

2016 Stormwater Management Report



**Boston Water and
Sewer Commission**

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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 and 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 2016. 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 occur before and after 2015. To the extent they occurred in 2016, they are reported herein as appropriate.

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. Copies of the documents are available by contacting the Commission and downloadable versions 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. There are currently 206 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.

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 (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 2016 under the Consent Decree requirements.

2.1 FIELD SCREENING

Protocols have been developed for both dry and wet weather screening of sub-catchments. 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 2016:

- 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 2016 were collected by Commission's consultant, Stacey DePasquale Engineering, under sub-contract to CH2M.

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 2016 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 2016 wet weather program were based on the 2015 dry weather screening data.

Field screening during 2016 included inspection and sampling of 256 Commission-owned sub-catchments, which include 206 storm drain outfalls (SDOs), 18 storm drain manholes where storm drainage is conveyed to other municipalities' MS4s or non-BWSC outfalls (referred to as "interconnections"), and 32 Combined Sewer Overflow (CSO) locations.¹

All the results of the 2016 dry weather screening program are provided in Appendix A, Table 2-1, and a summary of dry weather screening and sampling performed during 2016 is shown in Table 2-2 below. Dry weather field screening took place at 32 CSO locations in 2016. Dry weather samples were collected at 23 of the 32 CSO locations. The remaining nine (9) locations were not sampled, either because there was no flow to sample (2 locations); the outfall had standing water or was submerged and the upstream manholes also had standing water or were submerged (6 locations); or there was no suitable locations to sample (1 location).

Dry weather screening took place at 224 SDO and interconnection locations in 2016. One (1) outfall was screened twice during dry weather, making a total of 225 dry weather screenings in 2016. Dry weather samples were collected at 101 of the locations visited. The remaining 124 locations were not sampled because there was no flow to sample (88 locations), the outfall had standing water or was submerged and the upstream manholes also had standing water or were submerged (32 locations); or there was no suitable locations to sample (4 locations).

¹ There are 30 CSO outfalls in the BWSC system. The Stony Brook Conduit CSO 21HCSO046 was screened in three locations. All three locations are ranked in the 2016 prioritization.

All the results of the 2016 wet weather screening program are provided in Appendix A, Table 2-3, and a summary of the wet weather screening and sampling performed is shown in Table 2-4 below.

Wet weather field screening took place at seven (7) CSO locations in 2016. Wet weather samples were collected at six (6) of the CSO locations. One (1) outfall was not sampled during wet weather because there was no flow.

**TABLE 2-2
2016 Dry Weather Screening Samples Collected versus Not Collected**

Results of Dry Weather Sampling CSOs ¹		2016
Total CSO Screenings Performed		32
Samples Collected		23
Samples Not Collected		9
No flow, dry		2
No flow, standing water/submerged		6
Could not access outfall/no suitable sampling location		1
Results of Dry Weather Sampling SDO/Interconnections ²		2016
Total SDOs/Interconnect Screenings Performed		225
Samples Collected		101
Samples Not Collected		124
No flow, dry		88
No flow, standing water/submerged		32
Could not access outfall/no suitable sampling location		4

¹ There are 30 CSO outfalls in the BWSC system. The Stony Brook Conduit CSO 21HCSO046-1 was screened in three locations. The worst case result was used for the prioritization.

²4FSDO204 was inspected twice; sample only collected during the second inspection

TABLE 2-4**2016 Wet Weather Screening Samples Collected versus Not Collected**

Results of Wet Weather Sampling CSOs		2016
Total CSO Screenings Performed		7
Samples Collected		6
Samples Not Collected		1
	No flow, dry	1
	No flow, standing water/submerged	0
	Could not access outfall/no suitable sampling location	0
Results of Wet Weather Sampling SDO/Interconnections		2016
Total SDOs/Interconnect Screenings Performed		114
Samples Collected		60
Samples Not Collected		54
	No flow, dry/insufficient flow	31
	No flow, standing water/submerged	20
	Could not access outfall/no suitable sampling location	3

Wet weather screening took place at 114 SDO and interconnection locations in 2016. Wet weather samples were collected at 60 of the locations visited. Samples could not be collected at 54 locations because either there was no flow or insufficient flow to sample (31 locations); the outfall had standing water or was submerged and upstream manholes also had standing water or were submerged (20 locations); or there was no suitable location to sample (3 locations).

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 were submitted in January 2013, 2014, 2015, 2016 and 2017.

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 within the seven year time line established by the Consent Decree.

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 2017 are shown in Appendix A. For comparison purposes the rankings from the 2013, 2014, 2015 and 2016 priority rankings are also shown. For the 2017 priority ranking sub-catchments were re-ranked within the same time frames (tiers) established in the 2016 priority ranking. This was done in order to maintain the schedule for completion already established by previous priority rankings, and to avoid fragmentation in the progress of investigations.

As required by the Consent Decree investigations in the six (6) Constitution Beach Priority 1 areas were completed in 2013, and investigations in the Dorchester Bay Priority 1 areas were completed in 2014. Investigations of an additional 65 sub-catchments were completed by August 23, 2015. Also, 28 areas were deemed completed prior to 2013. Priority 5 was given to those sub-catchments where investigations were completed. The remaining sub-catchments were re-ranked on bacteria results, according to the ranges presented in Table 3, although other parameters and factors were taken into consideration.

TABLE 2-6

Bacteria Ranking

Bacteria	Priority 2	Priority 3	Priority 4
E. coli (CFU/100mL)	>10,000	1,000 - 10,000	<1,000
Enterococci (CFU/100mL)	>5,000	500 - 5,000	<500

Where bacteria concentrations for individual sub-catchments were the same, a secondary ranking using the ammonia results was completed. For locations that had a field duplicate sample collected or were sampled more than once, the higher bacteria result was used for prioritization purposes.

During the summer of 2014, the Commission and EPA engaged in discussions regarding the Prioritization Ranking. During those discussions EPA identified several sub-catchments they believed should receive higher priority. These were 10L094, 20D055,

20D062, 23L164, 25L058, CSO 29J017. These sub-catchments are highlighted in beige in Appendix A. Sub-catchments 10L094 and 20D055 were included in the 2015 tier for completion and are now complete. Sub-catchments 20D062, 23L164, 25L058 and CSO 29J017 are scheduled for completion in 2018 and appear at the top of the 2018 tier. Municipal and other MS4 interconnections are highlighted in blue the priority ranking table.

There are currently 256 sub-catchments in the Commission's drainage system. For the 2017 priority ranking 24 sub-catchments were placed in the Priority 2 category, 48 in the Priority 3 category, and 79 in the Priority 4 category. A total of 105 sub-catchments, or 41%, are now Priority 5 or conditionally complete. A map illustrating the 2017 rankings of the sub-catchments is provided in the pocket at the end of this report.

Stony Brook Conduit System

The Stony Brook system is a very large system of separated storm drains, sanitary sewers and combined sewers. There are essentially three parts to the system. The upper portion of the Stony Brook system is completely separated. The upper portion was the subject area of the Commission's Stony Brook Illegal Connections Investigation (SBI) Program, which concluded in 2004. The area underwent extensive investigations for illicit discharges using procedures similar to those currently being utilized by the Commission under its current IDDE Program. Over 260 illicit discharges were identified under the SBI Program, which were subsequently eliminated, removing an estimated 82,000 gallons of sewage per day from the drainage system. This area shows as green or "Complete" on the January 2017 priority ranking map.

The middle portion of the Stony Brook System is shown in purple on the January 2017 priority ranking map. Separation of the middle portion of the Stony Brook system was completed around 2005; however, sections to the "middle portion" contain six (6) permitted regulators that may activate during 1-year design storms; therefore, the system can act (in certain conditions) as a combined system. The lower portion of the Stony Brook System is shown in orange on the January 2017 priority ranking map. The lower portion of the Stony Brook still contains combined sewers, although overflows may occur only during certain design level storm events.

Due to its large size, the Stony Brook Conduit system was screened in three locations for the priority ranking: at a storm drain manhole located near the Forest Hills T-station where the upper separated portion of the system enters the main drain of the middle portion of the Stony Brook System; at Gurney Street where the flows from the middle portion of the system enter the lower portion with the combined sewers; and at Charlesgate East near Beacon Street, just upstream of where the conduit discharges to the Charles River. All three of these locations are shown in the priority ranking.

Since contamination in the upstream portions of the system can impact water quality in the downstream portions IDDE investigations must take place in the middle portions first. As previously stated, IDDE investigation of the upper separated portion of the Stony Brook System was completed in 2004. IDDE investigation of the middle portion was initiated in 2014. Investigations of the lower portion are deferred until the middle portion is complete. Due to its large size and complexity, completion of the investigation of the entire Stony Brook Conduit system is scheduled for 2019.

21KCSO070

The 21KCSO070 sub-catchment is composed of a complex system of combined sewers. The sub-catchment was the subject of the Commission's Fort Point Channel Water Quality Assessment Project, which concluded in 2014. The final report for the Fort Point Channel Water Quality Assessment Project included the recommendation that the Commission conduct a more in-depth investigation of the 21KCSO070 system to establish the causes of the elevated bacteria levels in the system's discharges to the Channel. In November, 2016, the Commission executed a contract with a consultant (Kleinfelder) to perform the 21KCSO070 Project. The contract is expected to conclude in May, 2018, with any recommendations implemented thereafter. Due to its large size and complexity, completion of the investigation of the 21KCSO070 combined sewer system is scheduled for 2019.

2.3 STATUS OF SUB-CATCHMENT INVESTIGATIONS

Tables 2-7 and 2-8 provide the "percent complete" for IDDE investigations within each sub-catchment area in the Commission's system as of January, 2017. As required, the Commission completed investigations in the areas discharging to, or near, Constitution Beach on August 23, 2013, and in the areas discharging to, or near, Malibu and Tenean Beach on August 23, 2014. Investigations in an additional 93 sub-catchments were completed as of August 23, 2015.

The percent complete by manholes for Table 2-7 was calculated based on the total number of stormwater and common manholes in the sub-catchment area that were systematically investigated², 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 2-8 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 detailed and updated the Commission's top-down 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. The IDDE Plan was submitted to EPA, DEP and CLF on December 18, 2012.

Most illicit discharge investigations are performed by Commission consultants, with smaller more targeted investigations performed by in-house staff. The contracts for investigations performed by consultants are described further below. The methodology

² 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.

for investigations performed by in house staff varies but usually consists of manhole inspections, dye testing of buildings, and video inspections of pipes.

2.5 ILLICIT DISCHARGE INVESTIGATION CONTRACTS

Since 1999, the Commission has executed four 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. Total cost for the CWI program was \$1,536,000. The Citywide Illegal Connection Investigation Program, Phase 2 (CWI2) was carried out between 2009 and 2012. Total cost for the CWI2 contract was \$1,660,000. The Citywide Illegal Connection Investigation Program, Phase 3 (CWI3) was carried out between 2012 and 2016. Total cost for the CWI3 contract was \$3,147,817. A contract for the Citywide Illegal Connection Investigation Program, Phase 4 (CWI4) was executed June 14, 2016. The contract ceiling for CWI4 is \$2,105,414, and the contract duration is four years. As of December 31, 2016, \$260,365 had been spent for services under the CWI4 contract. These costs for the SBI and CWI contracts do not include the cost 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 the leak, CCTV of sewers and drains, police details, performing additional dye tests, cleaning pipes and manholes, program management, construction oversight 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 verified 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. To obtain reimbursement the lateral must be verified 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 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 relined 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 2016 ILLICIT DISCHARGE REMEDIATION SUMMARY

This section summarizes the Commission's 2016 Illicit Discharge Identification and Elimination Program. Table 2-9 lists the direct illicit connections that were outstanding (not corrected) as of January 1, 2016; it includes those that were verified and corrected in 2016, and it includes those that were verified but not corrected at the end of 2016.

Table 2-10 lists the indirect illicit connections (verified leaking laterals) that were outstanding (not corrected) as of January 1, 2016; it includes those that were verified and corrected in 2016; and it includes those that were verified but not corrected at the end of 2016.

Below is a summary of 2016 Illicit Discharge Remediation Program.

2016 Illicit Discharge Remediation Program Summary

Direct Illicit Connections Outstanding as of January 1, 2016	13
Direct Illicit Connections Verified in 2016	31
Direct Illicit Connections Corrected in 2016.....	42
Direct Illicit Connections Outstanding December 31, 2016.....	2
Leaking Laterals Outstanding as of January 1, 2016 ³	19
Leaking Laterals Verified in 2016	35
Verified Leaking Laterals Repaired in 2016.....	44
Verified Leaking Laterals End of 2016-Water is Shut Off.....	3
Verified Leaking Laterals Outstanding as of December 31, 2016.....	7
Locations with both Direct Illicit Connections and Leaking Laterals Listed January 1, 2016 ⁴	4
Locations with both Direct Illicit Connections and Leaking Laterals Identified in 2016.....	6
Locations with both Direct Illicit Connections and Leaking Laterals Corrected in 2016.....	7
Locations with both Direct Illicit Connections and Leaking Laterals Outstanding December 31, 2016.....	3

In 2016, a total of 31 new direct illicit connections were verified; 42 direct illicit connections were corrected in 2016. Of the direct connections corrected in 2016, 23 were corrected by a Commission contractor and 19 were corrected by the property owner. In 2016, a total of 35 leaking laterals were verified; 44 leaking laterals were repaired by the property owners in 2016. In 2016, ten (10) locations were determined to have both a

³ Four (4) locations on Leaking Lateral Outstanding List as of January 1, 2016, were determined to have both illicit connections and leaking laterals. These are now listed under “Locations with both Direct Illicit Connections and Leaking Laterals” below.

⁴ Four (4) locations were just on the list of leaking laterals as of January 1, 2016.

direct illicit connection and a leaking lateral. Of the ten (10) locations with both direct illicit connections and leaking laterals, seven (7) were corrected/repaired.

In total there were 108 direct connections or leaking laterals verified in 2016. Of those, 93 were corrected or repaired. Three (3) locations have had the water shut off due to a leaking sewer laterals. As of the end of 2016, twelve (12) illicit discharges remained uncorrected or not repaired.

Calculations of cost to remove illicit discharges

Tables 2-9 and 2-10 also provide the costs to the Commission to correct or repair illicit discharges in 2016. The cost to the Commission to correct 25 direct illicit connections was \$336,364. The cost to the Commission to verify 51 leaking sewer laterals was \$102,364. The cost to the Commission to reimburse owners to repair 42 leaking laterals was \$75,650.

In total, \$606,378 was expended by the Commission to verify and correct or repair 93 illicit discharges in 2016. These costs do not include: (1) the cost of permits, inspection fees, pavement restoration or police details; (2) costs incurred by the Commission to clean and televise sewer mains adjacent to suspected leaking laterals before they were tested; (3) costs covered by property owners who were responsible for making corrections to direct internal connections on their own property; and (4) 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 the Commission makes a best estimate. 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 2016, an estimated 10,920 gallons per day (gpd) of wastewater was removed from the storm drainage system and receiving waters by correcting direct illicit connections, and an estimated 7,215 gpd of wastewater was removed from the storm drainage system and receiving waters by repairing leaking laterals. In total, an estimated 18,135 gpd of wastewater was removed from the storm drainage system and receiving water by correcting or repairing illicit discharges in 2016.

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 2016, the Commission owned five (5) large and one (1) small "vactor" cleaning trucks to clean accumulated materials from sewers and drains, six (6) jet trucks, two (2) multi-rodder trucks, and two (2) CCTV trucks. In 2016, the Commission jetted, vactored or rodded 448,846 linear feet of pipe. To determine where structural deficiencies exist and where repairs are needed, Commission crews and contract forces performed television inspections of 511,000 linear feet of sewer and drain pipe in 2016. This is 14% more than what was televised in 2015.

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 five (5) clamshell trucks.

Commission catch basin cleaning forces have been augmented by contract resources and equipment since 2001. In 2016, the Commission and contract resources performed 21,763 inspections/cleanings. Catch basin cleanings are transported to the Commission's Material Handling Facility where they are temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. In 2016, the Commission removed approximately 3,826 tons of debris from catch basins, as recorded at the Commission's Material Handling Facility.

c. Commission Particle Separators

The Commission currently owns sixteen (16) particle separators. Information regarding the various particle separators, including their locations, receiving waters, and inspection and cleaning dates in 2016 is summarized in Table 3-2. All sixteen (16) particle separators were inspected in 2016. Of those, nine (9) were cleaned removing an estimated three (3) cubic yards of material. A tenth particle separator was cleaned but the amount of material removed was not recorded.

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 2016-2018 CIP included \$90.3 million for sewer and drain related projects, of which \$37.53 million was earmarked for 2016. A copy of the 2016-2018 Capital Improvement Program is available from the Commission's website and upon request from the Commission.

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 programs 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 in regards to the SSOERP.

Once it has been confirmed that an SSO is the responsibility of the Commission, within 24 hours the Commission notifies EPA and DEP. EPA and DEP are notified for any privately caused SSO 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 completes a post-remediation investigation of the SSO and submits it to DEP. The report includes a characterization of the SSO and a discussion of the planned actions to prevent recurrence.

In 2016, the Commission responded to, investigated, and/or reported to EPA and DEP, a total of 345 SSO events including 131 reportable SSO events (71 public SSOs, 59 reportable private/building backups, and 1 dry weather combined sewer overflow) and 214 non-reportable private/building backup events. Details regarding SSOs addressed by the Commission are provided in the Commission's semi-annual Consent Decree Compliance Reports. Information regarding SSOs and maps showing the locations of recent SSO events are also provided on the Commission's website.

3.3 ILLEGAL DUMPING AND EMERGENCY SPILL RESPONSE

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

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

In 2016, the Commission responded to 36 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 lists the incidences to which the Commission responded in 2016. No violation/enforcement notices or fines were issued for spills, leaks or dumping in 2016.

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 2016, the Commission issued fourteen (14) 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, generally about once a year. In 2016, 635 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. Ten (10) new Drain Layers Licenses were issued in 2016, and 383 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 2016, the Commission performed 864 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 retaining stormwater on-site. On-site retainage of stormwater is required whenever site conditions permit as determined by the Commission. On-site retention 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 2016, the Commission approved 469 site plans that included installation of a dry well or other type of infiltration device. Table 3–4 provides the addresses of the devices approved in 2016.

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 2016, the Commission approved 21 site plans that included installation of particle separators. Table 3–5 provides the addresses of the devices approved in 2016.

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 2016, the Commission issued fourteen (14) 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 2016, the Commission issued 897 catch basin castings to contractors and other parties. Of those issued, 566 were for Boston Harbor, 210 for the Charles River and 121 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) in regards to 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 79 projects in 2016. 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 17 projects contained comments regarding the Commission requirements for particle separators. Letters for 50 projects contained comments about the Commission's requirement for retaining stormwater on site. Letters for 71 projects contained comments regarding the requirement for Stormwater Management Plans. Sixty-seven (67) letters contained comments regarding the requirement for 4 to 1 I/I reduction. If appropriate, the letters informed the proponent that a Drainage Discharge Permit may be required for any temporary or permanent non-stormwater discharge to the drainage system.

3.6 CONTROLS FOR CONSTRUCTION SITES

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

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

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

In 2016, the Commission performed 213 site inspections of 44 construction projects. Three (3) violation notices were issued. Training for Commission staff on construction site inspections was provided via an American Society of Civil Engineers webinar on June 8, 2016.

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 2016 was 279. In 2016, the Commission inspected 111 facilities. 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 are in compliance 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 City of Boston Public Works Department (PWD) hosted four (4) Saturday drop-offs for used motor oil and surplus paint from 9 AM to 1 PM in 2016, at the following locations:

- May 14, Roxbury Public Works Yard
- June 18, Hyde Park Public Works Yard
- July 16, Brighton Public Works Yard
- August 13, East Boston Public Works Yard

The events were promoted through the City of Boston's web site and a new "Trash App" which is available to download on any smartphone. The Commission's May/June issue of *Currents* promoted the May and June events. A copy of the May/June *Currents* is provided in Appendix B and on the Commission's website.

b. Household Hazardous Waste Collection

To decrease the amount of illegally disposed of household hazardous waste, the City of Boston Public Works Department (PWD) hosted four (4) Saturday drop-offs for household hazardous waste from 9 AM to 2 PM in 2016, at the following locations:

- May 7, UMass Boston
- June 25, West Roxbury Public Works Yard
- July 23, Boston Public Works Yard, Frontage Road
- November 19, West Roxbury Public Works Yard

The events were promoted through the City's web site, local newspapers, and on signs posted in neighborhood business centers. The Commission's May/June and September/October (for the November 19 event) issues of *Currents* included information promoting the City's hazardous waste drop-off days. Copies of the *Currents* issues are provided in Appendix B and on the Commission's website.

c. Yard Waste/Composting

The Boston Public Works Department provides curbside collection of leaves and grass clippings in the residential sections of the city each year. Yard waste is collected by Public Works on the same day of week that weekly recycling is picked up. Collection starts April 1 to the first week in December. The Commission's March/April and September/October issues of the *Currents* newsletter promoted the 2016 collection effort. A copy 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 *Currents* issue included information regarding proper disposal of pet waste. A copy of the May/June issue is provided in Appendix B and on the Commission's website.

The Commission maintains a YouTube channel to host its public service announcements. In 2016, the video/public service announcement entitled "Scoop the Poop", continued to be posted on the Commission's YouTube channel. It was viewed 2,113 times in 2016.

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

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

a. Commission Web Site

The Commission's web site, located at www.bwsc.org, has been greatly enhanced and provides a variety of information concerning the Commission's programs, activities, and requirements. It provides 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 (http://www.bwsc.org/ABOUT_BWSC/systems/stormwater_mgt/Stormwater%20BMP%20Guidance_2013.pdf), a description of BWSC's Downspout Disconnection program, Grease Trap Guidelines, and the like, as well as a community outreach and education section including pollution prevention advice for residents, businesses and construction, and pet owners.

The new "We Are All Connected" website was launched in November, 2015, with an interactive homepage to engage visitors. Icons and pop up messages provide a preview of the educational content within. The four new sections with videos imbedded are: Stormwater, Wastewater, Tap Water and Resources.

