



2020 Stormwater Management Report



Boston Water & Sewer Commission

**Boston Water and
Sewer Commission**

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February 22, 2021

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Ms. Laura Schiffman
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**Re: Annual Stormwater Management Report
MAS010001 – Boston Water and Sewer Commission**

Dear Messrs. Moraff, Worrall and Ms. Schiffman:

The Boston Water and Sewer Commission is pleased to provide you with the enclosed Stormwater Management Report for the year 2020. To save resources the Commission is distributing the report on CD. Paper copies of the report are available upon request. Also, the document will be posted on our website at www.bwsc.org.

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

Management Report, which was submitted to the EPA on February 27, 2004, constituted the Commission's reapplication for an NPDES Stormwater Permit.



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

Yours truly,

John P. Sullivan, P.E.
Chief Engineer & Operations Officer

JPS/AS

cc: EPA, Stormwater and Construction Permits (OEP06-1)
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Municipality/Organization: Boston Water and Sewer Commission

EPA NPDES Permit Number: MAS010001

Report/Reporting Period: January 1, 2020-December 31, 2020

NPDES Phase I Permit Annual Report

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Certification:

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

Signature:  _____.

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

Title: Chief Engineer and Operations Officer _____.

Date: 2/22/21 _____.

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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 2020. 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 2020. To the extent they occurred in 2020, they are reported herein.

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

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

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

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

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

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

1.4 STORM DRAINS OWNED AND STORMWATER ACTIVITIES PERFORMED BY OTHERS

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

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

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

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

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

1.5 CHARACTERIZATION OF SEPARATED SUB-CATCHMENT AREAS

The Commission's storm drain outfalls are listed in Table 1-1 in Appendix A. There are currently 208 storm drain outfalls in the Commission's drainage system. Table 1-2 lists locations where Commission owned storm drains interconnect with (discharge to) storm drains owned by others. There are currently 18 interconnection locations. Table 1-3 lists the Commission's 30 combined sewer overflow outfalls. Combined sewer overflow 19MCSO083 has been eliminated from the Commission's combined sewer system; however, it is still listed in the Commission's NPDES CSO Permit; therefore, it is included on the list.

1.6 MAPPING OF SUB-CATCHMENT AREAS AND OUTFALL LOCATIONS

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

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

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

2.1 FIELD SCREENING

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

- 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 2020 were collected by Commission's consultant, Stacey DePasquale Engineering, under sub-contract to Stantec, Inc.

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

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

The purpose of the wet weather screening was to collect a wet weather sample at all locations where flow was not observed during dry weather screening, as well as locations where dry weather flow was below the Illicit Discharge Detection and Elimination (IDDE) limits established by the Consent Decree. The 2020 wet weather screening followed the modified program set forth in the Commission's Proposed Wet Weather Outfall Monitoring Program, which was approved by EPA in a letter dated April 22, 2014. Under the modified program the same wet weather protocols, parameters and thresholds identified in the Consent Decree were used. However, in order to start wet weather screening earlier in the year the selection of sub-catchments included in the 2020 wet weather program were based on the 2019 dry weather screening data.

Field screening during 2020 included inspection and sampling of 255 Commission-owned sub-catchments, which included 208 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 2020 dry weather screening program are provided in Table 2-1 in Appendix A, and a summary of dry weather screening and sampling performed during 2020 is shown in Table 2-2 below. Dry weather field screening took place at 31 CSO locations² in 2020. Dry weather samples were collected at 24 CSO locations. Seven (7) locations were not sampled because there was no flow to sample (3 locations); or the outfall had standing water or was submerged, and the upstream manholes also had standing water or were submerged (4 locations).

Dry weather screening took place at 226 SDO and interconnection locations in 2020. Dry weather samples were collected at 121 of the locations visited. The remaining 105 locations were not sampled because there was no flow to sample (71 locations); the outfall had standing water or was submerged, and the upstream manholes also had standing water or were submerged (33 locations); or there was no access or suitable locations to sample (1 location).

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 2020.

² The Stony Brook Conduit 21HCSO046 was screened in three locations in 2020. All three locations were ranked in the 2021 prioritization.

TABLE 2-2
2020 Dry Weather Screening Samples Collected versus Not Collected

Results of Dry Weather Sampling CSOs		2020
Total CSO Screenings Performed		31
Samples Collected		22
Samples Not Collected		9
	No flow, dry	4
	No flow, standing water/submerged	5
	Could not access outfall/no suitable sampling location	0
Results of Dry Weather Sampling SDO/Interconnections		2020
Total SDOs/Interconnect Screenings Performed		226
Samples Collected		121
Samples Not Collected		105
	No flow, dry	71
	No flow, standing water/submerged	33
	Could not access outfall/no suitable sampling location	1

All the results of the 2020 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 2020. Wet weather samples were collected at all five (5) CSO locations. Four (4) CSO locations were identified for wet weather screening during 2020 but were not screened because of the restrictions imposed due to the Covid-19 Pandemic, or due to the lack of suitable weather conditions. These outfalls will be screened in 2021, as soon as conditions permit.

Wet weather screening took place at 118 SDO and interconnection locations in 2020. Wet weather samples were collected at 88 of the locations visited. Samples could not be collected at 30 locations because there was no flow or insufficient flow to sample (11 locations), the outfall had standing water or was submerged and upstream manholes also had standing water or were submerged (18 locations); or there was no access or suitable location to sample (1 location).

One outfall, 13BSDO11, was sampled twice during wet weather. Both inspections are included in Table 2-3.

Ten (10) SDO locations were identified for wet weather screening but were not screened because of the restrictions imposed due to the Covid-19 Pandemic, or due to the lack of suitable weather conditions. These outfalls will be screened in 2021, as soon as conditions permit.

TABLE 2-4
2020 Wet Weather Screening Samples Collected versus Not Collected

Results of Wet Weather Sampling CSOs		2020
Total CSO Screenings Performed		5
Samples Collected		5
Samples Not Collected		0
	No flow, dry	0
	No flow, standing water/submerged	0
	Could not access outfall/no suitable sampling location	0
Results of Wet Weather Sampling SDO/Interconnections		2020
Total SDOs/Interconnect Screenings Performed		118
Samples Collected		88
Samples Not Collected		30
	No flow, dry/insufficient flow	11
	No flow, standing water/submerged	18
	Could not access outfall/no suitable sampling location	1

2.2 SUB-CATCHMENT AREA PRIORITIZATION

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

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

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

Bacteria:

Class A and Class B waters

E. coli: greater than 235 cfu/ 100 mL

Enterococcus: greater than 61 cfu/ 100 mL

Class SA and Class SB waters

Enterococcus: greater than 104 cfu/ 100 mL

Ammonia: = >0.5 mg/L

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

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

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

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

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

- Discharge location: Discharge to a beach or interconnection discharging to another MS4.
- Dry weather screening: Based on 2020 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 30%, and the dry weather is weighted 50%. If no wet weather sample is taken, the dry weather is weighted 80%. A lack of a wet weather screening means that the threshold was already exceeded in the dry weather sample from the previous year. Outfalls contaminated in dry weather are given the highest priority.
- Most recent inspection date: A score is assigned by comparing the most recent date of inspection (dye test or pipe inspection) to the criteria table. Areas that haven’t had inspections since 2004, including the upper Stony Brook, receive a higher score.

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

TABLE 2-6. Priority Ranking Criteria – Discharge Location

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

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

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

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

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

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

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

Each of the four criteria were weighted in accordance with Table 2-10 to arrive at an overall score for each outfall. The weighting is such that the 2020 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 2021 Priority Ranking includes a scoring, ranking and color-coding scheme as follows:

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

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

Although investigations in all of the Commission’s sub-catchments were completed in 2019, the 2020 outfall screening results show discharges from some sub-catchments still demonstrate levels of contamination above the thresholds established in the Consent Decree.

In August 2020, the Commission contracted with Stantec, Inc. to perform the next phase of its Illicit Connection Investigation Program (Phase 5). The primary purpose of Phase 5 is to perform follow-up investigations in sub-catchments still demonstrating elevated levels of contamination, and to explore alternative methods for identifying sources of sewage contamination in the Commission's storm drain system. The CWI5 contract includes annual wet and dry weather field screening of the Commission's outfalls and interconnections, field investigations to identify illicit connections, and annual compilation of field screening data to produce Revised Priority Rankings of sub-catchments to provide to EPA by January 31, each year. The duration of the Phase 5 contract is three years.

Over the next two years the Commission will focus efforts on investigating sub-catchments that discharge to beach outfalls and interconnections, and those that had a ranking equal to, or greater than 2, as shown in Table 2-5.

In 2021, for as long as the COVID-19 pandemic restricts access to buildings for internal plumbing inspections and dye testing, field crews will focus on investigations that don't require coming in direct contact with customers (e.g. manhole inspections).

2.3 STATUS OF SUB-CATCHMENT INVESTIGATIONS

Tables 2-12 and 2-13 provide the "percent complete" for IDDE investigations within each sub-catchment area in the Commission's system as of January 1, 2021. IDDE investigations in all 255 of the Commission's sub-catchments were complete as of August 23, 2019.

The percent complete by manholes for Table 2-12 was calculated based on the total number of stormwater and common manholes in the sub-catchment area that were systematically investigated³, divided by the total number of stormwater and common manholes in the sub-catchment area. The percent complete by linear footage of pipe for Table 2-13 was calculated based on the total footage of storm drain pipe in the sub-catchment area that was systemically investigated, divided by the total footage of storm drain pipe in the sub-catchment.

2.4 ILLICIT DISCHARGE DETECTION AND ELIMINATION PLAN

Under the Consent Decree the Commission was required to submit to EPA, DEP and CLF a revised Illicit Discharge Detection and Elimination Plan (IDDE Plan). The IDDE Plan was submitted to EPA, DEP and CLF on December 18, 2012. The IDDE Plan detailed and updated the Commission's approach, including modifications as appropriate, to address investigations of CSO outfalls. It described the investigation methods and analytical techniques that the Commission employs to locate and verify illicit discharges and methods by which sources of illicit discharges would be removed.

³ As described in the Commission's IDDE Plan, not every storm drain manhole in a sub-catchment area is inspected. Some manholes are inferred to be void of contamination based on the results of inspections of manholes upstream and downstream, or on dye tests of adjacent buildings.

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

2.5 ILLICIT DISCHARGE INVESTIGATION CONTRACTS

Since 1999, the Commission has executed five contracts to have consultants perform illicit discharge investigations of the Commission's drainage system. The Stony Brook Illegal Connection Investigation (SBI) Program was carried out between 1999 and 2005, at a cost of \$1,478,709. The Citywide Illegal Connection Investigation (CWI) Program overlapped with the SBI and was carried out between 2004 and 2009, at a cost of \$1,536,000. The Citywide Illegal Connection Investigation Program, Phase 2 (CWI2) was carried out between 2009 and 2012, at a cost of \$1,660,000. The Citywide Illegal Connection Investigation Program, Phase 3 (CWI3) was carried out between 2012 and 2016, at a cost of \$3,147,817. The Citywide Illegal Connection Investigation Program, Phase 4 (CWI4) was carried out between 2016, at a cost of \$2,105,414. The contract for the Citywide Illegal Connection Investigation Program, Phase 5 (CWI5) was executed on August 17, 2020, for a contract price of \$2,345,000. The contract duration for CWI5 is three years. As of December 31, 2020, \$90,500 had been spent for services under the CWI5 contract.

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

2.6 CORRECTION/REPAIR OF ILLICIT DISCHARGES

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

In November 2012, the Commission amended its Sewer Lateral Assistance Program to provide financial assistance to property owners to line or relay leaking sewer laterals, including those sections on private property. Under the program, owners of verified leaking sewer laterals may be reimbursed up to \$4,000 to have a licensed bonded contractor line or relay their leaking sewer lateral. A leaking lateral must be lined or

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

2.7 SUPPLEMENTAL ENVIRONMENTAL PROJECT

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

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

2.8 2020 ILLICIT DISCHARGE REMEDIATION SUMMARY

This section summarizes the Commission's 2020 Illicit Discharge Identification and Elimination Program. Table 2-14 lists the direct illicit connections that were outstanding (not corrected) as of January 1, 2020; it includes those that were verified and corrected in 2020, and it includes those that were verified but not corrected at the end of 2020.

Table 2-15 lists the indirect illicit connections (verified leaking laterals) that were outstanding (not corrected) as of January 1, 2020; it includes those that were verified and corrected in 2020; and it includes those that were verified but not corrected at the end of 2020.

Below is a summary of 2020 Illicit Discharge Remediation Program.

2020 Illicit Discharge Remediation Program Summary

Direct Illicit Connections Outstanding as of January 1, 20206

Direct Illicit Connections Verified in 20204

Direct Illicit Connections Corrected in 20206

Direct Illicit Connections Outstanding December 31, 2020.....7

Leaking Laterals Outstanding as of January 1, 2020.....7

Leaking Laterals Verified in 20204

Leaking Laterals Repaired in 2020.....7

Leaking Laterals Outstanding as of December 31, 2020.....4

In 2020, a total of four (4) new direct illicit connections were verified, and six (6) direct illicit connections were corrected. Of the direct connections corrected in 2020, five (5) were corrected by a Commission contractor and one (1) was corrected by the property owner. One direct illicit connection was reported corrected in 2020, but due to Covid-19 restrictions staff were unable to perform a dye test to confirm the correction. Therefore, it is still considered outstanding.

In 2020, a total of four (4) leaking laterals were verified, and seven (7) leaking laterals were repaired by the property owners.

In total, eight (8) direct connections or leaking laterals were verified in 2020, and 13 direct illicit connections or leaking laterals were corrected/repaired. As of the end of 2019, 11 illicit discharges remained to be corrected/ repaired.

Calculations of cost to remove illicit discharges

Tables 2-14 and 2-15 also provide the costs to the Commission to correct or repair illicit discharges in 2020. The cost to the Commission to correct five (5) direct illicit connections was \$58,462. The cost to the Commission to verify seven (7) leaking sewer laterals was \$13,557. The cost to the Commission to reimburse owners for repairing seven (7) leaking laterals was \$27,950.

In total, \$99,969 was expended by the Commission to verify and correct or repair illicit discharges in 2020. 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 2020, an estimated 4,649 gallons per day (gpd) of wastewater was removed from the storm drainage system and receiving waters by correcting direct illicit connections, and an estimated 552 gpd of wastewater was removed from the storm drainage system and receiving waters by repairing leaking sewer laterals. In total, an estimated 5,201 gpd of wastewater was removed from the storm drainage system and receiving water by correcting or repairing illicit discharges in 2020.

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 2020, the Commission owned five (4) large and one (1) small "vactor" cleaning trucks to clean accumulated materials from sewers and drains; Six (6) jet trucks; one (1) multi-rodder truck; and two (2) CCTV trucks. In 2020, the Commission jetted, vactored or rodded 406,220 linear feet of pipe. To determine where structural deficiencies exist and where repairs are needed, Commission crews and contract forces performed television inspections of 89 miles sewer and drain pipe in 2020.

In conjunction with the storm drain and catch basin cleaning programs, the Commission routinely clears debris from twelve (12) 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.

Commission catch basin cleaning forces have been augmented by contract resources and equipment since 2001. In 2020, the Commission and contract resources performed 20,875 inspections/cleanings of catch basins. Catch basin cleanings are transported to the Commission's Material Handling Facility where they are temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. In 2020, the Commission removed approximately 3,240 tons of debris from catch basins, as recorded at the Commission's Material Handling Facility.

c. Commission Particle Separators

The Commission currently owns (20) particle separators. Information regarding the various particle separators, including their locations, receiving waters and inspection dates in 2020 is summarized in Table 3-2. All 20 particle separators were inspected in 2020 and cleaned if warranted.

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

Large cleaning and maintenance jobs are performed by outside contractors under the Commission's Capital Improvement Program. The Commission's three-year Capital Improvement Program (CIP) is updated annually. The 2020-2022 CIP included \$108.6 million for sewer, drain and stormwater related projects, of which \$42.7 million was

earmarked for 2020. An additional \$9.93 million was included under a separate line item in the 2020-2022 CIP specifically for Green Infrastructure/Low Impact Development projects. For a copy of the 2020-2023 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 remedial actions taken. All SSO locations both BWSC caused and private caused are documented and tracked in the SSO database via the SSO IPAD application.

In 2020, the Commission responded to, investigated, and/or reported to EPA and DEP, a total of 132 SSO events. These included 68 reportable SSO events (39 public SSOs and 29 reportable private/building backups), and 64 non-reportable private/building backup events. There was one (1) dry weather combined sewer overflow during 2020. 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 2020, the Commission responded to 21 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 lists the incidences to which the Commission responded in 2020. One (1) violation/enforcement notice was issued in 2020 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 2020, the Commission issued 24 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 2020, 767 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. Thirteen (13) new Drain Layers Licenses were issued in 2020, and 192 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 2020, the Commission performed 512 GSA related dye tests.

On-site Retention of Stormwater: Under the Commission's Site Plan Requirements and Sewer Use Regulations, developers of new projects are required to evaluate the feasibility of infiltrating stormwater on-site. On-site infiltration of stormwater is required whenever site conditions permit as determined by the Commission. On-site infiltration of stormwater serves to limit peak discharge rates, recharge groundwater, and remove 80 percent of total suspended solids in the flow to the extent feasible. 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.

In 2020, the Commission approved installations of 140 infiltration devices. Table 3–4 provides the addresses of the devices approved in 2020.

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 2020, the Commission approved installation of three (3) particle separators. Table 3–5 provides the addresses of the devices approved in 2020.

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 2020, the Commission issued 24 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 2020, the Commission issued 793 catch basin castings to contractors and other parties. Of those issued, 384 were for Boston Harbor, 328 for the Charles River and 81 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 84 projects in 2020. 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 12 projects contained comments regarding the Commission requirements for particle separators. Letters for 37 projects contained comments about the Commission's requirement for retaining stormwater on site. Letters for 41 projects contained comments regarding the requirement for Stormwater Management Plans. Thirty-eight (38) letters contained comments regarding the requirement for 4 to 1 I/I reduction. If appropriate, the letters informed the proponent that a Drainage Discharge Permit may be required for any temporary or permanent non-stormwater discharge to the drainage system.

3.6 CONTROLS FOR CONSTRUCTION SITES

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

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

In accordance with a 2012 Memorandum of Agreement (MOU) between the Commission and the City's Inspectional Services Department (ISD), the Commission and ISD continue to coordinate building permit issuance and site plan approval, whereby the Commission will not approve any construction site over one (1) acre unless the discharge permit has been approved. Also, ISD and the Commission continue to notify building permit and site plan applicants of the requirements to obtain NPDES Stormwater Permits for construction sites from EPA. The Commission notifies project planners of the

requirement for NOIs and SWPPP when they submit site plans for projects and refers to the EPA's website to confirm whether NOIs have been submitted. The Commission also confirms that an NOI has been submitted and a SWPPP prepared when performing construction site visits. Information pertaining to the NOI and SWPPP requirements is included in the Commission's Requirements for Site Plans and are provided on the Commission's website.

Due to the COVID-19 pandemic, all construction activities in the City of Boston were halted in March 2020 and only began to resume under new public health mandates and restrictions at the beginning July 2020. As a result, in 2020, the Commission performed only 18 site construction inspections. One (1) violation notice was issued to the operator of a construction project for a violation pertaining to proper operation or implementation of construction site BMPs or erosion controls.

3.7 INDUSTRIAL FACILITY STORMWATER POLLUTION PREVENTION

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

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

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

The active number of industrial facilities on the inventory list at the end of 2020 was 187. The Commission conducted a total of 71 inspections of industrial facilities in 2020. Summaries of inspections performed, and enforcement action taken are provided in the Commission's semi-annual Consent Decree compliance reports.

3.8 ROADWAYS

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

a. City of Boston Snow Removal and Road Deicing Practices

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

b. City of Boston Street Cleaning

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

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

The Daily Street Sweeping Program typically operates from April 1st through November 30th. PWD recently expanded the Daily Street Sweeping Program in the Beacon Hill, North End and South End, from March 1st through December 31st. Weather and budget conditions permitting, the program may begin earlier in the season and extend later into the fall. Each side of a posted city street on the Daily Street Cleaning Program is cleaned once every other week. Additional street sweepers may be contracted, and city sweepers run more frequently during the fall leaf season.

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

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

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

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

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

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

3.9 PESTICIDE, HERBICIDE AND FERTILIZER APPLICATION

In 2001, the Commission completed an evaluation of existing measures to reduce the discharge of pollutants related to the application of pesticides, herbicides and fertilizers (PHFs) applied by municipal or public agencies. The Commission also evaluated the necessity to implement controls to reduce the discharge of pollutants related to the application and distribution of PHFs by commercial and wholesale distributors and applicators. The Commission performed evaluations of existing programs and data in 2001 and reported the results in the 2001 Stormwater Management Report. From the results of the evaluation, it was concluded that additional monitoring and controls for PHF use by municipal agencies and their contractors and for commercial and wholesale

distributors was not warranted. Discussion of this analysis can be found in Section 3.6 of the 2009 Stormwater Management Report.

3.10 OTHER NON-STRUCTURAL STORMWATER MANAGEMENT MEASURES

a. Used Motor Oil and Paint Collection Centers

To decrease the amount of illegally disposed of paint and motor oil, the Boston Public Works Department hosted Saturday drop-offs for used motor oil and surplus paint on May 9, June 13, July 18, and August 15, from 9 AM to 1 PM. 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 9 AM to 1 PM in 2020, at the following locations:

- July 25, West Roxbury Public Works Yard, 315 Gardner Street
- August 1, John W. McCormick middle school, 315 Mt. Vernon Street, Dorchester
- August 22, Central Public Works Facility, 400 Frontage Road, South Boston
- October 31, Central Public Works Facility, 400 Frontage Road, South Boston

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

c. Yard Waste/Composting

In 2020, the Boston Public Works Department provided curbside collection of leaves and grass clippings in the residential sections of the city between April and December. Yard waste is collected by Public Works on the same day of week that weekly recycling is picked up. The Commission's March/April and September/October issues of *Currents* promoted the 2020 collection effort. Copies of the March/April and September/October *Currents* issues are provided in Appendix B and on the Commission's website.

d. Pet Waste

The City's dog fouling regulation, Section 16-1.10A of the Boston City Ordinances, also called the "pooper scooper law," requires dog owners to remove and properly dispose of the waste left by their dog. Penalties under the ordinance are \$50.00 for failure to produce a means of removal and \$50.00 for failure to pick up the waste. The Animal Control Unit in the Boston Property and Construction Management Department is responsible for enforcing the dog fouling ordinance. It is also responsible for following

up on reports of vicious dogs, ensuring dogs are properly licensed and leashed, and other animal control issues.

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

e. Site Cleanliness Ordinance

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

Inspectional Services officials perform annual inspections of establishments with any license issued by the Department, including a Site Cleanliness license. The Site Cleanliness license will not be renewed unless and until the establishment's dumpster complies with the city ordinance.

Failure to comply with the Site Cleanliness Ordinance and obtain a Site Cleanliness license may result in fines of up to \$1,000 a day. Repeated violations may result in closure of the business.

3.11 PUBLIC EDUCATION AND OUTREACH

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

a. Commission Web Site

The Commission previously launched its new "We Are All Connected" website with an interactive homepage to engage visitors. Icons and pop-up messages provided a preview of the educational content within. The Commission also maintained a Green Infrastructure/Low Impact Development resources page to its website.

In addition to the items described above, 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 2020 featured the following items:

1. January/February 2020 Currents –
Clear snow and ice from catch basins
Don't Dump, and How to Properly Dispose of FOG
Steps to Properly Dispose of FOG
2. March 2020 Bill Insert – Customer Safety Advisory -Check ID
3. March/April 2020 Currents
How to Use and Safely Dispose of Pesticides and Herbicides
Don't use these chemicals right before it rains or when it's windy
Help Keep Catch Basins Clear
Fix a Leak Week – Conserve with w Free Water Conservation Kit
4. April 2020 Bill Insert -
Residential Backflow
Don't Dump! Report Illegal Dumping
5. Scoop the Poop! May/June 2020 Currents –
Help Improve Water Quality Scoop the Poop
Quick Tips for Disposing of Pet Waste
Motor Oil Drop Off and Paint Swap Shops
Household Hazardous Waste Drop-Off Day
6. June Bill Insert 2020– Don't Dump, Report Illegal Dumping
7. July/August 2020 *Currents*:
Don't Dump, Protect Our Waterways

- Tips on Outdoor Water Conservation
Virtual Community Education – Learn what can and can't be flushed down the toilet or put into storm drains.
8. August 2020 Bill Insert: Important Information about Lead in Drinking Water
 9. September/October 2020 *Currents*:
 - Water Main Flushing Program Schedule
 - Keeping Catch Basins Clear
 - Leaf and Yard Waste Collection
 - Book a Virtual Presentation
 10. October 2020 Bill Insert:
 - Backwater Valve
 - Customer Safety Advisory
 11. November/December 2020 *Currents*:
 - What is FOG
 - Sanitary Sewer Overflow Prevention
 - Don't Forget to Scoop the Poop
 - BWSC Community Outreach – FOG packets distribution to Main Streets
 12. December Bill Insert 2020:
 - Important Information about Lead in Drinking Water

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 2020.

January

- Billing Message: [BWSC](#) meters are scheduled to be read daily by an automatic meter reading system.

February

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

March

- To assist customers in combating the spread of COVID-19, all water service shut offs have been suspended. To help reduce potential financial difficulties during this time, no additional delinquency fees will be applied to past due balances. Customers having any questions about these changes or any other matter should call Customer Services at (617) 989-7800.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

April

- Billing Message: To assist customers in combating the spread of COVID-19, all water service shut offs have been suspended. To help reduce potential financial difficulties during this time, no additional delinquency fees will be applied to past due balances. Customers having any questions about these changes or any other matter should call Customer Services at (617) 989-7800.

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

May

- Billing Message: To assist customers in combating the spread of COVID-19, all water service shut offs have been suspended. To help reduce potential financial difficulties during this time, no additional delinquency fees will be applied to past due balances. Customers having any questions about these changes or any other matter should call Customer Services at (617) 989-7800.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

June

- Billing Message: To assist customers in combating the spread of COVID-19, all water service shut offs have been suspended. To help reduce potential financial difficulties during this time, no additional delinquency fees will be applied to past due balances. Customers having any questions about these changes or any other matter should call Customer Services at (617) 989-7800.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

July

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

August

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

September

- Autumn can be a rainy season. To prevent flooding in your neighborhood, clear leaves, trash, and debris from the top of storm drains.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

October

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

November

- BWSC's Customer Services Department will be closed at 5:00 P.M. on Wednesday, November 25, 2020.

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

December

- Please be advised, beginning January 2021, delinquency charges will resume on outstanding balances. If you are experiencing financial difficulties, please contact our Customer Services at (617) 989-7800 for assistance.
- BWSC meters are scheduled to be read daily by an automatic meter reading system.

d. Social Media

Consistent with the Commission’s Public Education and Outreach Program, the Commission social media profiles have helped to provide real time information to impacted residents while maintaining its goal to distribute its environmental messages.

