
19635	760	ADAMS ST	exist. water acc	NDOR	2/11/2020	STORMTANK	4/4/2023	DONE
20364	170-178	FAYWOOD AV		EBOS	3/23/2021	DRYWELL	4/4/2023	ACTIVE
21009	223	COMMONWEALTH AV		BBBH	8/11/2021	DRYWELL	4/4/2023	ACTIVE
20314	90	ASHLEY ST		EBOS	6/17/2022	PERFORATED PIPE	4/3/2023	ACTIVE
20539	10	EDGERLY PL		CENT	7/28/2022	STORMTECH CHAMBERS	3/31/2023	DONE
20542	134	ARLINGTON ST	Shared Infiltrat	ALBR	11/29/2021	STORMTECH CHAMBERS	3/31/2023	ACTIVE
22290	2A	THANE ST	Exist. water acc	SDOR	8/25/2022	CULTEC CHAMBER	3/30/2023	ACTIVE
20064	656	SARATOGA ST		EBOS	4/1/2020	STORMTECH CHAMBERS	3/29/2023	ACTIVE
20401	217	LEXINGTON ST	exist. water acc	CHAR	10/23/2020	CULTEC CHAMBER	3/23/2023	ACTIVE
21205	141	D ST	Revised drainag	SBOS	4/1/2022	CULTEC CHAMBER	3/23/2023	ACTIVE
21314	44	GLENDALE ST		NDOR	11/3/2021	DRYWELL	3/23/2023	ACTIVE
21352	8	BUNKER HILL INDUSTRIAL PARK		CHAR	10/10/2022	PERFORATED PIPE	3/23/2023	ACTIVE
22184	695	BENNINGTON ST	Exist. water acc	EBOS	10/10/2022	LEACHING BASIN	3/21/2023	ACTIVE
19470	25	FOUNTAIN ST		ROXB	3/17/2021	STORMTECH CHAMBERS	3/15/2023	ACTIVE
22324	556	WARREN AV	Exist. water acc	CHAR	10/7/2022	CULTEC CHAMBER	3/15/2023	ACTIVE
17528	102	SAINT BOTOLPH ST	Water account	BBBH	1/4/2018	STORMTECH CHAMBERS	3/13/2023	DONE
19437	197-199	CONDOR ST	exist. water acc	EBOS	11/21/2019	CULTEC CHAMBER	3/13/2023	DONE
20056	90-94	ROBEY ST		NDOR	2/23/2023	CULTEC CHAMBER	3/13/2023	ACTIVE
22003	270	PARIS ST	Exist. water acc	EBOS	9/14/2022	CULTEC CHAMBER	3/13/2023	ACTIVE
22132	2	PUTNAM ST	Exist. water acc	EBOS	3/28/2022	STORMTECH CHAMBERS	3/10/2023	DONE
21382	693	DUDLEY ST	Exist. water acc	NDOR	9/23/2021	CULTEC CHAMBER	3/6/2023	DONE
20049	94-96	SHIRLEY ST	Food kitchen ar	NDOR	4/22/2020	CULTEC CHAMBER	3/2/2023	ACTIVE
20484	303	MAVERICK ST	Exist. water acc	EBOS	6/2/2022	CULTEC CHAMBER	2/28/2023	ACTIVE
20505	61	FALCON ST		EBOS	1/7/2021	CULTEC CHAMBER	2/28/2023	DONE
21278	22	PROSPECT ST	Exist. water acc	CHAR	8/23/2021	CULTEC CHAMBER	2/24/2023	ACTIVE
18395	70	LEO M BIRMINGHAM PKW	Two exist. water	ALBR	5/26/2021	STORMTECH CHAMBERS	2/17/2023	ACTIVE
19391	660	BEACON ST	New offices and	FEKE	10/7/2021	STORMTANK	2/17/2023	ACTIVE
17531	115	WOODROW AV	[2] single family	MATP	10/7/2020	DRYWELL	2/16/2023	ACTIVE
19303	59	HEMMAN ST		ROSL	8/26/2019	STORMTECH CHAMBERS	2/16/2023	ACTIVE
21055	238	WEBSTER ST	exist. water acc	EBOS	4/21/2021	CULTEC CHAMBER	2/16/2023	DONE
21217	514	EAST BROADWAY	EXIST. WATER A	SBOS	6/8/2021	CULTEC CHAMBER	2/16/2023	DONE
20187	141	FALCON ST		EBOS	8/19/2020	STORMTECH CHAMBERS	2/15/2023	ACTIVE
19378	139 149	WASHINGTON ST		ALBR	6/30/2021	PERFORATED PIPE	2/10/2023	ACTIVE
18444	30	PEARL ST		CHAR	6/20/2019	LEACHING BASIN	2/8/2023	ACTIVE
21456	353	EAST EIGHTH ST	Exist. water acc	SBOS	10/20/2021	LEACHING BASIN	2/8/2023	ACTIVE
21553	26	CRESCENT AV	Exist. water acc	NDOR	2/4/2022	LEACHING BASIN	2/8/2023	ACTIVE