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 community outreach meetings. 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 outreach meetings and city sponsored events such as household hazardous waste, 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.

Issues of *Currents* in 2016 featured the following items:

- March 2016 Bill Message – Disposable wipes, even those labeled “flushable” should be disposed of in the trash, not flushed down the toilet.
- April 2016 Bill Insert - Backwater Valve / Don’t Dump! Report Illegal Dumping
- April 2016 Bill Message - Dog owners citywide can help prevent the contamination of beaches and other waterways from dog waste by picking up after their pets. Visit www.bwsc.org for more information.
- May/June 2016 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

- May 2016 Bill Message - A sanitary sewer overflow (SSO) is an unintentional discharge of untreated sewage into the environment or a property. If you encounter a sewer overflow, call BWSC’s 24 Hour Emergency Service at 617-989-7000.
- June Bill Insert 2016 – Reduce Chemical Use: Phosphate-free Car Soap and Low Phosphate Fertilizer / Household Hazardous Waste Drop-Off Days
- June 2016 Bill Message - To prevent pollution of local waterways, report illegal dumping into storm drains. If you observe someone dumping into a storm drain, report it immediately to BWSC at 617-989-7000.
- July - Currents - Proper Use and Disposal of Pesticides and Fertilizers - Check Your Vehicle for Leaks - Report Open Fire Hydrants - Get a Water Conservation Kit.
- August - Bill Insert: Lead in Drinking Water brochure
- September -Currents - Household Hazardous Waste Days - Leaf & Yard Waste Curbside Collection - Clear Catch Basins of Leaves and Debris.
- October - Billing Insert: Backwater Valve
- November - Currents - FOG - Cool It-Can It- Trash It - Free Reusable Grease Can Lid
- December - Billing Insert: Neighborhood Site Card - Keep Wipes out of Pipes - Residential Cross Connection

Copies of the *Currents* issues and the inserts are provided in Appendix B and on the Commission’s website.

c. **Bill Messages**

The Commission inserts messages onto its water/sewer bills to its customers to notify them of program and information that impacts the environment. The target audience is typically owners. The following messages were inserted on bills in 2016:

- March – “Disposable wipes, even those labeled “flushable” should be disposed of in the trash, and not flushed down the toilet.”
- April - “Dog owners citywide can help prevent the contamination of beaches and other waterways from dog waste by picking up after their pets. Visit www.bwsc.org for more information.”
- May - “A sanitary sewer overflow (SSO) is an unintentional discharge of untreated sewage into the environment or a property. If you encounter a sewer overflow, call BWSC’s 24-HOUR Emergency Service at 617-989-7000.”
- June - “To prevent pollution of local waterways, report illegal dumping into storm drains. If you observe someone dumping into the storm drain, report it immediately to BWSC at 617-989-7000.”
- July – “Illegal use of fire hydrants can impede the emergency response of firefighters. Do not open fire hydrants.”
- August – “Some homes may have elevated lead levels in their drinking water. Lead can pose a significant risk to your health. Please read the enclosed notice and visit www.bwsc.org for further information. Algunas viviendas tienen niveles de plomo muy elevados en su agua potable. El plomo puede ser un riesgo considerable para salud. Les rogamos que lea el aviso para mas informacion.
- September - “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.”
- October – “Autumn can be a rainy season. To prevent flooding in your neighborhood, clear leaves, trash, and debris from the top of storm drains.”
- November - BWSC’s Customer Services Department will be close at 5:00 PM on Wednesday, November 23, 2016.
- December - Avoid disposing of grease, including cooking oil and meat scraps into your plumbing system through sink drains or toilets. These items can cause sewer backups.

d. **Social Media**

Consistent with the Commission’s Public Education and Outreach Program, the Commission’s social media profiles have helped to distribute its environmental effort. The Commission’s Facebook page had a total of 141 “likes” and the Twitter account gained 370 followers in 2016. The Commission also engaged frequently with users on NextDoor, a hyper-local social media platform that allows for direct and proactive

communication with residents in a particular neighborhood of the city. The following announcements were posted to NextDoor in 2016:

- July 27 - Water Main Flushing Notice
- August 30 - Sewer Maintenance along Arborway
- September 9 - Water Valve Replacement
- September 16 - Maintenance work by MWRA
- September 26 - Water Discoloration Due to Water Main Maintenance
- October 4 - AM Water Main Break
- October 14 - MWRA Leak Repair Work May Cause Discolored Water in Parts of Jamaica Plain
- October 17 - Street Access Restriction Due to Sewer Cleaning in Alley 431
- November 25 - Evening Water Main Flushing in West Roxbury
- November 28 - Mattapan Community Meeting

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 2016 on YouTube:

- Keep FOG out of the pipes. Fats, Oils, and Grease causes sewer backups
- BWSC "WE ARE ALL CONNECTED" ENVIRONMENTAL HIP-HOP MUSIC VIDEO:
- Scoop the Poop
- FOG:
- Keep Wipes out of Pipes
- Where Does the Water Go?
- Downspout Disconnection
- Dudley Sewer Separation Project
- Stay Connected

Additionally, in 2016, the Commission created new videos and added them to its YouTube catalogue. These videos include:

- The Water Cycle
- Cool It. Can It. Trash It
- Waterways – BWSC Catch Basins

e. Public Service Announcements

In 2016, the Commission continued broadcasting Public Service Announcements (PSAs) on the Boston Neighborhood Network (BNN) cable station. The BNN channel provides

two cable access channels reaching three-quarters of Boston households in every neighborhood and demographic group of the city (188,230 households, or 425,400 potential viewers. The following PSAs were broadcast on BNN (which on average air 400 times per month) in 2016.

- January 2016 – Keep Wipes Out of Pipes
- February 2016 – Stormwater, where does the water go
- March 2016 – Pet Waste
- April 2016 – Fats, Oils and Grease (FOG)
- May 2016 – Keep Wipes Out of Pipes
- June 2016 – Stormwater, where does the water go
- July 2016 – Pet Waste
- August 2016 – Fats, Oils and Grease (FOG)
- September 2016 – Keep Wipes Out of Pipes
- October 2016 – Stormwater, where does the water go
- October 2016 -- Protecting Boston's Water & Sewer System
- November 2016 – Pet Waste
- December 2016 – Fats, Oils and Grease (FOG)
- December 2016 -- How to Keep Water in Pipes from Freezing

f. Educational Outreach

The Commission's Communications Department staff includes an Educational Coordinator that goes to a number of City of Boston public schools and camps to present information to students regarding water, sewer and stormwater. Communications staff also provide education presentations to adults in elderly housing development, as part of civic groups and neighborhood organizations. In 2016, presentations were provided in English, Spanish, Cantonese, and Portuguese Creole. The Commission made presentations to the following number of groups/adults/schools/students in 2016:

- January – 2 groups, 21 students
- February – 2 groups, 36 students
- March -- 1 group, 232 students
- April – 4 groups, 180 students
- May – 6 groups, 354 students
- June - 7 groups, 957 students
- July– 4 groups, 14 adults; 2 schools (youth centers) 24 students
- August – 6 groups, 38 people; 4 schools, 104 students
- September – 8 groups, 89 people; 2 schools, 225 students
- October – 6 groups, 37 people; 6 schools, 321 students
- November- 11 groups, 116 people; 7 schools, 485 students

- December – 1 group, 2 people; 1 school, 60 students

g. Environmental Events

In 2016, the Commission was active at numerous public events and organized environmental functions relating to stormwater as follows:

- Judge at a Science Fair at Boston Latin Academy (January)
- Met with Boston Housing Authority (BHA) to continue collaboration with its REACH program and plan for 2016 presentations to promote healthy food initiatives and FOG campaign. (February)
- Table with information the Boston Public School Greenovate event (March)
- Participated in social media campaign and presentation with information - at the World Water Day Forum (March)
- Attended Charles River Watershed Association River Cleanup in Boston (April)
- Educated and engaged New England Aquarium volunteers in storm drain decaling – 375 Storm drains (April)
- Table with information at the Health and Wellness Summit at Wentworth (April)
- Attended Boston Public Schools Annual Wellness Summit and distributed FOG brochures to attendees. (May)
- Participated in Awards Ceremony at Deer Island in collaboration with the MWRA (May).
- Hosted a table at the Quincy Elementary School for its STEAM Expo. Presented educational information to 400 students (June)
- Participated in Sacred Heart, STREAM night- STEAM EXPO – and presented educational information to 700 students. (June)
- Presented a hands-on game “Building the Stormwater System” and the “Stormwater game” to 4 Boston Schools and City Events. Over 300 students have played the game.
- Distributed materials at Dudley Square Main Streets Breakfast, Grand Opening of Fisher Hill Reservoir Park (July)
- Delivered a presentation at Deer Island, Hyde Park Green Team, Boston Housing Authority’s REACH Program, and to teachers at the Josiah Quincy School (July)
- Conducted a storm drain decaling seminar at Winn Properties Management. (July)
- Distributed materials at International Green Summit /GreenFest, and Casserly House’s "BACK TO SCHOOL" event. (August)
- Presented at the Orchard Gardens Boys and Girls Club, Boston Housing Authority (Maloney Park, Franklin Field, Orchard Gardens’ Unity Day), University of Massachusetts Boston. (August)

- Distributed materials at Boston Food Festival, New Market Business Association (September)
- Presented at the Boston University School of Public Health, Boston Housing Authority (Collins Development, Orient Heights), Back Bay Civic Association, Clean Boston Task Force, Mattapan Ecovation Center, University of Massachusetts (School for the Environment, Graduate Program in Urban Planning and Community Development), and at the Neponset River Cleanup (September)
- Presented at the Canoe Mobile (on Neponset River and at Charlestown Navy Yard) (October)
- Distributed materials at Charles Street AME Church Health Fair, and Blessing of the Dogs (at Temple Hillel B'nai Torah and Holy Cross Cathedral) (October)
- Conducted a storm drain decaling seminar at the Emerald Necklace, Reggie Lewis Center. (November)
- Distributed materials at the community meeting held at Knights of Columbus in Charlestown, Charlestown Open House-Citywide Collaboration. (November)
- Presented at the Neponset Stormwater Partnership Meeting, and West Selden & Vicinity Neighborhood Association's meeting. (November)
- Distributed materials at the Project Right, Inc. community meeting, Dudley Square Main Streets Meeting (December)
- Presented at the Mystic River Association Meeting (December)

In addition, the Commission continued use of its H2GO water wagon deployed at a number of public functions city-wide. The Commission's H2GO water wagon provides free water to the public but also provides the Commission an opportunity to promote its public education messages including FOG and other messages. The Commission displayed a sandwich board with environmental messages at many community events featuring the H2Go trailer during 2016, reaching residents and visitors. Two messages were displayed: 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.

h. Catch Basin Stenciling and Castings

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

The Catch Basin Stenciling Program is promoted through the Commission's web site and billing inserts and through press releases, community events and outreach meetings, presentations to public schools, and through local watershed associations. In 2016, the Commission continued to work with schools within the City of Boston to mark curbs in

their neighborhoods with stencils and decals. In 2016, the Commission also continued to work with volunteers from the New England Aquarium to install decals on 786 storm drains around Boston Harbor.

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 2016, the Commission issued 897 catch basin castings to contractors and other parties. Of those issued, 566 were for Boston Harbor, 210 for the Charles River and 121 were for the Neponset River.

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 2016. The Boston Harbor Association received \$10,000, and The Friends of Fort Point Channel received \$5,000 from the Commission in 2016.

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 (BMPs) and Green Infrastructure (GI) measures to reduce the discharge of pollutants from the drainage system. The BMP and GI measures and activities implemented by the Commission in 2016 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 (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 BMPs. The Model Report contained a discussion of potential BMPs and GI available for possible implementation. It contained a discussion as to how the BMPs/GI would assure consistency with applicable TMDL wasteload allocations and the extent to which the BMPs/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 BMPs and 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.

In 2016 the Commission continued to coordinate with City of Boston agencies on the development of the GI demonstration projects at Central Square and Audubon Circle. Construction of the Central Square project commenced in July, 2015, and installation of the sub-surface GI infrastructure was substantially complete in the latter part of 2016. Installation of the above ground GI infrastructure at Central Square will be complete in 2017. The design for the Audubon Circle project was completed in 2016. The Audubon

Circle project was put out to bid and awarded, and construction began in late 2016. In 2016 the Commission continued to coordinate with the Boston Planning and Development Agency and other parties regarding installation of Green Infrastructure at City Hall Plaza.

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 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 2016 the Commission contracted with three separate consultants to develop conceptual designs and prepare cost estimates for installation of Green Infrastructure in three areas of Boston tributary to the Charles River. The 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 BMPs/GI citywide. As of the end of 2016 each of these projects was approximately half-way complete and locations for conceptual designs were being selected.

4.5 DAISY FIELD GREEN INFRASTRUCTURE

In 2015 Commission contracted with the University of New Hampshire Stormwater Center to assist the Commission in conducting a feasibility analysis and preparing a conceptual design for installation of 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 basement fields and a rain garden around the perimeter of the existing parking lot. The conceptual design was completed and coordination with the Boston Parks and Recreation Department regarding construction of the project continued through 2016. The final cost for the conceptual design of the Daisy Field GI was \$47,000. The Commission's 2017-2018 CIP includes \$2.5 million to construct GI at Daisy Field.

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. Construction of GI at the Washington Irving Middle School commenced during the summer of 2016 and is expected to be completed in the spring 2017. Design for GI at the Rafael Hernandez school is approximately 95% complete. The project is expected to be bid in the spring of 2017 with construction to follow in the summer of 2017. GI designs for three remaining schools (David Ellis, Jackson/Horace Mann and the Kennedy Health Careers Academy) were approximately 75% complete at the end of 2016.

In 2016, the Commission worked with Boston public schools to develop stormwater related curriculum for 5th and 7th graders. The curriculum will be designed to use the GI (once constructed) to demonstrate various GI measures and to educate the students regarding GI benefits. The curriculum is expected to be completed in 2017. Final cost for the GI design and curriculum development is estimated at \$234,651.

The Commission's 2017-2018 CIP includes funding to construct GI at the five public schools. The cost to construct the GI at the five schools is currently estimated at \$1.5 million.

4.7 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 (BMPs) and Green Infrastructure (GI). This section describes the Commission's efforts in 2016 in that regard.

5.1 ASSESSMENT OF STORMWATER BMPS AND GI

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

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 2016, Commission personnel and contract resources performed 21,763 catch basin inspection/cleanings. Catch basin cleanings are transported to the Commission's Material Handling Facility where they are temporarily stored to de-water until transferred for proper off-site disposal/reuse at an approved disposal facility. The amount of material removed from the Commission's catch basins in 2016 was approximately 3,826 tons, as recorded at the Commission's Material Handling Facility.

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

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

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

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

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

5.3 PARTICLE SEPARATORS

The Commission currently owns 16 particle separators. All sixteen (16) particle separators were inspected in 2016. Of those, nine (9) were cleaned removing an estimated three (3) cubic yards of material. A tenth particle separator was cleaned but the amount of material removed was not recorded.

Information regarding the various particle separators, including their locations, receiving waters, and amount of material removed at each cleaning between 2005 and 2016 is summarized in Table 5-1. The cleaning data indicates that there are significant differences in the amount of material removed from each separator from year to year, although the reasons were unclear. There are many variables which could affect the amount of material retained in a separator, including frequency and intensity of rain and snow storms, land use, topography and size of the area tributary to the particle separator, season during which the separator was cleaned, and design factors.

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

6.0 WATER QUALITY MONITORING

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

6.1 OUTFALL MONITORING

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

6.2 URBAN RUNOFF WATER QUALITY PROJECT

Implementation of the Commission's Urban Runoff Water Quality Project continued through 2016. The project includes water quality sampling from manholes, outfalls, and gutters. Samples are being 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 is 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. Findings from the project will aid the Commission in prioritizing where future illicit discharge investigations should be directed. The \$581,939 project was about 50% complete as of the end of 2016. It is expected to conclude in 2017.

6.3 PAST WATER QUALITY MONITORING PROJECTS

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 (Model) development, the Commission and its contractor CDM Smith performed extensive water quality sampling of the storm drain system. The Drain 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 measures in the City of Boston. The Drain 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 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. The full report is available upon request.

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

7.0 WATER QUALITY IMPROVEMENTS

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

7.1 STORMWATER MODEL

In 2012, as required under the Consent Decree, the Commission used its Storm Drain 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 green infrastructure and low impact development (GI/LID) in the City of Boston. Alternatives considered included expansion of existing programs and policies, new GI/LID 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 Storm Drain 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 Storm Drain Model has the capability to evaluate pollutant loading reductions that result from the installation of stormwater Best Management Practices and Green Infrastructure (BMP/GI). However, the 2012 Storm Drain Model has not been updated to include pollutant reductions resulting from BMP/GI installed since March 2012. In 2016 the Commission continued to develop a database of public and private BMP/GI installed city-wide since March 2012. The database currently contains about 2,000 public and private BMP/GI features located throughout the city. In 2017 pollutant removal

estimates will be tabulated for each BMP/GI in the database and the reductions attributable to the various BMP/GI installed since 2012 will be incorporated into the Storm Drain Model. 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 7-5 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. In these tables the total phosphorus and bacteria values presented are the difference that can be attributed to illicit discharge removal in those years.

Table 7-6 presents the annual loads by reporting area, based on conditions as of December 31, 2016. The numbers in Table 7-6 incorporate all reductions due to illicit discharge removals in 2012 through 2016.

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 2016, the Commission eliminated 93 illicit discharges, thereby eliminating the discharge of an estimated 18,135 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 2016, the Commission removed 1,652 illicit discharges, thereby eliminating the discharge of an estimated total of 736,716 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 2016, the Commission and its contractors removed an estimated 7,802¹ tons of material from the Commission's catch basins, particle separators and drains 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. As stated in Section 7.1, Commission will update the Storm Drain Model in 2017 to include pollutant reductions attributed to BMP/GIs installed since 2012 by private as well as public entities.

a. Privately Owned Retention/Infiltration Devices

On-site retainage and 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 retention of stormwater with the site plan submitted to the Commission for the project. On-site retention 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 retention 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 2016, the Commission approved 469 site plans which included installation of a dry well or other type of infiltration device. The addresses of the devices approved in 2016 are listed in Table 3-4. Since 2000, 3,240 private development projects have included infiltration devices.

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

¹ Total for 2016, as measured at the Commission's Material Handling Facility.

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 2016, the Commission approved 21 site plans which included installation of a particle separator. The addresses of the devices approved in 2016 are listed on Table 3–5. Since 2000, 349 private development projects have included installation of particle separators.

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 2016, the Commission issued 137 enforcement notices to the owners of 59 properties with verified illicit connections or discharges to correct internal illicit connections or repair/replace a leaking lateral.

In 2016, the Commission responded to 36 reports of a potential spill, leak, or report of illicit dumping. Table 3-3 in Section 3 lists the incidences to which the Commission responded in 2016. No violation/enforcement notices or fines were issued for spills, leaks or dumping in 2016.

In 2016, the Commission performed four (4) inspections in response to complaints about construction site operations, and issued three (3) violation notices to operators of construction projects for violations 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 2016 Current Expense Budget totaled \$343.2 million in revenues, which was offset by an equal amount of expenses. The amount represented a 2.5% increase as compared to the 2015 budget.

Of the total budgeted for 2016, \$65.3 million was for direct expenses. The remaining funds were budgeted for the assessment by the Massachusetts Water Resources Authority (\$213.8 million), Debt Service (\$48.3 million), Capital Improvements (\$15 million), Contractual Funding Obligations (\$0.6 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 \$29.7 million or 46 percent of the Commission's 2016 direct expense budget was for the Engineering and Operations Divisions. Of the Engineering and Operations Division's direct expense budget, about \$17.2 million was

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

The Current Expense Budget for 2017 had not been finalized as of the writing of this report.