In 2020, the Facebook page had a total of 47 “likes” and the Twitter account gained 355 followers in 2020. The Commission’s Instagram account currently has 942 followers. The Commission also engaged frequently with users on NextDoor, a hyper-local social media platform that allows for direct and proactive communication with residents of activity in specific neighborhoods of the city in real time. Through the NextDoor medium, the Commission engaged with 25,462 residents with notices and updates in 2020. The following announcements were posted to NextDoor during the reporting period:

- February 7, 2020 Emergency Work in South Boston 630 People
- February 18, 2020 Emergency Work in Downtown Crossing 223 People
- February 18, 2020 Emergency Work in Downtown Crossing (Updated) 223 People
- February 25, 2020 Emergency Work in South Boston- 699 People
- March 25, 2020 Water Main Flushing in Dorchester – 1741 People
- April 9, 2020 Water Main Flushing in West Roxbury- 3302 People
- May 5, 2020 Water Main Flushing in Dorchester 6015 People
- June 16, 2020 PLANNED WATER SERVICE DISRUPTION IN NORTH END 950 People
- July 9, 2020 PLANNED WATER SERVICE DISRUPTION IN East Boston – 307 people
- August 5. 2020 PLANNED WATER SERVICE DISRUPTION IN East Boston - 314
- August 5, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury – 163
- August 18, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury. – 341
- August 25, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury. – 157
- August 25, 2020 Water Main Flushing in Chinatown, South End and Roxbury – 2518
- September 8, 2020 PLANNED WATER SERVICE DISRUPTION IN Jamaica Plain – 457
- September 9, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury – 186
- September 9, 2020 PLANNED WATER SERVICE DISRUPTION IN Jamaica Plain – 457
- September 10, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury - 229

September 10, 2020 PLANNED WATER SERVICE DISRUPTION IN North End – 651
September 11, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury – 185
September 14, 2020 Planned Water Service Disruption in Roxbury People – 185
September 14, 2020 Planned Water Service Disruption in East Boston - 519
September 14, 2020 Planned Water Service Disruption in Roxbury - 229
September 17, 2020 PLANNED WATER SERVICE DISRUPTION IN Roxbury - 281
October 6, 2020 PLANNED WATER SERVICE DISRUPTION IN West Roxbury 625
October 7, 2020 OVERNIGHT PLANNED WATER SERVICE DISRUPTION – 203
October 8, 2020 PLANNED WATER SERVICE DISRUPTION IN West Roxbury - 626
October 8, 2020 PLANNED WATER SERVICE DISRUPTION IN Roslindale - 1302
October 20, 2020 Planned Water Service Disruption in Jamaica Plain – 1042
October 21, 2020 Planned Water Service Disruption in Roxbury – 84
October 21, 2020 Planned Water Service Disruption in Roxbury – 182
October 27, 2020 BWSC will be tying in the new water main on Walley Street - 436

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 2020 on YouTube:

Keep FOG out of the pipes. Fats, Oils, and Grease causes sewer backups. 14,984 Views
Scoop the Poop 4,640
FOG - Fats, Oils, and Grease 2,645
BWSC's New Website 1,711
About BWSC 686
Keep Wipes Out Of Pipes 678
BWSC's New Customer Portal – Full Tour 626
BWSC - Where Does the Water Go? 490
Downspout Disconnection 234
STAY CONNECTED 103
BWSC's New Customer Portal – Quick Tour 98
Dudley Square Sewer Separation Project Interview 93
The Water Cycle Is. 80
Water Ways: BWSC Catch Basins 72
BWSC New CSS Tutorial video 56
Tastes Great! Less Wasteful! 63
One Financial Center Installation Video 48
Boston Tea Party PSA 34
What's Happening on Boston Harbor? 26
FOG Plumber (with subtitles) 18
Culinary FOG Video 18
FOG Plumber 12
Keep FOG out of the pipes. Fats, Oils, and Grease causes sewer backups - 17,204 Views
Scoop the Poop - 4,773
FOG - Fats, Oils, and Grease - 2,660
BWSC's New Website - 1,720
About BWSC - 715

Keep Wipes Out Of Pipes - 690
 BWSC's New Customer Portal – Full Tour 650
 BWSC - Where Does the Water Go? - 507
 Downspout Disconnection - 247
 STAY CONNECTED - 105
 BWSC's New Customer Portal – Quick Tour - 102
 Dudley Square Sewer Separation Project Interview - 95
 The Water Cycle Is - 81
 Water Ways: BWSC Catch Basins - 76
 BWSC New CSS Tutorial video - 466
 Tastes Great! Less Wasteful! - 74
 One Financial Center Installation Video - 50
 Boston Tea Party PSA - 35
 What's Happening on Boston Harbor? - 28
 FOG Plumber (with subtitles) - 27
 Culinary FOG Video - 20
 FOG Plumber - 13

e. Educational Outreach

The Commission's Communications Department includes a specific Educational Coordinator that goes to several City of Boston public schools and camps to present information to students regarding water, sewer and stormwater. The Commission made presentations to a total of 1,112 students and 144 adults, including teachers, seniors and civic groups. Some of the presentations were done in Spanish, Italian and one was translated in Chinese. The educational coordinator also participated and spoke on stormwater at the joint meeting of the WSCAC hosted at the New England Water Works Museum. Due to COVID-19 pandemic restrictions, including school closures and capacity restrictions on gatherings, Communications staff were unable to participate in in-person events, but did continue remote outreach via ZOOM and other remote learning activities. The list below details the numbers and types of presentations held during the reporting period.

- January – 429 students and 42 adults at 6 different locations
- February – 255 students and 31 adults at 4 different locations
- March - 56 students and 8 adults at 2 different locations
- April – Schools closed
- May – Schools closed
- June – 111 students and 22 adults and 3 different locations Presentations conducted virtually
- July – 3 groups, 5 adults; 3 schools, 62 students
- August– 1 group, 1 adult, 1 school, 7 students
- September – 2 groups, 4 adults; 1 school, 7 students
- October – 2 groups, 31 adults; 2 schools, 176 students
- November – No presentations

- December- No presentations

A map tracking the distribution of educational materials by neighborhood is included in Appendix B.

f. Environmental Events

During the Reporting Period the Commission had limited participation in public events due to the COVID-19 pandemic. Due to social distancing measures many organized environmental functions were cancelled. However, the Commission collaborated virtually with city and other partners such as the Neponset River Watershed and the MWRA Wastewater Advisory Committee (WAC) on awareness campaigns to remind residents about the safety of drinking water, don't dump or litter (especially used gloves and masks), and to stay home and practice social distancing to reduce the spread of COVID-19. These messages were consistent with the environmental messages that we share on several platforms even when we are not dealing with the challenges that a global pandemic presents.

January

- Participated in the New England Water Environment Association Annual Meeting. Hosted an informational table and conducted presentation to students about our water source and our Don't Dump and FOG environmental messages
- Hosted a table event at a community event at the Josiah Quincy School in Chinatown
- Participated as a judge at an Environmental Science fair at Boston Latin Academy
- Represented the Commission at the Neponset River Watershed meeting to discuss collective efforts to addressing stormwater management

February

- Led a presentation with a community group in Roslindale to share information regarding environmental messages
- Participated in a joint presentation focused on environmental outreach activities for members of the MWRA's Water Supply Citizens Advisory Committee

March – N/A

April – N/A

June

- Conducted interactive storm drain game with youth at Boston Housing Authority Unity Day. Distributed materials and shared information about our water system

g. Catch Basin Stenciling and Castings

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

The Catch Basin Stenciling Program is promoted through the Commission’s web site and billing inserts and through press releases, community events and outreach meetings, presentations to public schools, and through local watershed associations. In 2019 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 2020 the Commission issued 793 catch basin castings to contractors and other parties. Of those issued, 384 were for Boston Harbor, 328 for the Charles River and 81 were for the Neponset River.

h. Water Truck

Due to the COVID-19 pandemic and need for social distancing, the Commission did not use of its water trailer in 2020. The Commission hopes that with Phased Reopening in the City of Boston and Commonwealth of Massachusetts, it may be able to resume water trailer activities in 2021. The goal of the water truck is to motivate residents and visitors to drink and enjoy our water, but also refill their single-use bottles, to ultimately conserve plastic bottle usage in the city. Outreach staff at the truck also have an opportunity to promote its public education messages including FOG and other messages, including: 1) Don’t Dump: Storm drains flow directly to Boston Harbor and our rivers; and 2) Scoop the Poop: Walking your dog? Take a plastic bag along to pick up pet waste.

3.12 SUPPORT FOR WATERSHED AND ENVIRONMENTAL AGENCIES AND ORGANIZATIONS

Each year the Commission provides funding to Watershed Associations and Environmental Organizations to support their water quality monitoring programs and public education efforts. The Charles River Watershed Association, Neponset River Watershed Association and Mystic River Watershed Association each received \$10,000 from the Commission in 2020. The Friends of Fort Point Channel received \$5,000, and the Boston Ground Water Trust received \$25,000 from the Commission in 2020.

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

4.0 STRUCTURAL BEST MANAGEMENT PRACTICES AND GREEN INFRASTRUCTURE

Under the Consent Decree the Commission must implement structural Stormwater Best Management Practices and Green Infrastructure (BMP/GI) measures to reduce the discharge of pollutants from the drainage system. The BMP/GI measures and activities implemented by the Commission in 2020 are described in this section.

4.1 STORMWATER MODEL

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

4.2 STORMWATER BMP PROPOSAL AND PHASE I BMP IMPLEMENTATION PLAN

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

Construction of the Central Square project was completed in 2018. Construction of the Audubon Circle was completed in 2019. In 2020 the Commission continued to coordinate with the City of Boston on the City Hall Plaza GI/BMP Demonstration Project. In 2020, the Commission approved the design submitted by the City for the Plaza, and construction on the Plaza commenced. 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>. Construction will continue for approximately two (2) years.

4.3 BMP RECOMMENDATIONS REPORT

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

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

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

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

4.4 GREEN INFRASTRUCTURE FOR THREE TRIBUTARY AREAS

In 2015 the Commission contracted with three separate consultants to develop conceptual designs and prepare cost estimates for installation of BMP/GI in three areas of Boston tributary to the Charles River. The three areas are: 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 will help guide Commission as it develops more detailed designs and schedules for installation of BMP/GI citywide. The Canterbury Brook and Lower Stony Brook projects were completed in 2017. The Allston/North Beacon Street project was completed in 2018.

4.5 DAISY FIELD GREEN INFRASTRUCTURE

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

4.6 GREEN INFRASTRUCTURE AT FIVE BOSTON PUBLIC SCHOOLS

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

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

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

BWSC continues to work with other city agencies, including Boston Public Works Department (PWD), Boston Parks and Recreation Department, Boston Transportation Department, Boston Planning and Development Agency, and others, to design and construct BMP/GI projects at various locations throughout the city.

Ongoing projects in conjunction with the PWD include the design of bioretention BMPs at Codman Square in Dorchester, design of BMPs along Coolidge Road in Brighton, and construction of the bioretention areas along New England Avenue. In 2020, 100% design plans submitted by PWD for Codman Square were approved by the Commission. Construction of the bioretention BMPs at Codman Square is anticipated to begin in 2021.

The Commission also continued work on an on-call design and construction oversight services with Nitsch Engineering, Inc. Under the on-call contract, Nitsch will continue to design GI/LID structural BMPs for collaboration projects with other city agencies within the City of Boston. Ongoing projects with Nitsch include development of a Green Infrastructure Planning and Design Manual, design of a subsurface gravel filter at Daisy Field (mentioned above), and design of bioretention and subsurface infiltration along Coolidge Road.

The 2021-2023 CIP contains a \$9,160,000 line item to be used specifically to complete BMP/GI projects in collaboration with other city departments and/or private landowners in the City of Boston as they arise.

4.8 BOSTON COMPLETE STREETS INITIATIVE

The City of Boston has developed the Complete Streets Initiative, under which incorporation of green infrastructure into street designs is required. Green infrastructure includes 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 2020 in that regard.

5.1 ASSESSMENT OF STORMWATER BMP/GI

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

5.2 CATCH BASINS

The Commission relies on catch basins as the primary means for preventing the transport of sediments, debris, and other contaminants to storm drains and receiving waters. In 2020, the Commission and contract resources performed 20,875 inspections/cleanings of catch basins. Catch basin cleanings are transported to the Commission's Material Handling Facility where they are temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. The amount of material removed from the Commission's catch basins in 2020 was approximately 3,240 tons, as recorded at the Commission's Material Handling Facility.

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

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

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

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

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

6.0 WATER QUALITY MONITORING

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

6.1 OUTFALL MONITORING

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

6.2 STORMWATER MONITORING AND MODEL VALIDATION

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

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

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

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

This sampling and metering project includes wet and dry weather water quality sampling and will extend over a two-year period. The contract ceiling price is \$1,940,000.

6.3 URBAN RUNOFF WATER QUALITY PROJECT

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

The Project included:

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

Major findings of the Project were as follows:

- The Human Marker (HF183) was detected in all sub-catchments during dry weather regardless of IDDE program status.
- Fecal Indicator Bacteria (FIB) were correlated with human marker results during dry weather, confirming the utility of FIB for dry weather outfall prioritization and screening.

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

Recommendations were:

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

6.4 OTHER PAST WATER QUALITY MONITORING PROJECTS

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

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

7.0 WATER QUALITY IMPROVEMENTS

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

7.1 STORMWATER MONITORING AND MODEL VALIDATION PROJECT

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

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

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

The 2012 Stormwater Model has the capability to evaluate pollutant loading reductions that result from the installation of stormwater BMP/GI. However, the 2012 Stormwater Model has not been updated to include pollutant reductions resulting from GI/LID installed since March 2012.

In May 2020, the Commission executed a contract with Kleinfelder for a Stormwater Monitoring and Model Validation Project. The main purpose of the project is to develop the basis for a long-term stormwater quality monitoring program and determine whether stormwater quality improvements have resulted due to BMP/GI devices installed since 2012. The Stormwater Monitoring and Model Validation Project is described further in section 4.

Since 2015, the Commission has been maintaining a database of public and private BMPs/GI installed city-wide since March 2012. The database currently contains about 2,585 public and private BMP/GI features located throughout the city. Many of these BMP/GI project locations contain multiple GI/LID devices. Pollutant removal estimates are tabulated for each GI/LID location in the database as they are installed. Pollutant reduction estimates from the database will be incorporated into the Commission's updated and enhanced Stormwater Model being developed under the Stormwater Monitoring and Model Validation Project referred to above. This will enable the Commission to evaluate water quality benefits resulting from the installation of BMP/GI installed since 2012.

7.2 POLLUTANT LOADINGS AND REDUCTIONS

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

The Storm Drain Model has been used as the basis to estimate reductions in bacteria and phosphorus resulting from the elimination of illicit discharges each year since 2013. Tables 7-2 through 7-9 present the annual load reductions for each of the 27 reporting areas described in the 2012 Stormwater Model Report.

Table 7-2 presents the load reduction for each reporting area as December 31, 2013, with the load reduction encompassing illicit discharge removal activities throughout 2012 and 2013. Table 7-3 presents the load reduction for each reporting area as of December 31, 2014, with the load reduction encompassing illicit discharge removal activities throughout 2014. Table 7-4 presents the load reduction for each reporting area as of December 31, 2015, with the load reduction encompassing illicit discharge removal activities throughout 2015. Table 7-5 presents the load reduction for each reporting area as of December 31, 2016, with the load reduction encompassing illicit discharge removal activities throughout 2016. Table 7-6 presents the load reduction for each reporting area as of December 31, 2017, with the load reduction encompassing illicit discharge removal activities throughout 2017. Table 7-7 presents the phosphorus load reduction for each reporting area as of December 31, 2018, with the load reduction encompassing illicit discharge removal activities throughout 2018.

Table 7-8 presents phosphorus load reduction for each reporting area as of December 31, 2019, with the load reduction encompassing illicit discharge removal activities throughout 2019. Table 7-9 presents phosphorus load reduction for each reporting area as of December 31, 2020, with the load reduction encompassing illicit discharge removal activities throughout 2020. In these tables the total phosphorus values presented are the difference that can be attributed to illicit discharge removal in those years.

Table 7-10 presents the annual phosphorus loads by reporting area, based on conditions as of December 31, 2020. The numbers in Table 7-10 incorporate all phosphorus reductions due to illicit discharge removals in 2012 through 2020. It is noted that these tables do not incorporate reductions from illicit discharges removed from combined sewer areas downstream of regulators, as those areas are not included in the Commission's storm drain model.

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 2020, the Commission eliminated illicit discharges at 13 locations, thereby eliminating the discharge of an estimated 5,201 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 2020, the Commission removed 1,867 illicit discharges, thereby eliminating the discharge of an estimated total of 862,472 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 2020, the Commission and its contractors removed an estimated 3,240 tons of material from the Commission's catch basins and particle separators that might have otherwise ended up in local rivers and waterways.

7.5 BMPS ON PRIVATE PROPERTY

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

a. Privately Owned Retention/Infiltration Devices

On-site infiltration of stormwater is required for new and redevelopment projects, whenever site conditions permit, as determined by the Commission. Project developers are required to include a feasibility assessment for on-site infiltration of stormwater with the site plan submitted to the Commission for the project. On-site infiltration of stormwater serves to limit peak discharge rates, recharge groundwater, and remove 80 percent of total suspended solids in the flow to the extent feasible. This requirement is consistent with the DEP's Stormwater Management Policy which establishes standards for stormwater management for development.

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 2020, the Commission approved installations of 140 infiltration devices. Table 3-4 provides the addresses of the devices approved in 2020.

b. Privately Owned Particle Separators

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

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

In 2020, the Commission approved installation of three (3) particle separators. The addresses of the devices approved in 2020 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 2020, the Commission sent a total of 19 enforcement letters to 12 properties regarding illicit connections and discharges. Of the 19 letters, four (4) were regarding direct illicit connections, and 15 were for verified leaking sewer laterals.

In 2020, the Commission responded to 21 reports of a potential spill, leak, or report of illicit dumping. Table 3–3 lists the incidences to which the Commission responded in 2020. One (1) violation/enforcement notice was issued for spills, leaks or dumping in 2020.

In 2020, the Commission performed 18 site inspections of construction projects in Boston. One (1) violation notice was issued to the operator of a construction project for a violation pertaining to proper operation or implementation of construction site BMPs or erosion controls.

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 2020 Current Expense Budget totaled \$398.8 million in revenues, which was offset by an equal amount of expenses. The amount represented a 3.3% increase as compared to the 2019 budget.

Of the total budgeted for 2020, \$81.5 million was for direct expenses. The remaining funds were budgeted for the assessment by the Massachusetts Water Resources Authority (\$243.7 million), Debt Service (\$52.5 million), Capital Improvements (\$17.1 million), Contractual Funding Obligations (\$3.7 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 \$35.7 million or 43.0 percent of the Commission's 2020 direct expense budget was for the Engineering and Operations Divisions. Of the Engineering and Operations Division's direct expense budget, about \$21.5 million was

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

The Current Expense Budget for 2021 had not been finalized as of the writing of this report but is expected to be similar to the 2020 budget.

Stormwater related programs and activities funded under the Current Expense Budget 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 2020-2022 CIP included \$108.6 million for sewer, drain and stormwater related projects, of which \$42.7 million was earmarked for 2020. An additional \$9.9 million was included in the 2020-2022 CIP under a separate line item specifically for Green Infrastructure/Low Impact Development projects. Of that amount \$5.1 million was earmarked for 2020.

The Commission's 2021-2023 CIP identifies \$85.8 million for sewer, drain and stormwater related projects, of which \$34.4 million is earmarked for 2021. An additional \$9.2 million was included in the 2021-2023 CIP under a separate line item specifically for Green Infrastructure/Low Impact Development projects. Of that amount \$4.6 million was earmarked for 2021.

The 2020-2022 and 2021-2023 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 2021-2023 CIP include the following:

- Final design and 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
- Development of an inundation model to identify areas that may experience flooding during extreme weather events
- Design GI/Stormwater detention/retention structures for low lying areas
- Design of a stormwater retention facility in the Arnold Arboretum
- 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
- 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
- Implement improvements to the Union Park Pumping Station
- Metering and modeling of the Dorchester Interceptor
- 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 of flows along Massachusetts Avenue in Lower Roxbury/North Dorchester
- Sewer separation in the Dudley Square area
- Stormwater monitoring and stormwater model validation
- Downspout disconnect programs
- Projects relating to sewer separation projects that are not eligible for funding by the MWRA. These include renewal and replacement of existing sewers and drains in the areas being separated, rehabilitation or relay of water mains in the areas and associated paving costs.

10.0 PROGRAM MODIFICATIONS

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

No formal modifications to the Commission's Stormwater Management Program were made in 2020 or are being requested at this time. Modifications made in prior years were described in previous annual Stormwater Management Reports.

APPENDIX A: TABLES

Table 1-1. BWSC Stormwater Outfalls

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

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER		LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
08I209	NON MAJOR	MEADOWBANK AVE EXT	NEPONSET/MATTAPAN	12	NEPONSET RIVER
08J041	NON MAJOR	RIVER STREET	DORCHESTER	18	NEPONSET RIVER
08J102	NON MAJOR	ADAMS STREET	DORCHESTER	15X15	NEPONSET RIVER
08J103	NON MAJOR	EASEMENT/CENTRAL AVE BRIDGE	DORCHESTER	30	NEPONSET RIVER
08J49/50	MAJOR	DESMOND RD	DORCHESTER	2-18&24	NEPONSET RIVER
08K049	NON MAJOR	BEARSE AVENUE	DORCHESTER	12	NEPONSET RIVER
09B049	MAJOR	EASEMENT/RIVERMOOR ST	WEST ROXBURY	30	COW ISLAND POND/CHARLES RIVER
09E229	NON MAJOR	GRANDVIEW STREET	WEST ROXBURY	12	NONE SHOWN
09E243	NON MAJOR	BLUE LEDGE TR/EASEMENT	WEST ROXBURY	30	UNNAMED STREAM
09K016	NON MAJOR	EASEMENT/BEARSE AVE EXT	DORCHESTER	15	NEPONSET RIVER
09K100	MAJOR	EASEMENT/MELLISH RD	DORCHESTER	34X24	NEPONSET RIVER
09K101	NON MAJOR	EASEMENT/HUNTOON ST EXT	DORCHESTER	24	NEPONSET RIVER
09L095	MAJOR	GRANITE AVENUE	DORCHESTER	36X48	NEPONSET RIVER
10B015	MAJOR	EASEMENT/CHARLES RIVER ROAD	WEST ROXBURY	21	COW ISLAND POND/CHARLES RIVER
10L094	MAJOR	EASEMENT/GALLIVAN BLVD	DORCHESTER	74X93	NEPONSET RIVER VIA DAVENPORT BROOK
10L096	MAJOR	HILLTOP & LEXONDALE STS	DORCHESTER	36	NEPONSET RIVER
11B123	MAJOR	EASEMENT/EAST OF BAKER ST EXT.	WEST ROXBURY	72	BROOK FARM BROOK/CHARLES RIVER
11G344 (11G318@MH11G247)	NON MAJOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	24	CANTERBURY BROOK
11G344 (11G319@MH11G246)	NON MAJOR	CULVERT UNDER WALK HILL STREET	ROSLINDALE	18	CANTERBURY BROOK
11I577	MAJOR	HARVARD ST	NEPONSET/MATTAPAN	102X102	CANTERBURY BROOK
11M093	MAJOR	NEPONSET AVE AT NW END OF NEPONSET AVE BRIDGE	DORCHESTER	48	NEPONSET RIVER
12B010	NON MAJOR	BAKER STREET	WEST ROXBURY	15	BROOK FARM BROOK
12B014	NON MAJOR	BAKER STREET	WEST ROXBURY	12	BROOK FARM BROOK
12B033	NON MAJOR	EASEMENT/BAKER STREET	WEST ROXBURY	18	BROOK FARM BROOK
12B124	MAJOR	EASEMENT/LAGRANGE STREET	WEST ROXBURY	120	BROOK FARM BROOK
12F305	NON MAJOR	EASEMENT/ARBOROUGH ROAD	ROSLINDALE	12	UNAMED WETLANDS
12E418	NON MAJOR	EASEMENT/WALTER STREET (renumbered from 12F322)	ROSLINDALE	18	NONE SHOWN
12H001 (12H085@MH12H26)	NON MAJOR	MORTON STREET	ROSLINDALE	15	CANTERBURY BROOK
12H001 (12H087@MH12H27)	NON MAJOR	MORTON STREET	ROSLINDALE	15	CANTERBURY BROOK
12H092	MAJOR	AMERICAN LEGION HIGHWAY	WEST ROXBURY	24	CANTERBURY BROOK
12L092	MAJOR	PINE NECK CREEK/TENEAN ST WEST OF LAWLEY	DORCHESTER	72	NEPONSET RIVER
12M091	MAJOR	ERICSSON/WALNUT ST	NEPONSET/MATTAPAN	36	NEPONSET RIVER
13B011	NON MAJOR	LAGRANGE STREET	WEST ROXBURY	12	UNNAMED STREAM
13D077	MAJOR	WEST ROXBURY PKY/VFW PKY	WEST ROXBURY	60	BUSSEY BROOK
13D078	MAJOR	WEST ROXBURY PKY/VFW PKY	WEST ROXBURY	60	BUSSEY BROOK
13E174	NON MAJOR	EASEMENT/VFW PARKWAY	ROSLINDALE	24	BUSSEY BROOK
13E175	MAJOR	EASEMENT/VFW PKY	ROSLINDALE	108X86	BUSSEY BROOK
13E176	NON MAJOR	EASEMENT/WELD ST	ROSLINDALE	15	NONE SHOWN
13F011	NON MAJOR	ALLANDALE STREET	ROSLINDALE	24	BUSSEY BROOK
13F093 (13F012)	NON MAJOR	WALTER STREET	ROSLINDALE	15	BUSSEY BROOK
13F095	NON MAJOR	EASEMENT/BUSSEY STREET	ROSLINDALE	12	BUSSEY BROOK
13F096	NON MAJOR	SOUTH STREET	ROSLINDALE	12	BUSSEY BROOK
13F097	NON MAJOR	SOUTH STREET	ROSLINDALE	6	BUSSEY BROOK
13L090	MAJOR	VICTORY RD. 200 FT SOUTH	DORCHESTER	144X180	DORCHESTER BAY
14C009	MAJOR	EASEMENT/WESTGATE RD	WEST ROXBURY	36	UNNAMED WETLANDS
15F288	MAJOR	ARNOLD ARBORETUM/MURRAY CIRCLE	JAMAICA PLAIN	54	GOLDSMITH BROOK
15L088	MAJOR	FREEMONT WAY EXTENDED	DORCHESTER	2-78"	DORCHESTER BAY
15L089	MAJOR	FOX POINT RD EXTENDED	DORCHESTER	2-90X82"	DORCHESTER BAY
16L097	NON MAJOR	EASEMENT/OFF SAVIN HILL AVE	DORCHESTER	24	PATTEN'S COVE
16L122	MAJOR	MORRISSEY BLVD DRAIN	DORCHESTER	TWIN 9X8	DORCHESTER BAY
17F012	NON MAJOR	FRANCIS PARKMAN DRIVE	JAMAICA PLAIN	15	JAMAICA POND
17M033	MAJOR	HARBOR POINT PARK (RELOCATED MT VERNON ST DRAIN)	DORCHESTER	72	OLD HARBOR
18G233	NON MAJOR	X-COUNTRY BTN WILLOW POND RD AND JAMAICAWAY	JAMAICA PLAIN	18	MUDDY RIVER-LEVERETT POND
19G043	MAJOR	HUNTINGTON AVE	ROXBURY/MISSION HILL	45X45	MUDDY RIVER
19G194	MAJOR	SOUTH HUNTINGTON AVE	ROXBURY/MISSION HILL	24	MUDDY RIVER
19G199	NON MAJOR	JAMAICA WAY	ROXBURY/MISSION HILL	10	MUDDY RIVER
20G161	MAJOR	EASEMENT/BROOKLINE AVE	ROXBURY/MISSION HILL	36	MUDDY RIVER
20G163	NON MAJOR	EASEMENT/RIVERWAY	ROXBURY/MISSION HILL	20	MUDDY RIVER
20G164	NON MAJOR	BROOKLINE AVENUE	ROXBURY/MISSION HILL		MUDDY RIVER
21C212	NON MAJOR	EASEMENT/LAKE SHORE ROAD	ALLSTON/BRIGHTON	30	CHANDLER POND
21H039 (21H045)	NON MAJOR	FENWAY	BOSTON PROPER	30X30	MUDDY RIVER
21H047	NON MAJOR	PALACE ROAD EXT	BOSTON PROPER	24	MUDDY RIVER
21H001	MAJOR	BROOKLINE AVENUE	FENWAY/KENMORE	45	MUDDY RIVER
21H002	MAJOR	BROOKLINE AVENUE	FENWAY/KENMORE	51X51	MUDDY RIVER
21H048	NON MAJOR	EASEMENT/FENWAY/EVANS WAY	BOSTON PROPER	15	MUDDY RIVER
21K069	MAJOR	125' NORTH OF W.FOURTH STREET (RELOCATED BY CA/T)	BOSTON PROPER	48	FORT POINT CHANNEL
21M010	MAJOR	D STREET EXTENDED	SOUTH BOSTON	30	RESERVED CHANNEL
21M050	MAJOR	SUMMER STREET	SOUTH BOSTON	72	RESERVED CHANNEL
22C384	MAJOR	EASEMENT/LAKE SHORE RD	ALLSTON/BRIGHTON	36	CHANDLER POND
22L580	MAJOR	NECCO STREET EXTENDED	SOUTH BOSTON	54	FORT POINT CHANNEL