Table 3-4. Private Infiltration Devices Approved 2023

PROJECT NO	ADDRESS NO	STREET NAME	LOCATION	NEIGHBOR HOOD	SIGNATURE DATE	INFILTRATION SYSTEM	INSPECTION DATE	PROJECT STATUS
19301	181	COWPER ST		EBOS	7/31/2019	CULTEC CHAMBER	2/7/2023	DONE
20042	1261	BLUE HILL AV	5 Story Building	MATP	1/7/2021	CULTEC CHAMBER	2/7/2023	ACTIVE
18410	80	TERRACE ST		JAPL	1/15/2019	DRYWELL	2/3/2023	DONE
20269	76	WORDSWORTH ST		EBOS	7/8/2022	DRYWELL	2/2/2023	ACTIVE
22103	284	SUMNER ST	Exist. water acc	EBOS	5/26/2022	STORMTECH CHAMBERS	2/2/2023	ACTIVE
21472	950	BLUE HILL AV	account address	MATP	8/12/2022	CULTEC CHAMBER	2/1/2023	ACTIVE
19077	47	MORRIS ST		EBOS	4/18/2019	CULTEC CHAMBER	1/30/2023	DONE
21269	36-38	MURRAY HILL RD		ROSL	8/16/2021	DRYWELL	1/25/2023	OH ACAD
20507	450	MASSACHUSETTS AV	Exist. water acc	SEND	2/18/2021	PERFORATED PIPE	1/24/2023	ACTIVE
21222	44	PHILLIPS ST	Exist. water acc	BBBH	10/13/2022	STORMTECH CHAMBERS	1/24/2023	OH ACAD
22245	141	HILLSIDE ST		JAPL	11/4/2022	DRYWELL	1/24/2023	DONE
19155	490	RIVER ST	NOTE:SEE SP# 1	MATP	11/24/2020	STORMTECH CHAMBERS	1/23/2023	DONE
21241	14	BOWDOIN AV	exist. water acc	SDOR	6/30/2021	DRYWELL	1/23/2023	DONE
21438	80	NORTH BEACON ST		ALBR	4/1/2022	STORMTECH CHAMBERS	1/23/2023	DONE
21123	33	GLENHAM ST	Water account	WROX	5/11/2021	STORMTECH CHAMBERS	1/20/2023	OH ACAD
21124	37	GLENHAM ST	Exist. water acc	WROX	5/11/2021	STORMTECH CHAMBERS	1/20/2023	OH ACAD
19335	21-23	DIXWELL ST	Exist. water acc	ROXB	2/17/2021	CULTEC CHAMBER	1/19/2023	DONE
21079	1710	DORCHESTER AV		CENT		STORMTECH CHAMBERS	1/19/2023	ACTIVE
21259	7	KEMBLE PL		SBOS	9/7/2021	CULTEC CHAMBER	1/18/2023	DONE
21260	8	KEMBLE PL	Exist. water acc	SBOS	9/7/2021	CULTEC CHAMBER	1/18/2023	DONE
20386	565 & 569	AMERICAN LEGION HWY		ROSL	5/20/2021	MULTIPLE	1/17/2023	ACTIVE
21139	433	MARLBOROUGH ST	exist. water acc	BBBH	6/28/2021	STORMTECH CHAMBERS	1/17/2023	OH ACAD
21372	6	CHELSEA TER	Community Par	EBOS	9/30/2021	PERFORATED PIPE	1/17/2023	ACTIVE
19626	2	PETREL ST		WROX	3/9/2020	STORMTECH CHAMBERS	1/13/2023	DONE
21155	56	WINSHIP ST	9 UnitsWater a	ALBR	5/24/2021	LEACHING BASIN	1/13/2023	OH ACAD
19333	12-20	DIXWELL ST		ROXB	10/15/2020	CULTEC CHAMBER	1/5/2023	DONE
20312	14-16	LAKEVILLE RD		JAPL		DRYWELL	1/3/2023	ACTIVE
21435	18	EVANS ST		MATP	3/14/2022	STORMTECH CHAMBERS	1/3/2023	DONE
21487	34	DORSET ST		NDOR	11/24/2021	STORMTECH CHAMBERS	1/3/2023	DONE