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
- Infiltration and inflow identification and reduction
- Industrial facility pollution prevention program management
- Construction site pollution prevention inspections
- Issuing Drainage Discharge Permits
- 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
- Planning, designing and constructing capital improvements
- System evaluations and Master Planning
- Reviewing Environmental Notification Forms and Environmental Impact Reports
- Public education
- Rain data collection

9.2 CAPITAL EXPENDITURES

The 2016-2018 CIP included \$90.3 million for sewer and drain related projects, of which \$37.5 million was earmarked for 2016. The Commission's 2017-2019 CIP identifies \$90.3 million for sewer and drain related projects, of which \$34.8 million is earmarked for 2017. As of 2017, the Commission's CIP includes a separate sub-category for Stormwater/Green Infrastructure/Low Impact Development Projects. The 2017-2019 CIP identifies \$10.1 million for the GI/LID Projects, of which \$4.9 million is earmarked for 2017. The complete 2017-2019 CIP plan is 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 2017-2019 CIP include the following:

- Construction of BMPs and Green Infrastructure in Central Square East Boston, Audubon Circle, and at City Hall Plaza
- Evaluate implementing a stormwater utility
- Design and construction of a constructed wetland in Jamaica Plain
- Evaluate Urban Runoff Water Quality
- Green Infrastructure/Low Impact Development Implementation Plans for three areas
- Design and install rain gardens at five Boston public schools
- CSO Public Notification Program
- 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
- Cleaning and rehabilitation of overflow conduit 065
- Replace and rehabilitate sewers and drains in the North End
- Sewer separation of flows along Massachusetts Avenue in Lower Roxbury/North Dorchester
- Sewer separation in the Dudley Square area
- Implement recommended measures to improve water quality of the Fort Point Channel
- Improve the Commission's sewer and storm drain models and augment of the stormwater model.
- Disconnection of downspout in Jamaica Plain, Dorchester, Allston-Brighton, West Roxbury, Roslindale, South Boston and Hyde Park.
- 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 2016 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 HWY/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	FREEMPT 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	20	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
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
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

Table 1-1. BWSC Stormwater Outfalls

OUTFALL NUMBER		LOCATION	NEIGHBORHOOD	SIZE (INCHES)	RECEIVING WATER
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	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 @ K 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 Bro	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

Work done in reporting period

Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)

No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Table 2-7. Sub-Catchment Area Investigation Status by Manhole

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Common Manhole Inspections Performed To Date ^{2 3}	Total # Storm Drain + Common Manholes Investigated/Completed To Date ⁴	Percent Investigated/Complete by Manhole To Date ⁵
06D187	SDO	81	105	81	100%
6DMH97	Interconnection (	189	47	189	100%
06G108	SDO	189	157	189	100%
06G111	SDO	17	14	17	100%
06G166	SDO	14	12	3	21%
07C006	SDO	494	316	486	98%
07H105	SDO	486	213	486	100%
07H285	SDO	344	250	344	100%
08B122	SDO	61	46	45	74%
08J103	SDO	32	32	32	100%
10L094	SDO	849	465	849	100%
11B123	SDO	131	76	100	76%
11I577	SDO	1,354	739	1,354	100%
12B124	SDO	497	288	497	100%
13D077/078	SDO	169	144	169	100%
13E174	SDO	73	50	73	100%
13L090 (B)	SDO	982	371	982	100%
16L122	SDO	253	92	115	45%
17M033	SDO	145	0	0	0%
19G043	SDO	80	76	80	100%
20G161	SDO	62	40	62	100%
21DMH319	Interconnection (	66	93	66	100%
21H047	SDO	144	78	55	38%
21K069	SDO	98	33	98	100%
23BMH89	Interconnection (	11	12	11	100%
23H042	SDO	311	28	28	9%
24D032	SDO	1,036	604	1,000	97%
24G035	SDO	338	180	338	100%
25D040	SDO	27	13	26	96%
25E037	SDO	423	251	379	90%
26G001	SDO	189	62	158	84%
28N207 (B)	SDO	82	73	82	100%
29O001 (B)	SDO	282	360	282	100%
Stony Brook-Lower (21HCS004	CSO	521	3	0	0%
Stony Brook-Middle (-SB areas	CSO	1,848	56	105	6%
Stony Brook-Upper	SDO	3,158	110	3,158	100%
01E024	SDO	12	6	12	100%
01F031	SDO	30	5	30	100%
02E086 (aka 02E005)	SDO	9	6	9	100%
02F085	SDO	4	2	4	100%
02F093	SDO	6	6	6	100%
02F120	SDO	39	22	39	100%
2FMH120 (DCR 2FSD099)	Interconnection (	11	2	11	100%
03E185	SDO	61	36	58	95%
03E186	SDO	13	5	13	100%

Work done in reporting period

Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)

No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Table 2-7. Sub-Catchment Area Investigation Status by Manhole

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Common Manhole Inspections Performed To Date ^{2 3}	Total # Storm Drain + Common Manholes Investigated/Completed To Date ⁴	Percent Investigated/Complete by Manhole To Date ⁵
3FMH56 (DCR 3FSDO159)	Interconnection (	27	17	25	93%
04E064	SDO	3	3	3	100%
04E069	SDO	41	18	41	100%
04F016	SDO	17	4	17	100%
04F118	SDO	9	5	9	100%
04F119	SDO	15	2	15	100%
04F189	SDO	31	12	31	100%
4FMH90 (DCR 3FSDO162)	Interconnection (	20	20	20	100%
04F204	SDO	74	142	74	100%
05E182	SDO	13	7	13	100%
05E183*	SDO	0	0	0	100%
05E184 (aka 05E120)	SDO	79	28	74	94%
05F117	SDO	52	34	52	100%
05F244	SDO	25	5	25	100%
05F245	SDO	28	7	27	96%
05F253	SDO	43	14	43	100%
05G112	SDO	27	27	27	100%
05G115	SDO	17	4	17	100%
05G116	SDO	25	6	25	100%
05G116A	SDO	61	15	45	74%
06C110 (aka 05C110)	SDO	55	11	55	100%
06D085	SDO	2	4	2	100%
06G109	SDO	31	19	31	100%
06G110	SDO	46	32	46	100%
06G165	SDO	6	9	6	100%
06H106	SDO	15	5	15	100%
06H107	SDO	17	16	15	88%
07H346	SDO	5	2	5	100%
07H347	SDO	5	1	5	100%
07H348	SDO	10	4	8	80%
08B126	SDO	22	7	22	100%
08E031	SDO	65	30	65	100%
08I153	SDO	4	3	4	100%
08I154	SDO	38	15	21	55%
08I155	SDO	3	1	3	100%
08I156	SDO	42	32	42	100%
08I158	SDO	16	2	16	100%
08I207	SDO	10	10	10	100%
08I209	SDO	6	5	6	100%
08J036/041	SDO	13	10	13	100%
08J050/049	SDO	77	30	77	100%
08J102	SDO	26	4	26	100%
08K049	SDO	3	1	3	100%
09E229	SDO	2	2	2	100%
09K016	SDO	16	4	16	100%

Table 2-7. Sub-Catchment Area Investigation Status by Manhole

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Common Manhole Inspections Performed To Date ^{2 3}	Total # Storm Drain + Common Manholes Investigated/Completed To Date ⁴	Percent Investigated/Complete by Manhole To Date ⁵
09K100	SDO	25	10	25	100%
09K101	SDO	33	14	33	100%
09L095	SDO	29	13	23	79%
10B015	SDO	52	6	19	37%
10L096	SDO	22	8	20	91%
11M093	SDO	76	15	45	61%
12F305	SDO	13	4	13	100%
12L092 (B)	SDO	163	33	163	100%
12LMH304 (DCR 13LSDO137)	Interconnection (	12	7	12	100%
12LMH374 (DCR 12LSDO296)	Interconnection (	38	17	38	100%
12M091	SDO	10	4	6	60%
13E175	SDO	22	6	22	100%
13E176	SDO	5	8	5	100%
13F011 (aka 13F185)	SDO	48	21	46	96%
13F012 (aka 13F093)	SDO	9	1	6	67%
14C009	SDO	4	7	4	100%
14EMH36	Interconnection (	6	1	6	100%
15F288	SDO	199	60	171	86%
15L088 (B)	SDO	465	176	465	100%
15L089 (B)	SDO	73	20	73	100%
18G233	SDO	87	100	87	100%
19G194	SDO	58	26	36	62%
19G199	SDO	1	1	0	0%
20DMH62	Interconnection (	15	11	15	100%
20DNP140 (20DMH55)	Interconnection (	55	67	55	100%
21C212	SDO	15	6	15	100%
21EMH64	Interconnection (	83	51	83	100%
21EMH86	Interconnection (	17	18	17	100%
21M050	SDO	28	7	28	100%
22C384	SDO	13	0	13	100%
22L580	SDO	44	16	44	100%
23G132	SDO	67	23	67	100%
23L074	SDO	5	0	5	100%
23L164	SDO	37	12	23	62%
23L195	SDO	21	0	21	100%
24C174	SDO	54	8	54	100%
24CMH014 (24CSDO039)	SDO	16	18	16	100%
24D150	SDO	6	0	6	100%
24G034	SDO	73	3	73	100%
25G041	SDO	19	3	19	100%
25M007	SDO	25	7	25	100%
26F038	SDO	34	3	34	100%
26K099	SDO	206	53	206	100%
27J001	SDO	140	24	137	98%
27J096	SDO	191	0	191	100%

Table 2-7. Sub-Catchment Area Investigation Status by Manhole

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Common Manhole Inspections Performed To Date ^{2 3}	Total # Storm Drain + Common Manholes Investigated/Completed To Date ⁴	Percent Investigated/Complete by Manhole To Date ⁵
27L020/22	SDO	91	29	73	80%
28K010	SDO	26	11	3	12%
28K061	SDO	98	41	98	100%
28K386	SDO	5	0	5	100%
28L074/076	SDO	91	15	69	76%
28N156 (B)	SDO	3	6	3	100%
28O025 (B)	SDO	22	28	22	100%
28P001 (B)	SDO	9	10	9	100%
29J212	SDO	166	38	166	100%
29M049	SDO	22	1	21	95%
29N135	SDO	9	2	9	100%
29P044 (B)	SDO	11	21	11	100%
30J019	SDO	10	1	10	100%
30J030	SDO	23	5	23	100%
30P062	SDO	11	6	11	100%
30P107	SDO	11	4	11	100%
31O004	SDO	32	8	32	100%
31P084	SDO	17	4	17	100%
03E207*	SDO	0	0	0	100%
04F001*	SDO	0	0	0	100%
04F203	SDO	1	0	0	0%
05E180*	SDO	0	0	0	100%
05E181*	SDO	0	0	0	100%
05F254	SDO	1	0	1	100%
6CMH117	Interconnection (	9	0	0	0%
06D057	SDO	11	0	0	0%
06D083	SDO	1	0	1	100%
06D084	SDO	4	0	4	100%
06D086*	SDO	0	0	0	100%
06D091*	SDO	0	0	0	100%
06D184	SDO	2	0	2	100%
06F233*	SDO	0	0	0	100%
08C025/026	SDO	22	0	0	0%
08E035	SDO	3	0	0	0%
09B049	SDO	1	0	0	0%
09E243	SDO	35	0	35	100%
11BMH49 (DCR 11BSDO28)	Interconnection (	12	0	12	100%
11G344	SDO	63	0	0	0%
12B010*	SDO	0	0	0	100%
12B014	SDO	4	0	0	0%
12B033	SDO	3	0	0	0%
12F418 (aka 12E418)	SDO	20	0	0	0%
12H085	SDO	17	0	0	0%
12H087	SDO	38	0	38	100%
12H092	SDO	80	0	0	0%

Work done in reporting period

Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)

No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Table 2-7. Sub-Catchment Area Investigation Status by Manhole

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Common Manhole Inspections Performed To Date ^{2 3}	Total # Storm Drain + Common Manholes Investigated/Completed To Date ⁴	Percent Investigated/Complete by Manhole To Date ⁵
13B011	SDO	4	0	4	100%
13F095	SDO	2	0	0	0%
13F096	SDO	2	0	2	100%
13F097*	SDO	0	0	0	100%
16L097	SDO	23	0	0	0%
17F012	SDO	5	0	0	0%
18LCSO086DR	CSO	14	0	0	0%
19LCSO084DR	CSO	13	0	0	0%
19LCSO085DR	CSO	47	0	0	0%
19MCSO082DR	CSO	8	0	0	0%
19MCSO083DR	CSO	4	0	0	0%
19NCSO081DR	CSO	10	0	0	0%
20DMH19	Interconnection (	106	0	0	0%
20G163	SDO	13	0	13	100%
20G164*	SDO	0	0	0	100%
21H048	SDO	3	0	0	0%
21KCSO070DR	CSO	369	0	0	0%
21LCSO076DR	CSO	2	0	0	0%
21M010	SDO	17	0	0	0%
21MCSO078DR	CSO	0	0	0	100%
21MCSO079DR	CSO	0	0	0	100%
21NCSO080DR	CSO	10	0	0	0%
22KCSO065DR	CSO	78	0	0	0%
22KCSO068DR	CSO	28	0	0	0%
22KCSO072DR	CSO	11	0	0	0%
22LCSO073DR	CSO	44	0	0	0%
23H040	SDO	23	0	0	0%
23HMH81 (DCR 23ISDO019)	Interconnection (	4	0	4	100%
23L015	SDO	30	0	0	0%
23L075	SDO	61	0	0	0%
23L196	SDO	15	0	0	0%
23L202	SDO	25	0	0	0%
23LCSO062DR	CSO	4	0	0	0%
23LCSO064DR	CSO	9	0	9	100%
24L022 (aka 23LSDO022)	SDO	13	0	13	100%
24L233	SDO	57	0	0	0%
24LCSO060DR	CSO	58	0	0	0%
24NCSO003DR	CSO	740	0	0	0%
25L058	SDO	157	0	0	0%
25L144	SDO	5	0	0	0%
25LCSO057	CSO	14	0	0	0%
25M006	SDO	19	0	0	0%
25MCSO005DR	CSO	0	0	0	100%
25NCSO004DR	CSO	23	0	23	100%
26J049	SDO	157	0	0	0%

Work done in reporting period

Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)

No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Table 2-7. Sub-Catchment Area Investigation Status by Manhole

Sub-Catchment Area ¹	Area Type	Total # Storm Drain + Common Manholes	Total # Storm Drain + Common Manhole Inspections Performed To Date ^{2 3}	Total # Storm Drain + Common Manholes Investigated/Completed To Date ⁴	Percent Investigated/Complete by Manhole To Date ⁵
26J052	SDO	2	0	0	0%
26J055 (aka 26JSDO101)	SDO	20	0	0	0%
26K035	SDO	48	0	0	0%
26K050	SDO	23	0	0	0%
26K052	SDO	1	0	0	0%
26K254	SDO	7	0	0	0%
26L055 (aka 26LSDO106)	SDO	4	0	0	0%
26L070	SDO	6	0	0	0%
26L084	SDO	6	0	0	0%
26LCSO009	CSO	24	0	0	0%
27J044	SDO	6	0	0	0%
27LCSO010	CSO	15	0	0	0%
28IMH15	Interconnection (	8	0	0	0%
28L073	SDO	1	0	0	0%
28L077*	SDO	0	0	0	100%
28LCSO012DR	CSO	16	0	16	100%
28LCSO019	CSO	12	0	0	0%
29J029*	SDO	0	0	0	100%
29J129	SDO	6	0	0	0%
29JCSO017	CSO	12	0	0	0%
29MCSO013DR	CSO	12	0	0	0%
29N015	SDO	11	0	0	0%
29NCSO014DR	CSO	1	0	0	0%
29P005	SDO	3	0	3	100%
30J006	SDO	20	0	0	0%

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 inspections performed includes all inspection records for manholes. Some manholes may have been inspected

³To Date includes data from 3/16/2009 through the end of 2016.

⁴Total 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.

⁵The % 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 2-8. Sub-Catchment Area Investigation Status by Pipes

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Inspections Performed To Date ^{2 3}	Total Linear Feet of Storm Drain Pipe Investigated/Completed To Date ⁴	Percent Investigated/Complete by Storm Drain Pipe To Date ⁵
06D187	SDO	11,280	9,196	11,280	100%
6DMH97	Interconnection (I	29,408	10,113	29,408	100%
06G108	SDO	30,068	11,592	30,068	100%
06G111	SDO	4,292	3,526	4,292	100%
06G166	SDO	2,201	1,444	924	42%
07C006	SDO	81,391	14,349	78,645	97%
07H105	SDO	73,303	11,023	73,303	100%
07H285	SDO	61,113	22,142	61,113	100%
08B122	SDO	11,538	5,944	7,608	66%
08J103	SDO	6,382	6,799	6,382	100%
10L094	SDO	127,791	34,703	127,791	100%
11B123	SDO	20,303	15,249	16,390	81%
11I577	SDO	238,332	106,970	238,332	100%
12B124	SDO	80,035	20,435	80,035	100%
13D077/078	SDO	27,404	22,180	27,404	100%
13E174	SDO	11,097	6,610	11,097	100%
13L090 (B)	SDO	154,004	62,868	154,004	100%
16L122	SDO	40,954	13,476	13,341	33%
17M033	SDO	15,103	0	0	0%
19G043	SDO	11,554	5,613	11,554	100%
20G161	SDO	7,913	2,977	7,913	100%
21DMH319	Interconnection (I	9,847	9,505	9,847	100%
21H047	SDO	18,874	8,169	5,219	28%
21K069	SDO	14,839	5,296	14,839	100%
23BMH89	Interconnection (I	1,807	2,279	1,807	100%
23H042	SDO	49,569	3,558	2,866	6%
24D032	SDO	160,327	57,213	151,319	94%
24G035	SDO	56,096	17,867	56,096	100%
25D040	SDO	5,390	1,985	4,994	93%
25E037	SDO	64,905	13,765	58,185	90%
26G001	SDO	36,032	11,762	30,731	85%
28N207 (B)	SDO	11,631	13,028	11,631	100%
29O001 (B)	SDO	47,076	35,885	47,076	100%
Stony Brook-Lower (21HCSO04	CSO	72,563	0	0	0%
Stony Brook-Middle (-SB areas	CSO	270,540	7,010	16,536	6%
Stony Brook-Upper	SDO	515,564	12,298	515,564	100%
01E024	SDO	2,155	1,143	2,155	100%
01F031	SDO	5,710	2,209	5,710	100%
02E086 (aka 02E005)	SDO	2,334	1,085	2,334	100%
02F085	SDO	682	418	682	100%
02F093	SDO	991	971	991	100%
02F120	SDO	7,389	0	7,389	100%
2FMH120 (DCR 2FSD099)	Interconnection (I	2,748	0	2,748	100%
03E185	SDO	10,917	7,148	8,874	81%
03E186	SDO	2,051	948	2,051	100%

Table 2-8. Sub-Catchment Area Investigation Status by Pipes

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Inspections Performed To Date ^{2 3}	Total Linear Feet of Storm Drain Pipe Investigated/Completed To Date ⁴	Percent Investigated/Complete by Storm Drain Pipe To Date ⁵
3FMH56 (DCR 3FSDO159)	Interconnection (I	4,749	3,674	3,983	84%
04E064	SDO	253	159	253	100%
04E069	SDO	8,768	6,447	8,768	100%
04F016	SDO	2,134	272	2,134	100%
04F118	SDO	1,294	655	1,294	100%
04F119	SDO	2,569	0	2,569	100%
04F189	SDO	4,938	1,893	4,938	100%
4FMH90 (DCR 3FSDO162)	Interconnection (I	4,638	4,749	4,638	100%
04F204	SDO	14,428	18,053	14,428	100%
05E182	SDO	2,445	1,143	2,445	100%
05E183*	SDO	58	0	58	100%
05E184 (aka 05E120)	SDO	11,125	3,596	9,875	89%
05F117	SDO	7,703	911	7,703	100%
05F244	SDO	3,043	471	3,043	100%
05F245	SDO	4,165	1,306	3,851	92%
05F253	SDO	6,757	3,334	6,757	100%
05G112	SDO	3,671	3,357	3,671	100%
05G115	SDO	1,853	601	1,853	100%
05G116	SDO	3,623	1,233	3,623	100%
05G116A	SDO	11,161	2,426	8,512	76%
06C110 (aka 05C110)	SDO	9,579	2,445	9,579	100%
06D085	SDO	236	121	236	100%
06G109	SDO	4,716	3,035	4,716	100%
06G110	SDO	6,695	4,604	6,695	100%
06G165	SDO	807	1,460	807	100%
06H106	SDO	2,278	985	2,278	100%
06H107	SDO	2,453	2,234	2,004	82%
07H346	SDO	705	527	705	100%
07H347	SDO	519	279	519	100%
07H348	SDO	743	470	406	55%
08B126	SDO	3,474	1,542	3,474	100%
08E031	SDO	10,096	3,675	10,096	100%
08I153	SDO	425	228	425	100%
08I154	SDO	5,740	2,443	2,878	50%
08I155	SDO	399	101	399	100%
08I156	SDO	5,764	3,508	5,764	100%
08I158	SDO	1,963	476	1,963	100%
08I207	SDO	1,400	1,210	1,400	100%
08I209	SDO	820	906	820	100%
08J036/041	SDO	2,439	1,643	2,439	100%
08J050/049	SDO	12,006	5,567	12,006	100%
08J102	SDO	3,447	898	3,447	100%
08K049	SDO	513	258	513	100%
09E229	SDO	322	80	322	100%
09K016	SDO	2,062	555	2,062	100%

Table 2-8. Sub-Catchment Area Investigation Status by Pipes

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Inspections Performed To Date ^{2 3}	Total Linear Feet of Storm Drain Pipe Investigated/Completed To Date ⁴	Percent Investigated/Complete by Storm Drain Pipe To Date ⁵
09K100	SDO	4,330	2,025	4,330	100%
09K101	SDO	5,245	2,010	5,245	100%
09L095	SDO	4,789	2,498	3,678	77%
10B015	SDO	7,046	1,804	2,410	34%
10L096	SDO	2,893	1,059	2,606	90%
11M093	SDO	9,956	3,354	4,830	49%
12F305	SDO	2,175	674	2,175	100%
12L092 (B)	SDO	25,084	5,828	25,084	100%
12LMH304 (DCR 13LSDO137)	Interconnection (f	1,617	358	1,617	100%
12LMH374 (DCR 12LSDO296)	Interconnection (f	4,151	2,358	4,151	100%
12M091	SDO	1,238	273	547	44%
13E175	SDO	4,331	986	4,331	100%
13E176	SDO	863	714	863	100%
13F011 (aka 13F185)	SDO	6,716	2,043	6,265	93%
13F012 (aka 13F093)	SDO	1,828	0	767	42%
14C009	SDO	822	798	822	100%
14EMH36	Interconnection (f	991	131	991	100%
15F288	SDO	29,831	6,448	24,913	83%
15L088 (B)	SDO	79,592	32,331	79,592	100%
15L089 (B)	SDO	13,671	2,555	13,671	100%
18G233	SDO	12,689	12,880	12,689	100%
19G194	SDO	9,005	2,597	4,853	54%
19G199	SDO	230	0	0	0%
20DMH62	Interconnection (f	1,542	1,002	1,542	100%
20DNP140 (20DMH55)	Interconnection (f	8,686	5,240	8,686	100%
21C212	SDO	2,494	712	2,494	100%
21EMH64	Interconnection (f	11,041	2,294	11,041	100%
21EMH86	Interconnection (f	3,263	377	3,263	100%
21M050	SDO	4,070	1,177	4,070	100%
22C384	SDO	2,193	0	2,193	100%
22L580	SDO	5,861	2,527	5,861	100%
23G132	SDO	9,997	2,254	9,997	100%
23L074	SDO	624	0	624	100%
23L164	SDO	3,305	1,053	1,773	54%
23L195	SDO	2,899	0	2,899	100%
24C174	SDO	12,066	925	12,066	100%
24CMH014 (24CSDO039)	SDO	2,236	1,214	2,236	100%
24D150	SDO	872	0	872	100%
24G034	SDO	13,437	873	13,437	100%
25G041	SDO	2,794	639	2,794	100%
25M007	SDO	3,629	1,883	3,629	100%
26F038	SDO	7,803	0	7,803	100%
26K099	SDO	23,733	8,446	23,733	100%
27J001	SDO	18,240	3,578	17,011	93%
27J096	SDO	15,671	0	15,671	100%