Table 1-1. BWSC Stormwater Outfalls

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

Table 1-2. BWSC Interconnections

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

Table 1-3. Combined Sewer Overflow Outfalls

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

TABLE 2 - 5. 2021 REVISED PRIORITY RANKING

FACILITY ID ^A	CRITERIA:	Beach	2020 Data				2020 Data				Most Recent Insp Date ^B	Most Recent Insp SCORE	TOTAL SCORE	RANKING	
			Discharge Location	Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)					Wet Weather SCORE
WEIGHT (w/ WW):	WEIGHT (w/o WW):	SCORE	10%	80%	0%	10%	10%	10%	10%	10%	10%	10%	10%		
28PSDO1	SDO	Yes	10	Flow	Enterococci	14000	6	Not Required	12/7/2020	0	5.80	1.00			
13LSDO090	SDO	Yes	10	Flow	Enterococci	5100	4	Not Required	1/5/2021	0	4.20	1.00			
12LMH304	Interconnection	Yes	10	Flow	Enterococci	210	2	Not Required	8/12/2014	0	2.60	1.00			
12LSDO092	SDO	Yes	10	Flow	Enterococci	160	2	Not Required	12/4/2014	0	2.60	1.00			
29OSDO001	SDO	Yes	10	Flow	Enterococci	130	2	Not Required	7/25/2016	0	2.60	1.00			
12LMH374	Interconnection	Yes	10	Dry			0	Flow	E.coli	9000	4	3/16/2015	0	1.80	1.00
28NSDO156	SDO	Yes	10	Dry			0	Flow	Enterococci	2900	4	10/17/2012	0	1.80	1.00
29PSDO44	SDO	Yes	10	Flow	Enterococci	70	0	Not Required	6/20/2014	0	1.00	1.00			
28NSDO207	SDO	Yes	10	Flow	Enterococci	40	0	Not Required	11/7/2016	0	1.00	1.00			
15LSDO088	SDO	Yes	10	Flow	Enterococci	10	0	Not Required	10/19/2015	0	1.00	1.00			
15LSDO089	SDO	Yes	10	Flow	Enterococci	10	0	Not Required	10/6/2015	0	1.00	1.00			
28OSDO25	SDO	Yes	10	Flow	Enterococci	10	0	Not Required	7/22/2014	0	1.00	1.00			
21DMH319	Interconnection	No	10	Flow	E.coli	41000	8	Not Required	1/6/2021	0	7.40	2.00			
20DNP140	Interconnection	No	10	Flow	E.coli	16000	5	Not Required	1/15/2020	0	5.00	2.00			
6DMH97	Interconnection	No	10	Flow	E.coli	2700	3	Flow	E.coli	33000	7	7/19/2016	0	4.20	2.00
20DMH19	Interconnection	No	10	Flow	E.coli	2400	3	Flow	E.coli	7500	4	12/8/2020	0	3.60	2.00
23BMH89	Interconnection	No	10	Flow	E.coli	1200	3	Not Required	9/24/2018	0	3.40	2.00			
23MH81	Interconnection	No	10	Standing Water			1	Standing Water		1	Pre-Consent Decree	10	2.80	2.00	
3FMH56	Interconnection	No	10	Flow	E.coli	350	2	Not Required	11/9/2015	0	2.60	2.00			
20DMH62	Interconnection	No	10	Dry			0	Flow	E.coli	19000	5	9/16/2019	0	2.00	2.00
2FMH120	Interconnection	No	10	Dry			0	Flow	E.coli	910	2	9/30/2005	5	1.90	2.00
28IMH15	Interconnection	No	10	Standing Water			1	Standing Water		1	7/17/2018	0	1.80	2.00	
6CMH117	Interconnection	No	10	Dry			0	Flow	E.coli	1900	3	5/30/2018	0	1.60	2.00
14EMH36	Interconnection	No	10	Dry			0	Flow	E.coli	460	2	3/7/2016	0	1.40	2.00
21EMH64	Interconnection	No	10	Flow	E.coli	30	0	Not Required	9/17/2019	0	1.00	2.00			
4FMH90	Interconnection	No	10	Flow	E.coli	10	0	Flow	E.coli	120	0	10/29/2015	0	1.00	2.00
21EMH86	Interconnection	No	10	Flow	E.coli	10	0	Not Required	3/4/2014	0	1.00	2.00			
11BMH49	Interconnection	No	10	Dry			0	Dry			2/28/2017	0	1.00	2.00	
11SDO577	SDO	No	0	Flow	E.coli	80000	10	Not Required	6/9/2020	0	8.00	3.00			
15FSDO288	SDO	No	0	Flow	E.coli	53000	9	Not Required	12/28/2020	0	7.20	3.00			
29JSDO212	SDO	No	0	Flow	Enterococci	48000	9	Not Required	1/6/2021	0	7.20	3.00			
19GSDO043	SDO	No	0	Flow	E.coli	47000	8	Not Required	12/28/2020	0	6.40	3.00			
23GSDO132	SDO	No	0	Flow	E.coli	43000	8	Not Required	4/30/2013	0	6.40	3.00			
25MCSO005	CSO	No	0	Flow	Enterococci	28000	7	Not Required	12/10/2018	0	5.60	3.00			
7HSDO285	SDO	No	0	Flow	E.coli	29000	6	Not Required	2/11/2020	0	4.80	3.00			
10LSDO096	SDO	No	0	Flow	Enterococci	15000	6	Not Required	8/8/2017	0	4.80	3.00			
9KSDO101	SDO	No	0	Flow	Enterococci	10000	6	Not Required	12/12/2019	0	4.80	3.00			
21HCSO046-1 (15GMH290)	CSO	No	0	Flow	E.coli	16000	5	Not Required	6/1/2020	0	4.00	3.00			
18GSDO233	SDO	No	0	Flow	E.coli	11000	5	Not Required	12/8/2020	0	4.00	3.00			
6GSDO110	SDO	No	0	Flow	E.coli	25000	6	Flow	E.coli	180	0	7/15/2015	0	3.60	3.00
5GSDO116	SDO	No	0	Flow	E.coli	6300	4	Flow	E.coli	1200	3	3/23/2009	5	3.50	3.00
21HSDO047	SDO	No	0	Flow	E.coli	7700	4	Not Required	10/25/2018	0	3.20	3.00			
6DSDO187	SDO	No	0	Flow	E.coli	7700	4	Not Required	8/10/2017	0	3.20	3.00			
6GSDO109	SDO	No	0	Flow	E.coli	6800	4	Not Required	6/9/2020	0	3.20	3.00			
8JSDO103	SDO	No	0	Flow	E.coli	6000	4	Not Required	2/7/2017	0	3.20	3.00			
6GSDO165	SDO	No	0	Flow	E.coli	5800	4	Not Required	4/11/2014	0	3.20	3.00			
7HSDO105	SDO	No	0	Flow	E.coli	5100	4	Not Required	6/1/2020	0	3.20	3.00			
21HCSO046-1 (19HMH222)	CSO	No	0	Flow	E.coli	5000	4	Not Required	2/26/2018	0	3.20	3.00			
21HCSO046-1 (23IMH1)	CSO	No	0	Flow	E.coli	5000	4	Not Required	7/30/2019	0	3.20	3.00			
22LCSO073	CSO	No	0	Flow	Enterococci	4300	4	Not Required	8/22/2019	0	3.20	3.00			
28LSDO074/28LSDO075/28LSDO076	SDO	No	0	Flow	Enterococci	4000	4	Not Required	11/7/2018	0	3.20	3.00			
28KSDO61	SDO	No	0	Flow	Enterococci	2600	4	Not Required	1/11/2016	0	3.20	3.00			
11MSDO093	SDO	No	0	Flow	Enterococci	2300	4	Not Required	6/10/2019	0	3.20	3.00			
28KSDO010	SDO	No	0	Flow	Enterococci	2200	4	Not Required	3/13/2019	0	3.20	3.00			
21KCSO070	CSO	No	0	Flow	Enterococci	1800	4	Flow	Enterococci	600	3	12/7/2020	0	3.00	3.00
4ESDO69	SDO	No	0	Flow	E.coli	1800	3	Not Required	1/9/2012	5	2.90	3.00			
28LCSO012	CSO	No	0	Flow	Enterococci	110	2	Not Required		NA	10	2.60	3.00		
7CSDO006	SDO	No	0	Standing Water			1	Flow	E.coli	>80000	10	3/7/2019	0	2.60	3.00
13SDO077	SDO	No	0	Flow	E.coli	3600	3	Not Required	3/19/2019	0	2.40	3.00			
24GSDO035	SDO	No	0	Flow	E.coli	3400	3	Not Required	3/13/2020	0	2.40	3.00			
24CSDO39	SDO	No	0	Flow	E.coli	2600	3	Flow	E.coli	1900	3	3/1/2018	0	2.40	3.00
19MCSO082	CSO	No	0	Flow	Enterococci	690	3	Not Required	8/13/2019	0	2.40	3.00			
24CSDO174	SDO	No	0	Flow	E.coli	410	2	Flow	E.coli	3100	3	4/14/2009	5	2.30	3.00
13FSDO11	SDO	No	0	Flow	E.coli	2700	3	Flow	E.coli	340	2	12/24/2018	0	2.20	3.00
21HSDO001	SDO	No	0	Flow	E.coli	2200	3	Flow	E.coli	360	2	1/13/2020	0	2.20	3.00
30PSDO62	SDO	No	0	Flow	Enterococci	330	2	Not Required	9/20/2012	5	2.10	3.00			
26LSDO106	SDO	No	0	Dry			0	Flow	Enterococci	80000	10	5/1/2018	0	2.00	3.00
6FSDO233	SDO	No	0	Submerged			1	Flow	E.coli	370	2	Pre-Consent Decree	10	2.00	3.00
13ESDO175	SDO	No	0	Flow	E.coli	300	2	Flow	E.coli	2600	3	1/14/2015	0	1.80	4.00
5ESDO181	SDO	No	0	Dry			0	Flow	E.coli	5300	4	Pre-Consent Decree	10	1.80	4.00
27JSDO044	SDO	No	0	Standing Water			1	Submerged		1	NA	10	1.80	4.00	
128SDO10	SDO	No	0	Submerged			1	Submerged		1	Pre-Consent Decree	10	1.80	4.00	
6DSDO86	SDO	No	0	Submerged			1	Standing Water		1	NA	10	1.80	4.00	
12HSDO1 (12HMH26)	SDO	No	0	Standing Water			1	Standing Water		1	NA	10	1.80	4.00	
12HSDO1 (12HMH27)	SDO	No	0	Standing Water			1	Standing Water		1	Pre-Consent Decree	10	1.80	4.00	
27JSDO096	SDO	No	0	Standing Water			1	Standing Water		1	NA	10	1.80	4.00	
23LSDO15	SDO	No	0	Submerged			1	Not Required		1	NA	10	1.80	4.00	
28LSDO077	SDO	No	0	CNL			1	Pending		1	NA	10	1.80	4.00	
6DSDO184	SDO	No	0	Standing Water			1	Cannot Locate		1	Pre-Consent Decree	10	1.80	4.00	
20GSDO161	SDO	No	0	Flow	E.coli	430	2	Not Required	8/12/2019	0	1.60	4.00			
21HSDO045	SDO	No	0	Flow	E.coli	400	2	Not Required	10/25/2018	0	1.60	4.00			
23LSDO202	SDO	No	0	Flow	Enterococci	380	2	Not Required	12/10/2018	0	1.60	4.00			
21MCSO078	CSO	No	0	Flow	Enterococci	330	2	Not Required	11/25/2019	0	1.60	4.00			
8ESDO31	SDO	No	0	Flow	E.coli	310	2	Not Required	11/18/2015	0	1.60	4.00			
8ISDO154	SDO	No	0	Flow	E.coli	260	2	Not Required	6/3/2019	0	1.60	4.00			
19GSDO194	SDO	No	0	Flow	E.coli	250	2	Not Required	1/16/2020	0	1.60	4.00			
21MSDO050	SDO	No	0	Flow	Enterococci	250	2	Not Required	5/14/2015	0	1.60	4.00			
10LSDO094	SDO	No	0	Flow	Enterococci	180	2	Not Required	6/1/2020	0	1.60	4.00			
21LCSO076	CSO	No	0	Flow	Enterococci	140	2	Not Required	1/7/2020	0	1.60	4.00			

FACILITY ID ^A	WEIGHT (w/ WW):		10%		60%		20%		10%		TOTAL SCORE	RANKING			
	CRITERIA:	Beach	Discharge Location SCORE	Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)			Wet Weather SCORE	Most Recent Pipe/Bldg Insp Date ^B	Most Recent Insp SCORE
23LSD0075	SDO	No	0	Flow	Enterococci	110	2	Not Required			8/21/2018	0	1.60	4.00	
13FSD096	SDO	No	0	Dry			0	Flow	E.coli	3500	3	NA	10	1.60	4.00
13FSD095	SDO	No	0	StandingWater			1	Flow	E.coli	100	0	NA	10	1.60	4.00
12HSD092	SDO	No	0	Submerged			1	Flow	E.coli	30	0	NA	10	1.60	4.00
13BSD011	SDO	No	0	StandingWater			1	Flow	E.coli	10	0	Pre-Consent Decree	10	1.60	4.00
23LCSO062	CSO	No	0	StandingWater			1	Flow	Enterococci	10	0	NA	10	1.60	4.00
8JSD0102	SDO	No	0	Dry			0	Flow	Enterococci	9000	5	11/16/2009	5	1.50	4.00
12BSD0124	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	34000	7	1/20/2020	0	1.40	4.00
9ESDO229	SDO	No	0	Dry			0	Flow	E.coli	33000	7	4/10/2014	0	1.40	4.00
11BSD0123	SDO	No	0	StandingWater			1	Flow	E.coli	6000	4	6/3/2019	0	1.40	4.00
13FSD097	SDO	No	0	Dry			0	Flow	E.coli	770	2	NA	10	1.40	4.00
9BSD049	SDO	No	0	Dry			0	Flow	E.coli	720	2	NA	10	1.40	4.00
26KSD0050	SDO	No	0	Dry			0	Flow	Enterococci	180	2	NA	10	1.40	4.00
29JSD0029	SDO	No	0	Dry			0	Flow	Enterococci	160	2	NA	10	1.40	4.00
8KSD049	SDO	No	0	Dry			0	Flow	E.coli	9000	4	11/16/2009	5	1.30	4.00
7HSD0347	SDO	No	0	Dry			0	Flow	E.coli	5600	4	3/25/2009	5	1.30	4.00
1FSD031	SDO	No	0	Dry			0	Flow	E.coli	5100	4	12/17/2011	5	1.30	4.00
5FSD0244	SDO	No	0	StandingWater			1	Submerged			1	5/19/2009	5	1.30	4.00
5FSD0245	SDO	No	0	StandingWater			1	Flow	E.coli	3500	3	5/8/2018	0	1.20	4.00
13SDO0078	SDO	No	0	StandingWater			1	Flow	E.coli	2500	3	3/19/2019	0	1.20	4.00
10BSD015	SDO	No	0	StandingWater			1	Flow	E.coli	2500	3	2/12/2020	0	1.20	4.00
25ESD0037	SDO	No	0	StandingWater			1	Flow	E.coli	2300	3	1/9/2020	0	1.20	4.00
20GSD0164	SDO	No	0	Dry			0	Cannot Locate			1	NA	10	1.20	4.00
4FSD0119	SDO	No	0	Flow	E.coli	230	0	Flow	E.coli	2400	3	9/18/2007	5	1.10	4.00
24GSD0034	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	1300	3	5/18/2009	5	1.10	4.00
9KSD016	SDO	No	0	Dry			0	Flow	E.coli	4000	3	4/5/2012	5	1.10	4.00
26FSD0038	SDO	No	0	StandingWater			1	Flow	E.coli	30	0	1/11/2007	5	1.10	4.00
12BSD033	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	10	0	NA	10	1.00	4.00
5ESD0180	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	20	0	NA	10	1.00	4.00
24LSD022	SDO	No	0	Flow	Enterococci	10	0	Not Required			NA	10	1.00	4.00	
12ESD0418	SDO	No	0	StandingWater			1	Flow	E.coli	910	2	7/17/2019	0	1.00	4.00
8BSD0122	SDO	No	0	StandingWater			1	Flow	E.coli	570	2	9/18/2019	0	1.00	4.00
21HSD0002	SDO	No	0	StandingWater			1	Flow	E.coli	450	2	1/13/2020	0	1.00	4.00
22KCSO068	CSO	No	0	StandingWater			1	Flow	Enterococci	280	2	11/13/2019	0	1.00	4.00
20GSD0163	SDO	No	0	Dry			0	Flow	E.coli	120	0	Pre-Consent Decree	10	1.00	4.00
5FSD0254	SDO	No	0	Dry			0	Flow	E.coli	20	0	Pre-Consent Decree	10	1.00	4.00
4FSD0203	SDO	No	0	Dry			0	Flow	E.coli	10	0	NA	10	1.00	4.00
21HSD0048	SDO	No	0	Dry			0	Pending			NA	10	1.00	4.00	
29PSD0005	SDO	No	0	Dry			0	Pending			NA	10	1.00	4.00	
6DSD083	SDO	No	0	Dry			0	Dry			NA	10	1.00	4.00	
6DSD084	SDO	No	0	Dry			0	Dry			Pre-Consent Decree	10	1.00	4.00	
3ESD0207	SDO	No	0	Dry			0	Dry			NA	10	1.00	4.00	
4FSD01	SDO	No	0	Dry			0	Dry			NA	10	1.00	4.00	
8ISD0155	SDO	No	0	Dry			0	Flow	E.coli	700	2	6/2/2009	5	0.90	5.00
8ISD0158	SDO	No	0	Dry			0	Flow	E.coli	450	2	6/2/2009	5	0.90	5.00
6HSD0106	SDO	No	0	Dry			0	Flow	E.coli	440	2	9/6/2011	5	0.90	5.00
1ESD024	SDO	No	0	Dry			0	Flow	E.coli	390	2	1/18/2012	5	0.90	5.00
9KSD0100	SDO	No	0	Flow	Enterococci	70	0	Flow	Enterococci	4000	4	1/12/2016	0	0.80	5.00
2FSD093	SDO	No	0	StandingWater			1	Submerged			1	11/3/2015	0	0.80	5.00
6DSD091	SDO	No	0	Submerged			1	Submerged			1	12/18/2018	0	0.80	5.00
27JSD0001	SDO	No	0	StandingWater			1	Standing Water			1	8/23/2018	0	0.80	5.00
19GSD0199	SDO	No	0	StandingWater			1	Standing Water			1	8/22/2013	0	0.80	5.00
23HSD0042	SDO	No	0	StandingWater			1	Standing Water			1	1/13/2020	0	0.80	5.00
29JCSO017	CSO	No	0	StandingWater			1	Not Required			7/19/2018	0	0.80	5.00	
24DSD0032	SDO	No	0	StandingWater			1	Not Required			11/26/2019	0	0.80	5.00	
26JSD0101	SDO	No	0	StandingWater			1	Pending			7/22/2019	0	0.80	5.00	
26LSD070	SDO	No	0	StandingWater			1	Pending			6/26/2018	0	0.80	5.00	
24NCSO003	CSO	No	0	StandingWater			1	Pending			5/14/2019	0	0.80	5.00	
5CSD0110	SDO	No	0	Flow	E.coli	210	0	Flow	E.coli	1600	3	5/30/2018	0	0.60	5.00
5ESD0182	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	1200	3	11/18/2015	0	0.60	5.00
4FSD016	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	3300	3	7/29/2014	0	0.60	5.00
5ESD0183	SDO	No	0	Dry			0	Flow	E.coli	4500	3	6/15/2015	0	0.60	5.00
14CSD09	SDO	No	0	Dry			0	Flow	E.coli	2900	3	5/13/2014	0	0.60	5.00
8ISD0207	SDO	No	0	Dry			0	Flow	E.coli	2800	3	3/2/2017	0	0.60	5.00
8JSD041	SDO	No	0	Dry			0	Flow	E.coli	2600	3	9/15/2015	0	0.60	5.00
8ISD0209	SDO	No	0	Dry			0	Flow	E.coli	2100	3	2/22/2017	0	0.60	5.00
30PSD0107	SDO	No	0	Flow	Enterococci	60	0	Flow	Enterococci	70	0	5/18/2009	5	0.50	5.00
23LSD0195	SDO	No	0	Flow	Enterococci	30	0	Not Required			5/20/2006	5	0.50	5.00	
25GSD0041	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	100	0	5/18/2009	5	0.50	5.00
2FSD0120	SDO	No	0	Flow	E.coli	10	0	Not Required			10/22/2007	5	0.50	5.00	
21CSD0212	SDO	No	0	Flow	E.coli	10	0	Not Required			3/19/2012	5	0.50	5.00	
28KSD0386	SDO	No	0	Flow	Enterococci	10	0	Not Required			4/21/2011	5	0.50	5.00	
29NSD0135	SDO	No	0	Flow	Enterococci	10	0	Not Required			8/1/2007	5	0.50	5.00	
31PSD084	SDO	No	0	Flow	Enterococci	10	0	Not Required			5/18/2009	5	0.50	5.00	
4FSD0118	SDO	No	0	Flow	E.coli	10	0	Not Required			8/11/2011	5	0.50	5.00	
2FSD085	SDO	No	0	Dry			0	Flow	E.coli	230	0	6/11/2012	5	0.50	5.00
4FSD0189	SDO	No	0	Dry			0	Flow	E.coli	160	0	6/6/2012	5	0.50	5.00
24DSD0150	SDO	No	0	Dry			0	Flow	E.coli	30	0	1/9/2006	5	0.50	5.00
2ESD05	SDO	No	0	Dry			0	Flow	E.coli	20	0	1/9/2012	5	0.50	5.00
7HSD0346	SDO	No	0	Dry			0	Not Required			3/24/2009	5	0.50	5.00	
8ISD0153	SDO	No	0	Dry			0	Dry			6/2/2009	5	0.50	5.00	
4ESD064	SDO	No	0	Dry			0	Dry			4/28/2009	5	0.50	5.00	
21NCSO80	CSO	No	0	Flow	Enterococci	10	0	Flow	Enterococci	280	2	4/16/2019	0	0.40	5.00
23HSD0040	SDO	No	0	Dry			0	Flow	E.coli	730	2	1/13/2020	0	0.40	5.00
12FSD0305	SDO	No	0	Dry			0	Flow	E.coli	580	2	10/27/2015	0	0.40	5.00
8ESD033	SDO	No	0	Dry			0	Flow	E.coli	530	2	11/18/2015	0	0.40	5.00
7HSD0348	SDO	No	0	Dry			0	Flow	E.coli	470	2	5/20/2019	0	0.40	5.00
5GSD0115	SDO	No	0	Dry			0	Flow	E.coli	390	2	11/16/2015	0	0.40	5.00
6HSD0107	SDO	No	0	Dry			0	Flow	E.coli	350	2	5/9/2017	0	0.40	5.00
5GSD0112	SDO	No	0	Dry			0	Flow	E.coli	240	2	11/16/2015	0	0.40	5.00
23LCSO064	CSO	No	0	Dry			0	Flow	Enterococci	180	2	1/17/2019	0	0.40	5.00
12BSD014	SDO	No	0	Dry			0	Submerged			12/11/2018	0	0.20	5.00	
11GSD0344 (11GMH247)	SDO	No	0	Dry			0	Standing Water			10/2/2018	0	0.20	5.00	

FACILITY ID ^A	WEIGHT (w/ WW):		10%		60%		20%		10%		TOTAL SCORE	RANKING			
	WEIGHT (w/o WW):	CRITERIA:	Discharge Location SCORE	Dry Weather Flow Cond at "sampling location"	Dry Weather Bacteria (type)	Dry Weather Bacteria (result)	Dry Weather SCORE	Wet Weather Flow Cond at "sampling location"	Wet Weather Bacteria (type)	Wet Weather Bacteria (result)			Wet Weather SCORE	Most Recent Insp Date ^B	Most Recent Insp SCORE
3ESDO186	SDO	No	0	Dry			0	Standing Water			1	8/21/2017	0	0.20	5.00
6GSDO111	SDO	No	0	Flow	E.coli	230	0	Not Required				9/24/2013	0	0.00	5.00
4FSDO204	SDO	No	0	Flow	E.coli	110	0	Not Required				8/23/2018	0	0.00	5.00
13FSDO12	SDO	No	0	Flow	E.coli	110	0	Pending				2/21/2017	0	0.00	5.00
26LSDO084	SDO	No	0	Flow	Enterococci	100	0	Not Required				12/10/2018	0	0.00	5.00
17FSDO12	SDO	No	0	Flow	E.coli	90	0	Not Required				1/25/2018	0	0.00	5.00
25LSDO058	SDO	No	0	Flow	Enterococci	90	0	Not Required				8/27/2018	0	0.00	5.00
24LSDO233	SDO	No	0	Flow	Enterococci	70	0	Not Required				7/22/2019	0	0.00	5.00
9LSDO095	SDO	No	0	Flow	Enterococci	70	0	Not Required				5/23/2018	0	0.00	5.00
12MSDO091	SDO	No	0	Flow	Enterococci	60	0	Not Required				5/9/2018	0	0.00	5.00
25SDO040	SDO	No	0	Flow	E.coli	60	0	Not Required				9/4/2018	0	0.00	5.00
30JSDO30	SDO	No	0	Flow	Enterococci	60	0	Not Required				3/12/2015	0	0.00	5.00
6GSDO166	SDO	No	0	Flow	E.coli	50	0	Flow	E.coli	220	0	3/25/2019	0	0.00	5.00
8CSDO25	SDO	No	0	Flow	E.coli	50	0	Flow	E.coli	30	0	7/12/2018	0	0.00	5.00
22KCSO065	CSO	No	0	Flow	Enterococci	50	0	Pending				1/10/2019	0	0.00	5.00
8CSDO26	SDO	No	0	Flow	E.coli	40	0	Flow	E.coli	10	0	7/12/2018	0	0.00	5.00
23LSDO164	SDO	No	0	Flow	Enterococci	40	0	Not Required				3/16/2016	0	0.00	5.00
29JSDO129	SDO	No	0	Flow	Enterococci	40	0	Not Required				5/14/2018	0	0.00	5.00
23LSDO196	SDO	No	0	Flow	Enterococci	30	0	Not Required				6/21/2018	0	0.00	5.00
31OSDO4	SDO	No	0	Flow	Enterococci	30	0	Not Required				5/2/2013	0	0.00	5.00
21KSDO069	SDO	No	0	Flow	Enterococci	20	0	Not Required				3/27/2017	0	0.00	5.00
22LSDO580	SDO	No	0	Flow	Enterococci	20	0	Not Required				1/11/2016	0	0.00	5.00
29MCSO013	CSO	No	0	Flow	Enterococci	20	0	Not Required				1/23/2020	0	0.00	5.00
29MSDO049	SDO	No	0	Flow	Enterococci	20	0	Not Required				7/10/2017	0	0.00	5.00
5FSDO117	SDO	No	0	Flow	E.coli	20	0	Not Required				12/10/2013	0	0.00	5.00
5FSDO253	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	170	0	7/16/2015	0	0.00	5.00
22CSDO384	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	100	0	11/12/2015	0	0.00	5.00
3ESDO185	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	70	0	2/22/2018	0	0.00	5.00
5ESDO184	SDO	No	0	Flow	E.coli	10	0	Flow	E.coli	20	0	2/1/2018	0	0.00	5.00
27LSDO020/27LSDO022	SDO	No	0	Flow	Enterococci	10	0	Not Required				12/7/2020	0	0.00	5.00
26GSDO001	SDO	No	0	Flow	E.coli	10	0	Not Required				10/31/2018	0	0.00	5.00
25NCSO004	CSO	No	0	Flow	Enterococci	10	0	Not Required				7/15/2019	0	0.00	5.00
8ESDO35	SDO	No	0	Flow	E.coli	10	0	Not Required				2/21/2017	0	0.00	5.00
28LCSO019	CSO	No	0	Flow	Enterococci	10	0	Not Required				1/14/2019	0	0.00	5.00
26JSDO049	SDO	No	0	Flow	Enterococci	10	0	Not Required				7/29/2019	0	0.00	5.00
29NCSO014	CSO	No	0	Flow	Enterococci	10	0	Not Required				6/5/2018	0	0.00	5.00
19LCSO085	CSO	No	0	Flow	Enterococci	10	0	Not Required				3/21/2017	0	0.00	5.00
26KSDO35	SDO	No	0	Flow	Enterococci	10	0	Not Required				8/2/2019	0	0.00	5.00
18LCSO086	CSO	No	0	Flow	Enterococci	10	0	Not Required				1/9/2019	0	0.00	5.00
16LSDO097	SDO	No	0	Flow	Enterococci	10	0	Not Required				2/3/2020	0	0.00	5.00
16LSDO122	SDO	No	0	Flow	Enterococci	10	0	Not Required				3/2/2020	0	0.00	5.00
17MSDO33	SDO	No	0	Flow	Enterococci	10	0	Not Required				12/18/2019	0	0.00	5.00
19LCSO084	CSO	No	0	Flow	Enterococci	10	0	Not Required				6/21/2018	0	0.00	5.00
21MCSO079	CSO	No	0	Flow	Enterococci	10	0	Not Required				6/7/2019	0	0.00	5.00
21MSDO010	SDO	No	0	Flow	Enterococci	10	0	Not Required				1/31/2019	0	0.00	5.00
24LCSO060	CSO	No	0	Flow	Enterococci	10	0	Not Required				7/25/2019	0	0.00	5.00
25LSDO144	SDO	No	0	Flow	Enterococci	10	0	Not Required				4/19/2018	0	0.00	5.00
25MSDO006	SDO	No	0	Flow	Enterococci	10	0	Not Required				6/12/2019	0	0.00	5.00
26KSDO099	SDO	No	0	Flow	Enterococci	10	0	Not Required				9/29/2015	0	0.00	5.00
26LCSO009	CSO	No	0	Flow	Enterococci	10	0	Not Required				6/3/2019	0	0.00	5.00
27LCSO010	CSO	No	0	Flow	Enterococci	10	0	Not Required				12/11/2018	0	0.00	5.00
29MSDO015	SDO	No	0	Flow	Enterococci	10	0	Not Required				8/5/2019	0	0.00	5.00
30JSDO6	SDO	No	0	Flow	Enterococci	10	0	Not Required				12/17/2019	0	0.00	5.00
5GSDO116A	SDO	No	0	Flow	E.coli	10	0	Not Required				12/24/2018	0	0.00	5.00
6DSDO57	SDO	No	0	Flow	E.coli	10	0	Not Required				4/16/2019	0	0.00	5.00
6GSDO108	SDO	No	0	Flow	E.coli	10	0	Not Required				12/8/2020	0	0.00	5.00
9ESDO243	SDO	No	0	Flow	E.coli	10	0	Not Required				3/16/2020	0	0.00	5.00
25LCSO057	CSO	No	0	Flow	Enterococci	10	0	Pending				7/29/2019	0	0.00	5.00
8BSDO126	SDO	No	0	Dry			0	Flow	E.coli	230	0	1/14/2014	0	0.00	5.00
13ESDO176	SDO	No	0	Dry			0	Flow	E.coli	180	0	11/2/2015	0	0.00	5.00
8FSDO1	SDO	No	0	Dry			0	Flow	E.coli	70	0	3/14/2019	0	0.00	5.00
19NCSO081	CSO	No	0	Dry			0	Not Required				1/16/2019	0	0.00	5.00
13ESDO174	SDO	No	0	Dry			0	Not Required				8/23/2018	0	0.00	5.00
30JSDO19	SDO	No	0	Dry			0	Not Required				5/13/2015	0	0.00	5.00
8ISDO156	SDO	No	0	Dry			0	Not Required				9/15/2015	0	0.00	5.00
8JSDO50	SDO	No	0	Dry			0	Not Required				5/29/2019	0	0.00	5.00
26KSDO254	SDO	No	0	Dry			0	Pending				5/7/2018	0	0.00	5.00
26KSDO052	SDO	No	0	Dry			0	Pending				5/30/2017	0	0.00	5.00
22KCSO072	CSO	No	0	Dry			0	Pending				5/6/2019	0	0.00	5.00
23LSDO074	SDO	No	0	Dry			0	Pending				11/14/2018	0	0.00	5.00
28LSDO073	SDO	No	0	Dry			0	Pending				8/23/2018	0	0.00	5.00
11GSDO344 (11GMH246)	SDO	No	0	Dry			0	Dry				10/2/2018	0	0.00	5.00
25MSDO007	SDO	No	0	Dry			0	Dry				1/11/2016	0	0.00	5.00
6DSDO85	SDO	No	0	Dry			0	Dry				11/18/2015	0	0.00	5.00
26JSDO052	SDO	No	0	Dry			0	Dry				1/17/2019	0	0.00	5.00