Table 3-5. Private Grit Chambers Approved 2023

PROJECT NO	ADDRESS	STREET_NAME	LOCATION	NEIGHBORHOOD	GRIT CHAMBER	SIGNATURE DATE	INSPECTION DATE
18406	64	ALPINE ST		ROXB	YES	2/11/2022	10/4/2023
20310	235	OLD COLONY AV		NDOR	YES	7/23/2021	9/25/2023
19422	160	PLEASANT ST	1203-1211 DORCH	NDOR	YES	3/16/2020	8/8/2023
20122	171-187	FAYWOOD AV		EBOS	YES	5/14/2021	4/18/2023
21352	8	BUNKER HILL INDUSTRIAL PARK		CHAR	YES	10/10/2022	3/23/2023
21472	950	BLUE HILL AV	account address is	MATP	YES	8/12/2022	2/1/2023
19155	490	RIVER ST	NOTE:SEE SP# 1952	MATP	YES	11/24/2020	1/23/2023
20386	565 & 569	AMERICAN LEGION HWY		ROSL	YES	5/20/2021	1/17/2023
20312	14-16	LAKEVILLE RD		JAPL	YES		1/3/2023

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

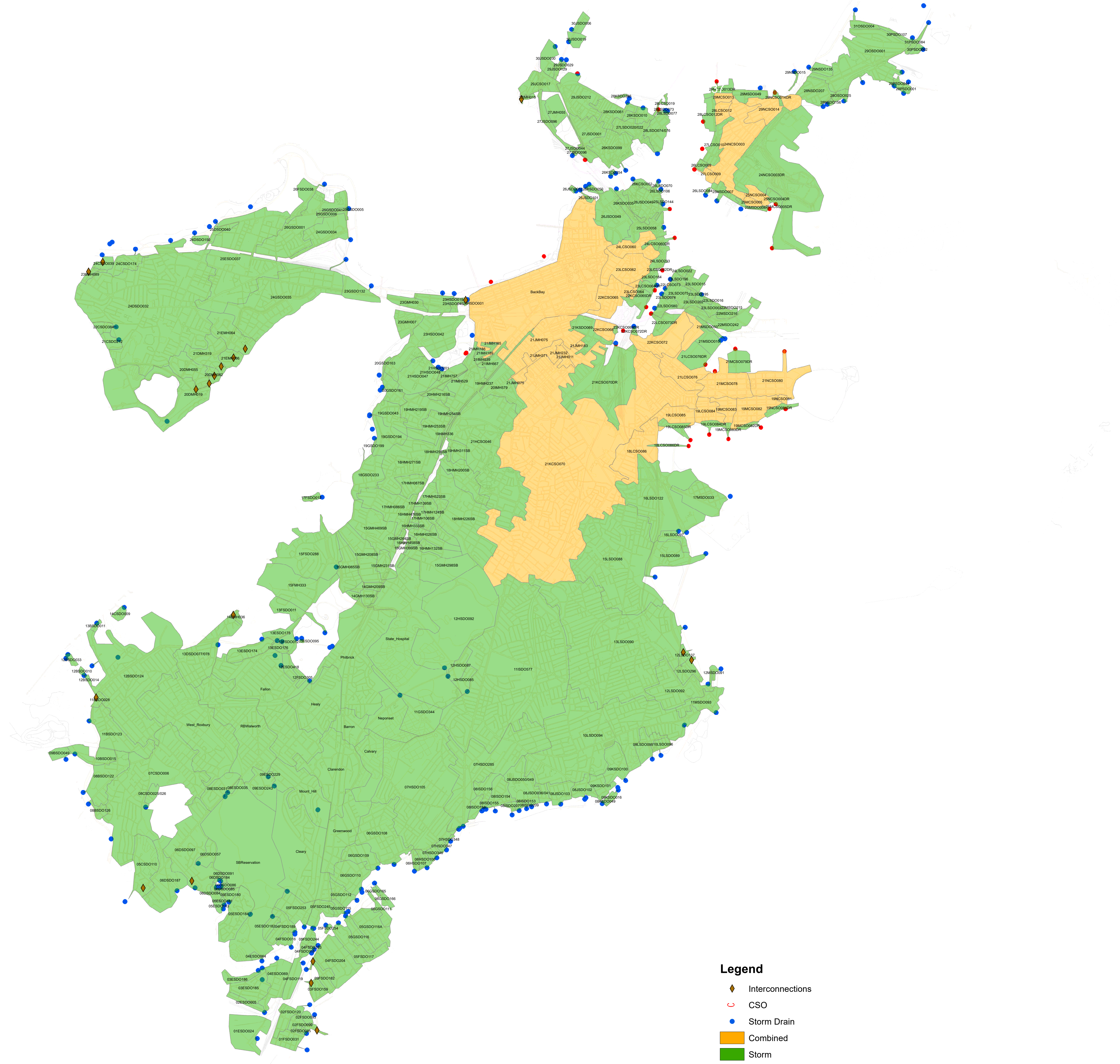
Reporting Area Name	Drainage Area	Mean Flow	BOD 5	COD	TKN	Nitrate-Nitrite as N	Ammonia as N	Total Phosphorus	Ortho-phosphate as P	Total Copper	Total Zinc	TSS	E Coli	Enterococcus	Fecal Coliform
	Acres	CFS/yr	lb/yr										10 ⁹ CFU/yr		
West Roxbury	889	2.37	14,028	63,894	2,215	7,695	679	308	82	19	63	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
Roslindale 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