Table 2-8. Sub-Catchment Area Investigation Status by Pipes

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Inspections Performed To Date ^{2 3}	Total Linear Feet of Storm Drain Pipe Investigated/Completed To Date ⁴	Percent Investigated/Complete by Storm Drain Pipe To Date ⁵
27L020/22	SDO	12,358	4,784	8,834	71%
28K010	SDO	4,212	2,102	574	14%
28K061	SDO	14,489	8,343	14,489	100%
28K386	SDO	997	0	997	100%
28L074/076	SDO	13,517	2,586	8,709	64%
28N156 (B)	SDO	376	1,040	376	100%
28O025 (B)	SDO	2,428	3,203	2,428	100%
28P001 (B)	SDO	1,826	998	1,826	100%
29J212	SDO	23,313	7,461	23,313	100%
29M049	SDO	4,237	215	3,776	89%
29N135	SDO	1,460	0	1,460	100%
29P044 (B)	SDO	2,508	3,454	2,508	100%
30J019	SDO	1,084	0	1,084	100%
30J030	SDO	3,145	1,549	3,145	100%
30P062	SDO	1,841	1,056	1,841	100%
30P107	SDO	2,018	652	2,018	100%
31O004	SDO	4,791	1,819	4,791	100%
31P084	SDO	2,974	723	2,974	100%
03E207*	SDO	0	0	0	100%
04F001*	SDO	0	0	0	100%
04F203	SDO	78	0	0	0%
05E180*	SDO	99	0	0	0%
05E181*	SDO	52	0	52	100%
05F254	SDO	210	0	210	100%
6CMH117	Interconnection (I	720	0	0	0%
06D057	SDO	2,418	0	0	0%
06D083	SDO	200	0	200	100%
06D084	SDO	694	0	694	100%
06D086*	SDO	64	0	64	100%
06D091*	SDO	63	0	0	0%
06D184	SDO	149	0	149	100%
06F233*	SDO	49	0	49	100%
08C025/026	SDO	3,152	0	0	0%
08E035	SDO	899	0	0	0%
09B049	SDO	135	0	0	0%
09E243	SDO	6,318	0	6,318	100%
11BMH49 (DCR 11BSDO28)	Interconnection (I	2,130	0	2,130	100%
11G344	SDO	9,122	0	0	0%
12B010*	SDO	16	0	16	100%
12B014	SDO	717	0	0	0%
12B033	SDO	729	0	0	0%
12F418 (aka 12E418)	SDO	3,052	0	0	0%
12H085	SDO	2,963	0	0	0%
12H087	SDO	6,747	0	6,747	100%
12H092	SDO	21,371	0	0	0%

Work done in reporting period
Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Table 2-8. Sub-Catchment Area Investigation Status by Pipes

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Inspections Performed To Date ^{2 3}	Total Linear Feet of Storm Drain Pipe Investigated/Completed To Date ⁴	Percent Investigated/Complete by Storm Drain Pipe To Date ⁵
13B011	SDO	772	0	772	100%
13F095	SDO	205	0	0	0%
13F096	SDO	117	0	117	100%
13F097*	SDO	0	0	0	100%
16L097	SDO	2,973	0	0	0%
17F012	SDO	1,157	0	0	0%
18LCSO086DR	CSO	2,143	0	0	0%
19LCSO084DR	CSO	1,766	0	0	0%
19LCSO085DR	CSO	5,550	0	0	0%
19MCSO082DR	CSO	1,283	0	0	0%
19MCSO083DR	CSO	535	0	0	0%
19NCSO081DR	CSO	2,039	0	0	0%
20DMH19	Interconnection (I	18,600	0	0	0%
20G163	SDO	1,433	0	1,433	100%
20G164*	SDO	73	0	73	100%
21H048	SDO	968	0	0	0%
21KCSO070DR	CSO	50,657	0	0	0%
21LCSO076DR	CSO	818	0	0	0%
21M010	SDO	3,801	0	0	0%
21MCSO078DR	CSO	0	0	0	100%
21MCSO079DR	CSO	0	0	0	100%
21NCSO080DR	CSO	552	0	0	0%
22KCSO065DR	CSO	8,188	0	0	0%
22KCSO068DR	CSO	2,996	0	0	0%
22KCSO072DR	CSO	549	0	0	0%
22LCSO073DR	CSO	7,859	0	0	0%
23H040	SDO	3,379	0	0	0%
23HMH81 (DCR 23ISDO019)	Interconnection (I	439	0	439	100%
23L015	SDO	3,977	0	0	0%
23L075	SDO	8,734	0	0	0%
23L196	SDO	1,397	0	0	0%
23L202	SDO	2,434	0	0	0%
23LCSO062DR	CSO	82	0	0	0%
23LCSO064DR	CSO	1,227	0	1,227	100%
24L022 (aka 23LSDO022)	SDO	2,096	0	2,096	100%
24L233	SDO	5,373	0	0	0%
24LCSO060DR	CSO	5,099	0	0	0%
24NCSO003DR	CSO	92,876	0	0	0%
25L058	SDO	15,960	0	0	0%
25L144	SDO	619	0	0	0%
25LCSO057	CSO	1,219	0	0	0%
25M006	SDO	2,198	0	0	0%
25MCSO005DR	CSO	0	0	0	100%
25NCSO004DR	CSO	3,838	0	3,838	100%
26J049	SDO	20,940	0	0	0%

Work done in reporting period
 Work done during CWI1, CWI2, CWI3 and/or CWI4 (since November 2004)
 No work done during CWI1, CWI2, CWI3 or CWI4 (since November 2004)

Table 2-8. Sub-Catchment Area Investigation Status by Pipes

Sub-Catchment Area ¹	Area Type	Total Linear Feet of Storm Drain Pipe	Total Linear Feet of Storm Drain Pipe Inspections Performed To Date ^{2 3}	Total Linear Feet of Storm Drain Pipe Investigated/Completed To Date ⁴	Percent Investigated/Complete by Storm Drain Pipe To Date ⁵
26J052	SDO	559	0	0	0%
26J055 (aka 26JSDO101)	SDO	2,094	0	0	0%
26K035	SDO	4,792	0	0	0%
26K050	SDO	2,336	0	0	0%
26K052	SDO	303	0	0	0%
26K254	SDO	1,096	0	0	0%
26L055 (aka 26LSDO106)	SDO	451	0	0	0%
26L070	SDO	670	0	0	0%
26L084	SDO	616	0	0	0%
26LCSO009	CSO	2,476	0	0	0%
27J044	SDO	3,425	0	0	0%
27LCSO010	CSO	2,935	0	0	0%
28IMH15	Interconnection (S	1,207	0	0	0%
28L073	SDO	242	0	0	0%
28L077*	SDO	602	0	0	0%
28LCSO012DR	CSO	3,279	0	3,279	100%
28LCSO019	CSO	1,367	0	0	0%
29J029*	SDO	553	0	553	100%
29J129	SDO	1,478	0	0	0%
29JCSO017	CSO	611	0	0	0%
29MCSO013DR	CSO	1,541	0	0	0%
29N015	SDO	1,297	0	0	0%
29NCSO014DR	CSO	371	0	0	0%
29P005	SDO	211	0	211	100%
30J006	SDO	2,148	0	0	0%

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 inspections performed includes all inspection records for pipes. Some pipes may have been inspected more than once.

³To Date includes data from 3/16/2009 through the end of 2016.

⁴Total 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.

⁵The % 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 2-9. Direct Illicit Connections 2016

Status	Bldg Number	Address	Neighborhood	Bldg Type	Sub-Catchment Area	Subwatershed	Date Verified	Date Corrected	Days to Correct	Sewage Removed (Average Gallons Per Day)	BWSC Cost (to Correct Direct Connection Only)
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	59	Buchanan Road	West Roxbury	R-1	13E174 VFW	Charles via Bussey Brook	3/7/2016	03/29/16	22	50	
Was Both Direct Illicit Connection to Main and Leaking Lateral-Direct Connection was Corrected under BWSC Contract; Lateral	39	Burrwood Road	West Roxbury	R-1	13E174 VFW	Charles via Bussey Brook	3/4/2016	04/16/16	43	72	\$8,946.00
Was Both Direct Illicit Connection to Main and Leaking Lateral-Direct Connection was Corrected under BWSC Contract; Lateral	7	Corey Terrace	West Roxbury	R-1	23I023 West Roxbury	Charles via Stony Brook Conduit	07/03/2014	10/31/16	851	171	\$15,098.00
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	21	Ocean Street	Dorchester	R-2	10L094 Davenport	Neponset River	12/11/2015	11/16/16	341	21	
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	33	Valley Road	Dorchester	R-1	10L094 Davenport	Neponset River	11/23/2015	02/03/16	72	6	
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	1234	Washington Street	South End	Ind	21K069 West Fourth	Boston Harbor	03/29/2016	08/05/16	129	113	
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	68	Westmore Road	Mattapan	R-2	07H105 Edgewater	Neponset River	09/12/2016	11/17/16	66	22	
Internal Illicit Connection and Leaking Lateral - Owner has been Notified	70	Colorado Street	Mattapan	R-1	07H105 Edgewater	Neponset River	08/15/2016				
Internal Illicit Connection and Leaking Lateral - Owner has been Notified	911	Washington Street	Dorchester	R-1	10L094 Davenport	Neponset River	08/25/2016				
Internal Illicit Connection and Leaking Lateral - Owner has been Notified	74-76	Westmore Road	Mattapan	R-2	07H105 Edgewater	Neponset River	09/12/2016				
Corrected BWSC Contract	11	Calvin Road	Jamaica Plain	R-1	23I023 Arboretum	Charles River	02/11/2016	03/24/16	42	143	\$11,673.00
Corrected BWSC Contract	54	Colorado Street	Mattapan	R-1	07H105 Edgewater	Neponset River	02/02/2016	03/01/16	28	280	\$12,918.00
Corrected by Owner	1476	Commonwealth Ave.	Brighton	Condos	24G035 Salt Creek	Charles River	04/28/2016	12/13/16	229	52	
Corrected by Owner	23	Courtney Road	West Roxbury	R-1	13D077/078	Charles via Bussey Brook	12/04/2015	03/04/16	91	17	
Corrected BWSC Contract	103	Devon Street	Roxbury	R-2	21K070 CSO	Boston Harbor	07/11/2016	08/15/16	35	477	\$8,968.00
Corrected by Owner	8	Dry Dock Avenue	South Boston	Comm	21M008 Private	Boston Harbor	12/04/2015	01/25/16	52	0	
Corrected BWSC Contract	22	Edison Green	Dorchester	R-2	16L122	Boston Harbor	09/19/2016	11/03/16	45	91	\$10,941.00
Corrected BWSC Contract	20	Edison Green	Dorchester	R-3	16L122	Boston Harbor	09/19/2016	11/04/16	46	241	\$13,813.00
Corrected by Owner	61-63	Fairmount Street	Dorchester	R-2	10L094 Davenport	Neponset River	09/19/2016	11/14/16	56	252	
Corrected by Owner	69-71	Fairmount Street	Dorchester	R-2	10L094 Davenport	Neponset River	09/19/2016	11/03/16	45	45	
Corrected BWSC Contract	44	Floyd Street	Mattapan	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	11/24/2015	01/14/16	51	491	\$9,468.00
Corrected by Owner	130-128	Fuller Street	Dorchester	R-2	10L094 Davenport	Neponset River	07/11/2016	07/11/16	0	122	
Corrected BWSC Contract	235	Gallivan Boulevard	Dorchester	R-1	10L094 Davenport	Neponset River	11/09/2015	01/13/16	65	96	\$11,392.00
Corrected BWSC Contract	177	Hacksack Road	West Roxbury	R-1	13D077/078	Charles via Bussey Brook	02/12/2016	05/13/16	91	122	\$11,344.00
Corrected by Owner	18-24	Harvard Avenue	Dorchester	Comm	11I577 Dorchester	Charles via Stony Brook Conduit	12/15/2015	06/09/16	173	129	
Corrected BWSC Contract	369	La Grange Street	West Roxbury	Exempt	07C006 Belle Avenue	Charles River	04/06/2016	05/16/16	40	32	\$18,990.00
Corrected BWSC Contract	44-46	Lawrence Avenue	Roxbury	R-1	21K070 CSO	Boston Harbor	09/16/2015	01/11/16	117	249	\$1,116.48
Corrected BWSC Contract	42	Long Avenue	Allston	R-4-6	24G035 Salt Creek	Charles River	12/22/2015	02/02/16	42	433	\$13,600.34
Corrected by Owner	36	Long Avenue	Allston	R-2	24G035 Salt Creek	Charles River	12/04/2015	01/15/16	42	70	
Corrected by Owner	224-232	Market Street	Brighton	Comm	24D032 Faneuil Brook	Charles River	07/11/2016	10/19/16	100	995	
Corrected BWSC Contract	9	Mission Street	Jamaica Plain	R-2	19G043 Huntington	Charles via Muddy River	02/02/2016	02/29/16	27	247	\$5,557.00
Corrected BWSC Contract	750	Morton Street	Mattapan	Apt	11I577 Dorchester	Charles via Stony Brook Conduit	01/11/2016	01/01/16	21	785	\$15,134.00
Corrected BWSC Contract	125	North Beacon Street	Brighton	Comm	25E037 Telford	Charles River	08/04/2016	08/18/16	14	59	\$23,657.00
Corrected by Owner	99	Parkton Road	Jamaica Plain	R-2	18G233 Daisy Field	Charles via Muddy River	03/22/2016	07/06/16	106	19	
Corrected by Owner	91	Parkton Road	Jamaica Plain	R-4	18G233 Daisy Field	Charles via Muddy River	03/22/2016	04/01/16	10	37	
Corrected by Owner	72	Parkton Road	Jamaica Plain	R-3	18G233 Daisy Field	Charles via Muddy River	03/22/2016	04/19/16	28	0	
Corrected by Owner	97	Perkins Street	Jamaica Plain	R-2	18G233 Daisy Field	Charles via Muddy River	05/17/2016	05/19/16	2	233	
Corrected BWSC Contract	22	Rambler Road	Jamaica Plain	R-1	15FMH333	Charles via Goldsmith Brook	05/09/2016	06/21/16	43	137	\$31,258.00
Corrected by Owner	30	Rita Road	Dorchester	R-1	10L094 Davenport	Neponset River	11/09/2015	01/19/16	71	39	\$2,189.00
Corrected BWSC Contract	111-115	Stratton Street	Dorchester	R-2	11I577 Dorchester	Charles via Stony Brook Conduit	09/19/2016	11/01/16	43	314	
Corrected by Owner	160-166	Talbot Avenue	Dorchester	Exempt	11I577 Dorchester	Charles via Stony Brook Conduit	04/06/2016	07/14/16	99	27	\$7,090.00
Corrected BWSC Contract	39	Torrey Street	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	12/14/2015	02/18/16	66	502	\$11,485.00
Corrected BWSC Contract	3575	Washington Street	Jamaica Plain	Comm	23I023 State Hospital	Charles via Stony Brook Conduit	06/15/2016	08/16/16	62	40	\$14,082.00
Corrected BWSC Contract	903	Washington Street	Dorchester	R-1	10L094 Davenport	Neponset River	11/03/2015	01/21/16	79	132	\$12,507.00
Corrected by Owner	5181	Washington Street	West Roxbury	Comm	06D187 Grove Street	Neponset River	03/07/2016	05/17/16	71	10	
Corrected by Owner	15	Washington Street	Brighton	Comm	21E064 Tannery	Charles via Tannery Brook	05/20/2016	06/15/16	26	1,040	
Corrected BWSC Contract	61-63	Waverly Street	Brighton	R-2	25E037 Telford	Charles River	02/11/2016	03/23/16	41	1,145	\$8,709.00
Corrected by Owner	10	Wedgewood Road	West Roxbury	R-1	13E174 VFW	Charles via Bussey Brook	02/01/2016	04/13/16	72	143	
Corrected BWSC Contract	139	Westmoor Road	West Roxbury	R-1	06D097 Edgemere	Neponset River	03/10/2016	04/28/16	49	147	\$10,965.00
Corrected BWSC Contract	91	Wheatland Avenue	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	01/11/2016	02/23/16	43	713	\$32,685.00
Corrected BWSC Contract	87	Wheatland Avenue	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	11/24/2015	01/12/16	49	297	\$12,778.00

Table 2-9. Direct Illicit Connections 2016

Status	Bldg Number	Address	Neighborhood	Bldg Type	Sub-Catchment Area	Subwatershed	Date Verified	Date Corrected	Days to Correct	Sewage Removed (Average Gallons Per Day)	BWSC Cost (to Correct Direct Connection Only)
Corrected by Owner	81	Willowdean Avenue	West Roxbury	R-1	13D077/078	Charles via Bussey Brook	07/20/2015	01/18/16	182	62	
Internal Illicit- Owner has been Notified	55	Brock Street	Brighton	R-3	24D032 Faneuil Brook	Charles River	12/09/2016				
Internal Illicit- Owner has been Notified	66	Brock Street	Brighton	R-3	24D032 Faneuil Brook	Charles River	12/02/2016				

Total Sewage Removed (Average Gallons Per Day)	10,920	
Total BWSC Cost to Correct Illicit Connections		\$336,364

	Corrected Illicit Connections
	Includes both Illicit Connection and Leaking Lateral

*These costs do not include cost to locate illicit discharges (via manhole inspections, dye tests)