NOTES:

^AOutfalls in Bold were prioritized by EPA in 2014

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

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
01E024	SDO	12	12	100%
01F031	SDO	30	30	100%
02E086 (aka 02E005)	SDO	9	9	100%
02F085	SDO	4	4	100%
02F093	SDO	6	6	100%
02F120	SDO	39	39	100%
03E185	SDO	61	61	100%
03E186	SDO	13	13	100%
04E064	SDO	3	3	100%
04E069	SDO	41	41	100%
04F016	SDO	17	17	100%
04F118	SDO	9	9	100%
04F119	SDO	15	15	100%
04F189	SDO	31	31	100%
04F204	SDO	74	74	100%
05E182	SDO	13	13	100%
05E183*	SDO	0	0	100%
05E184 (aka 05E120)	SDO	79	79	100%
05F117	SDO	52	52	100%
05F244	SDO	25	25	100%
05F245	SDO	28	28	100%
05F253	SDO	43	43	100%
05G112	SDO	27	27	100%
05G115	SDO	17	17	100%
05G116	SDO	25	25	100%
05G116A	SDO	61	61	100%
06C110 (aka 05C110)	SDO	55	55	100%
06D057	SDO	12	12	100%
06D085	SDO	2	2	100%
06D091*	SDO	0	0	100%
06D187	SDO	81	81	100%
06F233*	SDO	0	0	100%
06G108	SDO	189	189	100%
06G109	SDO	31	31	100%
06G110	SDO	46	46	100%
06G111	SDO	17	17	100%
06G165	SDO	6	6	100%
06G166	SDO	15	15	100%

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
06H106	SDO	15	15	100%
06H107	SDO	17	17	100%
07C006	SDO	495	495	100%
07H105	SDO	486	486	100%
07H285	SDO	344	344	100%
07H346	SDO	5	5	100%
07H347	SDO	5	5	100%
07H348	SDO	10	10	100%
08B122	SDO	61	61	100%
08B126	SDO	22	22	100%
08C025/026	SDO	22	22	100%
08E031	SDO	65	65	100%
08E035	SDO	3	3	100%
08I153	SDO	4	4	100%
08I154	SDO	38	38	100%
08I155	SDO	3	3	100%
08I156	SDO	42	42	100%
08I158	SDO	16	16	100%
08I207	SDO	10	10	100%
08I209	SDO	6	6	100%
08J036/041	SDO	13	13	100%
08J050/049	SDO	77	77	100%
08J102	SDO	26	26	100%
08J103	SDO	32	32	100%
08K049	SDO	3	3	100%
09E229	SDO	2	2	100%
09K016	SDO	16	16	100%
09K100	SDO	26	26	100%
09K101	SDO	34	34	100%
09L095	SDO	29	29	100%
10B015	SDO	52	52	100%
10L094	SDO	849	849	100%
10L096	SDO	22	22	100%
11B123	SDO	132	132	100%
11BMH49 (DCR 11BSDO28)	Interconnection (DCR)	12	12	100%
11G344	SDO	64	64	100%
11I577	SDO	1354	1354	100%
11M093	SDO	76	76	100%

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
12B010*	SDO	0	0	100%
12B014	SDO	4	4	100%
12B124	SDO	497	497	100%
12F305	SDO	13	13	100%
12F418 (aka 12E418)	SDO	20	20	100%
12H085	SDO	17	17	100%
12L092 (B)	SDO	163	163	100%
12LMH304 (DCR 13LSDO137) (B)	Interconnection (DCR)	12	12	100%
12LMH374 (DCR 12LSDO296) (B)	Interconnection (DCR)	38	38	100%
12M091	SDO	10	10	100%
13B011	SDO	4	4	100%
13D077/078	SDO	169	169	100%
13E174	SDO	74	74	100%
13E175	SDO	22	22	100%
13E176	SDO	5	5	100%
13F011 (aka 13F185)	SDO	48	48	100%
13F012 (aka 13F093)	SDO	9	9	100%
13L090 (B)	SDO	982	982	100%
14C009	SDO	4	4	100%
14EMH36	Interconnection (Brookline)	6	6	100%
15F288	SDO	200	200	100%
15L088 (B)	SDO	465	465	100%
15L089 (B)	SDO	73	73	100%
16L097	SDO	23	23	100%
16L122	SDO	254	254	100%
17F012	SDO	5	5	100%
17M033	SDO	145	145	100%
18G233	SDO	87	87	100%
19G043	SDO	80	80	100%
19G194	SDO	58	58	100%
19G199	SDO	1	1	100%
19LCSO084DR	CSO	13	13	100%
19LCSO085DR	CSO	47	47	100%
19MCSO082DR	CSO	8	8	100%
19MCSO083DR	CSO	4	4	100%
19NCSO081DR	CSO	10	10	100%
20DMH19	Interconnection (Brookline)	106	106	100%
20DMH62	Interconnection (Brookline)	15	15	100%

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
20DNP140 (20DMH55)	Interconnection (Brookline)	55	55	100%
20G161	SDO	62	62	100%
20G164*	SDO	0	0	100%
21C212	SDO	15	15	100%
21DMH319	Interconnection (Brookline)	66	66	100%
21EMH64	Interconnection (Brookline)	83	83	100%
21EMH86	Interconnection (Brookline)	17	17	100%
21H047	SDO	145	145	100%
21K069	SDO	98	98	100%
21KCSO070DR	CSO	369	369	100%
21LCSO076DR	CSO	3	3	100%
21M010	SDO	17	17	100%
21M050	SDO	28	28	100%
21MCSO079DR	CSO	1	1	100%
21NCSO080DR	CSO	10	10	100%
22C384	SDO	13	13	100%
22KCSO065DR	CSO	78	78	100%
22KCSO072DR	CSO	11	11	100%
22L580	SDO	44	44	100%
22LCSO073DR	CSO	44	44	100%
23BMH89	Interconnection (Newton)	11	11	100%
23G132	SDO	67	67	100%
23H040	SDO	23	23	100%
23H042	SDO	314	314	100%
23L074	SDO	5	5	100%
23L075	SDO	61	61	100%
23L164	SDO	37	37	100%
23L195	SDO	21	21	100%
23L196	SDO	15	15	100%
23L202	SDO	25	25	100%
23LCSO062DR	CSO	4	4	100%
23LCSO064DR	CSO	9	9	100%
24C174	SDO	54	54	100%
24CMH014 (24CSDO039)	SDO	16	16	100%
24D032	SDO	1037	1037	100%
24D150	SDO	6	6	100%
24G034	SDO	73	73	100%
24G035	SDO	338	338	100%

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
24L233	SDO	58	58	100%
24LCSO060DR	CSO	58	58	100%
24NCSO003DR	CSO	740	740	100%
25D040	SDO	27	27	100%
25E037	SDO	424	424	100%
25G041	SDO	19	19	100%
25L058	SDO	157	157	100%
25L144	SDO	5	5	100%
25LCSO057	CSO	14	14	100%
25M006	SDO	19	19	100%
25M007	SDO	25	25	100%
25MCSO005DR	CSO	0	0	100%
26F038	SDO	34	34	100%
26G001	SDO	198	198	100%
26J049	SDO	157	157	100%
26J052	SDO	2	2	100%
26J055 (aka 26JSDO101)	SDO	20	20	100%
26K035	SDO	48	48	100%
26K050	SDO	23	23	100%
26K052	SDO	1	1	100%
26K099	SDO	206	206	100%
26K254	SDO	7	7	100%
26L055 (aka 26LSDO106)	SDO	4	4	100%
26L070	SDO	6	6	100%
26L084	SDO	6	6	100%
26LCSO009	CSO	24	24	100%
27J001	SDO	140	140	100%
27J096	SDO	191	191	100%
27L020/22	SDO	91	91	100%
27LCSO010	CSO	17	17	100%
28IMH15	Interconnection (Somerville)	9	9	100%
28K010	SDO	26	26	100%
28K061	SDO	98	98	100%
28K386	SDO	5	5	100%
28L073	SDO	1	1	100%
28L074/076	SDO	92	92	100%
28LCSO012DR	CSO	16	16	100%
28LCSO019	CSO	12	12	100%

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
28N156 (B)	SDO	3	3	100%
28N207 (B)	SDO	82	82	100%
28O025 (B)	SDO	22	22	100%
28P001 (B)	SDO	9	9	100%
29J129	SDO	6	6	100%
29J212	SDO	166	166	100%
29JCSO017	CSO	12	12	100%
29M049	SDO	22	22	100%
29MCSO013DR	CSO	12	12	100%
29N015	SDO	11	11	100%
29N135	SDO	9	9	100%
29O001 (B)	SDO	282	282	100%
29P044 (B)	SDO	11	11	100%
2FMH120 (DCR 2FSDO99)	Interconnection (DCR)	11	11	100%
30J006	SDO	20	20	100%
30J019	SDO	10	10	100%
30J030	SDO	23	23	100%
30P062	SDO	11	11	100%
30P107	SDO	11	11	100%
31O004	SDO	32	32	100%
31P084	SDO	17	17	100%
3FMH56 (DCR 3FSDO159)	Interconnection (DCR)	27	27	100%
4FMH90 (DCR 3FSDO162)	Interconnection (DCR)	20	20	100%
6DMH97	Interconnection (Dedham)	189	189	100%
Stony Brook-Lower (21HCSO046)	CSO	521	521	100%
Stony Brook-Middle (-SB areas)	CSO	1851	1851	100%
Stony Brook-Upper	SDO	3158	3158	100%
03E207*	SDO	0	0	100%
04F001*	SDO	0	0	100%
04F203	SDO	1	1	100%
05E180*	SDO	0	0	100%
05E181*	SDO	0	0	100%
05F254	SDO	1	1	100%
6CMH117	Interconnection (Dedham)	9	9	100%
06D083	SDO	1	1	100%
06D084	SDO	4	4	100%
06D086*	SDO	0	0	100%
06D184	SDO	2	2	100%

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

Sub-Catchment Area Investigations Completed

Work done during CWI1, CWI2, CWI3 or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Reporting Period 7/1/2020 - 12/31/2020

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Drain + Manholes Investigated/Completed ²	% Investigated/Complete by Manholes ³
09B049	SDO	1	1	100%
09E243	SDO	35	35	100%
12B033	SDO	3	3	100%
12H087	SDO	38	38	100%
12H092	SDO	80	80	100%
13F095	SDO	2	2	100%
13F096	SDO	2	2	100%
13F097*	SDO	0	0	100%
18LCO086DR	CSO	14	14	100%
20G163	SDO	13	13	100%
21H048	SDO	3	3	100%
21MCSO078DR	CSO	0	0	100%
22KCSO068DR	CSO	28	28	100%
23HMH81 (DCR 23ISDO019)	Interconnection (DCR)	4	4	100%
23L015	SDO	30	30	100%
24L022 (aka 23LSDO022)	SDO	13	13	100%
25NCSO004DR	CSO	23	23	100%
27J044	SDO	6	6	100%
28L077*	SDO	0	0	100%
29J029*	SDO	0	0	100%
29NCSO014DR	CSO	1	1	100%
29P005	SDO	3	3	100%

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

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

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

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
01E024	SDO	2,155	2,155	100%
01F031	SDO	5,710	5,710	100%
02E086 (aka 02E005)	SDO	2,334	2,334	100%
02F085	SDO	682	682	100%
02F093	SDO	991	991	100%
02F120	SDO	7,389	7,389	100%
03E185	SDO	10,917	10,917	100%
03E186	SDO	2,051	2,051	100%
04E064	SDO	253	253	100%
04E069	SDO	8,768	8,768	100%
04F016	SDO	2,134	2,134	100%
04F118	SDO	1,294	1,294	100%
04F119	SDO	2,569	2,569	100%
04F189	SDO	4,938	4,938	100%
04F204	SDO	14,453	14,453	100%
05E182	SDO	2,445	2,445	100%
05E183*	SDO	58	58	100%
05E184 (aka 05E120)	SDO	11,125	11,125	100%
05F117	SDO	7,703	7,703	100%
05F244	SDO	3,043	3,043	100%
05F245	SDO	4,254	4,254	100%
05F253	SDO	6,757	6,757	100%
05G112	SDO	3,671	3,671	100%
05G115	SDO	1,853	1,853	100%
05G116	SDO	3,623	3,623	100%
05G116A	SDO	11,234	11,234	100%
06C110 (aka 05C110)	SDO	9,579	9,579	100%
06D057	SDO	2,418	2,418	100%
06D085	SDO	236	236	100%
06D091*	SDO	63	63	100%
06D187	SDO	11,280	11,280	100%
06F233*	SDO	49	49	100%
06G108	SDO	30,068	30,068	100%
06G109	SDO	4,716	4,716	100%
06G110	SDO	6,695	6,695	100%
06G111	SDO	4,292	4,292	100%
06G165	SDO	807	807	100%
06G166	SDO	2,201	2,201	100%

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
06H106	SDO	2,278	2,278	100%
06H107	SDO	2,453	2,453	100%
07C006	SDO	81,391	81,391	100%
07H105	SDO	73,303	73,303	100%
07H285	SDO	61,129	61,129	100%
07H346	SDO	705	705	100%
07H347	SDO	519	519	100%
07H348	SDO	743	743	100%
08B122	SDO	11,538	11,538	100%
08B126	SDO	3,474	3,474	100%
08C025/026	SDO	3,152	3,152	100%
08E031	SDO	10,096	10,096	100%
08E035	SDO	899	899	100%
08I153	SDO	425	425	100%
08I154	SDO	5,740	5,740	100%
08I155	SDO	399	399	100%
08I156	SDO	5,764	5,764	100%
08I158	SDO	1,963	1,963	100%
08I207	SDO	1,400	1,400	100%
08I209	SDO	820	820	100%
08J036/041	SDO	2,439	2,439	100%
08J050/049	SDO	12,006	12,006	100%
08J102	SDO	3,447	3,447	100%
08J103	SDO	6,382	6,382	100%
08K049	SDO	513	513	100%
09E229	SDO	322	322	100%
09K016	SDO	2,062	2,062	100%
09K100	SDO	4,330	4,330	100%
09K101	SDO	5,245	5,245	100%
09L095	SDO	4,789	4,789	100%
10B015	SDO	7,123	7,123	100%
10L094	SDO	127,791	127,791	100%
10L096	SDO	2,893	2,893	100%
11B123	SDO	20,303	20,303	100%
11BMH49 (DCR 11BSDO28)	Interconnection (DCR)	2,130	2,130	100%
11G344	SDO	9,122	9,122	100%
11I577	SDO	238,332	238,332	100%
11M093	SDO	9,956	9,956	100%

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
12B010*	SDO	16	16	100%
12B014	SDO	717	717	100%
12B124	SDO	80,035	80,035	100%
12F305	SDO	2,175	2,175	100%
12F418 (aka 12E418)	SDO	3,052	3,052	100%
12H085	SDO	2,963	2,963	100%
12L092 (B)	SDO	25,084	25,084	100%
12LMH304 (DCR 13LSDO137) (B)	Interconnection (DCR)	1,617	1,617	100%
12LMH374 (DCR 12LSDO296) (B)	Interconnection (DCR)	4,151	4,151	100%
12M091	SDO	1,238	1,238	100%
13B011	SDO	772	772	100%
13D077/078	SDO	27,404	27,404	100%
13E174	SDO	11,097	11,097	100%
13E175	SDO	4,331	4,331	100%
13E176	SDO	863	863	100%
13F011 (aka 13F185)	SDO	6,716	6,716	100%
13F012 (aka 13F093)	SDO	1,828	1,828	100%
13L090 (B)	SDO	154,041	154,041	100%
14C009	SDO	822	822	100%
14EMH36	Interconnection (Brookline)	991	991	100%
15F288	SDO	29,831	29,831	100%
15L088 (B)	SDO	79,592	79,592	100%
15L089 (B)	SDO	13,671	13,671	100%
16L097	SDO	2,973	2,973	100%
16L122	SDO	40,954	40,954	100%
17F012	SDO	1,157	1,157	100%
17M033	SDO	15,162	15,162	100%
18G233	SDO	12,689	12,689	100%
19G043	SDO	11,554	11,554	100%
19G194	SDO	9,044	9,044	100%
19G199	SDO	230	230	100%
19LCSO084DR	CSO	1,766	1,766	100%
19LCSO085DR	CSO	5,550	5,550	100%
19MCSO082DR	CSO	1,283	1,283	100%
19MCSO083DR	CSO	535	535	100%
19NCSO081DR	CSO	2,039	2,039	100%
20DMH19	Interconnection (Brookline)	18,600	18,600	100%
20DMH62	Interconnection (Brookline)	1,542	1,542	100%

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
20DNP140 (20DMH55)	Interconnection (Brookline)	8,749	8,749	100%
20G161	SDO	7,913	7,913	100%
20G164*	SDO	73	73	100%
21C212	SDO	2,494	2,494	100%
21DMH319	Interconnection (Brookline)	9,847	9,847	100%
21EMH64	Interconnection (Brookline)	11,041	11,041	100%
21EMH86	Interconnection (Brookline)	3,263	3,263	100%
21H047	SDO	18,874	18,874	100%
21K069	SDO	14,839	14,839	100%
21KCSO070DR	CSO	50,657	50,657	100%
21LCSO076DR	CSO	818	818	100%
21M010	SDO	4,053	4,053	100%
21M050	SDO	4,070	4,070	100%
21MCSO079DR	CSO	174	174	100%
21NCSO080DR	CSO	552	552	100%
22C384	SDO	2,193	2,193	100%
22KCSO065DR	CSO	8,188	8,188	100%
22KCSO072DR	CSO	549	549	100%
22L580	SDO	5,861	5,861	100%
22LCSO073DR	CSO	7,859	7,859	100%
23BMH89	Interconnection (Newton)	1,807	1,807	100%
23G132	SDO	9,997	9,997	100%
23H040	SDO	3,379	3,379	100%
23H042	SDO	49,657	49,657	100%
23L074	SDO	624	624	100%
23L075	SDO	8,734	8,734	100%
23L164	SDO	3,305	3,305	100%
23L195	SDO	2,899	2,899	100%
23L196	SDO	1,397	1,397	100%
23L202	SDO	2,434	2,434	100%
23LCSO062DR	CSO	82	82	100%
23LCSO064DR	CSO	1,227	1,227	100%
24C174	SDO	12,066	12,066	100%
24CMH014 (24CSDO039)	SDO	2,236	2,236	100%
24D032	SDO	160,361	160,361	100%
24D150	SDO	872	872	100%
24G034	SDO	13,437	13,437	100%
24G035	SDO	56,096	56,096	100%

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
24L233	SDO	5,504	5,504	100%
24LCSO060DR	CSO	5,154	5,154	100%
24NCSO003DR	CSO	92,876	92,876	100%
25D040	SDO	5,390	5,390	100%
25E037	SDO	64,936	64,936	100%
25G041	SDO	2,794	2,794	100%
25L058	SDO	15,960	15,960	100%
25L144	SDO	619	619	100%
25LCSO057	CSO	1,219	1,219	100%
25M006	SDO	2,198	2,198	100%
25M007	SDO	3,629	3,629	100%
25MCSO005DR	CSO	0	0	100%
26F038	SDO	7,803	7,803	100%
26G001	SDO	36,612	36,612	100%
26J049	SDO	20,940	20,940	100%
26J052	SDO	559	559	100%
26J055 (aka 26JSDO101)	SDO	2,094	2,094	100%
26K035	SDO	4,792	4,792	100%
26K050	SDO	2,336	2,336	100%
26K052	SDO	303	303	100%
26K099	SDO	23,733	23,733	100%
26K254	SDO	1,096	1,096	100%
26L055 (aka 26LSDO106)	SDO	451	451	100%
26L070	SDO	670	670	100%
26L084	SDO	616	616	100%
26LCSO009	CSO	2,476	2,476	100%
27J001	SDO	18,240	18,240	100%
27J096	SDO	15,671	15,671	100%
27L020/22	SDO	12,358	12,358	100%
27LCSO010	CSO	2,960	2,960	100%
28IMH15	Interconnection (Somerville)	1,207	1,207	100%
28K010	SDO	4,212	4,212	100%
28K061	SDO	14,489	14,489	100%
28K386	SDO	997	997	100%
28L073	SDO	242	242	100%
28L074/076	SDO	13,535	13,535	100%
28LCSO012DR	CSO	3,279	3,279	100%
28LCSO019	CSO	1,367	1,367	100%

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
28N156 (B)	SDO	376	376	100%
28N207 (B)	SDO	11,631	11,631	100%
28O025 (B)	SDO	2,428	2,428	100%
28P001 (B)	SDO	1,826	1,826	100%
29J129	SDO	1,478	1,478	100%
29J212	SDO	23,313	23,313	100%
29JCSO017	CSO	611	611	100%
29M049	SDO	4,237	4,237	100%
29MC SO013DR	CSO	1,541	1,541	100%
29N015	SDO	1,297	1,297	100%
29N135	SDO	1,460	1,460	100%
29O001 (B)	SDO	47,076	47,076	100%
29P044 (B)	SDO	2,508	2,508	100%
2FMH120 (DCR 2FSDO99)	Interconnection (DCR)	2,748	2,748	100%
30J006	SDO	2,148	2,148	100%
30J019	SDO	1,084	1,084	100%
30J030	SDO	3,145	3,145	100%
30P062	SDO	1,841	1,841	100%
30P107	SDO	2,018	2,018	100%
31O004	SDO	4,791	4,791	100%
31P084	SDO	2,974	2,974	100%
3FMH56 (DCR 3FSDO159)	Interconnection (DCR)	4,749	4,749	100%
4FMH90 (DCR 3FSDO162)	Interconnection (DCR)	4,638	4,638	100%
6DMH97	Interconnection (Dedham)	29,408	29,408	100%
Stony Brook-Lower (21HCSO046)	CSO	72,563	72,563	100%
Stony Brook-Middle (-SB areas)	CSO	271,072	271,072	100%
Stony Brook-Upper	SDO	515,603	515,603	100%
03E207*	SDO	0	0	100%
04F001*	SDO	0	0	100%
04F203	SDO	78	78	100%
05E180*	SDO	99	99	100%
05E181*	SDO	52	52	100%
05F254	SDO	210	210	100%
6CMH117	Interconnection (Dedham)	720	720	100%
06D083	SDO	200	200	100%
06D084	SDO	694	694	100%
06D086*	SDO	64	64	100%
06D184	SDO	149	149	100%

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

Sub-Catchment Area Investigations Completed

Reporting Period 7/1/2020 - 12/31/20

Work done during CWI1, CWI2, CWI3, or CWI4 (since Nov. 2004)

Work done prior to CWI1, CWI2, CWI3 or CWI4 (prior to Nov. 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Investigated/ Completed ²	% Investigated/ Completed by Storm Drain Pipe ³
09B049	SDO	135	135	100%
09E243	SDO	6,318	6,318	100%
12B033	SDO	729	729	100%
12H087	SDO	6,747	6,747	100%
12H092	SDO	21,371	21,371	100%
13F095	SDO	205	205	100%
13F096	SDO	117	117	100%
13F097*	SDO	0	0	100%
18LCSO086DR	CSO	2,143	2,143	100%
20G163	SDO	1,433	1,433	100%
21H048	SDO	968	968	100%
21MCSO078DR	CSO	0	0	100%
22KCSO068DR	CSO	2,996	2,996	100%
23HMH81 (DCR 23ISDO019)	Interconnection (DCR)	439	439	100%
23L015	SDO	3,977	3,977	100%
24L022 (aka 23LSDO022)	SDO	2,096	2,096	100%
25NCSO004DR	CSO	3,838	3,838	100%
27J044	SDO	3,425	3,425	100%
28L077*	SDO	602	602	100%
29J029*	SDO	553	553	100%
29NCSO014DR	CSO	371	371	100%
29P005	SDO	211	211	100%

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

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

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

Table 2-14. Direct Illicit Connections 2020

Status	Bldg Number	Address	Neighborhood	Bldg Type	Sub-Catchment	Subwatershed	Date Verified	Date Corrected	Days to Correct	Sewage Removed (gallons per day (gpd))	BWSC Cost to Correct Illicit	BWSC Cost to Reimburse owner
Repaired	530	Dorchester Avenue	South Boston	Apts	21KCSO070	Boston Harbor via Fort Point Channel	10/16/2020	12/10/2020	55	77	\$17,239	\$0
Repaired	291-303A	Huntington Avenue	Fenway/Kenmore	Restaurant	21IMH539	Charles via Stony Brook Conduit	01/21/2020	11/7/2020	290	3275	\$5,610	\$0
Repaired	32	Prince Street	Jamaica Plain	R-2	15F288 Arboretum	Charles River (Stony Brook Conduit, Goldsmith Brook)	06/26/2020	8/24/2020	59	161	\$18,249	\$0
Repaired	4	Theodore Street	Mattapan	R-3	111577 Dorchester	Charles River via Canterbury Brook to Stony Brook Conduit	11/20/2019	2/14/2020	86	627	\$8,682	\$0
Repaired	8	Theodore Street	Mattapan	R-3	111577 Dorchester	Charles River via Canterbury Brook to Stony Brook Conduit	02/14/2020	2/14/2020	1	469	\$8,682	\$0
Repaired - Owner	31	Winborough Street	Mattapan	R-1	07H105 Edgewater	Neponset River	09/13/2019	1/2/2020	111	40	\$0	\$0
Contract - Reported Corrected	265	East Cottage Street	Dorchester	R-2	16L122	Boston Harbor	04/30/2019					
Contract	542	Dorchester Avenue	South Boston	Apts	21KCSO070	Boston Harbor via Fort Point Channel	12/08/2017					
Contract + Owner to Coordinate	32	Gay Head Street	Jamaica Plain	R-2	18HMH271SB	Charles via Stony Brook Conduit	09/18/2019					
Contract + Owner to Coordinate	30	Gay Head Street	Jamaica Plain	R-3	18HMH271SB	Charles via Stony Brook Conduit	03/12/2018					
Owner - Notified	256	Marginal Street	East Boston	Comm	25M006	Boston Harbor	08/05/2019					
Contract + Owner	29-31	South Street	Jamaica Plain	R-2	15GMH208SB	Charles via Stony Brook Conduit	08/29/2019					
Owner - Notified	480	Truman Parkway	Hyde Park	R-1	06G165 Metropolitan	Neponset River	02/28/2019					

	Illicit Connection was Corrected
	Correction of Illicit is Pending
	Reported Corrected

Total Sewage Removed (gpd)	4,649	
BWSC Cost to Correct Illicit		\$58,462
BWSC Cost to Reimburse Owner		\$0
Total Cost to Correct/Reimburse**		\$58,462