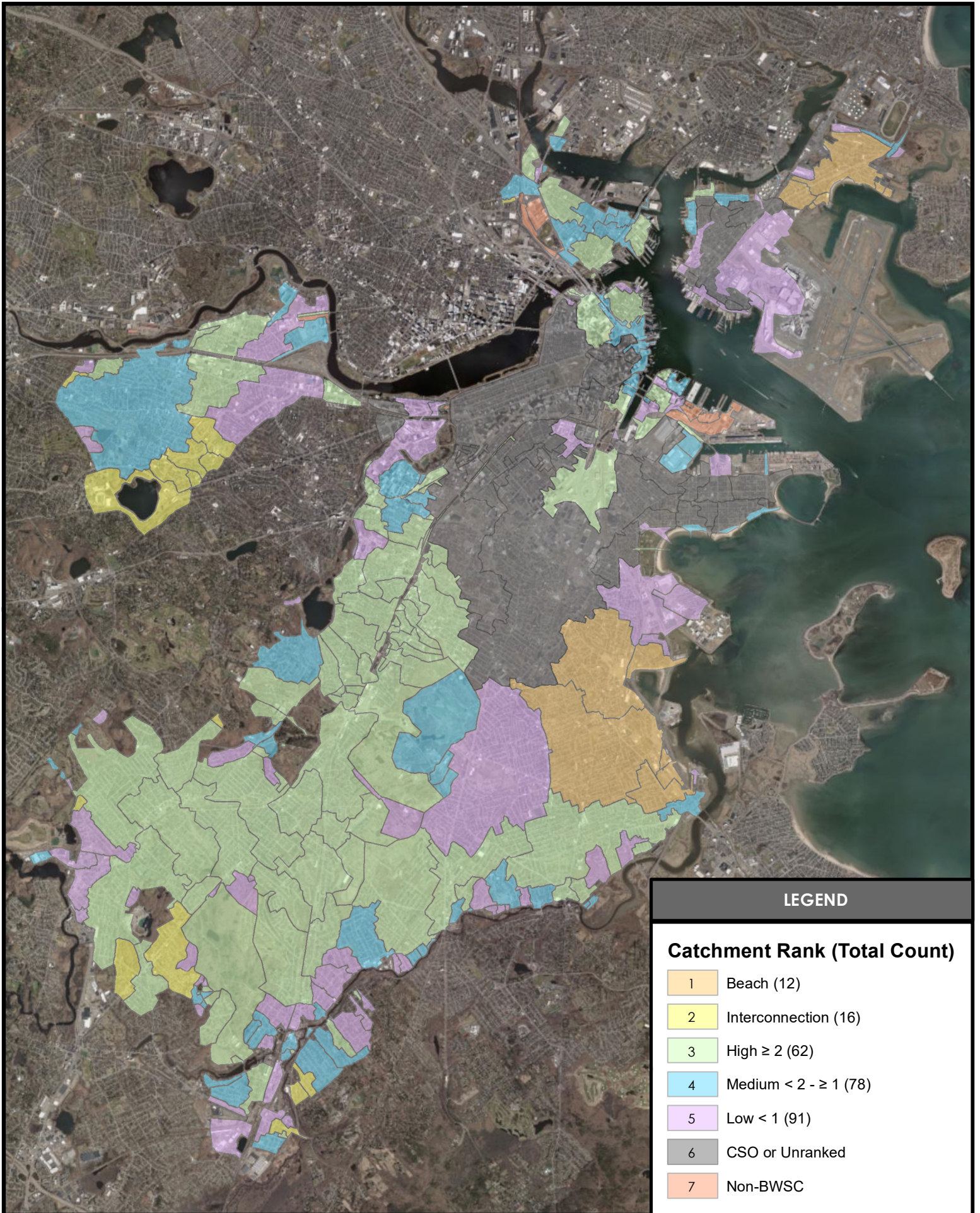
Table 7-2. 2023 Stormwater Model - Mean Annual Pollutant Loads for Boston's 27 Reporting Areas