Table 2-10. Indirect Illicit Connections 2016

Status	Bldg Number	Address	Neighborhood	Bldg Type	Sub-Catchment Area	Subwatershed	Date Verified	Date Corrected	Days to Correct	Sewage Removed (Average Gallons Per Day)	BWSC Cost to Test Lateral	Reimbursed by BWSC to Owner
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	59	Buchanan Road	West Roxbury	R-1	13E174 VFW	Charles via Bussey Brook	06/21/2016	09/22/16	93	49	\$1,660.00	\$4,000.00
Was Both Direct Illicit Connection to Main and Leaking Lateral- Direct Connection was Corrected under BWSC Contract;	39	Burrwood Road	West Roxbury	R-1	13E174 VFW	Charles via Bussey Brook	09/03/2014	04/16/16	591	26	\$2,762.00	\$4,000.00
Was Both Direct Illicit Connection to Main and Leaking Lateral- Direct Connection was Corrected under BWSC Contract;	7	Corey Terrace	West Roxbury	R-1	23I023 West Roxbury	Charles via Stony Brook Conduit	07/03/2014	10/31/16	851	63	\$3,980.00	\$4,000.00
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	21	Ocean Street	Dorchester	R-2	10L094 Davenport	Neponset River	12/11/2015	11/16/16	341	79	\$4,654.00	\$4,000.00
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	33	Valley Road	Dorchester	R-1	10L094 Davenport	Neponset River	11/23/2015	02/03/16	72	24	\$3,529.00	\$0.00
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	1234	Washington Street	South End	Ind	21K069 West Fourth	Boston Harbor	03/29/2016	08/05/16	129	415	\$2,071.00	\$0.00
Was Both Internal Connections and Leaking Lateral- Internal Connection and Lateral were Corrected by Owner	68	Westmore Road	Mattapan	R-2	07H105 Edgewater	Neponset River	09/12/2016	11/17/16	66	80	\$1,550.00	\$0.00
Internal Illicit Connection and Leaking Lateral - Owner has been Notified	70	Colorado Street	Mattapan	R-1	07H105 Edgewater	Neponset River	08/15/2016					
Internal Illicit Connection and Leaking Lateral - Owner has been Notified	911	Washington Street	Dorchester	R-1	10L094 Davenport	Neponset River	08/25/2016					
Internal Illicit and Leaking Lateral- Owner has been Notified	74-76	Westmore Road	Mattapan	R-2	07H105 Edgewater	Neponset River	09/12/2016					
Leaking Lateral Repaired by Owner	693	Adams Street	Dorchester	R-3	10L094 Davenport	Neponset River	08/23/2016	09/07/16	15	117	\$1,840.00	\$4,000.00
Leaking Lateral Repaired by Owner	707	Adams Street	Dorchester	R-1	10L094 Davenport	Neponset River	07/25/2016	09/08/16	45	30	\$1,880.00	\$4,000.00
Leaking Lateral Repaired by Owner	65	Bailey Street	Dorchester	Comm	10L094 Davenport	Neponset River	05/21/2015	04/01/16	316	218	\$1,738.00	\$0.00
Leaking Lateral Repaired by Owner	37	Buchanan Road	West Roxbury	R-1	13E174 VFW	Charles via Bussey Brook	06/21/2016	08/29/16	69	33	\$1,780.00	\$4,000.00
Leaking Lateral Repaired by Owner	11	Charles Street	Dorchester	School	13L090 Victory Road	Neponset River	05/10/2016	05/15/16	5	984	\$875.00	\$0.00
Leaking Lateral Repaired by Owner	78	Colborne Road	Brighton	R-2	21D319 Village-Kilsyth	Charles via Village Brook	07/25/2016	11/15/16	113	95	\$260.00	\$0.00
Leaking Lateral Repaired by Owner	74-76	Colborne Road	Brighton	R-2	21D319 Village-Kilsyth	Charles via Village Brook	07/25/2016	12/15/16	143	50	\$1,020.00	\$0.00
Leaking Lateral Repaired by Owner	263	Corey Road	Brighton	R-2	24G035 Salt Creek	Charles River	12/11/2015	01/15/16	35	58	\$2,075.00	\$4,000.00
Leaking Lateral Repaired by Owner	277-275	Corey Road	Brookline	R-2	24G035 Salt Creek	Charles River	12/11/2015	05/13/16	154	70	\$2,135.00	\$4,000.00
Leaking Lateral Repaired by Owner	26	Edison Green	Dorchester	R-2	16L122	Boston Harbor	09/08/2016	10/17/16	70	78	\$1,440.00	\$4,000.00
Leaking Lateral Repaired by Owner	32	Edison Green	Dorchester	R-2	16L122	Boston Harbor	09/08/2016	12/22/16	105	74	\$1,200.00	\$4,000.00
Leaking Lateral Repaired by Owner	25	Estella Street	Mattapan	Apts	11I577 Dorchester	Charles via Stony Brook Conduit	01/05/2016	06/06/16	153	325	\$2,326.00	\$0.00
Leaking Lateral Repaired by Owner	34	Fairmount Street	Dorchester	R-2	10L094 Davenport	Neponset River	11/20/2015	02/11/16	83	68	\$2,180.00	\$4,000.00
Leaking Lateral Repaired by Owner	264-266	Gallivan Boulevard	Dorchester	R-2	10L094 Davenport	Neponset River	08/09/2016	08/24/16	5	133		\$4,000.00
Leaking Lateral Repaired by Owner	20	Goodale Road	Mattapan	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	12/11/2015	01/08/16	28	117	\$1,883.00	\$4,000.00
Leaking Lateral Repaired by Owner	44	Goodale Road	Mattapan	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	12/11/2015	01/21/16	41	129	\$2,265.00	\$4,000.00
Leaking Lateral Repaired by Owner	108	Greaton Road	West Roxbury	R-1	13D077/078	Charles via Bussey Brook	11/12/2015	01/27/16	76	48	\$2,421.00	\$4,000.00
Leaking Lateral Repaired by Owner	520	Harvard Street	Mattapan	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	02/12/2016	04/21/16	69	120	\$2,087.00	\$4,000.00
Leaking Lateral Repaired by Owner	23	Hildreth Street	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	06/21/2016	09/30/16	101	54	\$1,120.00	\$4,000.00
Leaking Lateral Repaired by Owner	91	Homer Street	East Boston	R-2	28N207 Moore Street	Boston Harbor	12/2/2014	05/14/15	163	94	\$4,905.00	\$4,000.00
Leaking Lateral Repaired by Owner	503	La Grange Street	West Roxbury	R-1	12B124 LaGrange	Charles River	11/12/2015	01/09/16	58	11	\$2,405.00	\$4,000.00
Leaking Lateral Repaired by Owner	46-48	Leo M. Birmingham	Brighton	Comm	25D040 Western Ave	Charles River	07/25/2016	09/10/16	47	269	\$1,960.00	\$4,000.00
Leaking Lateral Repaired by Owner	50	Lila Road	Jamaica Plain	R-1	23I023 Arboretum	Charles via Stony Brook Conduit	06/21/2016	07/18/16	22	41	\$1,880.00	\$4,000.00
Leaking Lateral Repaired by Owner	44	Long Avenue	Allston	R-2	24G035 Salt Creek	Charles River	12/16/2015	08/05/16	233	235	\$2,297.00	\$4,000.00
Leaking Lateral Repaired by Owner	33	Long Avenue	Allston	R-3	24G035 Salt Creek	Charles River	12/16/2015	08/05/16	233	174	\$1,874.00	\$4,000.00
Leaking Lateral Repaired by Owner	64	Lorna Road	Mattapan	R-2	07H285 Blue Hill Ave	Neponset River	11/12/2015	03/10/16	119	56	\$2,300.00	\$4,000.00
Leaking Lateral Repaired by Owner	35	Maxwell Street	Dorchester	R-3	07H285 Blue Hill Ave	Neponset River	06/21/2016	11/11/16	143	78	\$1,740.00	\$4,000.00
Leaking Lateral Repaired by Owner	35	Nevada Street	Dorchester	R-1	10L094 Davenport	Neponset River	11/20/2015	03/30/16	131	25	\$2,084.00	\$4,000.00
Leaking Lateral Repaired by Owner	146	Nonantum Street	Allston/Brighton	R-2	24D032 Faneuil Brook	Charles River	07/25/2016	09/12/16	49	60	\$1,460.00	\$4,000.00
Leaking Lateral Repaired by Owner	243	North Harvard Street	Allston/Brighton	R-3	26G001 Harvard	Charles River	07/25/2016	08/22/16	28	363	\$1,820.00	\$4,000.00
Leaking Lateral Repaired by Owner	182	Perham Street	West Roxbury	R-1	12B124 LaGrange	Charles River	06/21/2016	08/22/16	62	41	\$1,800.00	\$4,000.00
Leaking Lateral Repaired by Owner	35	Pratt Street	Brighton	R-2	24G035 Salt Creek	Charles River	12/11/2015	05/20/16	161	49	\$2,281.00	\$4,000.00
Leaking Lateral Repaired by Owner	24	Priscilla Road	Brighton	R-2	24D032 Faneuil Brook	Charles River	10/31/2016	11/22/16	22	64	\$1,780.00	\$4,000.00
Leaking Lateral Repaired by Owner	18	Rambler Road	Jamaica Plain	R-1	15FMH333	Charles via Goldsmith Brook	06/21/2016	07/18/16	27	44	\$2,220.00	\$4,000.00
Leaking Lateral Repaired by Owner	65	Safford Street	Mattapan	R-1	06G108 Wood Avenue	Neponset River	02/12/2016	04/28/16	76	63	\$2,540.00	\$4,000.00
Leaking Lateral Repaired by Owner	14	Standish Street	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	07/25/2016	08/15/16	21	154	\$1,500.00	\$4,000.00
Leaking Lateral Repaired by Owner	48	Sturbridge Street	Mattapan	R-1	08J103 Central Avenue	Neponset River	12/11/2015	02/03/16	54	36	\$2,201.00	\$4,000.00
Leaking Lateral Repaired by Owner	46	Torrey Street	Dorchester	R-2	11I577 Dorchester	Charles via Stony Brook Conduit	01/05/2016	02/14/16	40	87	\$2,267.00	\$4,000.00
Leaking Lateral Repaired by Owner	298	Vermont Street	West Roxbury	R-1	12B124 LaGrange	Charles River	06/21/2016	11/16/16	148	62	\$1,760.00	\$4,000.00

Table 2-10. Indirect Illicit Connections 2016

Status	Bldg Number	Address	Neighborhood	Bldg Type	Sub-Catchment Area	Subwatershed	Date Verified	Date Corrected	Days to Correct	Sewage Removed (Average Gallons Per Day)	BWSC Cost to Test Lateral	Reimbursed by BWSC to Owner
Leaking Lateral Repaired by Owner	990	Washington Street	Dorchester	R-1	10L094 Davenport	Neponset River	11/30/2015	01/01/16	32	41	\$2,054.00	\$4,000.00
Leaking Lateral Repaired by Owner	519	Weld Street	West Roxbury	R-1	13D077/078	Charles via Bussey Brook	11/12/2015	05/17/16	187	32	\$2,232.00	\$3,650.00
Leaking Lateral Repaired by Owner	49	Wentworth Street	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	01/05/2016	03/08/16	63	109	\$2,389.00	\$4,000.00
Leaking Lateral Repaired by Owner	14-14A	Westcott Street	Dorchester	R-2	11I577 Dorchester	Charles via Stony Brook Conduit	01/05/2016	03/25/16	80	56	\$1,884.00	\$4,000.00
Leaking Lateral Repaired by BWSC Contractor	81	Wheatland Avenue	Dorchester	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	04/22/2016	04/22/16	1	350		\$0.00
Verified Leaking Lateral-Water is Off	27	Banfield Avenue	Mattapan	R-1	07H285 Blue Hill Ave	Neponset River	12/30/2014			845		
Verified Leaking Lateral-Water is Off	60	Goodale Road	Mattapan	R-3	11I577 Dorchester	Charles via Stony Brook Conduit	07/25/2016			239		
Verified Leaking Lateral-Water is Off	39	Harding Road	Roslindale	R-1	23I023 Barron School	Charles via Stony Brook Conduit	11/04/2013					
Verified Leaking Lateral-Owner has been Notified	531	La Grange Street	West Roxbury	R-2	12B124 LaGrange	Charles River	10/07/2016					
Verified Leaking Lateral-Owner has been Notified	655	Morton Street	Mattapan	Res/Comm	11I577 Dorchester	Charles via Stony Brook Conduit	10/19/2016					
Verified Leaking Lateral-Owner has been Notified	88	Russett Road	West Roxbury	R-2	13D077/078	Charles via Bussey Brook	08/23/2016					
Verified Leaking Lateral-Owner has been Notified	124	Selden Street	Dorchester	R-3	07H285 Blue Hill Ave	Neponset River	10/31/2016					
Verified Leaking Lateral-Owner has been Notified	41	Valley Road	Dorchester	R-1	10L094 Davenport	Neponset River	08/23/2016					
Verified Leaking Lateral-Owner has been Notified	88	Wellington Hill Street	Mattapan	R-1	11I577 Dorchester	Charles via Stony Brook Conduit	10/07/2016					
Verified Leaking Lateral-Owner has been Notified	113	Wellington Hill Street	Mattapan	R-1	11I577 Dorchester	Charles via Stony Brook Conduit	09/08/2016					

Corrected Illicit Connections
Includes both Illicit Connection and Leaking Lateral
Leaking Lateral has Been Verified - Water is Shut Off

Total Sewage Removed (Average Gallons Per Day)	7,215
Total BWSC Cost to Verify Leaking Lateral	\$102,364
Total BWSC Cost to Reimburse Owner	\$167,650.00
Total Cost to BWSC to Verify/Repair Leaking Laterals	\$270,014

*These costs do not include cost to locate illicit discharges (via manhole inspections, dye tests)

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 Separator Cleaning 2015

Location	Neighborhood	Map #	Outfall #	Receiving Water	2015 Material Removed (cubic yards) Various dates	Comments
Arnold Aroboretum	Jamaica Plain	13F	13F011	Bussy Brook	0.50	
Centre Lane	WROX	8C	8C025,8C026	Wetlands	0.25	
Centre Street	WROX	6C	6C110	Wetlands	0.25	
Coleridge Street	East Boston	28O	28O025	Boston Harbor	0.50	
Coniston Road	Roslindale	12E	13I023	Stony Brook Conduit	0.00	Did not need cleaning
Denny Street	Dorchester	15L	15L089 (CSO)	Malibu Beach	0.00	Did not need cleaning
Ericsson Street	Dorchester	12M	12M091	Neponset River	0.25	
Fenwood Road	Roxbury	20G	20G161	Muddy River	0.25	
Lawley Street	Dorchester	12L	12L092	Pine Neck Creek	0.25	
Martha Road	Central	26J	26J100	Charles River	NA	Cleaned but amount not recorded
Neponset Avenue	Dorchester	11M	11M093	Neponset River	0.00	Did not need cleaning
Norton Street	Hyde Park	3E	3E185	Open Channel	0.00	Did not need cleaning
Perkins Street	Jamaica Plain	17F	17F012	Jamaica Pond	0.50	
Waldemar Avenue	East Boston	30P	30P107	Belle Isle Inlet	0.00	Did not need cleaning
Waldemar Avenue	East Boston	31O	31O004	Belle Isle Inlet	0.25	
Walter Street	Roslindale	12F	12E418	Wetlands	0.00	Did not need cleaning
TOTALS					3.00	

TABLE 3-3. 2016 HAZMAT SPILL AND SEWER USE VIOLATIONS

	Date	Street	Complaint	BSWC Personnel	Type	Cause of Incident / Responsible Party
1	1/4/16	American Legion Hwy, Roslindale	Sewer Odor	Taylor	Oil Sludge	Called BFD about a strong chemical odor coming from sump, BFD requested to building managers to clean the sump area, I checked BWSW sewer and drain lines, no odors and all down and running.
2	1/27/16	Worthington St@Smith St	Mop Water	Taylor	Mop Water	Meet with manager of the Squealing Pig, told her about the cleaners that were dumping mop water buckets into BWSW catch basin, she will tell them to stop or BWSW will fine the business
3	2/25/16	291 Shawmut Av	Cement	Conran	Cement	Looked in CB could not see presence of cement
4	3/9/16	Talbot Ave@Helen St, Mattapan	Oil	Taylor	Oil	Checked MH200, no oil seen, checked nearby drain and sewer manholes, no oil seen or any oil smell
5	3/9/16	75 O Street, South Boston	Plaster	Taylor	Construction debris	Checked nearby catch basins at 75 O Street in South Boston, saw possible construction debris around CB grate warned store worker to tell construction crews working above store to not impact BWSW's catch basins, also notified ISD about situation
6	3/15/16	Beverly St@Lovejoy Place	Oil	Taylor	Cement/Sediment	Received call about oil being discharged from BWSW storm drain, found sediment plumb from nearby construction site, called Matt Tuttle, he is meeting with construction personnel about situation
7	3/24/16	Church St@Columbus Ave	Gross Stuff	Taylor	Grease from dumpster	Checked area, found greasy liquid on sidewalk and in gutter impacting a BWSW catch basin, grease was coming from dumpster in Park Plaza loading dock, they will have sidewalk power washed and pump out BWSW catch basin.
8	3/28/16	960 Massachusetts Ave	food/grease	Taylor	nothing	Owner checked video and saw no illegal dumping and nothing in the private catch basin.
9	4/1/16	131 Beverly St @ Lovejoy Wharf	Oil	Vidalis	Construction Runoff	Received complaint from DCR about sheen coming from BWSW Storm Drain Outfall (26KSDO35). Upon investigation, it was determined the sheen was originating from under boardwalk by construction site (GSA#10181, Site Plan #14116), due to booms caught up on obstructions during lower tide. Cosigli Construction (Brian Corcoran) was contacted and said they would fix the booms around the boardwalk.
10	4/28/16	336 Sumner St, East Boston	Grease	Dorleans/Taylor	N/A	Received complaint about Italian Express Power washing grease covers in gutters. Checked CB's at Intersection of Sumner & Cottage and Sumner & Everett. No Evidence of illegal dumping. (WO# 1262003)
11	5/9/16	150 Farragut Road	paint	Taylor	Paint	A paint like substance was seen around a private DCR catch basin. Catch basin connect to DCR line on Day Blvd, BWSW call the DCR to inform them on the situation.
12	5/11/16	302 Beacon St, Boston	paint	Taylor	Paint	Found AlexanderFinePainting dumping white paint into catch basin. They will clean out catch basin and may be fined.
13	5/24/16	245 K St, South Boston	paint	Taylor	nothing	Check area, saw small amount of cement stains on catch basin grate in front of 245 K St, South Boston, no work was being done in the area. Nothing was observed inside the catch basin.
14	5/24/16	701 Centre St, JP	Boston 311	Slade	FOG	Complaint of grease being dumped into CB behind restaurant. No grease was found. WO# 1264379
15	5/26/16	Charles Street South @ Boylston St	Possible plaster or paint	Dorleans / Harrington	Paint washout	Observed cloudy white water in CB. BWSW to Vactor out CB. WO# 1264705
16	6/7/16	392 Hanover St	Hydraulic Fluid	Slade	Hydraulic Fluid	Hydraulic line on fire truck let go causing less than 5 gallons of product to enter CB. On arrival, All Inclusive Environmental had already vactored out CB. CB will be boomed off as a precaution. WO# 1265613.
17	6/9/16	33 Parkman St, BBBH	Hydraulic Fluid	Night Crew	Hydraulic Fluid	13 gallons of hydraulic fluid spilled into a BWSW catch basin, Triumphed Cleaning Company cleaned impacted area, no material left the catch basin.
18	6/15/16	33 Faulkner St	Diesel Fuel	Slade	Diesel Fuel	Tractor trailer ruptured saddle tank releasing approx. 90 gallons of fuel into two CB's. Small amount detected in drain line. Premium Environmental hired by JB Hunt, owner of truck, to clean impacted areas and boom CB's. W/O #1266413.
19	6/28/16	49 Breck Ave, BRI	cement/concrete	Taylor/Tuttle	concrete runoff	Some concrete runoff was observed in the gutter and at the mouth of a BWSW catch basin. Contractor was told to remove it, contractor clean it up on recheck.
20	7/11/16	Essex St at Chauncy St	Power wash water	Slade	Power wash water	NER Mason and Restoration power washing building causing dirty wash water to discharge into gutter and CB. Spoke to superintendent Adrienne of Built Rite Construction who directed NER to cease. NER was directed to clean up material in gutter and CB. WO # 1268699.
21	7/14/16	98 Blackstone St	Grease	Conran	Grease	Found small amount of grease in CB. Followed up to have night crew clean CB and grease police check businesses traps. WO# 1268827
22	7/22/16	94 Condor St, EBOS	Oil	Limardo	Nothing	Night crew checked area and found no signs of any illegal dumping of oil in any of the nearby catch basins.
23	7/28/16	240 Silver St, South Boston	Paint	Taylor	Plaster	Contractor was already cleaning plaster out of catch basin, he was warned not to dump anything in any BWSW catch basins. Contractor's name was Colm Dunphy (617 799 2578)
24	8/9/16	Piedmont St & Arlington St	Concrete mix	Dorleans	Water & sand	Contractor was cleaning out a bucket of sand into CB220. He was warned not dump again. It was Oneil Masonry. WO# 1271021
25	8/23/16	Flagship Way, Charlestown	Oil	Taylor/O'Brien	Road Surface runoff	Small oily sheen seen around outfall 27LSDO20, may have been caused by sewer/drain cleaning upstream, boom placed in 27LHM69 to stop further oil sheen in water.
26	8/25/16	9 Commonwealth Ave, Boston	paint	Taylor	cement wastewater	Brookdale Construction was cutting concrete and some water from this process went into gutter and catch basin, they were told to clean impacted area.
27	8/31/16	Holyoke St@Columbus Ave	Hydraulic Fluid	Taylor/Dorleans	Hydraulic Fluid	A vactor truck from National Water Main leaked approximately 20 gallons of hydraulic fluid into a catch basin at Holyoke St and Columbus Ave. BFD arrived and put speedy dry on the impacted area and several booms were placed downstream to contain the spill. Cyn Environmental was called to clean impacted area.
28	9/21/16	1st Av @ 13th St	Oil in CB	Slade	Nothing found	Checked area for oil in CB, nothing found. WO# 1276024.
29	10/3/16	695 Truman Pkwy, HP	chemicals odors	Taylor/Dorleans	Found no odors	Checked sewers and drains in the area with the BFD, found no sources of odors, odor in 695 Truman Pkwy went away. (WO#1277584)
30	10/7/16	5 Worcester Sq, South End	paint	Taylor	paint	Gland properties was painting inside 5 Worcester Sq, they rinsed some paint buckets outside on the sidewalk causing a white puddle, they will shop vac up puddle and cease rinsing paint brushes and buckets on the sidewalk. (WO# 1278259)
31	10/11/13	12 Church, Bay Village	grease	Taylor	grease	Mike and Patty's were washing floor mats off into street, were told to cease washing anything into the sidewalk and street.
32	11/1/16	120 Arlington St, CENT	Concrete	Slade/Taylor	sand	Contractor had washed some sand in gutter. Small amount reached basin and some sand was in gutter. Told contractor to clean up gutter. Mason Cement Finishing was the contractor. (WO#1288444)
33	11/15/16	40 Green St, Charlestown	plaster	Taylor/Dorleans	plaster	A small amount of plaster was observed on top of the catch basin in front of 40 Green St, Charlestown. Warned contractor at 42-40 Green Street, and homeowner at 43 Green St to not throw anything into BWSW catch basins. Also visited 45 Green Street but nobody was currently working at the building. Called Owner of Scorpion Painting and warned them not to dump in anything in CB (WO# 1289354)
34	11/29/16	177 Huntington Ave, BBBH	Hydraulic Fluid	Dorleans/James	Hydraulic Fluid	Shred-It truck spilled hydraulic fuel on the property. Building Engineering called clean Harbors and contained spill on to property. No impact to BWSW catch Basin. WO# 1290654
35	11/29/2016	731 Washington St, SDOR	Paint	Dorleans/James	Nothing Found	Checked CB around area of 731 Washington St. Nothing found. WO# 1290656
36	12/19/16	24 Ellingwood St, Jamaica Plain	Grease	Taylor	Grease	A small amount of cooking grease was seen on the grate of CB#53 next to 24 Ellingwood St, it appears that a resident may be dumping it, will stencil the sidewalk with do not dump. (WO # 1299418)