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

Table 2-15. Indirect Illicit Discharges 2020

Status	Bldg Number	Address	Neighborhood	Bldg Type	Sub-Catchment	Subwatershed	Date_of_Dye_Test	Date Verified	Date Corrected	Days to Correct	Sewage Removed (gallons per day (gpd))	BWSC Cost to Verify Leaking Lateral	BWSC Cost to Reimburse owner
Repaired - Lateral - Owner	159	Boylston Street	Jamaica Plain	R-1	17HMH106SB	Charles via Stony Brook Conduit	8/29/2019	09/19/2019	2/6/2020	140	71	\$1,937	\$4,000
Repaired - Lateral - Owner	16	Chilcott Place	Jamaica Plain	R-2	16HMH26SB	Charles via Stony Brook Conduit	9/3/2019	10/04/2019	4/24/2020	203	107	\$1,956	\$3,950
Repaired - Lateral - Owner	49-51	Day Street	Jamaica Plain	R-2	18HMH271SB	Charles via Stony Brook Conduit	12/11/2019	02/28/2020	4/22/2020	54	107	\$1,949	\$4,000
Repaired - Lateral - Owner	264	East Cottage Street	Dorchester	R-3	16L122	Boston Harbor	4/16/2017	11/19/2019	2/24/2020	104	91	\$1,918	\$4,000
Repaired - Lateral - Owner	40	Hampstead Road	Jamaica Plain	R-2	14GMH130SB	Charles via Stony Brook Conduit	1/7/2020	03/11/2020	12/11/2020	275	58	\$1,934	\$4,000
Repaired - Lateral - Owner	24-26	Moraine Street	Jamaica Plain	R-2	17HMH086SB	Charles via Stony Brook Conduit	12/31/2019	02/28/2020	5/6/2020	68	81	\$1,934	\$4,000
Repaired - Lateral - Owner	137	Saint Andrew Road	East Boston	R-1	28P001 Nancia	Boston Harbor	1/13/2020	01/17/2020	6/4/2020	139	37	\$1,929	\$4,000
Dye In Both - Verified	382	Centre Street	Jamaica Plain	R-2	18HMH271SB	Charles via Stony Brook Conduit	12/14/2017	08/17/2018					
Dye In Both - Verified	36	Dalrymple Street	Jamaica Plain	R-4-6	17HMH106SB	Charles via Stony Brook Conduit	5/9/2019	09/19/2019					
Dye In Both - Verified	62	Harold Street	Roxbury	R-2	18HMH200SB	Charles via Stony Brook Conduit	10/30/2019	11/19/2019					
Dye In Both - Verified	51	Mendum Street	Roslindale	R-1	12ESDO418	Unamed Wetlands	8/23/2018	11/28/2018					

Leaking Lateral was Repaired
Repair of Lateral is Pending

Total Sewage Removed (gpd)	552	
BWSC Cost to Verify Leaking Lateral		\$13,557
BWSC Cost to Reimburse Owner		\$27,950
Total Cost to Correct/Reimburse**		\$41,507

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

Table 3 - 1. Brook Inlet and Outlet Cleaning

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

Table 3 - 2. BWSC Particle Separators 2020

Nearest Street Number	Location	Neighborhood	Map #	BWSC Facility	Outfall #	Receiving Water
103	Atlantic Avenue	Boston Proper	25L	25LPA6	25LSDO058	Boston Harbor
1	Bussey Street/Arboretum	Jamaica Plain	13F	13FPA1 +13	13FSDO011	Bussy Brook
430	Canterbury Street	Mattapan	12H	12HPA2	12HSDO2	Unnamed Wetlands
19	Centre Lane	WROX	8C	8CPA1	8CSDO025,8CSDO0	Wetlands
2664	Centre Street	WROX	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. HAZMAT SPILLS & DUMPING 2020

Date	Street	Complaint	BSWC Personnel	Type	Cause of Incident / Responsible Party
1/22/2020	Blue Hill Ave & River St	Oil Sheen	Dorleans	oil Sheen	Met with EPA and DEP on site and observed oil sheen in Neponset River. Unable to trace the source. DEP notified us 1/28/20 the sheen stopped. DEP has ended the investigation and believe it was the result of Illegal dumping. WO# 1548569 & 1548976
2/18/20	15 Prospect St, Charlestown	plaster wastewater	Taylor	Unknown	Talked to neighbor, she was concerned that the nearby construction workers may have poured plaster wastewater into her groundwater recharge system via a private drain. Did not see any signs of dumping at private drain, this system does not connect to the BWSC drain system. Told construction workers that they must properly dispose of any wastewater. WO#1554920
2/28/20	19 Eastman St	Hydraulic Fluid	Dorleans	Hydraulic Fluid	Met BFD on site. Capitol Waste was cleaning the site of a hydraulic fluid spill. Most of it was contained in Catch Basin 17KCB39. FE-10 Crew placed a boom in downstream manhole in 17KMH7 to capture fluid that left CB. Jewel Environmental hired to clean up CB and remove booms from sewer line. WO# 1557371
3/3/20	Washington St & Bray St	Debris	Dorleans	Broken up asphalt	Spoke with Contractor, Robert Barone of PV Barone Corp about crews sweeping broken asphalt in the CBs. GC informed crews not to dumping any materials in the CBs.
3/27/20	147 East Berkeley Street	Grease	Simmons	Grease	Boston Hood Cleaning Company was using chemicals to spray/clean grease from hoods and in traveled into catch basin 21KCB36. Vilation letter has been sent. WO# 1566795
4/24/20	237 Hanover Street	Grease	Taylor	Grease	Small amount of grease seen in gutter water, may have been spilled by someone removing grease from restaurant, some gray water in 25KCB483, Catch basin connects to combined line, will have catch basin cleaned. WO#1568482
6/17/20	London at Maverick St	Chemicals	Taylor	Nothing	Checked nearby catch basins, nothing unusual or any evidence of dumping or odors. WO#1573533
6/30/20	Back St@Dartmouth St	paint	Taylor	Plaster	checked nearby catch basins, small amount of plaster around street and catch basins, no construction in the area, no impact to drains, WO#1576189
7/10/20	Congress St at Dorchester Av	Oil Sheen	James, L	Oil Sheen	Oil sheen observed in Fort Point Channel around Atlantic Wharf Docks in the area of private outfall 23LSD0204. Met with Sean Griffin (MassDEP), but could not identify source. WO#1578144
7/31/20	62 Winthrop St @ Adams St	Construction debris going to CB	Vidalis, D	Limestone Dust	Observed grey staining around catch basin 27KCB370 and along gutter line coming from Wallace Ct. Renovations being performed at 1 Wallace Ct by Ryan Masonry (617-230-3490). Spoke with Phil Ryan on site, stated it's limestone dust from working on brick facade and washing down the sidewalk and curb. He will sweep up remaining dust. No product observed in 27KCB370. No product observed in manhole 27KMH173. WO#1583376
8/11/20	36 Bellvista Rd	paint	Taylor	Plaster	Plaster work being done in apartment next to 36 Bellvista Road, plaster worker washed off equipment above a private catch basin in the courtyard. I talked to him and he will clean impacted area, checked later and catch basin was clean. WO#1584134
8/26/20	Homsmer St and Blue Hill Ave	fuel	Taylor	No impact	Met with BFD, spill contained by speed dry from the BFD, no impact to catch basin. WO#1586816
9/4/20	11 Bloomingtton St, Dorchester	plaster	Taylor	plaster	Someone rinsed out a bucket used from mixing plaster over a BWSC catch basin, they will clean the impacted area. WO# 1588090
9/9/20	Bethune St and Zeigler St, Rox	green liquid	Taylor	unknown	checked catch basins in area, 19ICB327 had a garbage odor to it and I will put it in for cleaning. #1588430
9/11/20	State St @ Merchants Row	Sudsy water	O'Brien	Unknown	As BWSC personnel drove by, it was observed 2 employees from Cliff Hangers (Fall Protection Solutions Design and Engineering) were dumping two 5 gallon buckets of sudsy water into catch basin 24KCB213
9/11/20	55 Sedgwick Street	gas	Taylor/Conran	gas	Met BFD, placed several spill pads in catch basin that had a gasoline odor, on 9/14/2020 removed spill pads WO# 1588983
9/17/20	941 Boylston Street	Diesel	Taylor	Diesel	Met BFD at 941 Boylston Street approximately 1000 gallons of diesel leaked from a tank inside the building, checked combined line 22IMH129 for any signs of impact, no impact found. WO#1589636
9/18/20	70 Highland St, HP	Concrete	Conran	Concrete	Contractor is building a house at 75 Highland St. While pouring the foundation concrete cement leaked from the site and down the gutter of the street to a CB. CB looked clean cement did not enter Drain Line WO#1590332
10/10/20	586 Tremont St., SEND	Unknown	McKinnon/Barbosa	Nothing	INVESTIGATED AREA. CHECKED CURB, CATCH BASINS AND MANHOLES. NO ILLEGAL DUMPING OBSERVED. THERE WERE A FEW CONSTRUCTION COMPANIES IN THE AREA BUT THEY WERE SWEEPING UP THEIR JOBSITES AND WERE DISPOSING OF MATERIAL PROPERLY. NOTHING FURTHER TO REPORT AT THIS TIME.
11/25/20	42 Eighth St, Charlestown	Concrete	Taylor/Conran	Nothing	Checked all BWSC catch basins on street, no signs of any concrete in or on any of them. WO#1599592
12/28/20	Cambridge St & Soldier Field Rd, ALBR	Oil Sheen	Vidalis	Diesel	Diesel product coming out of MassDOT storm outfall 24GSD036. MassDEP and MassDOT handling containment and source tracing. WO# 1602433

Table 3-4. Private Infiltration Devices Approved 2020

PROJECT NO	ADDRESS NO	STREET	INFILTRATION SYSTEM	INSPECTION DATE
18013	287-291	OLD COLONY AV	CULTEC CHAMBER	1/2/2020
19139	28	CONCORD SQ	BIO FILTER STRIPS	1/6/2020
18621	11	BROWNING AV	DRYWELL	1/7/2020
19244	14-16	ALBERTA ST	STORMTECH CHAMBERS	1/7/2020
17433	1650	SOLDIERS FIELD RD	STORMTECH CHAMBERS	1/8/2020
17289	39	LEXINGTON ST	DRYWELL	1/9/2020
18159	115	STANWOOD ST	CULTEC CHAMBER	1/9/2020
18132	46	HICHBORN ST	STORMTECH CHAMBERS	1/11/2020
18441	11	ISABELLA ST	CULTEC CHAMBER	1/11/2020
17567	46	MAYWOOD ST	CULTEC CHAMBER	1/13/2020
18461	892	METROPOLITAN AV	CULTEC CHAMBER	1/13/2020
19504	239	BOSTON ST	DRYWELL	1/13/2020
19095	154	LEXINGTON ST	STORMTECH CHAMBERS	1/14/2020
18228	16	EVERETT ST	CULTEC CHAMBER	1/15/2020
15373	91	BAKER ST	CULTEC CHAMBER	1/16/2020
17228	689	BENNINGTON ST	CULTEC CHAMBER	1/16/2020
17495	175	BEACON ST	CULTEC CHAMBER	1/17/2020
17583	23	RUSKINDALE RD	MULTIPLE	1/17/2020
17156	298	MARGINAL ST	DRYWELL	1/22/2020
17382	40	VALLAR RD	PERFORATED PIPE	1/22/2020
16249	839	BEACON ST	LEACHING BASIN	1/23/2020
17386	47	SARGENT ST	STORMTECH CHAMBERS	1/23/2020
18420	314	NEWBURY ST	CULTEC CHAMBER	1/23/2020
19164	89	SYDNEY ST	STORMTECH CHAMBERS	1/23/2020
19327	15	ARLINGTON ST	LEACHING BASIN	1/23/2020
18138	259	GOLD ST	CULTEC CHAMBER	1/24/2020
18592	95	SAINT ALPHONSUS ST	LEACHING BASIN	1/24/2020
17618	34	MALLARD AV	LEACHING BASIN	1/25/2020
19173	108	MOUNT PLEASANT AV	CULTEC CHAMBER	1/25/2020
18318	132-134	ORANGE ST	STORMTECH CHAMBERS	1/27/2020
19081	522	EAST SEVENTH ST	CULTEC CHAMBER	1/27/2020
17613	30	NEW ENGLAND AV	LEACHING BASIN	1/28/2020
17614	36	MALLARD AV	LEACHING BASIN	1/28/2020
17615	28	MALLARD AV	LEACHING BASIN	1/28/2020
17616	30	MALLARD AV	LEACHING BASIN	1/28/2020
17617	32	MALLARD AV	LEACHING BASIN	1/28/2020
16129	129	PROVIDENCE ST	CULTEC CHAMBER	1/30/2020
16141	14	MURRAY CT	LEACHING BASIN	1/30/2020
17097	201	BROOKLINE AV	MULTIPLE	2/3/2020
17332	11	RUTHVEN ST	CULTEC CHAMBER	2/3/2020
19062	16	EAGLE ST	CULTEC CHAMBER	2/3/2020
16568	333	WEST THIRD ST	CULTEC CHAMBER	2/4/2020
17301	533	EAST SECOND ST	CULTEC CHAMBER	2/4/2020
15028	120	CENTRE ST	CULTEC CHAMBER	2/5/2020
19419	449	BENNINGTON ST	LEACHING BASIN	2/5/2020
18037	126	CALLENDER ST	CULTEC CHAMBER	2/7/2020
19041	260	AMORY ST	STORMTECH CHAMBERS	2/14/2020
19456	560	EAST FIFTH ST	STORMTECH CHAMBERS	2/26/2020
18090	21	COOKSON TER	STORMTECH CHAMBERS	3/6/2020
19196	44	MARMION ST	STORMTECH CHAMBERS	6/4/2020
18639	10	WENDELLER ST	DRYWELL	6/8/2020
18586	222R	DANA AV	CULTEC CHAMBER	6/15/2020
19249	153	EVERETT ST	DRYWELL	6/18/2020
18613	76	HORACE ST	MULTIPLE	6/22/2020
18634	51	CHAPPIE ST	STORMTECH CHAMBERS	6/25/2020
19396	33	WALES ST	CULTEC CHAMBER	6/29/2020

Table 3-4. Private Infiltration Devices Approved 2020

PROJECT NO	ADDRESS NO	STREET	INFILTRATION SYSTEM	INSPECTION DATE
19320	35	ELLINGTON ST	DRYWELL	7/6/2020
19397	79	JAMAICA ST	DRYWELL	7/8/2020
18458	67	BURTON ST	DRYWELL	7/14/2020
19190	46	MURRAY HILL RD	CULTEC CHAMBER	7/14/2020
18142	1272	MASSACHUSETTS AV	CULTEC CHAMBER	7/15/2020
18595	20	LEE ST	MULTIPLE	7/15/2020
13234	4004-4006	WASHINGTON ST	LEACHING BASIN	7/17/2020
16283	100		CULTEC CHAMBER	7/21/2020
17494	7-11	BALINA PL	PERFORATED PIPE	7/23/2020
19424	134	CHELSEA ST	CULTEC CHAMBER	8/1/2020
19502	280	EAST EAGLE ST	STORMTECH CHAMBERS	8/3/2020
19021	411	ADAMS ST	LEACHING BASIN	8/5/2020
19284	14	MORROW RD	STORMTECH CHAMBERS	8/5/2020
18554	34	COLGATE RD	CULTEC CHAMBER	8/10/2020
18637	1	CEDAR ST	PERFORATED PIPE	8/10/2020
19451	238	BREMEN ST	STORMTECH CHAMBERS	8/10/2020
18256	217	COMMONWEALTH AV	CULTEC CHAMBER	8/12/2020
19022	200	OLD COLONY AV	PERFORATED PIPE	8/13/2020
19336	682	BLUE HILL AV	STORMTECH CHAMBERS	8/13/2020
18539	9	GLENCOE ST	STORMTECH CHAMBERS	8/14/2020
19543	470	COMMERCIAL ST	CULTEC CHAMBER	8/21/2020
19435	36	EMERSON ST	CULTEC CHAMBER	8/24/2020
17384	162	HIGHLAND ST	BIO RETENTION	8/25/2020
19473	18	NEWBURY ST	TANK/INJECTION WELL	8/25/2020
19548	238	HAVRE ST	STORMTECH CHAMBERS	8/25/2020
20231	120	BREMEN ST	STORMTECH CHAMBERS	8/25/2020
17502	249	HUMBOLDT AV	CULTEC CHAMBER	8/26/2020
19321	38	SHEPARD ST	CULTEC CHAMBER	8/26/2020
19495	375	HYDE PARK AV	DRYWELL	8/29/2020
19129	269	GOLD ST	CULTEC CHAMBER	8/30/2020
19104	137A	PARIS ST	CULTEC CHAMBER	8/31/2020
19481	316-324	TALBOT AV	STORMTECH CHAMBERS	8/31/2020
19553	119	BARNES AV	DRYWELL	8/31/2020
19110	65	BURRELL ST	DRYWELL	9/1/2020
19318	67-69	BURRELL ST	DRYWELL	9/1/2020
17013	4-8	WINTHROP ST	STORMTECH CHAMBERS	9/2/2020
19533	55	DALE ST	CULTEC CHAMBER	9/2/2020
19271	7	KESWICK ST	DRYWELL	9/3/2020
17042	130	MOUNT VERNON ST	CULTEC CHAMBER	9/4/2020
19370	189	IPSWICH ST	LEACHING BASIN	9/8/2020
19541	7	ETHEL ST	CULTEC CHAMBER	9/9/2020
19266	1-3	ELM ST	STORMTECH CHAMBERS	9/14/2020
19287	317	WEST THIRD ST	STORMTECH CHAMBERS	9/15/2020
17281	332	TALBOT AV	DRYWELL	9/17/2020
19570	86	MARINE RD	CULTEC CHAMBER	9/24/2020
19076	18-22	WAYLAND ST	CULTEC CHAMBER	9/25/2020
19508	455	MASSACHUSETTS AV	LEACHING BASIN	9/28/2020
19591	34	WEST EAGLE ST	DRYWELL	9/30/2020
17520	25	WAYNE ST	CULTEC CHAMBER	10/6/2020
18185	2	HUMMINGBIRD LN	MULTIPLE	10/9/2020
19264	631	SARATOGA ST	DRYWELL	10/10/2020
20222	472	EAST FOURTH ST	STORMTECH CHAMBERS	10/10/2020
18016	270	HUNTINGTON AV	CULTEC CHAMBER	10/14/2020
20018	54	WAVERLY ST	STORMTECH CHAMBERS	10/14/2020
20154	1876-1878	RIVER ST	CULTEC CHAMBER	10/14/2020
19151	53	F ST	STORMTECH CHAMBERS	10/20/2020

Table 3-4. Private Infiltration Devices Approved 2020

PROJECT NO	ADDRESS NO	STREET	INFILTRATION SYSTEM	INSPECTION DATE
18527	69-71	A ST	PERFORATED PIPE	11/23/2020
19112	95	UNION ST	CULTEC CHAMBER	11/23/2020
20204	48-50	L ST	CULTEC CHAMBER	11/24/2020
17136	58	BYRON ST	STORMTECH CHAMBERS	11/27/2020
18151	62	POTOMAC ST	CULTEC CHAMBER	12/1/2020
19206	690	ADAMS ST	LEACHING BASIN	12/1/2020
19386	54	MANSFIELD ST	DRYWELL	12/7/2020
17519	3012	WASHINGTON ST	MULTIPLE	12/9/2020
19150	18-20	SEAVER ST	STORMTECH CHAMBERS	12/11/2020
19137	375	BREMEN ST	PERFORATED PIPE	12/14/2020
19248	1400	VFW PKWY	PERFORATED PIPE	12/14/2020
19308	22	PARKER ST	MULTIPLE	12/14/2020
19316	4-6	ESMOND ST	CULTEC CHAMBER	12/14/2020
17425	28-38	LANGDON ST	CULTEC CHAMBER	12/15/2020
19083	7	SACO ST	CULTEC CHAMBER	12/16/2020
19195	46	MARMION ST	STORMTECH CHAMBERS	12/16/2020
19265	101	WASHINGTON ST	LEACHING BASIN	12/18/2020
19194	505	EAST BROADWAY	DRYWELL	12/21/2020
19579	135	MOUNT VERNON ST	CULTEC CHAMBER	12/21/2020
20191	326	DORCHESTER ST	STORMTECH CHAMBERS	12/21/2020
17292	2451	WASHINGTON ST	CULTEC CHAMBER	12/22/2020
18481	21-23	WENSLEY ST	PERFORATED PIPE	12/23/2020
19138	35	ELM ST	DRYWELL	12/23/2020
15400	312	SPRING ST	STORMTECH CHAMBERS	12/29/2020
19302	189	WEST BROOKLINE ST	STORMTECH CHAMBERS	12/29/2020
19339	3	DORSET ST	CULTEC CHAMBER	12/29/2020
19145	208	NEPONSET VALLEY PKWY	CULTEC CHAMBER	12/30/2020
19638	580	EAST BROADWAY	CULTEC CHAMBER	12/30/2020

TABLE 3-5. GRIT SEPARATORS 2020

PROJECT NO	ADDRESS NO	STREET	INSPECTION DATE
17433	1650	SOLDIERS FIELD RD	1/8/2020
17382	40	VALLAR RD	1/22/2020
17066	140-156	WESTERN AV	9/24/2020

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. Annual¹ Load Reduction Based on Illicit Discharges Removed in 2012/2013

Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus Removed	E Coli Removed	Enterococcus Removed	Fecal Coliform Removed
	Acres		gpd	lb/yr	10 ⁹ CFU/yr		
West Roxbury	889	4	349	9	2,119	316	3,864
Sawmill Brook	1,277	11	698	20	2,732	355	5,160
Mid-Charles total	2,166	15	1047	28	4,851	671	9,024
Upper Stony	1,832	20	1888	47	10,946	1,444	20,486
Canterbury Brook	1,889	16	12853	324	70,155	9,206	131,071
Roslindale Branch	1,199	17	1438	77	17,647	2,318	32,952
Bussey Brook	839	3	106	19	3,345	443	6,147
Goldsmith Brook	746	6	524	10	1,676	161	3,332
Lower Stony	2,165	4	1723	114	0	1,701	0
Stony Brook total	8,670	66	18532	591	103,769	15,273	193,988
Village Brook Boston	787	0	0	0	0	0	0
Village Brook Brookline	2,061	2	217	4	943	0	2,037
Other Muddy River	1,785	7	712	13	0	669	0
Muddy River total	4,633	9	929	17	835	659	1,288
Faneuil Brook	1,316	21	1739	51	12,378	1,765	22,730
Shepard Brook	415	2	657	16	3,755	462	7,092
Smelt Brook	846	8	904	25	5,911	737	11,097
Allston-Brighton	796	2	185	4	928	108	1,752
Millers River	208	1	27	1	316	32	607
Other Lower Charles total	3,581	34	3512	98	23,287	3,104	43,279
Lower Charles Basin total	19,050	124	24020	734	132,742	19,707	247,578
Mother Brook	441	2	1145	25	5,966	799	11,123
Hyde Park	1,766	17	5524	112	26,950	3,526	50,414
Oakland Brook	519	6	413	11	2,676	376	4,936
Mattapan Brook	304	7	1441	42	10,025	1,360	18,623
Lower Neponset	843	4	416	13	2,991	352	5,691
Tenean Creek	873	8	4856	109	25,112	3,238	47,097
Davenport Creek	712	3	277	9	2,021	246	3,825
Neponset River total	5,458	47	14072	321	75,740	9,896	141,709
Charlestown	556	4	486	10	2,482	389	4,484
East Boston	438	27	1840	42	10,047	1,291	18,857
Downtown	473	2	1168	32	7,548	1,007	14,071
Dorchester	1,124	2	508	14	3,193	421	5,944

Notes:

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

Table 7-3. Annual¹ Load Reduction Based on Illicit Discharges Removed in 2014

Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus Removed	E Coli Removed	Enterococcus Removed	Fecal Coliform Removed
	Acres		gpd	lb/yr	10 ⁹ CFU/yr		
West Roxbury	889	3	53	1	322	55	564
Sawmill Brook	1,277	4	223	8	1,347	184	2,503
Mid-Charles total	2,166	7	276	9	1,669	239	3,067
Upper Stony	1,832	7	299	8	1,753	243	3,237
Canterbury Brook	1,889	10	1259	32	6,962	922	12,987
Roslindale Branch	1,199	3	115	8	2,409	293	4,682
Bussey Brook ²	839	1	366	9	1,236	203	2,014
Goldsmith Brook	746	2	126	4	685	133	1,155
Lower Stony	2,165	0	0	0	0	0	0
Stony Brook total	8,670	23	2165	56	9,888	1,159	18,558
Village Brook Boston	787	0	0	0	0	0	0
Village Brook Brookline	2,061	1	602	13	3,031	329	5,815
Other Muddy River	1,785	1	265	9	1,667	118	3,333
Muddy River total	4,633	2	867	22	2,212	447	4,478
Faneuil Brook	1,316	17	1938	47	10,921	1,208	20,996
Shepard Brook	415	2	525	14	3,265	430	6,084
Smelt Brook	846	3	221	3	696	93	1,297
Allston-Brighton	796	0	0	0	0	0	0
Millers River	208	0	0	0	0	0	0
Other Lower Charles total	3,581	22	2684	63	14,882	1,731	28,377
Lower Charles Basin total	19,050	54	5992	150	28,651	3,576	54,480
Mother Brook	441	5	393	10	2,361	311	4,364
Hyde Park ²	1,766	5	459	10	2,410	307	4,527
Oakland Brook	519	3	262	7	1,666	238	3,061
Mattapan Brook	304	4	447	11	2,477	284	4,737
Lower Neponset	843	2	193	4	1,012	133	1,891
Tenean Creek	873	8	776	19	4,274	526	8,084
Davenport Creek	712	0	0	0	0	0	0
Neponset River total	5,458	27	2530	52	12,063	1,519	22,672
Charlestown	556	0	0	0	0	0	0
East Boston ²	438	10	465	11	2,560	316	4,840
Downtown ²	473	2	32630	709	171,904	22,550	321,357
Dorchester	1,124	2	190	4	1,024	170	1,821

Notes:

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

Table 7-4. Annual¹ Load Reduction Based on Illicit Discharges Removed in 2015

Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus	E Coli	Enterococcus	Fecal Coliform
	Acres		gpd	lb/yr	10 ⁹ CFU/yr		
West Roxbury	889	1	56	3	625	87	1,133
Sawmill Brook	1,277	8	409	20	3,047	417	5,691
Mid-Charles total	2,166	9	465	22	3,672	504	6,824
Upper Stony	1,832	4	156	10	2,171	297	4,028
Canterbury Brook	1,889	5	402	43	9,193	1,224	17,163
Roslindale Branch	1,199	6	258	19	5,084	742	9,472
Bussey Brook ²	839	12	1326	35	4,317	640	7,033
Goldsmith Brook	746	1	12	4	625	62	1,214
Lower Stony ³	2,165	0	0	96	15,379	1,943	28,051
Stony Brook total	8,670	28	2154	207	36,769	4,908	66,961
Village Brook Boston	787	0	0	0	0	0	0
Village Brook Brookline	2,061	1	188	17	3,925	417	7,604
Other Muddy River	1,785	3	1472	18	134	446	334
Muddy River total	4,633	4	1660	35	4,059	863	7,938
Faneuil Brook ²	1,316	9	1760	84	19,929	2,388	37,832
Shepard Brook	415	0	0	0	0	0	0
Smelt Brook	846	1	43	4	985	127	1,846
Allston-Brighton	796	0	0	0	0	0	0
Millers River	208	0	0	0	0	0	0
Other Lower Charles total	3,581	10	1803	89	20,914	2,516	39,678
Lower Charles Basin total	19,050	51	6082	353	65,414	8,790	121,400
Mother Brook	441	0	0	0	0	0	0
Hyde Park	1,766	0	0	0	0	0	0
Oakland Brook	519	3	517	21	4,894	660	9,101
Mattapan Brook	304	2	36	13	2,650	329	4,986
Lower Neponset ²	843	1	192	8	2,017	265	3,769
Tenean Creek	873	1	202	24	5,535	662	10,516
Davenport Creek	712	19	1536	88	20,580	2,678	38,491
Neponset River total	5,458	26	2483	154	35,677	4,595	66,863
Charlestown	556	0	0	0	0	0	0
East Boston ²	438	2	4328	100	22,740	2,999	42,487
Downtown	473	2	631	83	3,552	490	6,574
Dorchester	1,124	0	0	0	0	0	0
TOTAL	27,099	81	13,524	691	127,383	16,874	237,324

Notes:

1. Based on 2007-2009 precipitation using BWSC precipitation gage network
 2. Includes additional flow not in model as summarized in Table 2.
- there is a flow split. A portion of this flow goes to the 231023 outfall in

Table 7-5. Annual¹ Load Reduction Based on Illicit Discharges Removed in 2016

Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus	E Coli	Enterococcus	Fecal Coliform
	Acres		gpd	lb/yr	10 ⁹ CFU/yr		
West Roxbury	889	1	32	1	185	27	345
Sawmill Brook	1,277	3	114	1	96	10	207
Mid-Charles total	2,166	4	146	2	281	38	552
Upper Stony	1,832	0	0	0	0	0	0
Canterbury Brook	1,889	18	4,759	118	25,498	3,329	47,675
Roslindale Branch	1,199	1	234	26	4,491	476	8,463
Bussey Brook ²	839	9	654	4	2,617	349	4,837
Goldsmith Brook	746	4	365	9	2,096	324	3,786
Lower Stony	2,165	1	40	173	35,350	4,820	65,801
Stony Brook total	8,670	33	6052	330	70,052	9,298	130,563
Village Brook Boston	787	0	0	0	0	0	0
Village Brook Brookline	2,061	0	0	0	0	0	0
Other Muddy River	1,785	5	536	14	987	316	2,004
Muddy River total	4,633	5	536	14	987	316	2,004
Faneuil Brook	1,316	5	1,264	35	8,289	1,131	15,355
Shepard Brook	415	2	1,204	22	5,246	682	9,846
Smelt Brook	846	9	2,181	17	4,077	589	7,520
Allston-Brighton	796	2	632	12	2,992	383	5,612
Millers River	208	0	0	0	0	0	0
Other Lower Charles total	3,581	18	5281	86	20,604	2,785	38,334
Lower Charles Basin total	19,050	60	12015	432	91,924	12,437	171,452
Mother Brook	441	2	157	4	869	106	1,635
Hyde Park	1,766	1	63	1	331	39	630
Oakland Brook	519	2	382	4	1,005	103	1,961
Mattapan Brook	304	4	1,218	24	5,534	709	10,409
Lower Neponset	843	1	36	1	197	31	355
Tenean Creek	873	1	984	23	5,385	706	10,067
Davenport Creek ²	712	15	1448	15	8,458	1,092	15,826
Neponset River total	5,458	26	4288	72	21,780	2,787	40,882
Charlestown	556	0	0	0	0	0	0
East Boston	438	1	94	2	561	74	1,045
Downtown	473	2	528	12	2,827	291	5,443
Dorchester	1,124	4	484	11	2,664	357	4,973
TOTAL	27,099	93	17,409	529	119,755	15,945	223,795

Notes:

1. Based on 2007-2009 precipitation using BWSC precipitation gage network
2. Includes additional flow not in model as summarized in Table 2.