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												
West Roxbury	900	2.37	12,809	58,273	1,932	7,704	491	285	66	18	63	27,577	105,257	77,320	90,668
Sawmill Brook	2085	6.12	22,583	102,001	4,093	21,311	1,120	627	162	34	104	49,766	157,067	111,600	128,333
Mid-Charles total	2,985	8	35,392	160,274	6,025	29,016	1,611	912	228	52	168	77,343	262,324	188,920	219,001
Upper Stony	1819	4.76	20,407	97,812	3,680	10,957	915	486	129	33	100	49,832	165,367	108,333	121,300
Canterbury Brook	1887	7.01	75,104	287,483	12,610	21,510	6,607	2,130	646	63	203	115,155	489,333	246,533	639,000
Roslindale Branch	1166	2.09	26,279	121,916	3,902	5,539	1,304	552	129	30	98	55,395	230,500	122,433	195,067
Bussey Brook	866	1.13	5,268	12,232	720	2,159	142	102	22	6	13	8,509	9,761	9,463	11,130
Goldsmith Brook	739	1.36	9,208	49,295	1,371	4,059	170	192	27	16	52	24,648	86,033	61,100	50,667
Lower Stony	2187	5.54	38,054	176,878	5,851	16,821	2,089	1,009	238	66	244	79,337	275,713	165,947	204,504
Stony Brook total	8,664	22	174,320	745,616	28,135	61,045	11,227	4,470	1,192	214	712	332,876	1,256,707	713,810	1,221,667
Village Brook Boston ¹	453	2.65	40,903	174,530	6,722	7,342	3,240	1,007	305	38	122	72,166	319,298	151,563	335,201
Village Brook Brookline ¹	1597	5.53	13,933	62,835	2,397	20,150	417	314	96	25	72	30,569	103,035	77,237	47,466
Other Muddy River	1778	7.95	59,532	250,164	9,133	17,467	4,138	1,812	434	87	323	111,048	405,669	244,408	405,560
Muddy River total	3,828	16	114,368	487,528	18,253	44,958	7,795	3,133	836	150	517	213,784	828,002	473,208	788,226
Faneuil Brook	1316	2.66	25,189	136,531	4,390	7,910	918	627	108	41	138	70,758	252,117	159,599	150,645
Shepard Brook	407	1.25	11,971	64,360	1,664	3,261	172	342	26	21	82	31,460	123,167	92,733	71,300
Smelt Brook	598	1.64	21,929	128,750	3,211	4,085	267	571	38	38	141	63,038	245,433	173,333	113,800
Allston-Brighton ²	1026	2.30	23,774	83,636	2,704	5,434	1,176	581	116	27	113	36,203	135,409	103,211	157,150
Millers River	208	1.57	11,409	52,846	1,631	3,622	487	330	54	15	62	23,692	103,385	71,587	81,733
Other Lower Charles total	3,555	9	94,272	466,124	13,601	24,312	3,021	2,451	343	142	536	225,151	859,511	600,463	574,629
Lower Charles Basin total	19,032	56	418,352	1,859,542	66,014	159,331	23,653	10,966	2,598	559	1,932	849,154	3,206,544	1,976,401	2,803,524
Mother Brook	451	0.89	7,946	31,578	1,237	2,743	541	187	55	7	23	13,512	58,000	34,137	66,140
Hyde Park	1769	3.68	39,907	194,303	6,370	12,668	1,910	920	207	51	180	92,147	319,726	199,666	213,402
Oakland Brook	519	1.78	14,631	64,603	2,385	5,661	960	324	101	16	49	27,999	122,867	59,900	121,033
Mattapan Brook	303	0.77	10,575	50,008	1,587	2,108	533	217	53	12	43	22,722	91,200	49,967	74,667
Lower Neponset	822	2.24	21,329	94,179	3,283	5,928	1,222	513	125	24	82	41,710	170,891	104,707	160,303
Tenean Creek	873	2.13	82,400	319,842	12,969	5,454	7,421	1,841	662	56	177	122,860	544,681	200,975	670,750
Davenport Creek	691	1.49	14,555	84,650	2,172	3,671	194	318	29	25	87	41,908	160,112	103,018	80,318
Neponset River total	5,428	13	191,343	839,163	30,001	38,234	12,781	4,319	1,231	191	640	362,859	1,467,476	752,369	1,386,612
Charlestown	556	2.25	55,994	299,286	8,485	5,044	2,254	1,546	220	81	305	135,955	596,972	393,154	410,827
East Boston	438	1.51	32,660	175,451	5,305	3,988	1,482	826	146	44	153	80,010	336,104	199,926	222,124
Downtown	500	2.18	39,777	146,341	5,423	4,641	2,838	1,004	260	33	147	59,117	265,167	141,355	333,369
Dorchester	1124	3.79	56,825	224,328	8,728	10,039	4,350	1,584	411	51	189	90,447	416,427	231,820	501,730

APPENDIX B: FIGURES

Figure 1: Location of Outfalls and Sub-Catchment Areas





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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

Figure 1: Subcatchment Priority Ranking Map

Boston Water and Sewer Commission
 January 2024