Table 3-4. Private Infiltration Devices Approved 2016

PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
15343	34	DECATUR ST	EBOS	1/6/2016	PERFORATED PIPE
15426	165-167	BOWEN ST	SBOS	1/8/2016	LEACHING BASIN
15431	877	BEACON ST	FEKE	1/8/2016	PERFORATED PIPE
15442	69-71	WYVERN ST	ROSL	1/8/2016	CULTEC CHAMBER
15462	20	WOODSTOCK AV	ALBR	1/8/2016	STORMTECH CHAMBERS
15207	605	BLUE HILL AV	ROXB	1/11/2016	PERFORATED PIPE
15374	7-9	GEM AV	ALBR	1/11/2016	CULTEC CHAMBER
15459	595	TREMONT ST	SEND	1/13/2016	CULTEC CHAMBER
16001	615	TREMONT ST	SEND	1/13/2016	CULTEC CHAMBER
15454	647	WALK HILL ST	MATP	1/15/2016	CULTEC CHAMBER
15389	47	CONCORD SQ	SEND	1/19/2016	DRYWELL
15470	190	CALUMET ST	JAPL	1/19/2016	STORMTECH CHAMBERS
14374	60-62	LAMBERT AV	ROXB	1/20/2016	STORMTECH CHAMBERS
15453	30	YARMOUTH ST	BBBH	1/20/2016	PERFORATED PIPE
15479	709-711	EAST SECOND ST	SBOS	1/22/2016	DRYWELL
14225	158	WALNUT AV	ROXB	1/29/2016	DRYWELL
15440	260	HIGHLAND ST	ROXB	1/29/2016	MULTIPLE
16028	365	E ST	SBOS	1/29/2016	CULTEC CHAMBER
16029	469	EAST FOURTH ST	SBOS	1/29/2016	STORMTECH CHAMBERS
13336	9	SHERMAN ST	CHAR	2/10/2016	DETENTION POND
15448	95-95A	BOARDMAN ST	EBOS	2/10/2016	DRYWELL
16003	4	WELD ST	WROX	2/10/2016	CULTEC CHAMBER
16038	29	NEPONSET AV	ROSL	2/10/2016	CULTEC CHAMBER
15154	6	PARMELEE ST	SEND	2/12/2016	CULTEC CHAMBER
15427	82	BALDWIN ST	CHAR	2/12/2016	STORMTECH CHAMBERS
15449	5	BRADFORD ST	SEND	2/12/2016	CULTEC CHAMBER
15477	300	LONGWOOD AV	FEKE	2/12/2016	TANK/INJECTION WELL
16025	132	QUINCY ST	ROXB	2/12/2016	STORMTECH CHAMBERS
15269	332	ASHMONT ST	SDOR	2/16/2016	CULTEC CHAMBER
16023	4253-4257	WASHINGTON ST	ROSL	2/16/2016	CULTEC CHAMBER
16041	15	MEDWAY ST	SDOR	2/17/2016	LEACHING BASIN
15295	1505	COMMONWEALTH AV	ALBR	2/22/2016	STORMTECH CHAMBERS
14378	80	PIERS PARK LN	EBOS	2/25/2016	DRYWELL
15184	20	KEARSARGE AV	ROXB	2/25/2016	PERFORATED PIPE
16037	129	GARDNER ST	WROX	2/25/2016	STORMTECH CHAMBERS
16062	27	WEST TREMLETT ST	SDOR	2/25/2016	STORMTECH CHAMBERS
15164	36	WINTHROP ST	ROXB	2/26/2016	PERFORATED PIPE
15271	35	WARREN AV	SEND	2/26/2016	PERFORATED PIPE
15275	33	WARREN AV	SEND	2/26/2016	PERFORATED PIPE
15435	70	NORTH HARVARD ST	ALBR	2/26/2016	STORMTECH CHAMBERS
16030	607	EAST SECOND ST	SBOS	2/26/2016	CULTEC CHAMBER
16055	556	PARK ST	SDOR	2/29/2016	LEACHING BASIN
16002	183	CAMBRIDGE ST	ALBR	3/2/2016	STORMTECH CHAMBERS
16026	70	PARKER HILL AV	JAPL	3/2/2016	CULTEC CHAMBER
16027	108-110	WEBSTER ST	EBOS	3/2/2016	LEACHING BASIN
16036	131	GARDNER ST	WROX	3/2/2016	STORMTECH CHAMBERS
14332	35	MOUNT EVERETT ST	SDOR	3/4/2016	DRYWELL
14480	52-54	TAYLOR ST	SDOR	3/4/2016	STORMTECH CHAMBERS
15455	1190	MASSACHUSETTS AV	ROXB	3/4/2016	CULTEC CHAMBER

Table 3-4. Private Infiltration Devices Approved 2016

PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
14221	2-4	KERR WY	ROXB	3/11/2016	RAIN GARDEN
15179	160	MOUNT VERNON ST	NDOR	3/11/2016	RAIN GARDEN
15329	1	BLACK FALCON AV	SBOS	3/11/2016	BIO SWALE
15417	216	SILVER ST	SBOS	3/11/2016	LEACHING BASIN
15437	579	EAST EIGHTH ST	SBOS	3/11/2016	DRYWELL
16024	17-19	VINTON ST	SBOS	3/11/2016	CULTEC CHAMBER
16033	68-70	WAVERLY ST	ALBR	3/11/2016	MULTIPLE
15452	42	PRESCOTT ST	HYDE	3/14/2016	DRYWELL
15226	130	ROXBURY ST	ROXB	3/15/2016	LEACHING BASIN
16045	363	CONGRESS ST	SBOS	3/17/2016	PERFORATED PIPE
16102	77	WORCESTER ST	SEND	3/17/2016	STORMTECH CHAMBERS
15095	150	CAMDEN ST	SEND	3/18/2016	MULTIPLE
15395	68	WEST RUTLAND SQ	BBBH	3/18/2016	LEACHING BASIN
16078	16	DYER ST	MATP	3/18/2016	DRYWELL
16079	18	DYER ST	MATP	3/18/2016	DRYWELL
16080	24-26	DYER ST	MATP	3/18/2016	DRYWELL
16081	20-22	DYER ST	MATP	3/18/2016	DRYWELL
16082	13-15	DYER ST	MATP	3/18/2016	DRYWELL
16084	48-50	CAPEN ST	MATP	3/18/2016	DRYWELL
16085	63	THETFORD AV	MATP	3/18/2016	DRYWELL
16086	85-87	THETFORD AV	MATP	3/18/2016	DRYWELL
16087	35	GOVE ST	EBOS	3/18/2016	EXISTS TYPE UNKNOWN
16092	320	MAVERICK ST	EBOS	3/18/2016	DRYWELL
16053	388	WEST FOURTH ST	SBOS	3/22/2016	DRYWELL
14470	333	TERMINAL ST	SBOS	3/23/2016	PERFORATED PIPE
16008	610	BEACON ST	FEKE	3/23/2016	TANK/INJECTION WELL
16046	884	ADAMS ST	SDOR	3/24/2016	STORMTECH CHAMBERS
16073	41	LENISTON ST	ROSL	3/25/2016	CULTEC CHAMBER
15377	40	TRAVELER ST	SEND	3/26/2016	CULTEC CHAMBER
13228	60	SOUTHERN AV	SDOR	3/28/2016	PERFORATED PIPE
14167	413-419	SHAWMUT AV	SEND	3/28/2016	CULTEC CHAMBER
14181	101	SOUTH HUNTINGTON AV	JAPL	3/28/2016	PERFORATED PIPE
14387	100	ARTHUR ST	ALBR	3/28/2016	PERFORATED PIPE
15478	171	BORDER ST	EBOS	3/28/2016	DRYWELL
16069	1818	RIVER ST	HYDE	3/28/2016	CULTEC CHAMBER
16110	106-108	MAVERICK ST	EBOS	3/28/2016	STORMTECH CHAMBERS
16083	17-19	DYER ST	MATP	3/31/2016	DRYWELL
15007	245	SUMNER ST	EBOS	4/4/2016	INJECTION WELLS
15099	35A & 35B	BRIGHTON ST	CHAR	4/4/2016	CULTEC CHAMBER
16088	10	WARE ST	NDOR	4/4/2016	DRYWELL
16105	44-46	WINTON ST	ROSL	4/4/2016	CULTEC CHAMBER
16118	430	WEST ROXBURY PKWY	WROX	4/4/2016	CULTEC CHAMBER
15337	38	HOPKINS RD	JAPL	4/5/2016	CULTEC CHAMBER
16018	156	WEST CONCORD ST	SEND	4/5/2016	CULTEC CHAMBER
13407	434-454	BLUE HILL AV	ROXB	4/7/2016	LEACHING BASIN
15084	12-14	HALF MOON ST	ROXB	4/7/2016	DRYWELL
15473	38-42	HYDE PARK AV	ROSL	4/7/2016	CULTEC CHAMBER
13361	36	GLEASON ST	ROXB	4/11/2016	DRYWELL
15030	20	PENNIMAN RD	ALBR	4/11/2016	CULTEC CHAMBER

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PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
15116	22	CHICKATAWBUT ST	SDOR	4/11/2016	CULTEC CHAMBER
15324	7	NORTH ST	CENT	4/11/2016	PERFORATED PIPE
15372	3859	WASHINGTON ST	ROSL	4/11/2016	CULTEC CHAMBER
16015	80	MARGINAL ST	EBOS	4/11/2016	CULTEC CHAMBER
16103	144	WEST THIRD ST	SBOS	4/11/2016	STORMTECH CHAMBERS
16122	85	SEARLE RD	WROX	4/11/2016	CULTEC CHAMBER
15284	328	SAVIN HILL AV	NDOR	4/12/2016	CULTEC CHAMBER
16061	85	BROOKLEY RD	JAPL	4/12/2016	MULTIPLE
16121	87	SEARLE RD	WROX	4/12/2016	CULTEC CHAMBER
16114	46	ALPINE ST	ROXB	4/13/2016	STORMTECH CHAMBERS
15392	14-16	HAYNES ST	EBOS	4/14/2016	DRYWELL
15268	6	ANSONIA RD	WROX	4/15/2016	DRYWELL
15066	15	SPARHAWK ST	ALBR	4/19/2016	MEDIA FILTERS
13103	385	WEST BROADWAY	SBOS	4/20/2016	CULTEC CHAMBER
15476	283	LONGWOOD AV	FEKE	4/20/2016	TANK/INJECTION WELL
16143	94	PINCKNEY ST	BBBH	4/20/2016	CULTEC CHAMBER
13405	461	BEECH ST	ROSL	4/21/2016	STORMTECH CHAMBERS
14331	38	GREENDALE RD	MATP	4/22/2016	STORMTECH CHAMBERS
16058	31	ORLEANS ST	EBOS	4/25/2016	FILTRATION BASINS
16132	200	NORTH ST	CENT	4/26/2016	TREE BOX FILTERS
15263	1902-1904	WASHINGTON ST	SEND	4/28/2016	PERFORATED PIPE
16047	190-210	PIER 4 BLVD	SBOS	4/28/2016	PERFORATED PIPE
16097	51-55	SULLIVAN ST	CHAR	4/28/2016	STORMTECH CHAMBERS
15363	627	COLUMBUS AV	SEND	4/29/2016	PERFORATED PIPE
16056	41	DIMOCK ST	ROXB	4/29/2016	DRYWELL
16134	12	MALLARD AV	SDOR	4/29/2016	LEACHING BASIN
12077	152-158	HIGHLAND ST	ROXB	5/2/2016	DRYWELL
14319	30-56	FENWOOD RD	JAPL	5/3/2016	PERFORATED PIPE
14321	24	SAINT ALBANS RD	JAPL	5/3/2016	PERFORATED PIPE
15302	16	PREBLE ST	SBOS	5/3/2016	DRYWELL
16115	271	GOLD ST	SBOS	5/3/2016	LEACHING BASIN
15318	59-129	GRAMPIAN WY	NDOR	5/6/2016	UNKNOWN
15391	906	EAST SECOND ST	SBOS	5/6/2016	LEACHING BASIN
16113	63	CLIFFORD ST	HYDE	5/6/2016	CULTEC CHAMBER
15446	64-66	GOVE ST	EBOS	5/10/2016	STORMTECH CHAMBERS
16117	175	K ST	SBOS	5/10/2016	DRYWELL
15266	30	HASLET ST	ROSL	5/12/2016	DRYWELL
13432	1	NASHUA ST	CENT	5/13/2016	PERFORATED PIPE
14436	30	NORTHAMPTON ST	SEND	5/13/2016	PERFORATED PIPE
16129	129	PROVIDENCE ST	HYDE	5/13/2016	CULTEC CHAMBER
16173	28	MELROSE ST	CENT	5/13/2016	STORMTECH CHAMBERS
15322	35-65	LEWIS ST	EBOS	5/17/2016	PERFORATED PIPE
15411	288	MARGINAL ST	EBOS	5/17/2016	DRYWELL
16011	169	DORCHESTER ST	SBOS	5/17/2016	CULTEC CHAMBER
16171	18	PREBLE ST	SBOS	5/17/2016	STORMTECH CHAMBERS
16139	35	FRANCIS ST	FEKE	5/18/2016	UNKNOWN
15396	381-385	CHESTNUT HILL AV	ALBR	5/24/2016	CULTEC CHAMBER
15420	9-11	WARD ST	SBOS	5/24/2016	DRYWELL
15439	127	WESTERN AV	ALBR	5/24/2016	STORMTECH CHAMBERS

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PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
16064	180	TELFORD ST	ALBR	5/24/2016	STORMTECH CHAMBERS
16179	57-59	SAVIN HILL AV	NDOR	5/26/2016	STORMTECH CHAMBERS
15196	148	WEST NEWTON ST	SEND	5/27/2016	STORMTECH CHAMBERS
16094	47,49	CHAPPIE ST	CHAR	5/31/2016	DRYWELL
16109	120-122	COLERIDGE ST	EBOS	5/31/2016	DRYWELL
14333	20	NONANTUM RD	ALBR	6/2/2016	PERFORATED PIPE
15341	56	BAXTER ST	SBOS	6/2/2016	PERFORATED PIPE
16051	184	EVERETT ST	ALBR	6/2/2016	CULTEC CHAMBER
16167	2493	WASHINGTON ST	ROXB	6/2/2016	STORMTECH CHAMBERS
16099	52	MELROSE ST	CENT	6/3/2016	TANK/INJECTION WELL
15161	58	WACHUSETT ST	ROSL	6/6/2016	PERFORATED PIPE
16068	115-117	GLADSTONE ST	EBOS	6/6/2016	CULTEC CHAMBER
16095	25	FID KENNEDY AV	SBOS	6/6/2016	PERFORATED PIPE
16177	319	ATHENS ST	SBOS	6/6/2016	STORMTECH CHAMBERS
14402	12	BRADBURY ST	ALBR	6/8/2016	PERFORATED PIPE
15474	910	SOUTH ST	JAPL	6/8/2016	PERFORATED PIPE
16217	38	AUBURN ST	CHAR	6/8/2016	STORMTECH CHAMBERS
16070	218-220	HAVRE ST	EBOS	6/9/2016	PERFORATED PIPE
15083	49-51D	COFFEY ST	SDOR	6/10/2016	STORMTECH CHAMBERS
16146	33-39	SOUTH HUNTINGTON AV	JAPL	6/10/2016	MULTIPLE
16014	51	RIVER ST	MATP	6/13/2016	CULTEC CHAMBER
15079	1865	COLUMBUS AV	ROXB	6/15/2016	CULTEC CHAMBER
15174	19-25	UFFORD ST	MATP	6/15/2016	DRYWELL
15434	165	FALCON ST	EBOS	6/15/2016	CULTEC CHAMBER
16101	66-68	HOOKEE ST	ALBR	6/15/2016	STORMTECH CHAMBERS
16160	304	STUART ST	BBBH	6/15/2016	MULTIPLE
16195	17-19	HAVERFORD ST	ROXB	6/15/2016	CULTEC CHAMBER
16218	22	BURLEY ST	HYDE	6/15/2016	CULTEC CHAMBER
16215	327-329	SHAWMUT AV	SEND	6/17/2016	STORMTECH CHAMBERS
15368	51-53	ROBEY ST	NDOR	6/22/2016	STORMTECH CHAMBERS
15370	37-43	ROBEY ST	NDOR	6/22/2016	STORMTECH CHAMBERS
16141	14	MURRAY CT	EBOS	6/23/2016	LEACHING BASIN
14219	12	MALLET ST	SDOR	6/28/2016	CULTEC CHAMBER
14377	39-41	MT VERNON ST	NDOR	6/29/2016	TANK/INJECTION WELL
15422	11-13	GRANITE AV	SDOR	7/1/2016	DRYWELL
16192	250	SOUTHAMPTON ST	SBOS	7/1/2016	DRYWELL
16185	41-43	HORACE ST	EBOS	7/6/2016	MULTIPLE
16246	14-18	SOUTH WAVERLY ST	ALBR	7/6/2016	DRYWELL
15204	18	FOLLEN ST	BBBH	7/8/2016	STORMTECH CHAMBERS
16232	1-3	SEWALL ST	JAPL	7/8/2016	DRYWELL
16034	12	DARTMOUTH ST	SEND	7/11/2016	CULTEC CHAMBER
13393	41	MAYWOOD ST	ROXB	7/12/2016	DRYWELL
15451	256	MARGINAL ST	EBOS	7/12/2016	STORMTECH CHAMBERS
15009	141-143	WEST SIXTH ST	SBOS	7/13/2016	LEACHING BASIN
15061	209	NEWBURY ST	BBBH	7/13/2016	CULTEC CHAMBER
15307	621	EAST FIRST ST	SBOS	7/15/2016	STORMTECH CHAMBERS
16284	213	WEST FIFTH ST	SBOS	7/15/2016	STORMTECH CHAMBERS
15433	35-37	MERCER ST	SBOS	7/19/2016	CULTEC CHAMBER
16145	6	WAVERLY ST	ROXB	7/20/2016	UNKNOWN

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PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
16220	232-234	FRIEND ST	CENT	7/20/2016	CULTEC CHAMBER
16251	45	WEST THIRD ST	SBOS	7/20/2016	STORMTECH CHAMBERS
15054	717	BOYLSTON ST	BBBH	7/22/2016	STORMTECH CHAMBERS
16223	157	DEWITT DR	ROXB	7/22/2016	CULTEC CHAMBER
16256	111	TOWNSEND ST	ROXB	7/23/2016	CULTEC CHAMBER
16286	198	BOWEN ST	SBOS	7/23/2016	STORMTECH CHAMBERS
16155	41	HAWTHORNE ST	ROXB	7/25/2016	CULTEC CHAMBER
16208	6	SHIRLEY ST	NDOR	7/25/2016	MULTIPLE
15272	31	WARREN AV	SEND	7/26/2016	MULTIPLE
15273	25	WARREN AV	SEND	7/26/2016	PERFORATED PIPE
15274	51	WARREN AV	SEND	7/26/2016	PERFORATED PIPE
15276	37	WARREN AV	SEND	7/26/2016	PERFORATED PIPE
16035	37-59	EDGEWOOD ST	ROXB	7/26/2016	STORMTECH CHAMBERS
16205	891	EAST FIRST ST	SBOS	7/26/2016	PERFORATED PIPE
14220	92	BIGELOW ST	ALBR	7/27/2016	DRYWELL
16221	11	PIERCE ST	HYDE	7/28/2016	CULTEC CHAMBER
15223	7	ALLEGHANY ST	JAPL	7/29/2016	CULTEC CHAMBER
15224	9	ALLEGHANY ST	JAPL	7/29/2016	CULTEC CHAMBER
15225	11	ALLEGHANY ST	JAPL	7/29/2016	CULTEC CHAMBER
15345	3	BRIGHAM ST	EBOS	7/29/2016	STORMTECH CHAMBERS
16116	150	STATE ST	CENT	7/29/2016	CULTEC CHAMBER
16157	305	COMMONWEALTH AV	BBBH	7/29/2016	CULTEC CHAMBER
16164	284	COMMONWEALTH AV	BBBH	7/29/2016	CULTEC CHAMBER
16216	145	HAVRE ST	EBOS	7/29/2016	UNKNOWN
16225	522	EAST SEVENTH ST	SBOS	7/29/2016	CULTEC CHAMBER
16226	171-181	BOWDOIN ST	SDOR	7/29/2016	CULTEC CHAMBER
16252	530	EAST BROADWAY	SBOS	7/29/2016	STORMTECH CHAMBERS
16254	44	GERRISH ST	ALBR	7/29/2016	DRYWELL
16072	29	BROOKSIDE AV	JAPL	8/1/2016	PERFORATED PIPE
16170	1-3	WEBB PARK	SBOS	8/1/2016	STORMTECH CHAMBERS
15394	20	ALASKA ST	ROXB	8/4/2016	DRYWELL
16012	35	HENSHAW ST	ALBR	8/4/2016	PERFORATED PIPE
16188	58	TOLMAN ST	SDOR	8/4/2016	DRYWELL
16207	54	DEDHAM ST	HYDE	8/4/2016	DRYWELL
16305	232	OLD COLONY AV	SBOS	8/5/2016	MULTIPLE
15210	29	ARBORVIEW RD	JAPL	8/8/2016	STORMTECH CHAMBERS
16138	143-171	HYDE PARK AV	ROSL	8/8/2016	CULTEC CHAMBER
16153	65	ALLERTON ST	ROXB	8/8/2016	PERFORATED PIPE
16159	81-85	INTERVALE ST	ROXB	8/8/2016	PERFORATED PIPE
16228	28	IFFLEY RD	ROXB	8/8/2016	CULTEC CHAMBER
16315	144	WEST CANTON ST	SEND	8/8/2016	STORMTECH CHAMBERS
16098	344	MEDFORD ST	CHAR	8/9/2016	MULTIPLE
16189	312	SUMNER ST	EBOS	8/9/2016	CULTEC CHAMBER
16253	171	TOWNSEND ST	ROXB	8/10/2016	STORMTECH CHAMBERS
15045	85	LEXINGTON ST	EBOS	8/11/2016	DRYWELL
16310	85-93	WILLOW CT	NDOR	8/11/2016	CULTEC CHAMBER
16054	95	ALLSTATE RD	NDOR	8/12/2016	DRYWELL
16212	240 A	NEWBURY ST	BBBH	8/12/2016	DRYWELL
16247	288-290	NORTH HARVARD ST	ALBR	8/12/2016	BIO SWALE