Table 7-6: Annual¹ Load Reduction Based on Illicit Discharges Removed in 2017

Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus	E Coli	Entero-coccus	Fecal Coliform
	Acres		gpd	lb/yr	10 ⁹ CFU/yr		
West Roxbury	889	4	379	6	1,560	243	2,830
Sawmill Brook	1,277	3	134	4	229	27	441
Mid-Charles total	2,166	7	513	10	1,789	270	3,271
Upper Stony	1,832	0	0	0	0	0	0
Canterbury Brook	1,889	4	406	17	3,730	483	6,983
Roslindale Branch	1,199	0	0	0	0	0	0
Bussey Brook ²	839	2	91	1	61	9	89
Goldsmith Brook	746	3	467	10	2,060	342	3,653
Lower Stony	2,165	1	66	4	632	196	884
Stony Brook total	8,670	10	1030	32	6,483	1,030	11,609
Village Brook Boston	787	0	0	0	0	0	0
Village Brook Brookline	2,061	0	0	0	0	0	0
Other Muddy River	1,785	1	1,293	30	6,309	770	11,907
Muddy River total	4,633	1	1293	30	6,309	770	11,907
Faneuil Brook	1,316	6	459	10	2,500	577	4,003
Shepard Brook	415	5	702	10	2,459	283	4,689
Smelt Brook	846	0	0	0	0	0	0
Allston-Brighton	796	0	0	0	0	0	0
Millers River	208	0	0	0	0	0	0
Other Lower Charles total	3,581	11	1161	20	4,959	860	8,692
Lower Charles Basin total	19,050	29	3,997	92	19,540	2,930	35,479
Mother Brook	441	1	33	0	0	0	0
Hyde Park	1,766	1	162	4	904	116	1,694
Oakland Brook	519	3	219	10	2,351	311	4,387
Mattapan Brook	304	2	353	3	672	116	1,197
Lower Neponset	843	0	0	0	0	0	0
Tenean Creek	873	1	68	2	361	43	691
Davenport Creek ²	712	2	180	4	949	123	1,779
Neponset River total	5,458	10	1015	23	5,237	709	9,748
Charlestown	556	0	0	0	0	0	0
East Boston	438	0	0	0	0	0	0
Downtown	473	0	0	0	0	0	0
Dorchester	1,124	0	0	0	0	0	0
TOTAL	27,099	39	5,012	115	24,777	3,639	45,227

Notes:

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

Table 7-7: Annual¹ Load Reduction Based on Illicit Discharges Removed in 2018

Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus
	Acres		gpd	lb/yr
West Roxbury	889	7	501	11
Sawmill Brook	1,277	1	126	3
Mid-Charles total	2,166	8	627	14
Upper Stony	1,832	2	529	11
Canterbury Brook	1,889	1	148	3
Roslindale Branch	1,199	9	3,046	66
Bussey Brook ²	839	0	0	0
Goldsmith Brook	746	8	4,348	94
Lower Stony	2,165	12	4,683	101
Stony Brook total	8,670	32	12754	276
Village Brook Boston	787	1	37	1
Village Brook Brookline	2,061	0	0	0
Other Muddy River	1,785	1	415	9
Muddy River total	4,633	2	452	10
Faneuil Brook	1,316	6	704	15
Shepard Brook	415	0	0	0
Smelt Brook	846	0	0	0
Allston-Brighton	796	0	0	0
Millers River	208	0	0	0
Other Lower Charles total	3,581	6	704	15
Lower Charles Basin total	19,050	48	14,537	314
Mother Brook	441	0	0	0
Hyde Park	1,766	0	0	0
Oakland Brook	519	0	0	0
Mattapan Brook	304	1	845	18
Lower Neponset	843	0	0	0
Tenean Creek	873	0	0	0
Davenport Creek ²	712	0	0	0
Neponset River total	5,458	1	845	18
Charlestown	556	1	20	0
East Boston	438	1	164	4
Downtown	473	2	10,785	233
Dorchester	1,124	0	0	0
TOTAL	27,099	53	26,351	570

Notes:

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

Table 7-8: Annual¹ Load Reduction Based on Illicit Discharges Removed in 2019

Reporting Area Name	Drainage Area	Number Illicits Removed 2019	Flow Removed 2019	Total Phosphorus Removed 2019
	Acres		gpd	lb/yr
West Roxbury	889	2	70	2
Sawmill Brook	1,277	1	60	1
Mid-Charles total	2,166	3	130	3
Upper Stony	1,832	0	0	0
Canterbury Brook	1,889	0	0	0
Roslindale Branch	1,199	0	0	0
Bussey Brook ²	839	0	0	0
Goldsmith Brook	746	0	0	0
Lower Stony	2,165	27	6,866	148
Stony Brook total	8,670	27	6866	148
Village Brook Boston	787	0	0	0
Village Brook Brookline	2,061	0	0	0
Other Muddy River	1,785	8	10,467	226
Muddy River total	4,633	8	10467	226
Faneuil Brook	1,316	2	150	3
Shepard Brook	415	0	0	0
Smelt Brook	846	0	0	0
Allston-Brighton	796	3	1,136	25
Millers River	208	0	0	0
Other Lower Charles total	3,581	5	1286	28
Lower Charles Basin total	19,050	43	18,749	405
Mother Brook	441	0	0	0
Hyde Park	1,766	0	0	0
Oakland Brook	519	0	0	0
Mattapan Brook	304	0	0	0
Lower Neponset	843	4	624	13
Tenean Creek	873	0	0	0
Davenport Creek ²	712	0	0	0
Neponset River total	5,458	4	624	13
Charlestown	556	1	0	0
East Boston	438	0	0	0
Downtown	473	0	0	0
Dorchester	1,124	6	9,861	213
TOTAL	27,099	54	29,234	632

1. Does not include reductions due to removal of illicits downstream of regulators because storm drain model does not include those areas

Table 7-9: Annual Load Reduction Based on Illicit Discharges Removed in 2020

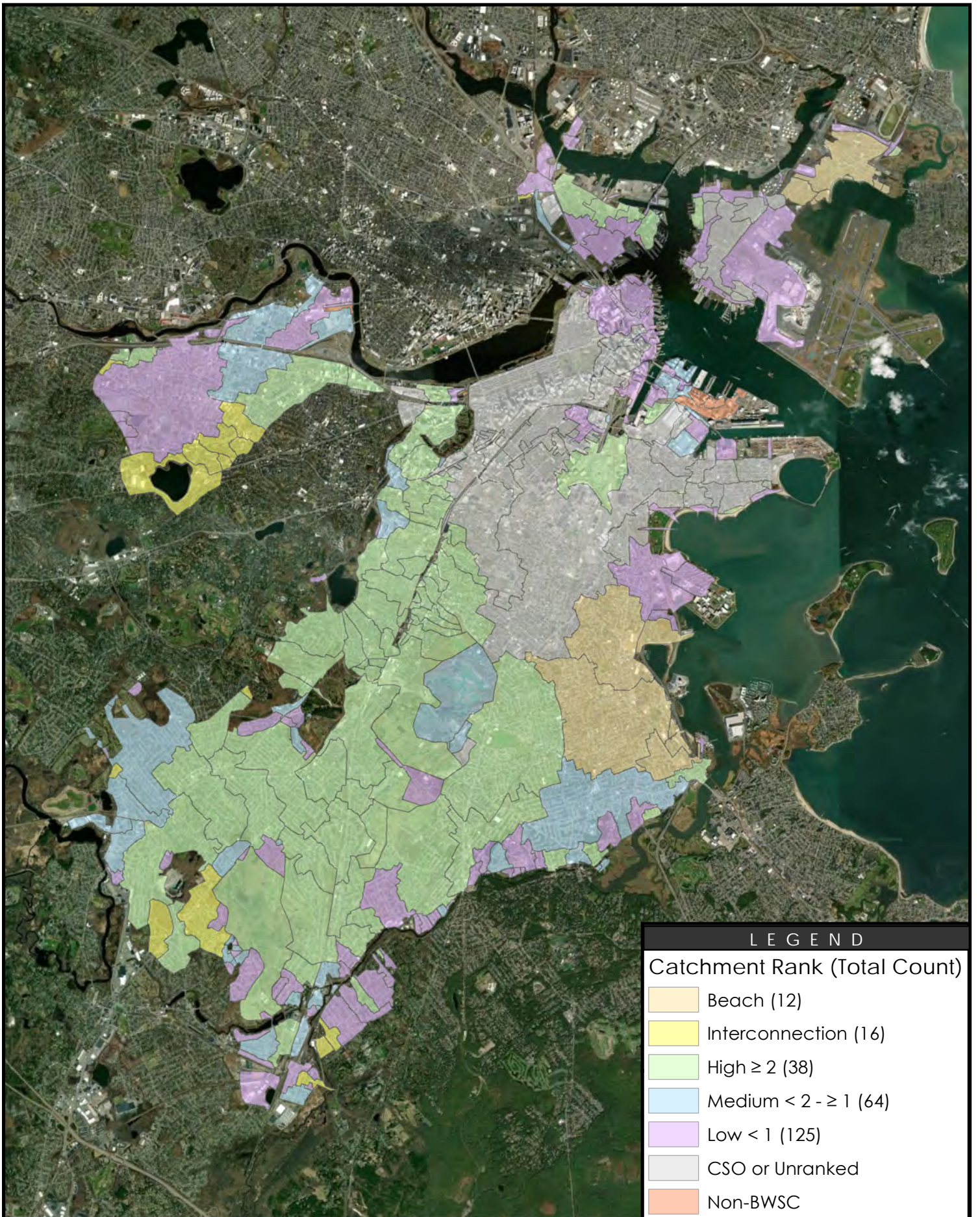
Reporting Area Name	Drainage Area	Number Illicits Removed	Flow Removed	Total Phosphorus
	Acres		gpd	lb/yr
West Roxbury	889	0	0	0
Sawmill Brook	1,277	0	0	0
Mid-Charles total	2,166	0	0	0
Upper Stony	1,832	1	58	1
Canterbury Brook	1,889	2	1,096	24
Roslindale Branch	1,199	0	0	0
Bussey Brook ²	839	0	0	0
Goldsmith Brook	746	1	161	3
Lower Stony	2,165	4	366	8
Stony Brook total	8,670	8	1681	36
Village Brook Boston	787	0	0	0
Village Brook Brookline	2,061	0	0	0
Other Muddy River	1,785	0	0	0
Muddy River total	4,633	0	0	0
Faneuil Brook	1,316	0	0	0
Shepard Brook	415	0	0	0
Smelt Brook	846	0	0	0
Allston-Brighton	796	0	0	0
Millers River	208	0	0	0
Other Lower Charles total	3,581	0	0	0
Lower Charles Basin total	19,050	8	1,681	36
Mother Brook	441	0	0	0
Hyde Park	1,766	0	0	0
Oakland Brook	519	1	40	1
Mattapan Brook	304	0	0	0
Lower Neponset	843	0	0	0
Tenean Creek	873	0	0	0
Davenport Creek ²	712	0	0	0
Neponset River total	5,458	1	40	1
Charlestown	556	0	0	0
East Boston	438	1	37	1
Downtown	473	0	0	0
Dorchester	1,124	1	91	2
TOTAL	27,099	11	1,849	40

Table 7-10: Annual¹ Loads as of End 2020 Subsequent to Illicit Discharge Removal

Reporting Area Name	Drainage Area	Total Phosphorus
	Acres	lb/yr
		Original Load
West Roxbury	889	308
Sawmill Brook	1,277	689
Mid-Charles total	2,166	998
Upper Stony	1,832	610
Canterbury Brook	1,889	2,812
Roslindale Branch	1,199	835
Bussey Brook	839	148
Goldsmith Brook	746	295
Lower Stony	2,165	1,803
Stony Brook total	8,670	6,502
Village Brook Boston	787	450
Village Brook Brookline	2,061	1,053
Other Muddy River	1,785	2,600
Muddy River total	4,633	4,103
Faneuil Brook	1,316	990
Shepard Brook	415	591
Smelt Brook	846	834
Allston-Brighton	796	499
Millers River	208	383
Other Lower Charles total	3,581	3,297
Lower Charles Basin total	19,050	14,900
Mother Brook	441	239
Hyde Park	1,766	1,030
Oakland Brook	519	407
Mattapan Brook	304	286
Lower Neponset	843	606
Tenean Creek	873	2,379
Davenport Creek	712	545
Neponset River total	5,458	4,946
Charlestown	556	1,962
East Boston	438	1,102
Downtown	473	1,487
Dorchester	1,124	2,303
TOTAL	27,099	26,700

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

APPENDIX B: FIGURES



C:\Users\mwhitney\Documents\BosWater\GIS\SubcatchmentRanking.mxd - Resolved: 2021-02-18 9:47 AM

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

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

Figure 2-1: Subcatchment Priority Ranking Map

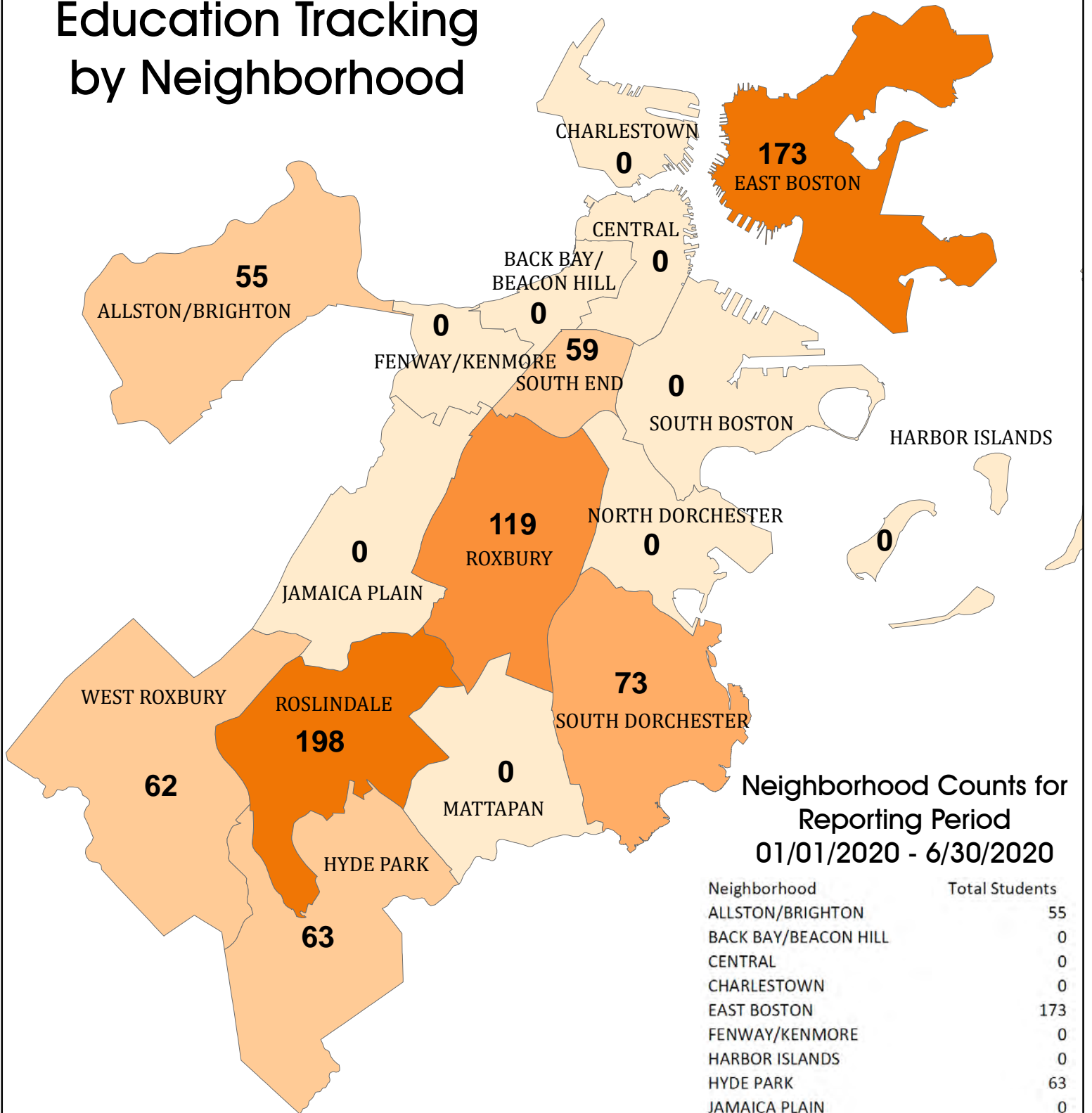
Boston Water and Sewer Commission
 February 2021



Prepared by: JW 02/10/21
 Technical Review by: RA 02/10/21



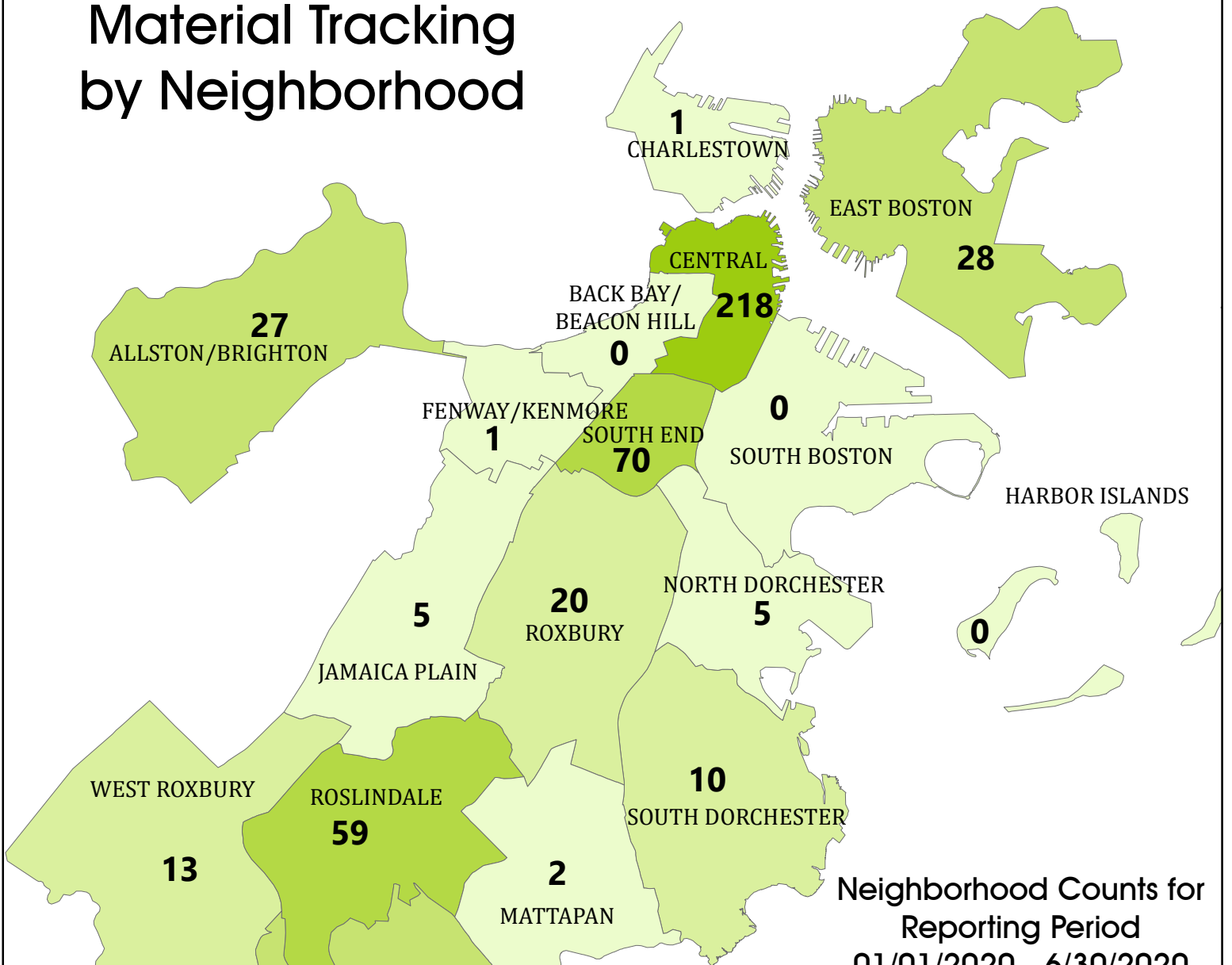
Community Outreach Education Tracking by Neighborhood



**Neighborhood Counts for
Reporting Period
01/01/2020 - 6/30/2020**

Neighborhood	Total Students
ALLSTON/BRIGHTON	55
BACK BAY/BEACON HILL	0
CENTRAL	0
CHARLESTOWN	0
EAST BOSTON	173
FENWAY/KENMORE	0
HARBOR ISLANDS	0
HYDE PARK	63
JAMAICA PLAIN	0
MATTAPAN	0
NORTH DORCHESTER	0
ROSLINDALE	198
ROXBURY	119
SOUTH BOSTON	0
SOUTH DORCHESTER	73
SOUTH END	59
WEST ROXBURY	62

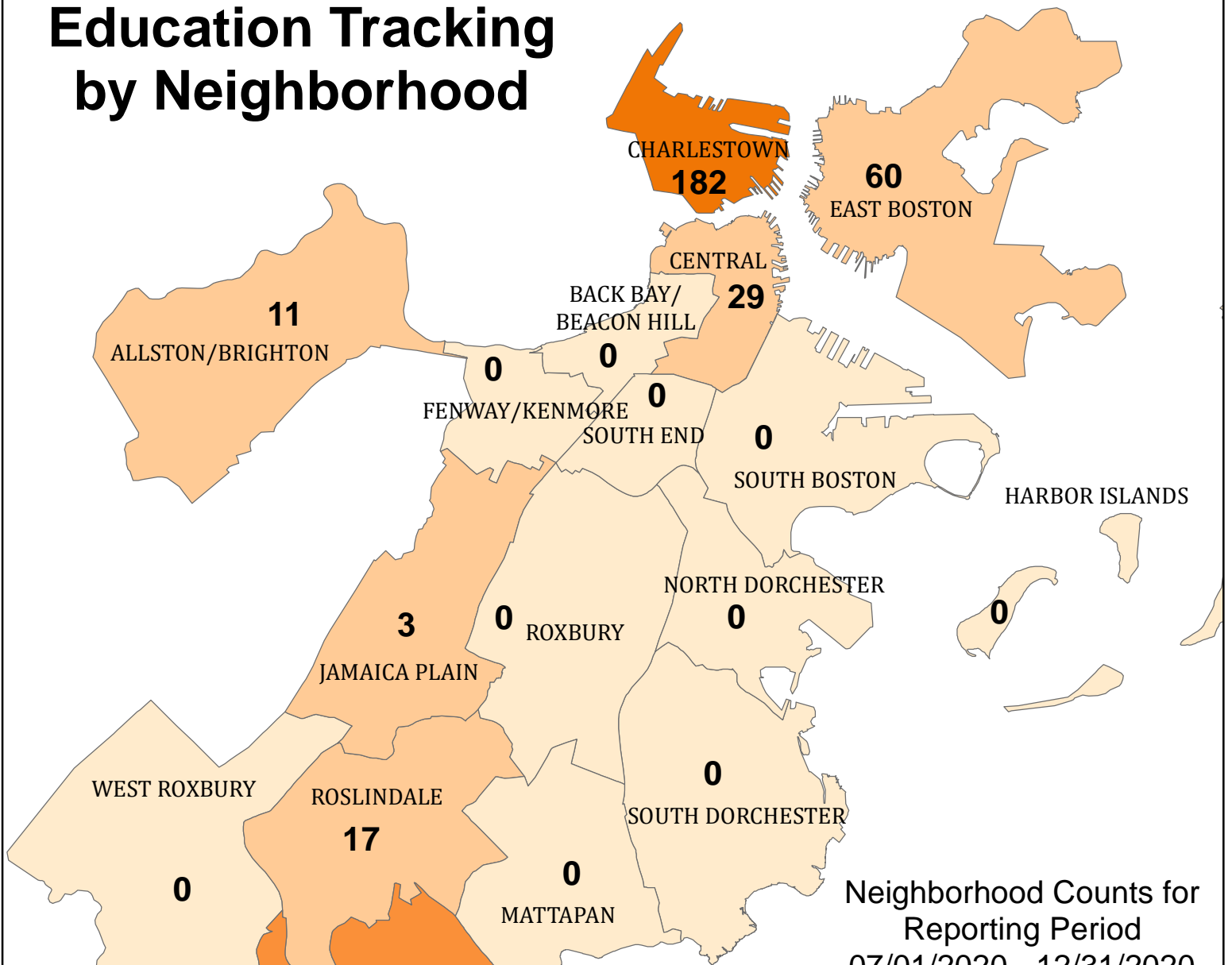
Community Outreach Material Tracking by Neighborhood



**Neighborhood Counts for
Reporting Period
01/01/2020 - 6/30/2020**

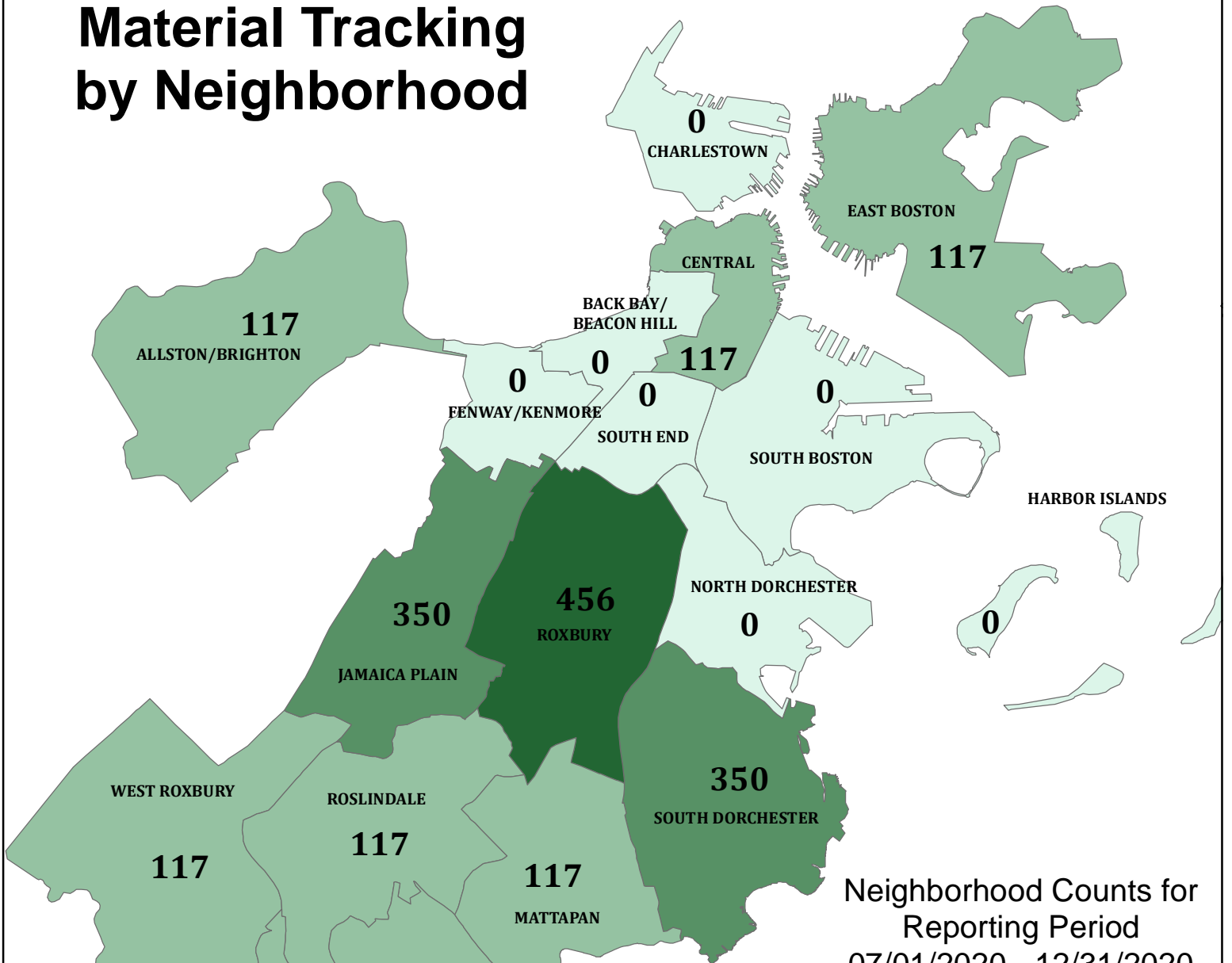
Neighborhood	Total Touches
ALLSTON/BRIGHTON	27
BACK BAY/BEACON HILL	0
CENTRAL	218
CHARLESTOWN	1
EAST BOSTON	28
FENWAY/KENMORE	1
HARBOR ISLANDS	0
HYDE PARK	34
JAMAICA PLAIN	5
MATTAPAN	2
NORTH DORCHESTER	5
ROSLINDALE	59
ROXBURY	20
SOUTH BOSTON	0
SOUTH DORCHESTER	10
SOUTH END	70
WEST ROXBURY	13

Community Outreach Education Tracking by Neighborhood



Neighborhood	Total Students
ALLSTON/BRIGHTON	11
BACK BAY/BEACON HILL	0
CENTRAL	29
CHARLESTOWN	182
EAST BOSTON	60
FENWAY/KENMORE	0
HARBOR ISLANDS	0
HYDE PARK	87
JAMAICA PLAIN	3
MATTAPAN	0
NORTH DORCHESTER	0
ROSLINDALE	17
ROXBURY	0
SOUTH BOSTON	0
SOUTH DORCHESTER	0
SOUTH END	0
WEST ROXBURY	0

Community Outreach Material Tracking by Neighborhood



Neighborhood Counts for
Reporting Period
07/01/2020 - 12/31/2020

Neighborhood	Total Touches
ALLSTON/BRIGHTON	117
BACK BAY/BEACON HILL	0
CENTRAL	117
CHARLESTOWN	0
EAST BOSTON	117
FENWAY/KENMORE	0
HARBOR ISLANDS	0
HYDE PARK	117
JAMAICA PLAIN	350
MATTAPAN	117
NORTH DORCHESTER	0
ROSLINDALE	117
ROXBURY	456
SOUTH BOSTON	0
SOUTH DORCHESTER	350
SOUTH END	0
WEST ROXBURY	117

WE ARE ALL CONNECTED

Let's protect Boston



KEEP WIPES OUT OF PIPES

Only toilet paper is flushable



DON'T DUMP

Scum, snot, spit, spit, spit
Keep them out of our pipes

BOSTON WATER AND SEWER DEPARTMENT
www.bwsc.org/allconnected

...e of wh...