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PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
16300	32-34	WYVERN ST	ROSL	8/12/2016	CULTEC CHAMBER
16301	36-38	WYVERN ST	ROSL	8/12/2016	CULTEC CHAMBER
15472	300	BROOKLINE AV	FEKE	8/17/2016	CULTEC CHAMBER
16172	100	WEST SECOND ST	SBOS	8/17/2016	LEACHING BASIN
16196	222-224	NEWBURY ST	BBBH	8/17/2016	CULTEC CHAMBER
16200	6	WEST BROADWAY	SBOS	8/18/2016	MULTIPLE
14065	1467	TREMONT ST	JAPL	8/22/2016	DRYWELL
14274	314	MARLBOROUGH ST	BBBH	8/22/2016	PERFORATED PIPE
15388	582-584	EAST THIRD ST	SBOS	8/22/2016	CULTEC CHAMBER
16197	226-228	NEWBURY ST	BBBH	8/22/2016	CULTEC CHAMBER
16198	230-232	NEWBURY ST	BBBH	8/22/2016	CULTEC CHAMBER
16244	108	SOUTH ST	JAPL	8/22/2016	CULTEC CHAMBER
16263	180-182	ROSLINDALE AV	ROSL	8/23/2016	CULTEC CHAMBER
16283	100	WELD ST	WROX	8/23/2016	CULTEC CHAMBER
16291	37	KIMBALL ST	SDOR	8/23/2016	STORMTECH CHAMBERS
16292	39	KIMBALL ST	SDOR	8/23/2016	STORMTECH CHAMBERS
16043	364-366	NEPONSET AV	SDOR	8/24/2016	CULTEC CHAMBER
16275	95	GIBSON ST	SDOR	8/24/2016	DRYWELL
16135	279	MARLBOROUGH ST	BBBH	8/25/2016	PERFORATED PIPE
16334	6	BURTON AV	ROXB	8/25/2016	STORMTECH CHAMBERS
16241	100	WILLIAM T MORRISSEY BL	NDOR	8/26/2016	UNKNOWN
16350	666	MASSACHUSETTS AV	SEND	8/30/2016	CULTEC CHAMBER
16019	75	HOMESTEAD ST	ROXB	8/31/2016	CULTEC CHAMBER
16106	105	BROOKLEY RD	JAPL	8/31/2016	DRYWELL
16308	85	ALLERTON ST	ROXB	8/31/2016	STORMTECH CHAMBERS
16337	1869	HYDE PARK AV	HYDE	8/31/2016	CULTEC CHAMBER
16131	322-324	ATHENS ST	SBOS	9/7/2016	PERFORATED PIPE
16180	84	WILLOW CT	NDOR	9/7/2016	CULTEC CHAMBER
16248	31	MILFORD ST	SEND	9/7/2016	STORMTECH CHAMBERS
16268	205	WEST SPRINGFIELD ST	SEND	9/7/2016	CULTEC CHAMBER
16273	57	SOUTH ST	JAPL	9/7/2016	PERFORATED PIPE
16162	425-435	MELNEA CASS BLVD	FEKE	9/8/2016	CULTEC CHAMBER
16165	1650	COMMONWEALTH AV	ALBR	9/8/2016	CULTEC CHAMBER
16312	22	UNION PARK	SEND	9/8/2016	CULTEC CHAMBER
15046	928	EAST BROADWAY	SBOS	9/9/2016	CULTEC CHAMBER
16341	6	HARTLAND ST	NDOR	9/9/2016	STORMTECH CHAMBERS
15315	50	LIBERTY DR	SBOS	9/12/2016	MULTIPLE
16335	15	SENATOR BOLLING CIR	MATP	9/12/2016	PERFORATED PIPE
16336	30	SENATOR BOLLING CIR	MATP	9/12/2016	PERFORATED PIPE
16365	1-4	LEONARD PL	SBOS	9/12/2016	STORMTECH CHAMBERS
16111	85	WEST NEWTON ST	SEND	9/13/2016	CULTEC CHAMBER
16201	233	WEST THIRD ST	SBOS	9/13/2016	DRYWELL
16290	26	HICHBORN ST	ALBR	9/13/2016	STORMTECH CHAMBERS
16343	362	MARLBOROUGH ST	BBBH	9/13/2016	CULTEC CHAMBER
16060	27	H ST	SBOS	9/14/2016	CULTEC CHAMBER
16144	4-8	COPELAND PARK	ROXB	9/14/2016	CULTEC CHAMBER
16314	352	MARLBOROUGH ST	BBBH	9/14/2016	CULTEC CHAMBER
16355	123	CUMMINS HWY	ROSL	9/14/2016	CULTEC CHAMBER
16277	210	MASSACHUSETTS AV	FEKE	9/16/2016	PERFORATED PIPE

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PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
15078	5-17	CLEAVES ST	ROXB	9/21/2016	CULTEC CHAMBER
15277	50	SAINT MARGARET ST	NDOR	9/21/2016	UNKNOWN
16267	234	BEACON ST	BBBH	9/21/2016	CULTEC CHAMBER
16274	410	WEST BROADWAY	SBOS	9/21/2016	STORMTECH CHAMBERS
16359	44	O ST	SBOS	9/21/2016	STORMTECH CHAMBERS
15314	87	FORBES ST	JAPL	9/22/2016	CULTEC CHAMBER
16154	75	BORDER ST	EBOS	9/22/2016	PERFORATED PIPE
16345	717-719	WASHINGTON ST	SDOR	9/22/2016	CULTEC CHAMBER
16361	78-106	LIVERPOOL ST	EBOS	9/23/2016	PERFORATED PIPE
15245	223-237	ALBANY ST	SEND	9/27/2016	STORMTECH CHAMBERS
15300	70	BROOKLEDGE ST	ROXB	9/27/2016	CULTEC CHAMBER
16304	7-9	PROSPECT ST	CHAR	9/27/2016	DRYWELL
16360	65	GREEN ST	JAPL	9/27/2016	CULTEC CHAMBER
16363	67	SAWYER AV	NDOR	9/28/2016	LEACHING BASIN
14139	261	LEXINGTON ST	EBOS	9/30/2016	CULTEC CHAMBER
14345	58-90	GLENVILLE AV	ALBR	9/30/2016	PERFORATED PIPE
15436	474	BEACON ST	CENT	9/30/2016	CULTEC CHAMBER
16125	602	DORCHESTER AV	SBOS	9/30/2016	CULTEC CHAMBER
16187	125	STOUGHTON ST	NDOR	9/30/2016	CULTEC CHAMBER
16233	280	WEST FIFTH ST	SBOS	9/30/2016	DRYWELL
16269	100	A ST	SBOS	10/3/2016	CULTEC CHAMBER
16330	122	DEWITT DR	ROXB	10/3/2016	STORMTECH CHAMBERS
16351	100	RUSSELL ST	CHAR	10/3/2016	PERFORATED PIPE
16357	84	ROMSEY ST	NDOR	10/3/2016	CULTEC CHAMBER
16358	26	SENATOR BOLLING CIR	MATP	10/3/2016	PERFORATED PIPE
16417	8	NIRA AV	JAPL	10/3/2016	STORMTECH CHAMBERS
16419	15	REVERE ST	BBBH	10/3/2016	STORMTECH CHAMBERS
16420	55	GREEN ST	JAPL	10/3/2016	DRYWELL
15353	336	CHELSEA ST	EBOS	10/4/2016	STORMTECH CHAMBERS
14137	3	AKRON ST	ROXB	10/5/2016	RAIN GARDEN
15414	9	SHEPARD ST	ALBR	10/6/2016	PERFORATED PIPE
16255	86	BERKELEY ST	SEND	10/6/2016	LEACHING BASIN
16007	1425	TREMONT ST	ROXB	10/13/2016	PERFORATED PIPE
16039	31	NEPONSET AV	ROSL	10/13/2016	CULTEC CHAMBER
16367	11	EXETER ST	BBBH	10/13/2016	STORMTECH CHAMBERS
16394	26	GREENVILLE ST	ROXB	10/13/2016	STORMTECH CHAMBERS
13012	24	NORTH MEAD ST	CHAR	10/14/2016	STORMTECH CHAMBERS
16243	9	JEFFRIES ST	EBOS	10/14/2016	DRYWELL
16309	54-56	BELMONT ST	CHAR	10/14/2016	STORMTECH CHAMBERS
16426	4981	WASHINGTON ST	WROX	10/14/2016	DRYWELL
16206	1954	COMMONWEALTH AV	ALBR	10/17/2016	MULTIPLE
16416	5	OAK ST W	CENT	10/17/2016	DRYWELL
16430	11	LINDEN ST	ALBR	10/17/2016	STORMTECH CHAMBERS
16124	20	SUSSEX ST	SEND	10/18/2016	CULTEC CHAMBER
16381	54	HIAWATHA RD	MATP	10/18/2016	DRYWELL
16382	58	HIAWATHA RD	MATP	10/18/2016	DRYWELL
16383	48	MATTAPAN ST	MATP	10/18/2016	DRYWELL
16384	56	MATTAPAN ST	MATP	10/18/2016	DRYWELL
16385	698	WALK HILL ST	MATP	10/18/2016	DRYWELL

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PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
16423	53	FOTTLER RD	MATP	10/18/2016	DRYWELL
13398	23	MAYWOOD ST	ROXB	10/19/2016	DRYWELL
14230	56	MAYWOOD ST	ROXB	10/19/2016	DRYWELL
15458	345	HARRISON AV	SEND	10/19/2016	STORMTECH CHAMBERS
16297	14-14A	GENEVA ST	EBOS	10/20/2016	CULTEC CHAMBER
16399	171-173	HAROLD ST	ROXB	10/20/2016	DRYWELL
16400	174-176	HAROLD ST	ROXB	10/20/2016	DRYWELL
16401	109	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16402	100	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16403	97	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16404	96	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16405	95	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16407	93	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16408	98	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16409	94	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16410	91	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16411	113	WAUMBECK ST	ROXB	10/20/2016	DRYWELL
16412	184	HAROLD ST	ROXB	10/20/2016	DRYWELL
16415	126	HOWLAND ST	ROXB	10/20/2016	DRYWELL
16443	4	KEMP ST	SBOS	10/20/2016	STORMTECH CHAMBERS
16340	325-327R	METROPOLITAN AV	ROSL	10/21/2016	CULTEC CHAMBER
16089	17	GOLD ST	SBOS	10/24/2016	DRYWELL
16428	3	MONMOUTH ST	EBOS	10/24/2016	STORMTECH CHAMBERS
16442	10	GLEN ST	NDOR	10/24/2016	DRYWELL
16249	839	BEACON ST	FEKE	10/26/2016	LEACHING BASIN
15170	35-41	LAMBERT ST	ROXB	10/28/2016	CULTEC CHAMBER
16441	176	HUMBOLDT AV	ROXB	10/28/2016	STORMTECH CHAMBERS
16272	73	MOUNT VERNON ST	BBBH	10/31/2016	PERFORATED PIPE
16375	30-30A	MILTON AV	SDOR	10/31/2016	LEACHING BASIN
16376	19	EDSON ST	SDOR	10/31/2016	LEACHING BASIN
16377	15	WHITMAN ST	SDOR	10/31/2016	LEACHING BASIN
16482	769	DORCHESTER AV	NDOR	10/31/2016	STORMTECH CHAMBERS
16483	70	MYRTLE ST	BBBH	10/31/2016	STORMTECH CHAMBERS
16484	19	DAWES ST	NDOR	10/31/2016	STORMTECH CHAMBERS
15280	244	BOWDOIN ST	SDOR	11/3/2016	STORMTECH CHAMBERS
16050	6	UNION PARK	SEND	11/3/2016	CULTEC CHAMBER
16203	100	TYLER ST	CENT	11/3/2016	STORMTECH CHAMBERS
16296	6	WAVERLY ST	ROXB	11/3/2016	LEACHING BASIN
16317	250	WALDEMAR AV	EBOS	11/3/2016	PERFORATED PIPE
16364	100	WESTERN AV	ALBR	11/3/2016	BIO SWALE
16372	56	SUDAN ST	NDOR	11/3/2016	CULTEC CHAMBER
16389	58	MASCOT ST	MATP	11/3/2016	LEACHING BASIN
16429	19-21	MINOT PARK	NDOR	11/3/2016	STORMTECH CHAMBERS
16464	530-532	DORCHESTER AV	SBOS	11/3/2016	DRYWELL
16489	3	HAVEN ST	SEND	11/3/2016	CULTEC CHAMBER
15133	201-205	E ST	SBOS	11/8/2016	PERFORATED PIPE
15381	28	MOUNT VERNON ST	BBBH	11/8/2016	DRYWELL
15445	16	VERRILL ST	MATP	11/8/2016	MULTIPLE
16338	300	PIER 4 BLVD	SBOS	11/8/2016	PERFORATED PIPE

Table 3-4. Private Infiltration Devices Approved 2016

PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
16374	53	WENTWORTH ST	SDOR	11/10/2016	LEACHING BASIN
16380	42	PEACEVALE RD	SDOR	11/10/2016	CULTEC CHAMBER
16388	37	JACOB ST	MATP	11/10/2016	CULTEC CHAMBER
16432	118	ARLINGTON CT	ALBR	11/10/2016	CULTEC CHAMBER
16175	228-230	CENTRE ST	SDOR	11/14/2016	MULTIPLE
16257	6	TIDE ST	SBOS	11/14/2016	PERFORATED PIPE
16391	626	CENTRE ST	JAPL	11/14/2016	DRYWELL
16227	16	EVERDEAN ST	SDOR	11/15/2016	CULTEC CHAMBER
16378	50	PEACEVALE RD	SDOR	11/15/2016	CULTEC CHAMBER
16503	649	EAST BROADWAY	SBOS	11/15/2016	STORMTECH CHAMBERS
16331	80	EVERETT ST	EBOS	11/17/2016	CULTEC CHAMBER
16356	13	ISABELLA ST	CENT	11/17/2016	PERFORATED PIPE
16371	1170	MASSACHUSETTS AV	ROXB	11/17/2016	CULTEC CHAMBER
16451	240	OLD COLONY AV	SBOS	11/17/2016	RAIN GARDEN
16466	36	CUSHING AV	NDOR	11/17/2016	STORMTECH CHAMBERS
16470	184-188	WEST SECOND ST	SBOS	11/17/2016	CULTEC CHAMBER
16472	19	DORSET ST	NDOR	11/17/2016	STORMTECH CHAMBERS
16473	44	UPTON ST	SEND	11/17/2016	DRYWELL
16495	882-892	WASHINGTON ST	CENT	11/17/2016	CULTEC CHAMBER
16516	69	HILBURN ST	ROSL	11/17/2016	STORMTECH CHAMBERS
16413	186	HAROLD ST	ROXB	11/18/2016	DRYWELL
16414	188	HAROLD ST	ROXB	11/18/2016	DRYWELL
16044	132	CHESTNUT HILL AV	ALBR	11/21/2016	CULTEC CHAMBER
16266	236	E ST	SBOS	11/21/2016	TANK/INJECTION WELL
16395	40	GUEST ST	ALBR	11/21/2016	STORMTECH CHAMBERS
16490	22	HILDRETH ST	MATP	11/21/2016	DRYWELL
16491	18	HILDRETH ST	MATP	11/21/2016	DRYWELL
16396	89	PEMBROKE ST	SEND	11/22/2016	CULTEC CHAMBER
16497	1650	COLUMBIA RD	SBOS	11/22/2016	STORMTECH CHAMBERS
16279	273	COLUMBIA RD	ROXB	11/23/2016	CULTEC CHAMBER
16250	125	GUEST ST	ALBR	11/28/2016	STORMTECH CHAMBERS
16387	19-23	DUMAS ST	MATP	11/28/2016	LEACHING BASIN
16424	827	EAST SECOND ST	SBOS	11/28/2016	CULTEC CHAMBER
16465	3381R	WASHINGTON ST	JAPL	11/28/2016	DRYWELL
16533	183	D ST	SBOS	11/28/2016	DRYWELL
12049	797	RIVER ST	HYDE	11/29/2016	LEACHING BASIN
16379	54-56	EDSON ST	SDOR	11/29/2016	LEACHING BASIN
16437	746	SOUTH ST	ROSL	11/29/2016	LEACHING BASIN
16501	137	TEMPLE ST	WROX	11/29/2016	CULTEC CHAMBER
16502	12	PLEASANT VALLEY CIR	WROX	11/29/2016	CULTEC CHAMBER
14075	47	COFFEY ST	SDOR	11/30/2016	DRYWELL
16127	12	LAWRENCE ST	SEND	11/30/2016	CULTEC CHAMBER
16313	2	GARFIELD AV	HYDE	11/30/2016	PERFORATED PIPE
16270	79	PARIS ST	EBOS	12/2/2016	UNKNOWN
16474	617	TREMONT ST	SEND	12/2/2016	CULTEC CHAMBER
16522	43-47	FOREST ST	ROXB	12/2/2016	CULTEC CHAMBER
16048	435	WARREN ST	ROXB	12/3/2016	MULTIPLE
16211	341-343	E ST	SBOS	12/5/2016	PERFORATED PIPE
16325	54-68	DEVONSHIRE ST	CENT	12/5/2016	TANK/INJECTION WELL

Table 3-4. Private Infiltration Devices Approved 2016

PROJECT NO	ADDRESS NUMBER	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE	INFILTRATION SYSTEM
16459	126-136	NEWTON ST	ALBR	12/5/2016	MULTIPLE
13107	63	EDGEMERE RD	WROX	12/7/2016	CULTEC CHAMBER
16161	45	FAIRVIEW AV	HYDE	12/7/2016	DETENTION POND
16519	70-72	MOUNT PLEASANT AV	ROXB	12/7/2016	CULTEC CHAMBER
16520	26	FOREST ST	ROXB	12/7/2016	CULTEC CHAMBER
16521	19-21	MOUNT PLEASANT ST	HYDE	12/7/2016	LEACHING BASIN
16299	260	BOLTON ST	SBOS	12/8/2016	MULTIPLE
16535	14	LAWNWOOD PL	CHAR	12/8/2016	CULTEC CHAMBER
16542	29	SENATOR BOLLING CIR	MATP	12/8/2016	PERFORATED PIPE
14444	84	HAMPDEN ST	ROXB	12/12/2016	STORMTECH CHAMBERS
16265	303	SUMNER ST	EBOS	12/12/2016	STORMTECH CHAMBERS
16318	20	TAFT HILL PARK	ROSL	12/12/2016	PERFORATED PIPE
16319	20	TAFT HILL TER	ROSL	12/12/2016	PERFORATED PIPE
16543	17	SENATOR BOLLING CIR	MATP	12/12/2016	PERFORATED PIPE
14438	177	LAKE SHORE RD	ALBR	12/14/2016	CULTEC CHAMBER
16245	8-12	ENTERPRISE ST	NDOR	12/14/2016	MULTIPLE
16540	240	TREMONT ST	CENT	12/14/2016	TANK/INJECTION WELL
16559	7	BAKER CT	NDOR	12/14/2016	DRYWELL
16571	12	SEAVER ST	ROXB	12/14/2016	STORMTECH CHAMBERS
16436	17	BARRETT AV	SBOS	12/15/2016	CULTEC CHAMBER
16140	632-638	CENTRE ST	JAPL	12/19/2016	DRYWELL
16517	98	WILLOWWOOD ST	MATP	12/19/2016	DRYWELL
16328	21	SYLVESTER RD	SDOR	12/21/2016	CULTEC CHAMBER
16529	24	WILLET ST	WROX	12/21/2016	CULTEC CHAMBER
16454	7	BREWER ST	JAPL	12/22/2016	CULTEC CHAMBER
16558	278-280	GOLD ST	SBOS	12/28/2016	DRYWELL
16468	44	NEWMARKET SQ	NDOR	12/29/2016	LEACHING BASIN
16492	31	HILLSIDE ST	JAPL	12/29/2016	CULTEC CHAMBER

Table 3-5. Privately Owned Grit Chambers Approved in 2016

PROJECT NO	ADDRESS #	STREET NAME	NEIGHBORHOOD	SIGNATURE DATE
14378	80	PIERS PARK LN	EBOS	2/25/2016
15179	160	MOUNT VERNON ST	NDOR	3/11/2016
16047	190-210	PIER 4 BLVD	SBOS	4/28/2016
15363	627	COLUMBUS AV	SEND	4/29/2016
13432	1	NASHUA ST	CENT	5/13/2016
14436	30	NORTHAMPTON ST	SEND	5/13/2016
15322	35-65	LEWIS ST	EBOS	5/17/2016
15396	381-385	CHESTNUT HILL AV	ALBR	5/24/2016
14333	20	NONANTUM RD	ALBR	6/2/2016
16167	2493	WASHINGTON ST	ROXB	6/2/2016
16226	171-181	BOWDOIN ST	SDOR	7/29/2016
15472	300	BROOKLINE AV	FEKE	8/17/2016
15046	928	EAST BROADWAY	SBOS	9/9/2016
15315	50	LIBERTY DR	SBOS	9/12/2016
15245	223-237	ALBANY ST	SEND	9/27/2016
16323	1591	HYDE PARK AV	HYDE	10/21/2016
16317	250	WALDEMAR AV	EBOS	11/3/2016
16257	6	TIDE ST	SBOS	11/14/2016
16044	132	CHESTNUT HILL AV	ALBR	11/21/2016
16048	435	WARREN ST	ROXB	12/3/2016
14438	177	LAKE SHORE RD	ALBR	12/14/2016

TABLE 5-1. Particle Separator Cleaning-Material Removed 2005-2016

Location	Neighborhood	Receiving Water	2005-Material Removed (cubic yards)	2006-Material Removed (cubic yards)	2007-Material Removed (cubic yards)	2008-Material Removed (cubic yards)	2009-Material Removed (cubic yards)	2010 Material Removed (cubic yards) Misc. dates	3/10/2010	4/13/2010	5/25/2010	6/13/2010	7/20/2010	9/16/2010	10/21/2010	10/29/2010	2011 Material Removed (cubic yards) Various dates	2012 Material Removed (cubic yards) Various dates	2013 Material Removed (cubic yards) Various dates	2014 Material Removed (cubic yards) Various dates	2015 Material Removed (cubic yards) Various dates	2016 Material Removed (cubic yards) Various dates	TOTAL MATERIAL REMOVED (cubic yards)
Aroboretum	Jamaica Plain	Bussy Brook	not cleaned	1.00	2.50	0.25	1.00	3.00									1.50	0.50	0.50	Cleaning not needed	0.50	0.50	10.25
Centre Lane	WROX	Wetlands	0.25	0.25	0.75	0.25	0.10	0.25									0.05	0.00	0.50	Cleaning not needed	0.50	0.25	1.90
Centre St.	WROX	Wetlands	0.50	0.50	0.50	0.00	0.50	0.00									0.25	NA	0.25	Cleaning not needed	0.50	0.25	2.50
Coleridge St.	East Boston	Boston Harbor	0.25	0.25	0.50	2.00	0.25	2.50									0.01	0.00	0.50	2.00	0.50	0.50	6.26
Coniston Rd.	Roslindale	Stony Brook Conduit	0.25	0.50	0.00	0.00	0.00	0.00									0.00	0.00	0.50	0.50	0.50	0.50	0.75
Denny St.	Dorchester	Malibu Beach	0.25	0.75	1.00	0.00	1.00	0.12									0.15	0.00	0.50	0.25	0.50	0.50	3.27
Ericsson St.	Dorchester	Neponset River	0.25	0.25	0.25	0.00	0.25	0.15									0.20	0.00	0.50	0.50	0.50	0.25	1.35
Fenwood Rd.	Roxbury	Muddy River	2.00	4.00	0.50	0.25	2.25		0.25		0.02	1.50	0.15	0.15		0.12	0.25	0.00	0.25	0.50	0.50	0.25	11.69
Lawley St.	Dorchester	Pine Neck Creek	0.25	0.25	0.15	0.03	0.25	0.50									0.01	0.00	0.50	0.50	0.50	0.25	1.44
Martha Rd.	Central	Charles River																0.25	0.25	0.50	0.50	0.50	0.50
Neponset Ave.	Dorchester	Neponset River	2.00	2.75	1.50	0.50	1.50	2.00									0.50	0.00	0.50	0.50	0.50	0.50	10.75
Norton St.	Hyde Park	Open Channel	0.25	0.50	0.50	0.03	0.13	0.25									0.00	0.00	0.50	0.50	0.50	0.50	1.66
Perkins St.	Jamaica Plain	Jamaica Pond	0.25	0.25	1.50	0.00	1.50	2.00									0.00	0.00	0.50	0.50	0.50	0.50	6.00
Waldemar Ave.	East Boston	Belle Isle Inlet	1.00	0 or not recorded	0.25	0.25	0.10	0.12									0.00	0.00	0.50	0.50	0.50	0.50	1.72
Waldemar Ave.	East Boston	Belle Isle Inlet	1.00	0 or not recorded	0.50	0.25	0.75	1.00									0.01	0.00	0.50	0.50	0.50	0.25	3.51
Walter St.	Roslindale	Wetlands	0.25	Not cleaned	0.50	0.01	0.25		0.15	0.25	0.01		0.10	0.01	0.10		0.00	0.25	0.25	0.50	0.25	0.00	2.13
TOTALS			8.75	11.25	10.90	3.81	9.83	11.89	0.40	0.25	0.03	1.50	0.25	0.16	0.10	0.12	2.92	1.00	2.50	2.25	0.75	3.00	65.66