花士小學家長

花士小學家長會

花士小學家長會

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告示

告示

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WE ARE ALL CONNECTED

ON WATER AND

市議員吳弭主辦亞太裔傳統月網上直播問答

黃靈美 報導

波士頓不分區市議員吳弭於5月22日主辦「亞太裔美國人遺產月」的網上直播，邀請當地領袖進行問答。吳和三位來賓談到了新冠危機如何影響他們的工作，哪些人物是他們的亞太裔榜樣，以及強大的亞太裔社區的重要性。

吳說：「我們正處於仇恨犯罪和對亞太裔歧視加劇的時刻，其影響將遠遠超出這場公共衛生危機。它還造成了經濟影響。在美國疫情爆發之前，唐人街的生意人早已在苦苦掙扎。」

吳弭邀請了麻州大學波士頓分校亞裔學學院主任渡邊保羅主持

部分直播。渡邊向吳、VietAID越助中心行政主任黎麗莎和Chicken & Rice Guys的老闆蘇宇寅進行了提問。

黎說：「在新冠疫情之前，我曾將越助中心描述為骨幹組織。我們致力於幫助菲爾茲角和越南社區的工人階級站穩腳跟。新冠使我們之前努力嘗試解決的問題加劇。」

黎說，越助中心為學齡前兒童提供日托服務，目前已轉為遠程。曾經聚集在社區中心的老人現在在外面見面，工作人員目前以幫助居民申請失業和疫情失業援助為主，而越助中心大廳已成為大米和農產



波士頓不分區市議員吳弭於5月22日主辦了亞太裔美國人遺產月網上直播，來賓（右上角順時針）麻州大學波士頓分校亞裔學學院主任渡邊保羅，VietAID越助中心行政主任黎麗莎和Chicken & Rice Guys的老闆蘇宇寅。（圖片為YouTube直播截圖）

捉摸不透的世界中：教育的驚人優勢

Christopher John Stephens 供稿

自1998年以來，我在波士頓地區最好的一些學院和大學教英語。一些較小的機構已被較大的機構吸收。那就是所謂的教育業務邏輯的最終結果。我們努力進行教學，教育和啟發，但是如果提供教育的學校無法或不願意適應不斷變化的時代和提供服務的方式，它將自然而然地消失。

在學生去獲得知識地方以及我去提供該服務的每個地方，都以自己的方式面對了Covid-19的現實。3月中旬，大學校園迅速關門，到月底，社會工作重點轉移到了更迫切的需求上，即對人們進行病毒檢測，將診斷為陽性的人住院，以及在某些情況下，使用學生宿舍作為臨時病房。

作為一名兼職大學英語和成人教育的ESOL老師，二十多年來最大的體會就是我有機會體驗所有類型的教學環境。我曾經是一隻小鳥，橫渡著巨大的海岸線和一個小村莊里的一座巨大的摩天大樓。總是根據學生人數和市場需求而變化。但是，無論物理環境和周圍世界的不確定性如何，貫穿所有這些環境的持續動力一直是我滿足學生需求的動力。我的目標一直是使教室成為一個安全的地方：可以獲取語言，吸收知識並共享想法，而不必擔心報復。除了學位甚至更高的職業市場能力，這始終是任何教育經歷中的最大收穫。

對於任何人來說，Covid-19自爆發以來就已經摧毀了我們的文化和基礎設施，這對任何人來說都不是什麼新聞。我們已經失去了100,000多人。我們的經濟處於我們有生以來的最低點。我們文化的教育結構無法始終有效地滿足學生的需求，而冠狀病毒比其他任何事情都暴露出了這個可悲的事實。能夠輕鬆適應在線學習的教育者毫無疑問地轉向Zoom會議，gotomeeting.com課程，學業或Google教室。無論是教育者還是學生，技術獲取和質量可能都沒有一個良好的開端，但是學習曲線趨於平穩。這個學期結束了，我們學會了適應新環境。

自4月初以來，我一直在唐人街的華美福利會（AACA）任教高級專業課程（CAP）。我們每個星期一上午8:30至中午開會，我在較小的地方開會。工作日早上（上午10點至中午）分組（或一對一）。該課

程計劃於6月中旬結束，我希望在7月7日開始ESOL 3級課程。這將是Covid-19時代的第一個完整的在線學期。雖然世界上現在的環境不是我們任何人想要的，但我為夏天在線上課程的潛力感到高興。考慮一下線上學習的這些好處：

- 不用出門上下班。自己定時間表，進度，了解期望並提交工作。上課，不必擔心遲到，因為您已經在那兒了。

- 不同步上課。你錯過了講座嗎？不用擔心已對其進行記錄和存檔，以方便訪問。我們希望在預定的時間Zoom影像框中看到您的生活和面貌，但我們知道生活會變得很忙。我們的課程旨在滿足您的需求。

- 學生體多樣化。藉此機會與來自世界各地志同道合的學生建立聯繫。如果您所有的同學都說您的母語，那麼語言習得會很困難。在我們的課程中，共同的紐帶僅是英語。您可以通過生動有趣的討論與同學和講師保持聯繫與學習。

- 強大而經驗和豐富的支持網絡。該市許多較小的ESL學校將提供必要的課程，僅此而已。通過AACA與Tufts醫療中心以及該市企業的合作，學生將有機會與大量的後期教育機會建立聯繫。在線課程是目前的主要教育手段，AACA還可以在舒適和安全的家庭環境中幫助您進行面試。

教育機構將重返傳統的方式，為對所提供的產品感興趣的學生提供服務，但是我的這些思考與那不確定的未來無關。他們是關於此時此地的。最好的情況是，AACA在今年夏天提供的在線教育體驗可能是一個嶄新的起點。我希望能與您相遇，在線交流，為您人生的下一章鋪路。

Christopher John Stephens是波士頓地區的資深教育家，在該市大部分主要大學教授英語方面有20多年的經驗。他於1993年獲得英語碩士學位。2009年獲得New Orleans大學非小說類創意寫作獎。他為popmatters.com網站定期撰寫書評和文化評論，他的其他著作也出現在WBUR 90.9 FM的COGNOSCENTI和“On Point”中廣播節目。

品倉庫。菲爾茲角中心還是波士頓市和波士頓公立學校的就餐場所。

對於蘇來說，新冠破壞了他兩家餐廳的就餐。Chicken & Rice Guys從2012年以餐車起家，但由於餐車運營受到限制，蘇的團隊轉向了外賣和外送。

「很難。」蘇說。「我們的一名員工生病了，我們不得不關閉所有餐車。」

與會嘉賓接下來討論了新冠期間，歧視問題如何影響了亞裔美國人社區。渡邊指出，亞裔美國人在疫情期間與其他群體所經歷的情形有所不同，就好比911之後的穆斯林社區，這是因為亞裔因不在主流之列而被針對。

渡邊說：「我認為疫情證明了一件事：有色人種遭受的健康和社會影響比例過高。我們需要與其他有色人種共同鬥爭解決問題根源，並建立起聯盟……我們在這場戰鬥

中贏得了盟友。我們也必須協助盟友贏得他們的鬥爭。」

吳贊同渡邊對亞裔美國人社區應與其他缺乏代表的社區并肩作戰的看法。

吳說：「重要的是考慮將基礎設施整合在一起。亞裔的語言和人口狀況如此多樣化。在外部，我們需要考慮與其他日常面對歧視的社區建立起聯盟。」

渡邊希望與會嘉賓談及亞裔榜樣。黎說，她曾受到塔夫茨大學的退休亞裔研究教授吳友文的啟發。蘇引用了IW Group創始人Bill Imada的謙遜領導，吳提到了她兒時的鋼琴老師朱太太。

吳總結與會嘉賓的觀點：加強有色人種之間的相互理解與合作，呼籲大團結。「我希望我們認識到我們所面對的問題是共通的，無論是住房穩定還是經濟機會。我們需要與其他社區聯合起來。」

報告污水管道溢流

污水管道溢流是未經處理的污水意外湧入自然環境或不動產中。

如果遇到污水管道溢流問題，請致電波士頓供水和下水道委員會 24小時緊急服務熱線 617-989-7000。



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Boston Water and Sewer Commission

WE ARE ALL CONNECTED
Let's Protect Boston's Waterways

Please Avoid in-Person Payment: Use Alternative Methods



Due to the recent outbreak of COVID-19, Boston Water and Sewer Commission would like to work together with the community to protect the safety of both our customers and employees. We encourage the use of other available payment methods to reduce public contact.



Pay By Mail

Mail check or money order directly to:
Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119



Pay Online

Visit the *My Account* page to make electronic payments using your checking/money market account, debit card or credit card. BWSC accepts MasterCard, VISA, and Discover.



Pay by Phone

Customer service representatives are available to answer questions at 617-989-7800.

To check your balance or make a payment by phone, please call 844-470-5881.



Martin J. Walsh, *Mayor* | Henry F. Vitale, CPA, *Executive Director/Treasurer*
Boston Water and Sewer Commission | 980 Harrison Avenue, Boston, MA 02119 | www.bwsc.org | (617) 989-7000



Let's Protect Boston's Waterways

Please Avoid in-Person Payment: Use Alternative Methods

**BWSC Neighborhood
Site Visits are Canceled
Until Further Notice**

Because of recent health and safety risks caused by the outbreak of COVID-19, regularly scheduled neighborhood site visits have been **canceled until further notice**. Please see other side of insert for information on alternative ways to pay your bill.



Martin J. Walsh, *Mayor* | Henry F. Vitale, CPA, *Executive Director/Treasurer*
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Let's Protect Boston's Waterways

Currents

BWSC News

Mar/Apr 2020



Learn About BWSC's Green Infrastructure

BWSC supports a “green” approach to stormwater management, which reduces pollutants from entering Boston Harbor and surrounding rivers. BWSC has implemented green infrastructure stormwater management facilities that act like nature by allowing water to be filtered into the ground and prevent pollution of stormwater runoff. Green structures can be found all around Boston. You can check out our green programs at bwsc.org/environment-education.



World Water Day - March 22

Learn about the global importance of water in our lives. This year's theme is about water and climate change and how the two are linked. Visit worldwaterday.org for more info.



Look up a Project

Construction Season Begins

As warm weather returns to Boston, residents will see BWSC construction improvement projects start up again. Stay up to date on upcoming projects in your neighborhood by logging on to bwsc.org/projects/project-lookup. On our project lookup page, you can filter information by neighborhood and view a map of projects in the area. Also, join Nextdoor on social media where BWSC posts updates and notifications on improvements in your neighborhood. **Remember: BWSC crews and those of its contractors always carry ID's and never ask for money.**



Spring Yard Waste Collection

Leaf and Yard Waste collection begins April 13, 2020. Bag, barrel, or tie yard waste for curbside collection on your regular recycling day. Visit the trash and recycling guide at boston.gov for more details.





Help Prevent Stormwater Pollution: Dispose of Pesticides and Herbicides Properly



Insecticides and fertilizers help a garden grow and flourish. When used correctly, these chemicals can protect plants from damage. However, if disposed of improperly, chemicals can pollute stormwater runoff and ultimately contaminate our waterways. If you use fertilizers and pesticides, you need to know the do's and don'ts of their use. Follow label instructions carefully and only use the specified amount. Avoid watering plants right after applying, unless instructions say to do so.

Excess chemicals can wash into waterways. Bring unused chemicals to a Boston Household Hazardous Waste Drop-off Day site for proper disposal. Visit [boston.gov/trash-and-recycling-guide](https://www.boston.gov/trash-and-recycling-guide) for more info. Never dispose of these chemicals in the trash or in the drain. Don't use chemicals in wind or prior to expected rain.

Neighborhood Site Locations March - April 2020

			March	April
Brighton	Allston Brighton Child and Family Service Center, 406 Cambridge Street	Thursdays 10am-12pm	19	23
Chinatown	CCBA, 90 Tyler Street	Thursdays 11am-1pm	12	9
Dorchester	Uphams Corner Municipal Building, 500 Columbia Road	Fridays 10am-12pm	13	10
East Boston	East Boston APAC, 21 Meridian Street	Wednesdays 10am-1pm	4 11	1 8
Fields Corner	Kit Clark Senior Center, 1500 Dorchester Avenue	Mondays 10am-12pm	23	27
Hyde Park	Hyde Park Municipal Building, 1179 River Street	Tuesdays 10am-1pm	3 17	7 21
Jamaica Plain	Jamaica Plain Public Library, 30 South Street	Mondays 10am-12pm	9	20
Mattapan	Mattapan Public Library, 1350 Blue Hill Ave	Fridays 10am-12pm	6	3
North End	North End Public Library, 25 Parmenter Street	Thursdays 10am-12pm	5	2
Roslindale	Great Roslindale Medical and Dental Center, 4199 Washington Street	Tuesdays 10am-1pm	10	14
South Boston	South Boston APAC, 424 West Broadway	Wednesdays 10am-1pm	25	29
West Roxbury	Roche Community Center, 1716 Centre Street	Fridays 10am-1pm	27	24
South End & Roxbury	BWSC Headquarters, 980 Harrison Avenue	Monday-Friday 8a -5p & Wednesdays 8a-7p		

Boston Water and Sewer Commission COVID-19 Update

BWSC customers do not need to worry, the virus is not in your water.



Boston Water and Sewer Commission in conjunction with Massachusetts Water Resources Authority regularly tests drinking water for any contaminants. Be assured that we will continue to provide our customers water that meets all health standards. COVID-19 is not in Boston's drinking water.

Keep wipes out of pipes!

Remember that your toilet should not be used as a trash can. Do not treat other items like toilet paper. Please do not flush paper towels, "flushable" wipes, napkins, tampons, cotton balls, dental floss or other substances. Flushing nonbiodegradable items can result in backups and overflows.



BWSC offices are closed to the public

Due to the recent outbreak of COVID-19, Boston Water and Sewer Commission will be closed to the public until further notice. In addition, Neighborhood Site Visits will not be held until further notice. BWSC offers multiple payment methods such as online, by phone, or by mail. Any questions about your account please call 617-989-7800.



Boston Water and
Sewer Commission

980 Harrison Avenue
Boston, MA 02119

Emergency Hotline: 617-989-7000

Currents

BWSC News

Jan/Feb 2020

Protect Your Pipes

Keep cabinet doors open during cold spells to allow warm air to circulate around the pipes.

Seal openings in your home to prevent cold air from leaking through.

Allow a slow trickle of water to flow through faucets connected to water pipes that run through unheated spaces.

Know where the main water shutoff valve is in your home and how to turn it off.

Insulate pipes in unheated spaces such as garages, basements, and crawl spaces.

If pipes freeze, use a hairdryer to thaw lines. Thawing this way may not be fast, but it will be safe. **Never use an open flame to thaw pipes.**

If there is no water coming into your home, call BWSC's 24-hour Emergency Assistance Line at 617-989-7000.

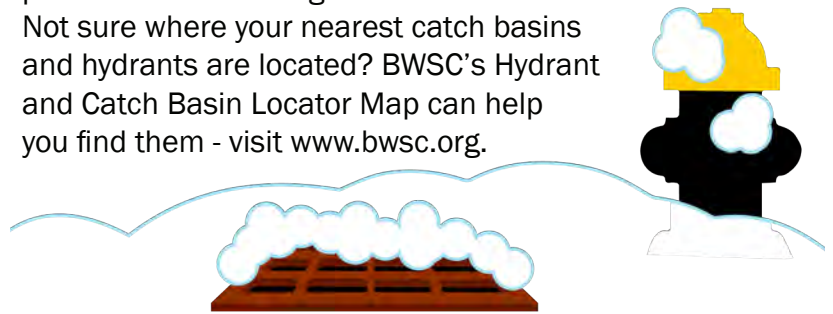


A frozen pipe could burst and become a costly inconvenience.

Help Clear Snow After a Storm

Did you know Boston has over 30,000 catch basins and over 12,000 fire hydrants? You can assist in keeping hydrants clear of snow so the Boston Fire Department can access them quickly in case of emergency. Clearing snow, ice, and debris from the tops of catch basins will also prevent street flooding as snow and ice melt.

Not sure where your nearest catch basins and hydrants are located? BWSC's Hydrant and Catch Basin Locator Map can help you find them - visit www.bwsc.org.



Water & Sewer Rates for 2020

Consumption (Cu. Ft./Day)	Water		Sewer	
	Per 1,000 Cubic Feet	Per 1,000 Gallons	Per 1,000 Cubic Feet	Per 1,000 Gallons
First 19	\$53.86	\$7.201	\$75.39	\$10.078
Next 20	\$57.52	\$7.689	\$82.02	\$10.965
Next 50	\$62.73	\$8.387	\$88.50	\$11.831
Next 260	\$66.86	\$8.938	\$93.45	\$12.493
Next 950	\$70.37	\$9.408	\$99.14	\$13.255
Over 1299	\$73.26	\$9.794	\$102.92	\$13.759

The above chart reflects a 7.9% overall increase in water and sewer charges for 2020. The average residential customer will see an increase in the amount of about \$2/month.



Toss that Tea!

BWSC was honored to celebrate the 246th anniversary of the Boston Tea Party with the Boston Tea Party Ships and Museum (BTPSM). In keeping with BWSC's "Don't Dump" campaign, the tea dumped into the harbor is biodegradable, and all other props used in the reenactment were made to float and easy to identify for retrieval from the Harbor after the event. Our team was there to educate visitors on the importance of keeping Boston Harbor clean.



Financial Assistance Programs

Discount for the Elderly and Fully Disabled

A discount is available for homeowners 65 years or older, or Fully disabled. Qualifying customers receive a 30% discount on the water portion of your bill.

Sewer Lateral Financial Assistance Program

If your sewer line is blocked, collapsed or leaking and verified by a BWSC inspector you could receive a grant up to \$4,000.

Lead Replacement Incentive Program

If you qualify for lead replacement, you will receive a grant for up to \$2,000 and interest free payments extended over 48 months.

Learn more about these programs at www.bwsc.org.

Neighborhood Site Locations January - February 2020



			January	February
Brighton	Allston Brighton Child and Family Service Center, 406 Cambridge Street	Thursdays 10am-12pm	16	20
Chinatown	CCBA, 90 Tyler Street	Thursdays 11am-1pm	9	13
Dorchester	Uphams Corner Municipal Building, 500 Columbia Road	Fridays 10am-12pm	17	21
East Boston	East Boston APAC, 21 Meridian Street	Wednesdays 10am-1pm	8 15	5 12
Fields Corner	Kit Clark Senior Center, 1500 Dorchester Avenue	Mondays 10am-12pm	27	24
Hyde Park	Hyde Park Municipal Building, 1179 River Street	Tuesdays 10am-1pm	7 21	4 18
Jamaica Plain	Jamaica Plain Public Library, 30 South Street	Mondays 10am-12pm	13	3
Mattapan	Mattapan Public Library, 1350 Blue Hill Ave	Fridays 10am-12pm	10	7
North End	North End Public Library, 25 Parmenter Street	Thursdays 10am-12pm	2	6
Roslindale	Great Roslindale Medical and Dental Center, 4199 Washington Street	Tuesdays 10am-1pm	14	11
South Boston	South Boston APAC, 424 West Broadway	Wednesdays 10am-1pm	29	26
West Roxbury	Roche Community Center, 1716 Centre Street	Fridays 10am-1pm	24	28
South End & Roxbury	BWSC Headquarters, 980 Harrison Avenue	Monday-Friday 8a -5p & Wednesdays 8a-7p		

Currents

BWSC News

May/June 2020

BWSC Prepares for A Post-COVID-19 World

Like all of us living and working in City of Boston, the Boston Water and Sewer Commission (BWSC/Commission) has been impacted by the COVID-19 pandemic. The Commission plays a vital role in protecting public health and the environment. We remain committed to that goal as we observe the strictest CDC guidelines about social distancing and non-emergency contact with the public.

The health and safety of our employees and customers is our top priority and we have adopted a number of emergency protocols that have allowed us to continue providing water, sewer and wastewater services to households and businesses in the City of Boston – all while keeping our employees and customers safe. We will continue to operate under these protocols until the City of Boston and Commonwealth of Massachusetts ease current restrictions. We appreciate your cooperation and understanding during these unprecedented times.

Mindful of the economic hardships facing some of our customers, we are also offering flexible payment plans and have suspended water shut-offs for non-payment.

At the same time, we have developed and implemented a series of measures to ease the customer experience that will remain in place after the crisis passes. For example, we have deployed technology that will allow customers to access a host of services online. To learn more about these options, please visit the Commission's website at www.bwsc.org or call us at 617-989-7800.

Quick Reference for Customers

- BWSC Headquarters at 980 Harrison Avenue is presently closed to the public.
- Many customer service functions can be preformed on-line at www.bwsc.org. Customer service representatives can be reached live Monday through Friday from 8 am to 5 pm. at 617-989-7800.
- BWSC has suspended water shutoffs for non- and late-payments during the state of emergency.
- BWSC is also offering flexible payment plans for customers experiencing financial hardships during the pandemic.
- Neighborhood site visits have been suspended.

Customer Self-Service Portal



Want to manage your account without leaving the house? Sign up on our Customer Self-Service Portal

- Register for E-Bill
- Register for AutoPay
- View and download your bill
- Pay your bill
- View your account history
- Monitor daily and monthly consumption



Special Thanks to Boston's Healthcare Workers

BWSC joined the City of Boston's efforts in supporting our healthcare workers by supplying nurses at the Boston Hope Field Hospital with water bottles. Thank you Boston healthcare workers for your service in combatting COVID-19!



Emergency Service

- BWSC crews will continue to respond to any service or system emergencies.
- If it is determined that access is required to a property, BWSC employees wearing Personal Protective Equipment will ask a series of questions about customers and their health to determine next steps.
- For 24-hour emergency service, call 617-989-7000.



Keep Wipes Out of Pipes!

Wipes that claim to be “flushable” and “sewer safe” in fact are not. These wipes do not break down as they travel through pipes and the public sewer system. Instead, they create backups both in your home and on the streets. The following items should be disposed of in the trash:

- Flushable Wipes
- Towelettes
- Dental Floss
- Cotton Balls



Please Help Public Works: Don't Litter! Throw Used Gloves and Masks in the Trash

The Boston Public Works Department (PWD) keeps the streets and our city clean and beautiful. Their hard work prevents trash from blocking catch basins, resulting in flooding and pollution of our waterways. PWD crews continue to find discarded rubber gloves and masks on our sidewalks and streets. Please discard rubber gloves and masks in the trash.



Don't Forget to Scoop the Poop!

Catch Basins connect to storm drains that discharge untreated runoff into the nearest waterway. Dog waste dumped into a catch basin will find its way to our waterways. Please pick up after your dog and dispose of the waste in the trash.

Reduce Chemical Use: Nontoxic Alternatives for Household Cleaning

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

Baking soda: Cleans, deodorizes, and scours.

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

Lemon: Kills household bacteria and removes odors.

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

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

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



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



DOING THIS



CAUSES THIS



AND THIS!!!

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

- Bathroom Wipes
- Baby Wipes
- Disinfecting Wipes
- Towelettes







Don't Dump!

Help protect
our waterways



Most catch basins in Boston connect to storm drains that discharge the runoff to the nearest brook, river or Boston Harbor. Substances carelessly spilled or dumped onto our streets or directly into a catch basin can **pollute Boston Harbor and the Charles, Neponset and Mystic Rivers.**



Report Illegal Dumping

The dumping of any substance into a catch basin is illegal in Boston. Prohibited substances include household chemicals, fertilizers, insecticides, automotive fluids, oils, paints, pet waste and commercial waste. Anything dumped into a catch basin can travel through storm drains to local streams, rivers, and into Boston Harbor. These pollutants harm water quality and can kill aquatic life.

To report an illegal dumping incident, contact the Boston Water and Sewer Commission immediately at 617-989-7000



Report SSOs

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

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



BWSC.ORG



Boston Water and
Sewer Commission

WE ARE ALL CONNECTED
Let's Protect Boston's Waterways

MASSACHUSETTS HACIA LA FASE 3: Negocios y comercios que se reactivarán en esta etapa

La fase tres iniciará el próximo 29 de junio si la cifra de contagios y hospitalizaciones continúa bajando

■ REDACCIÓN - EL PLANETA

A pesar de que Massachusetts inició esta semana la segunda fase de su plan de reapertura, ya son muchos los negocios que se preguntan qué vendrá para la tercera fase, que se espera comience el próximo 29 de junio, siempre y cuando los datos de COVID-19 sigan con tendencia a la baja.

En esta nueva fase se reactivarán casi todas las áreas en el estado.

Lo que no estará permitido, según el gobernador Baker es la celebración de eventos deportivos, festivales de música, reuniones en bares o clubes nocturnos y parques de diversiones. Estos reabrirán en la fase cuatro mejor conocida como "la nueva normalidad", etapa que llegará cuando esté disponible una vacuna.


A continuación listamos los negocios y comercios que reabrirán en la fase tres:

- Educación Post-Secundaria / Educación Superior / Vocacional-Técnica / Comercio / Escuelas Ocupacionales - operaciones generales.
- Áreas de juego de los casinos.
- Carreras de caballos con transmisión simultánea (sin espectadores).

- Instalaciones deportivas y de recreación en interiores (no limitadas a programas juveniles).
- Gimnasios.
- Salas de cardio, de pesas y vestuarios.
- Estudios deportivos: yoga, barre, crossfit, spin classes y estudios de ejercicios en general.
- Espacios comunitarios interiores.
- Piscinas cubiertas.
- Canchas de tenis cubiertas.
- Vestuarios y duchas, excepto saunas, jacuzzis y salas de vapor.
- Museos.
- Acuarios.
- Teatros al aire libre y salas de espectáculos con una capacidad moderada.
- Teatros interiores, salas de conciertos con capacidad moderada.
- Visitas turísticas y otras excursiones organizadas.
- Torneos de pesca y caza. Además de otros derbis de aficionados o profesionales.
- Bodas - eventos - reuniones en parques.
- Clases de instrucción no atlética en interiores.
- Negocios recreativos en interiores: jaulas de bateo, campos de prácticas, go karts, bowling alleys, arcades, laser tag, pistas de patinaje, trampolines, rock climbing.



LOCAL. En la fase tres de reapertura vuelven a abrir los gimnasios.



S W H

Senior Whole Health.
A MAGELLAN COMPANY

Un plan de salud para personas mayores con MassHealth.

Hablamos su idioma.

¡Hablamos más de 40 idiomas y le ayudaremos a recibir atención de alguien que le entiende!

Llame al 1-888-566-3526 (TTY 711).
www.seniorwholehealth.com

Senior Whole Health cumple con todas las leyes en materia de derechos civiles federales vigentes y no discrimina por motivos de raza, color, nacionalidad, edad, discapacidad ni sexo. Senior Whole Health (HMO SNP) y Senior Whole Health NHC (HMO SNP) son planes de atención coordinada con un contrato con Medicare Advantage y un contrato con el programa Commonwealth of Massachusetts/EOHHS MassHealth (Medicaid). La inscripción depende de la renovación contractual anual. H2224-2020-84533_M SPN Approved 2/11/2020

Report SSOs

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

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

BWSC.ORG  Boston Water and Sewer Commission  Let's Protect Boston's Waterways

Boston Water and Sewer Commission COVID-19 Update



BWSC customers do not need to worry, the virus is not in your water.

Boston Water and Sewer Commission in conjunction with Massachusetts Water Resources Authority regularly tests drinking water for any contaminants. Be assured that we will continue to provide our customers water that meets all health standards. COVID-19 is not in Boston's drinking water.

For BWSC COVID-19 updates please visit www.bwsc.org.

BWSC offices are closed to the public until further notice

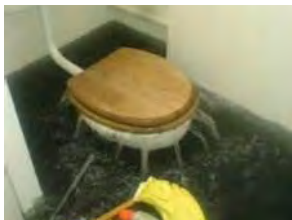
Due to the recent outbreak of COVID-19, Boston Water and Sewer Commission will be closed to the public until further notice. In addition, Neighborhood Site Visits will not be held until further notice. BWSC offers multiple payment methods such as online, by phone, or by mail. Any questions about your account please call 617-989-7800. **In the event of an emergency please call 617-989-7000.**



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



DOING THIS



CAUSES THIS



AND THIS!!!

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

- Bathroom Wipes
- Baby Wipes
- Disinfecting Wipes
- Towelettes



EXIT

Daily News

Word Wall

Around the World in 60 seconds

The Iowa caucus begins
 Unlike primary elections
 voters who do not
 go to a polling place
 and gather
 to vote

Bell Schedule

1st Period 7:15-8:05
 2nd period 8:15-9:20

7th grade

Buddhism	Sacraments	Monsoons
dharma	nirvana	Karma

8th grade

the process of law

CLASSROOM Rules

1. Be on time
2. Prepared to learn
3. Dismiss on time (not the bell)
4. Remain in Assigned Seats

PUT A



FATS, OIL, AND GREASE = FOG



BOSTON WATER AND SEWER COMMISSION



Josiah Quincy



Josiah Quincy

Josiah Quincy

Josiah Quincy

Josiah Quincy

Josiah Quincy

Josiah Quincy

Josiah Quincy

Josiah Quincy

Josiah Quincy



WE ARE CONNECTED

Let's plan waterways

HANDS FREE



Handwritten notes on a grid background, organized in columns with purple, green, and blue headers.

Handwritten notes on a grid background, organized in columns with purple, green, and blue headers.

A cursive alphabet banner across the top of the whiteboard: A a B b C c D d E e F f G g H h I i J j K k L l M m N n O o P p Q q R r S s T t U u V v W w X x Y y Z z 1 2 3 4 5 6 7 8 9 10

Handwritten text on a whiteboard: "WORLD EL CHAMPION" with a blue banner graphic.

PUBLISHED WORK

Multiple copies of the book "Community" being held up by the students.

Small text on a bulletin board: "Check out" and "American flag" with a small flag icon.

WE ARE ALL CONNECTED

Let's protect Boston's waterways



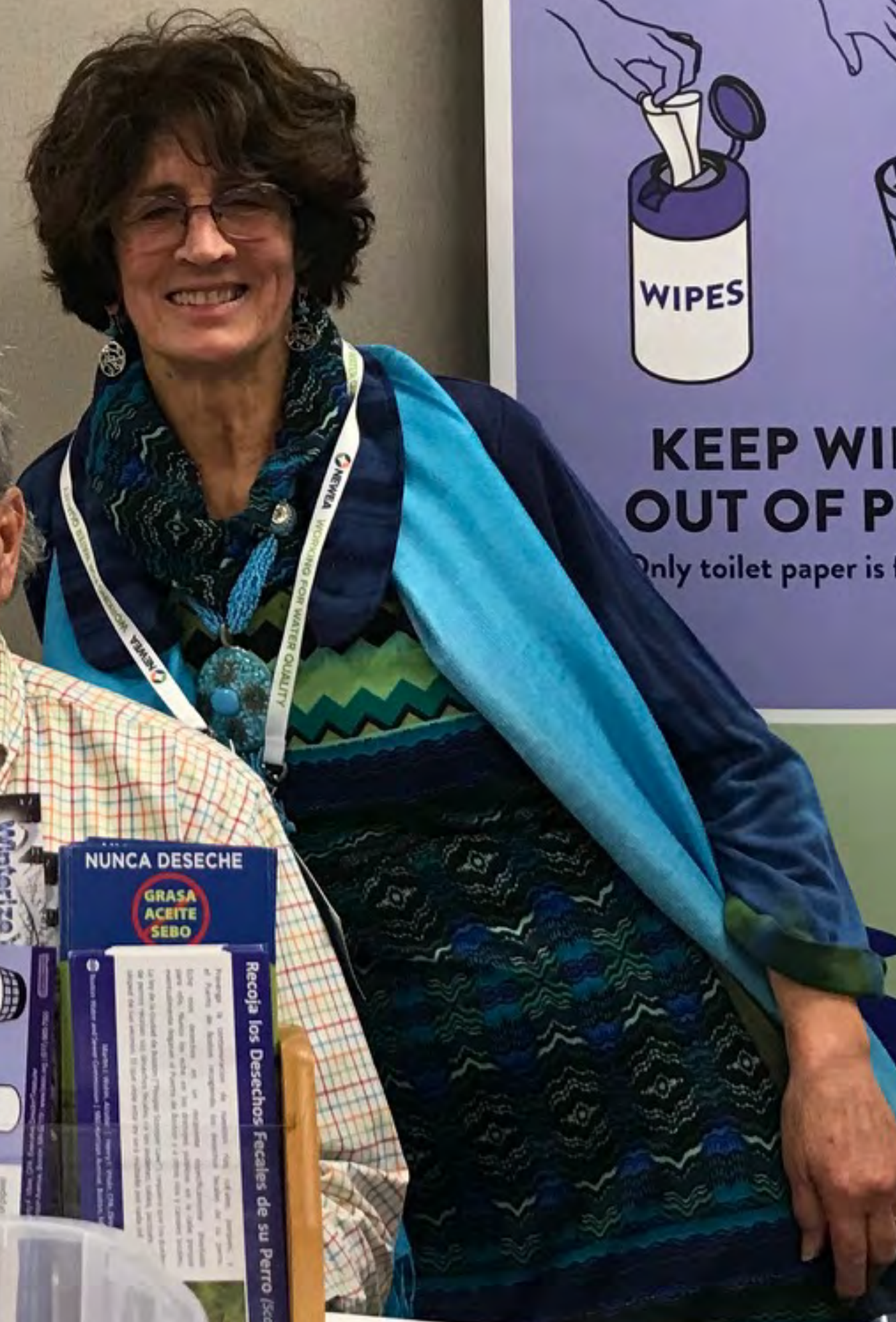
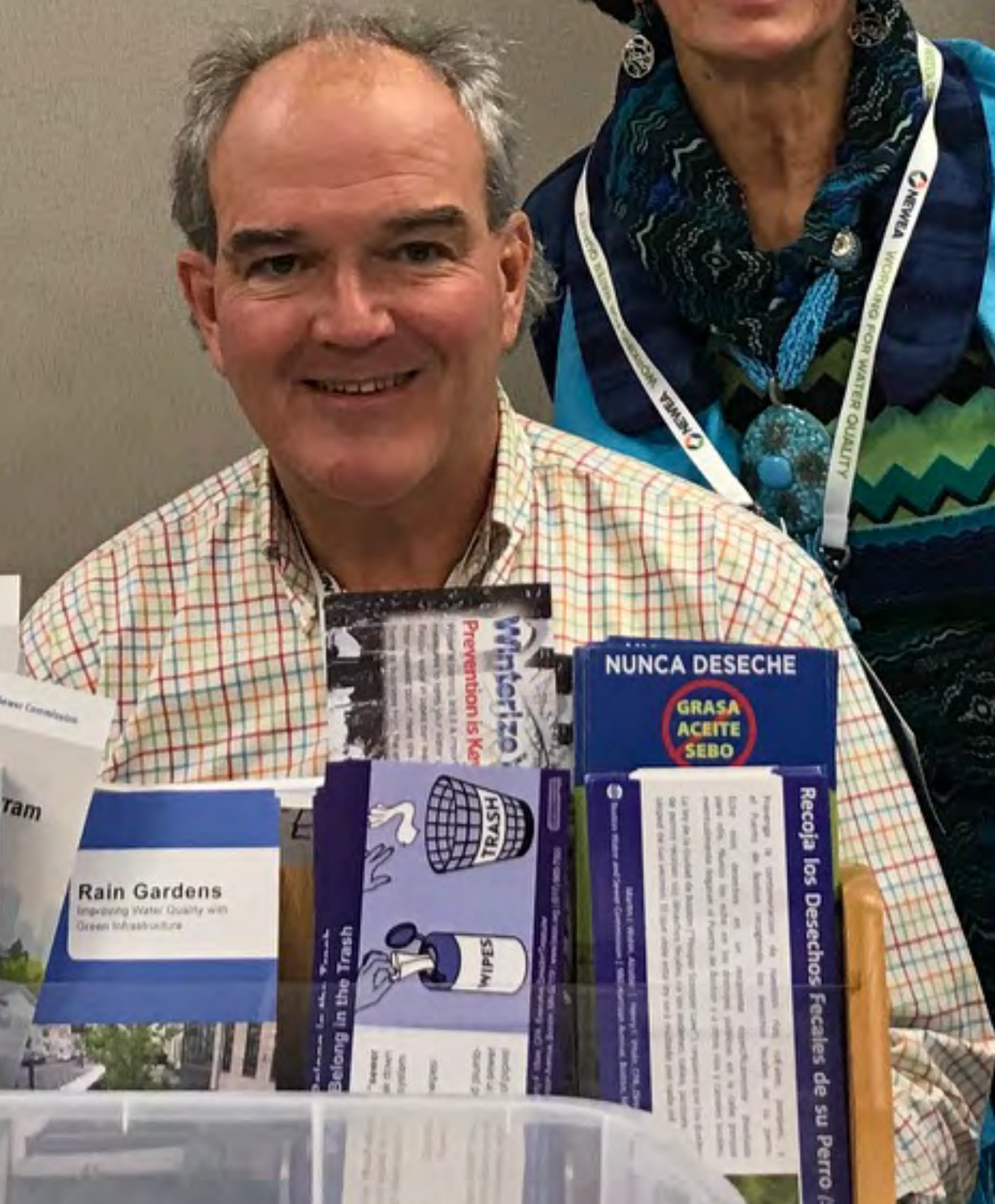
KEEP WIPES OUT OF PIPES
Only toilet paper is flushable.



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



...IT! CAN IT!



BWSC

Let Our Water

Boston Water and Sewer is Coming to Your Neighborhood

Boston Water and Sewer Commission (BWSC) will have a representative from the Community Services Department at the following neighborhood locations to offer assistance on the dates listed. BWSC staff will be available to:

- Accept payments (Check or money order only - no cash please).
- Process elderly or disabled persons discount forms.
- Arrange payment plans for delinquent accounts.
- Resolve billing or service complaints.
- Review water consumption data for your property.
- Explain BWSC customer programs.

For more information, please call our Community Services Department at **617-989-7000**.

Neighborhood Site Locations, January-June 2020				Jan	Feb	Mar	Apr	May	Jun
Brighton	Allston Brighton Child and Family Service Center, 406 Cambridge Street	Thursdays	10am-12pm	16	20	19	23	28	18
Chinatown	CCBA, 90 Tyler Street	Thursdays	11am-1pm	9	13	12	9	14	11
Dorchester	Uphams Corner Municipal Building, 500 Columbia Road	Fridays	10am-12pm	17	21	13	10	8	12
East Boston	East Boston APAC, 21 Meridian Street	Wednesdays	10am-1pm	8 15	5 12	4 11	1 8	6 13	3 10



Scoop the Poop!

Help prevent contamination of our waterways. Pick up your pet's waste and put it in the trash. If left on the street, pet waste can be carried by rain into catch basins, which drain directly to local waterways.





WE ARE ALL CONNECTED

Let's Protect Boston's Waterways
 What we do affects our waterways.
 Help keep Boston Harbor and
 other waterways clean by clearing
 storm drains and disposing pet
 waste in the trash.

Neighborhood Site Locations, January-June 2020				Jan	Feb	Mar	Apr	May	Jun
Fields Corner	Kit Clark Senior Center, 1500 Dorchester Avenue	Mondays	10am-12pm	27	24	23	27	18	15
Hyde Park	Hyde Park Municipal Building, 1179 River Street	Tuesdays	10am-1pm	7 21	4 18	3 17	7 21	5 19	2 16
Jamaica Plain	Jamaica Plain Public Library, 30 South Street	Mondays	10am-12pm	13	3	9	20	11	8
Mattapan	Mattapan Public Library, 1350 Blue Hill Avenue	Fridays	10am-12pm	10	7	6	3	1	5
North End	North End Public Library, 25 Parmenter Street	Thursdays	10am-12pm	2	6	5	2	7	4
Roslindale	Greater Roslindale Medical & Dental Center, 4199 Washington Street	Tuesdays	10am-1pm	14	11	10	14	12	9
South Boston	South Boston APAC, 424 West Broadway	Wednesdays	10am-1pm	29	26	25	29	20	17
West Roxbury	Roche Community Center, 1716 Centre Street	Fridays	10am-1pm	24	28	27	24	22	19
South End & Roxbury	BWSC Headquarters, 980 Harrison Avenue	Monday-Friday Wednesday	8am-5pm 8am-7pm	Residents of the South End & Roxbury are invited to use BWSC Headquarters as their neighborhood site location.					

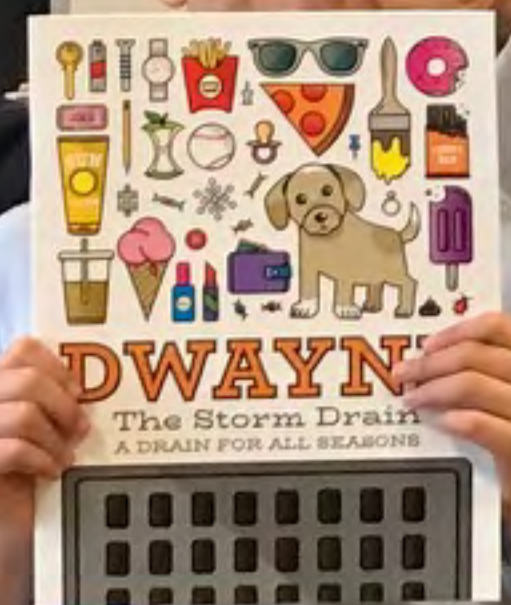


Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz

West



Black Matter



amazing could day El Salva

Gg gattuso Ii intelligent Jj jump Kk kalimba

Mm mindful Nn New York Oo outshare Pp public

Zip Zap Zap

What changed?

Close Reading

I'm a star!

Copy the Move

Prewriting

Writing

Revising

Responsible

Use Sp Technology





Minuteman
Trucks, Inc.
508-688-3112

Boston Water and
Sewer Commission

BWSC

波士頓自來水暨下水道管理委員會 新冠病毒 疫情資訊 (COVID-19) Update



波士頓市民無需耽心，冠狀病毒不會進入您的日常用水當中。

波士頓自來水暨下水道管理委員會與麻州水資源管理處，均定期檢測監控飲用水中的污染物，以確保我們持續為消費者提供的水源，符合所有衛生安全的標準。新冠病毒 (COVID-19) 並未在波士頓市的飲水當中。



請勿將紙巾丟入下水道中！

請注意！您的沖水馬桶不是您的垃圾桶，除了衛生紙，請不要將廚房紙巾、濕巾、餐巾紙、衛生棉、棉花球、牙線等其他雜物丟入您的沖水馬桶。如果您的馬桶投入了上述無法生物分解材質的物品，將會造成您下水道的回堵與滿溢。

波士頓自來水暨下水道管理委員會辦公室暫時對大眾關閉。

由於近來新冠病毒疫情的擴散，波士頓自來水暨下水道管理委員會辦公室決定暫時對大眾關閉，直到進一步通知為止。此外，我們定期舉辦的「社區鄰里訪視服務」也將暫時停止至進一步通知為止。有關水費的支付，您可以透過網上付費、來電付費或郵寄支票等方式辦理。如果您對自己的帳戶有任何問題，請致電：617-989-7800。

 **Boston Water and
Sewer Commission**

**980 Harrison Avenue
Boston, MA 02119**

**緊急熱線
617-989-7000**

Currents

BWSC News

Jul/Aug 2020



Open to the Public By Appointment

While a large percentage of transactions can be conducted remotely at bwsc.org, BWSC offices are open to the public for business by appointment. To schedule an appointment call 617-989-7800. No walk-ins will be permitted during this time. A record of your visit, including a valid ID and phone number will also be required to comply with federal and state contact tracing regulations.

Before accessing the building, visitors are required to:

- Have an appointment
- Provide a valid ID and current telephone number for contact tracing purposes
- Wear face covering/masks at all times
- Undergo temperature screening
- Answer health related questions



Easy Ways to Pay Online (www.bwsc.org)

QuickPay

- E-Check
- Debit Card
- Credit Card

AutoPay

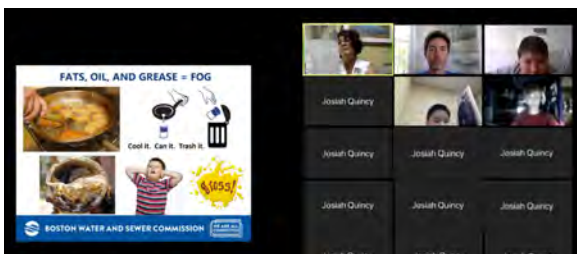
- Register for Online Account
- Sign up for AutoPay



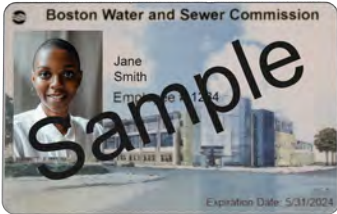
BWSC @ Work, Essential Services Continue Uninterrupted

While we face the COVID-19 crisis together, BWSC is working hard around the clock maintaining the water and sewer infrastructure throughout the city. BWSC crews will continue following safety guidelines put forth by the CDC to ensure the health and safety of our employees and the public.

Virtual Community Education



Presentations are now being held virtually by our educational outreach coordinator. Students can still learn what can and can't be flushed down the toilet or put into storm drains, where our water comes from, and so much more. Camps or summer programs interested in a presentation, contact BWSC at cilloa@bwsc.org.



Protect Yourself! Always Ask for Identification

Construction work has begun. Before allowing anyone into your home or property, always ask for identification. BWSC employees and consultants are required to provide you with an official photo ID card.

If you are unsure about allowing someone who claims to be a BWSC employee into your home, call (617) 989-7000 for verification. Ask for the Community Services Department.



Tips on Outdoor Water Conservation

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



Stay Hydrated This Summer!

When you are headed out to enjoy the summer weather, don't forget your mask - and don't forget to fill your bottle with great tasting Boston tap water. It's important to stay hydrated during the summer months. Whether you are going for a jog or enjoying the sun, you can always take along some refreshing tap water.



Don't Dump! Help Protect our Waterways

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

Currents

BWSC News

Nov/Dec 2020

The traditional celebrations that occur this time of year may look different as a result of COVID-19. Please celebrate safely, and enjoy the holidays in good health.

What is FOG?

As many of us are baking, roasting and preparing seasonal meals there is one rule that every cook should remember:

Don't dump Fats, Oils, or Grease (FOG) down the drain! Instead, **Can the Grease!**

Where does FOG come from? FOG is found in many food products such as:

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



FOG is an unavoidable part of cooking but knowing how to dispose of FOG is key. Excess Fats, Oils, and Grease should never be poured down the sink, or flushed down the toilet. FOG that's poured into the sink or toilet will harden in the pipes and cause backups in your plumbing and Boston's sewer system.



Disposing of FOG is easy

All you need to do is **Can the Grease!**

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



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





BWSC Community Outreach

November 28 is Small Business Saturday. BWSC lends its support to the City of Boston Main Streets by donating free packets that include a grease lid. Whenever you choose to shop, stop by any of the 20 participating Main Streets offices and pick-up a free packet courtesy of BWSC. Visit the main streets page at <https://bit.ly/3kvNeHr> for information on your local main streets district. Thank You for shopping locally.



Sanitary Sewer Overflow Prevention

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

To Help Prevent Sanitary Sewer Overflows, Please:

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



Don't Forget to Scoop the Poop!

Catch Basins connect to storm drains that discharge runoff without treatment to the nearest waterway. Dumping pet waste into a catch basin pollutes the same waterways that we utilize for recreational purposes. As with other refuse, the proper place to dispose of pet waste is in the trash. Pet waste is harmful to our waterways.



Convenient Ways to Pay while staying Safe

- **Online:** Visit the My Account page to make electronic payments using your checking/money market account, debit card or credit card. BWSC accepts MasterCard, VISA, and Discover.
- **By Phone:** Customer service representatives are available to answer questions at 617-989-7800.
- To check your balance or make a payment by phone, please call 844-470-5881.
- **In the Mail:** Mail check or money order directly to:
Boston Water and Sewer Commission
980 Harrison Avenue
Boston, MA 02119

CURRENTS

BWSC News

Sept/Oct 2020



Catch Basins ready for installation

BWSC @ Work

Construction has fully resumed in the city and BWSC will continue its dedicated maintenance, replacement and rehabilitation of Boston's water and sewer infrastructure.

Please remember not to let anyone into your building without proper identification during the construction season. You may contact BWSC at (617) 989- 7000.



Book a Virtual Presentation

Do you have remote classes or community groups who would like to meet virtually and learn about where our water comes from and its quality? Reach out to us for more information by sending an email to cilloa@bwsc.org. The Commission offers local schools educational presentations to help promote an understanding of the importance of water quality and what individuals can do to help maintain our local waterways. Our educational program also extends to senior centers, neighborhood groups, and other nonprofit organizations interested in environmental education. We will continue to respect social distancing guidelines by offering our educational outreach program remotely.



Boston Counts 2020

The deadline to respond to the 2020 census has changed from October 31st to September 30th. If your household has not responded, you can still do so online or by telephone at my2020census.gov or by calling 844-330-2020. Services are offered in 13 languages, and you can respond even without your original census ID number.



Save the Date!

Imagine a Day Without Water is October 21st. Follow us on social media to see why Boston Water and Sewer Commission values water each day. Visit imagineadaywithoutwater.org to see how you can get behind the cause too!



Water Main Flushing Program Schedule

Flushing hydrants is an important preventive maintenance activity that allows BWSC to continue to deliver the highest quality water and fire protection to our customers. If you experience a discoloration of water after BWSC crews flush, run your faucets for a minute or two, this will clear your water service line. Flushing will commence September 1st through October 12th in Chinatown, South End and Roxbury from 10PM to 6AM.

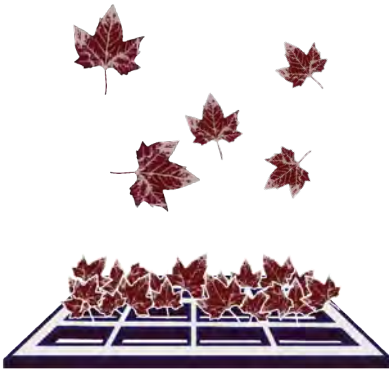
Check our website for a list of streets.



Paying Your Bill Online

Promote social distancing by paying your bill on-line at www.bwsc.org. Our website has convenient options for bill payment such as Quickpay and Autopay. Also, if you sign up for the Customer Self-Service portal, you can view, download and pay your bill. You can also view your account history, monthly consumption, and daily consumption. Our on-line system simplifies the billing process while also helping to reduce social contact.

Reminder: In-person services are available at Headquarters by appointment only.



Keeping Catch Basins Clear

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

How You Can Help

- Use gloves or other protective gear.
- Clear leaves and other debris from catch basins in your neighborhood or near your business.
- Put leaves and other yard debris in large paper bags or open barrels labeled "YARD WASTE".
- Place barrels, bags and branches curbside by 7 AM on your neighborhood's designated recycling day.

Leaf and Yard Waste Collection

Leaf and yard waste collection continues through the first week in December. For more information, call the DPW at 617-635-7573 or visit their website at boston.gov/trash-day-schedule.



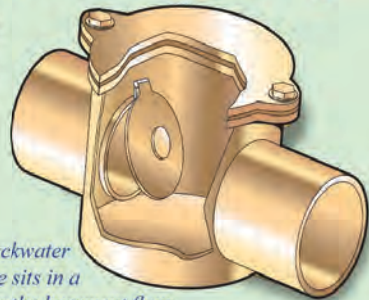
A Backwater Valve Can Protect Your Property

Heavy rain events can cause combined sanitary sewers and storm lines to surcharge, resulting in a possible back-up to lower level connections that are not protected. These lower level connections should be protected from backflow by means of a backwater valve protection device.

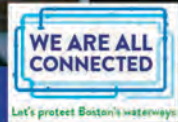
A backwater valve is a fixture that is installed on a sewer line or drain in the basement. A properly installed backwater valve prevents the reverse flow of water, keeping sewage from entering your property.

Backwater valves should be installed to protect effected basement lines only and installed by a licensed plumber with the approval of the local plumbing authority.

Property owners are responsible for the installation and maintenance of backwater valves. Backwater valves must be installed in accordance with the state plumbing code, 248 CMR, section 2.09:4, the Boston Water and Sewer Commission's (BWSC) Sewer Regulations and Boston Inspectional Services Department (ISD) Permits.



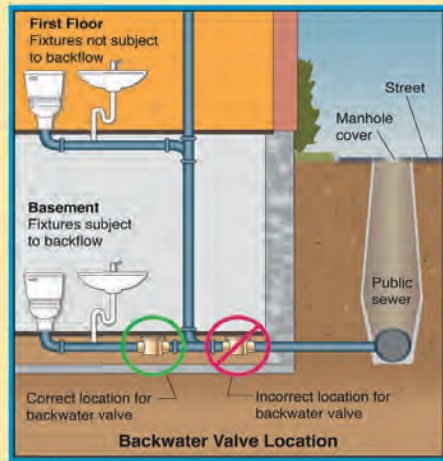
A backwater valve sits in a pit in the basement floor



Avoid Sewage Backups with a Backwater Valve

Some basement level plumbing fixtures are set at a lower elevation than the manhole cover of the public sewer in the street. In those cases, a sewage backup can occur, particularly during heavy rains.

Boston Water and Sewer Commission (BWSC) recommends that property owners obtain multiple estimates from licensed plumbers prior to the installation of a backwater valve. This one-time investment significantly reduces the risk of sewage backup, and may save your personal property from damage.



Typical plumbing configuration illustrating proper location for a backwater valve. Consult a licensed plumber for proper location to install backwater valve in your home or building.



Obstructed Catch Basins Cause Flooding and Pollution

During storm events, rainwater flows into the catch basins in the street and into the storm drain system, which transports rainwater directly to local waterways.

Debris on top of catch basins, including trash, can prevent rainwater from flowing into the storm drain system, causing streets to flood. Debris can also travel with rainwater through the storm drain system and pollute local waterways.



 Boston Water and Sewer Commission • 980 Harrison Avenue, Boston MA 02119 • (617) 989-7000

Keep Catch Basins in your Neighborhood Clear

To prevent street flooding and pollution from debris on top of catch basins:

- ▶ Clear leaves from the catch basins and dispose of leaves with yard waste. For more information on proper disposal of yard waste, go to www.cityofboston.gov/publicworks/wastereduction/yardwaste.asp.
- ▶ Clear debris from the top of catch basins and place into a trash receptacle.
- ▶ Sweep up debris from sidewalks and driveways and place into a trash receptacle. Do not sweep debris into catch basins.



 Boston Water and Sewer Commission • 980 Harrison Avenue, Boston MA 02119 • (617) 989-7000



Don't Dump!

Help protect our
water resources.



Most catch basins in Boston connect to storm drains that discharge the runoff to the nearest brook, river or Boston Harbor. Substances carelessly spilled or dumped onto our streets or directly into a catch basin can **pollute Boston Harbor and the Charles, Neponset and Mystic Rivers.**



Report Illegal Dumping

The dumping of any substance into a catch basin is illegal in Boston. Prohibited substances include household chemicals, fertilizers, insecticides, automotive fluids, oils, paints, pet waste and commercial waste. Anything dumped into a catch basin can travel through storm drains to local streams, rivers, and into Boston Harbor. These pollutants harm water quality and can kill aquatic life.

To report an illegal dumping incident, contact the Boston Water and Sewer Commission immediately at 617-989-7000



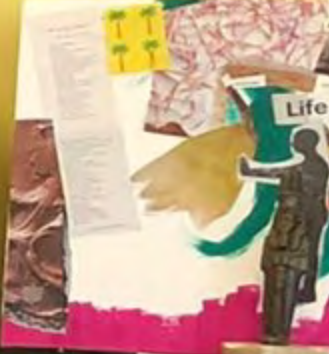


DOS

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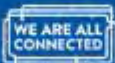
FATS, OIL, AND GREASE = FOG



Cool it. Can it. Trash it.



BOSTON WATER AND SEWER COMMISSION



Josiah Quincy



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BWSC
@BOSTON_WATER

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This weekend BWSC will be at the Stop & Shop at South Bay Center. Remember when cooking with fats, oils and grease, Cool it, Can it, and Trash it #FOG