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 Discharge Removal in 2012 and 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 Discharge Removal 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 Discharge Removal 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 Discharge Removal 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

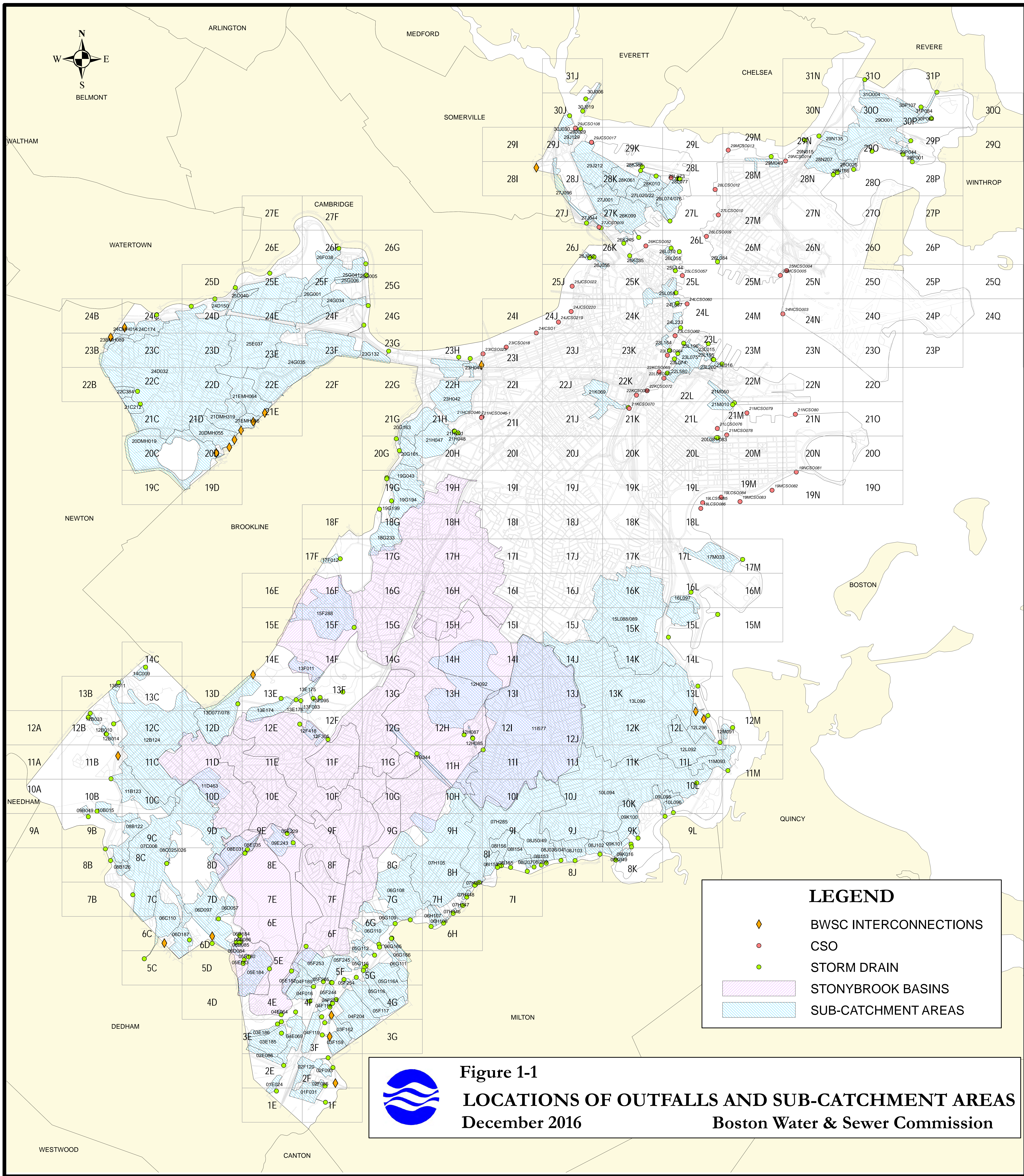
Notes:

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 Loads as of End 2016 Subsequent to Illicit Discharge Removal

Reporting Area Name	Drainage Area	Mean Flow	Total Phosphorus	E Coli	Enterococcus	Fecal Coliform
	Acres	cfs	lb/yr	10 ⁹ CFU/yr		
West Roxbury	889	2	295	109,722	72,215	89,997
Sawmill Brook	1,277	6	641	160,017	110,465	129,454
Mid-Charles total	2,166	8	936	269,739	182,680	219,450
Upper Stony	1,832	5	545	174,681	115,360	125,487
Canterbury Brook	1,889	7	2,295	455,595	271,932	555,018
Roslindale Branch	1,199	2	704	272,750	136,366	251,070
Bussey Brook	839	1	92	9,283	12,297	6,528
Goldsmith Brook	746	1	267	102,345	67,161	72,703
Lower Stony	2,165	6	1,420	340,598	169,473	342,145
Stony Brook total	8,670	22	5,323	1,355,252	772,589	1,352,952
Village Brook Boston	787	3	450	95,024	63,473	139,033
Village Brook Brookline	2,061	6	1,018	363,411	178,748	300,185
Other Muddy River	1,785	8	2,547	341,620	210,060	361,615
Muddy River total	4,633	16	4,015	800,055	452,281	800,833
Faneuil Brook	1,316	3	776	280,746	162,519	189,852
Shepard Brook	415	1	540	187,049	129,341	129,840
Smelt Brook	846	2	785	319,941	210,002	184,719
Allston-Brighton	796	2	483	121,519	94,139	158,085
Millers River	208	2	382	119,347	88,309	94,199
Other Lower Charles total	3,581	9	2,966	1,028,602	684,310	756,694
Lower Charles Basin total	19,050	56	13,239	3,453,648	#####	3,129,930
Mother Brook	441	1	200	63,520	38,478	70,896
Hyde Park	1,766	4	907	350,891	208,272	233,733
Oakland Brook	519	2	364	138,531	70,141	129,612
Mattapan Brook	304	1	196	69,113	41,377	52,009
Lower Neponset	843	2	581	203,997	118,190	181,141
Tenean Creek	873	2	2,204	638,928	223,612	819,703
Davenport Creek	712	1	432	184,810	112,016	112,802
Neponset River total	5,458	13	4,884	1,649,789	812,087	1,599,896
Charlestown	556	2	1,763	698,236	464,680	455,179
East Boston	438	2	1,034	412,780	249,240	277,316
Downtown	473	2	651	206,500	191,393	130,275
Dorchester	1,124	4	2,274	682,529	399,193	671,883
TOTAL	27,099	78	23,844	7,103,482	4,208,453	6,264,479

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



LEGEND




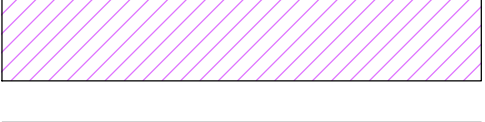
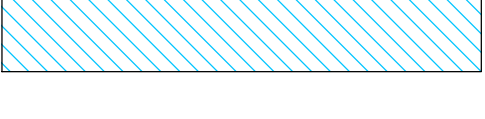
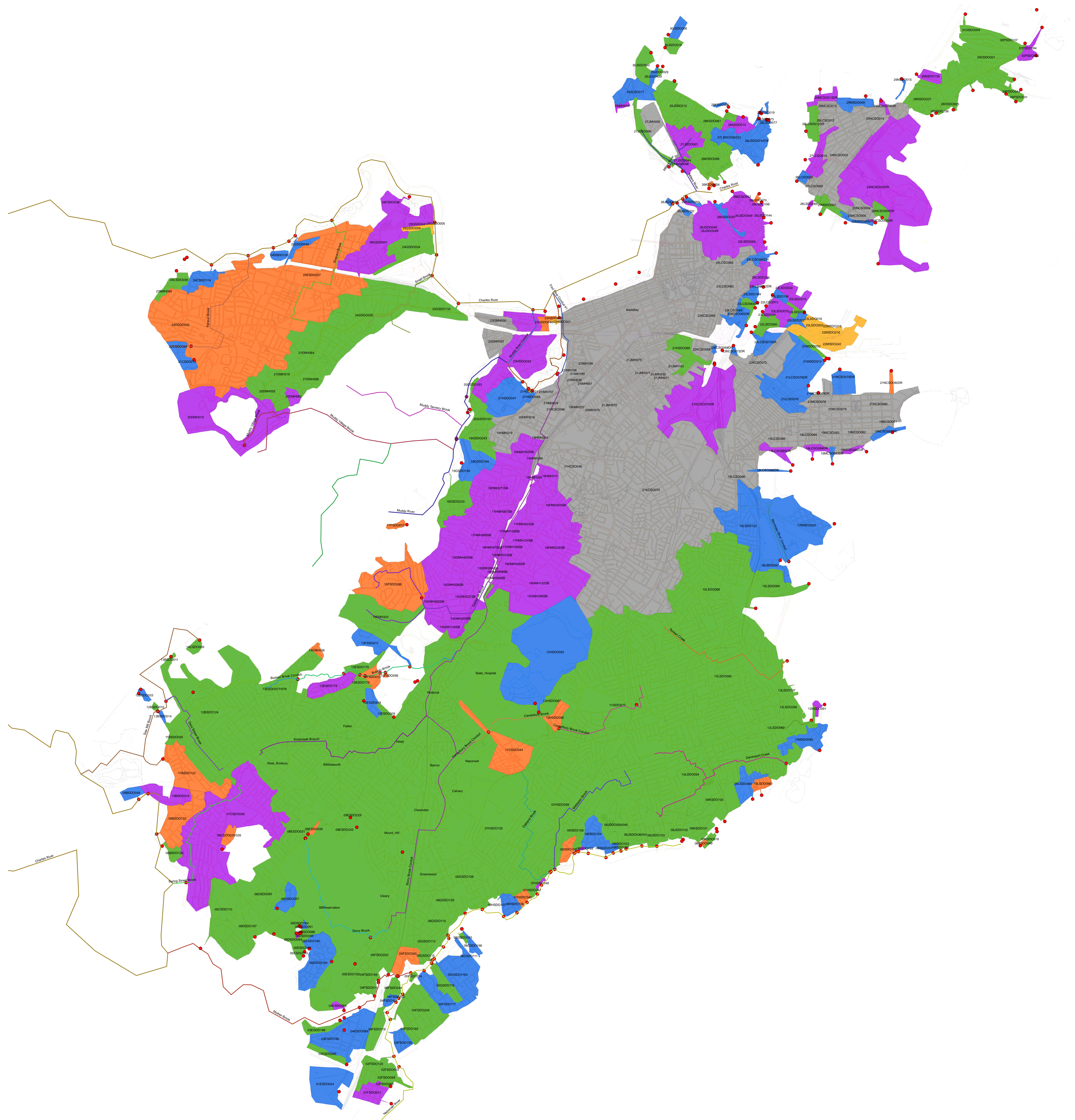
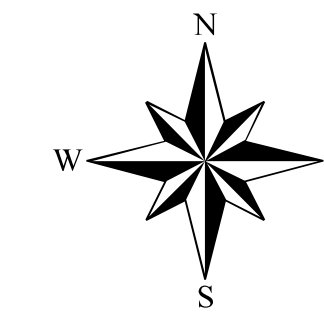
-  BWSC INTERCONNECTIONS
-  CSO
-  STORM DRAIN
-  STONYBROOK BASINS
-  SUB-CATCHMENT AREAS



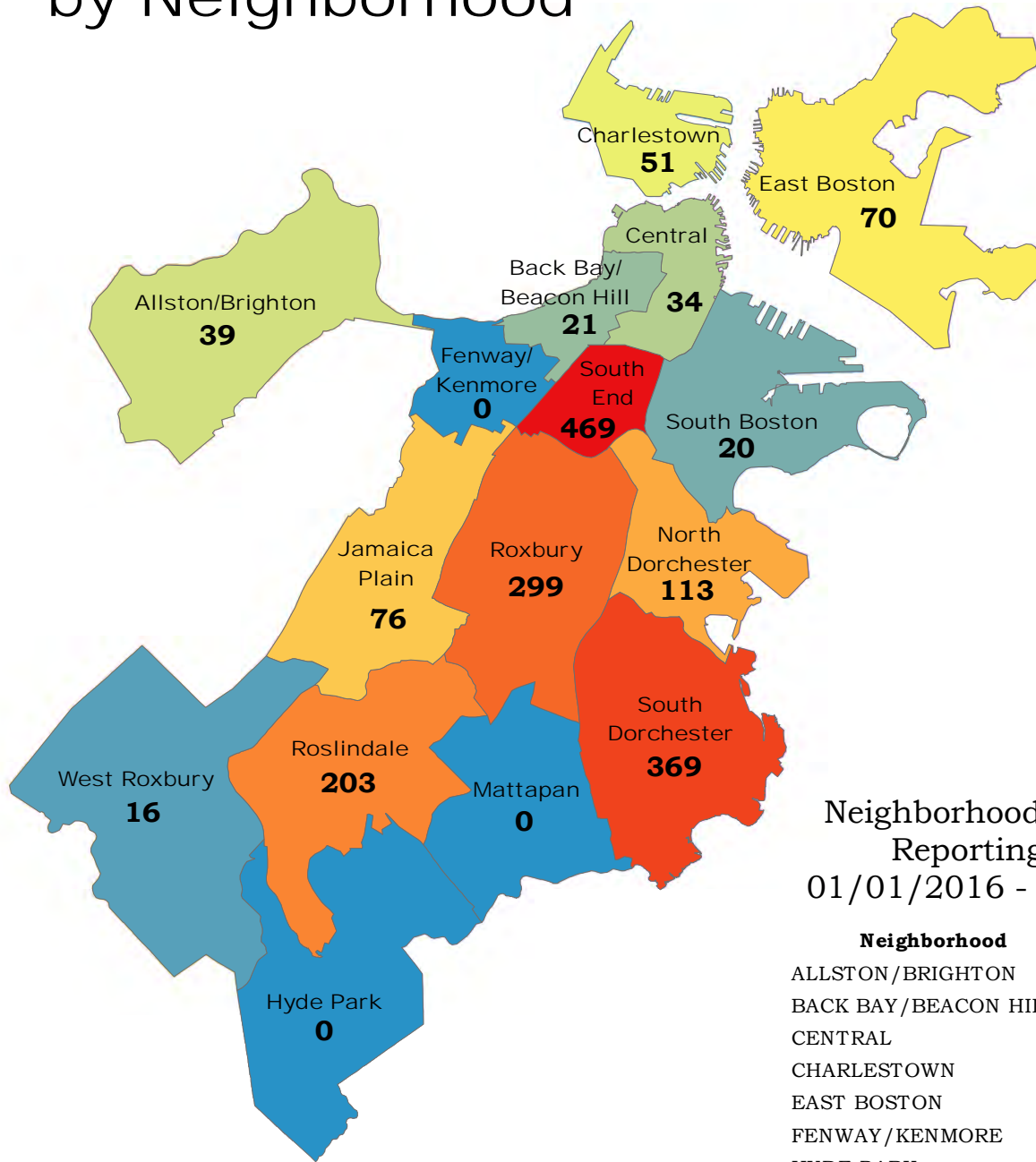
Figure 1-1
LOCATIONS OF OUTFALLS AND SUB-CATCHMENT AREAS
 December 2016
 Boston Water & Sewer Commission

Boston Water and Sewer Commission - IDDE Priority Ranking - January 2017



Prioritization	
Orange	2 - High
Purple	3 - Medium
Blue	4 - Low
Green	5 - Complete
Grey	7 - Combined
Yellow	8 - Non-BWSC

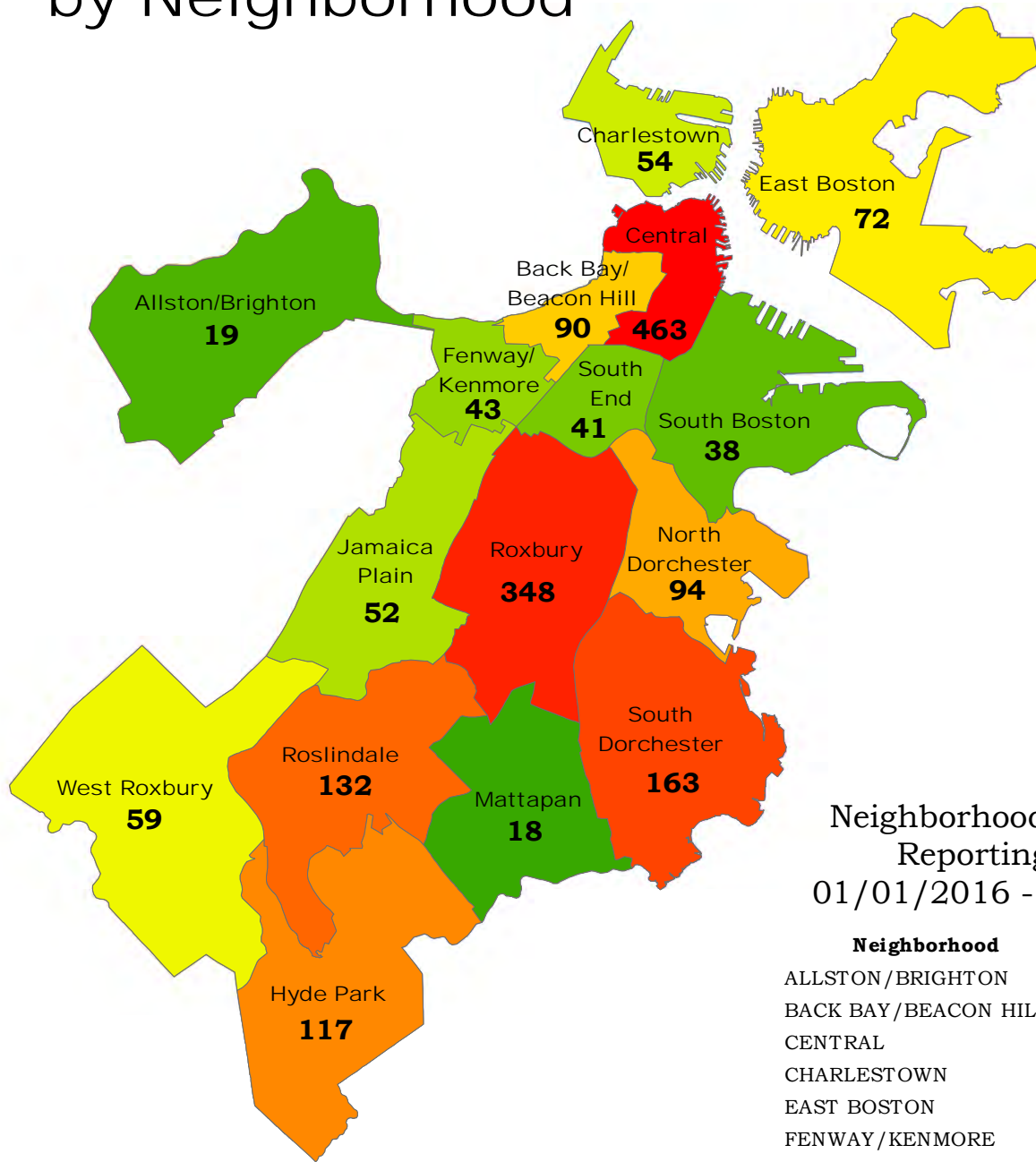
Community Outreach Education Tracking by Neighborhood



Neighborhood Counts for
Reporting Period
01/01/2016 - 06/30/2016

Neighborhood	Total Students
ALLSTON/BRIGHTON	39
BACK BAY/BEACON HILL	21
CENTRAL	34
CHARLESTOWN	51
EAST BOSTON	70
FENWAY /KENMORE	0
HYDE PARK	0
JAMAICA PLAIN	76
MATTAPAN	0
NORTH DORCHESTER	113
ROSLINDALE	203
ROXBURY	299
SOUTH BOSTON	20
SOUTH DORCHESTER	369
SOUTH END	469
WEST ROXBURY	16

Community Outreach Material Tracking by Neighborhood



Neighborhood Counts for
Reporting Period
01/01/2016 - 06/30/2016

Neighborhood	Total Touches
ALLSTON/BRIGHTON	19
BACK BAY/BEACON HILL	90
CENTRAL	463
CHARLESTOWN	54
EAST BOSTON	72
FENWAY/KENMORE	43
HYDE PARK	117
JAMAICA PLAIN	52
MATTAPAN	18
NORTH DORCHESTER	94
ROSLINDALE	132
ROXBURY	348
SOUTH BOSTON	38
SOUTH DORCHESTER	163
SOUTH END	41
WEST ROXBURY	59