# Year 1 Annual Report
## Massachusetts Small MS4 General Permit
## Reporting Period: May 1, 2018-June 30, 2019

***Please DO NOT attach any documents to this form. Instead, attach all requested documents to an email when submitting the form***

*Unless otherwise noted, all fields are required to be filled out. If a field is left blank, it will be assumed the requirement or task has not been completed.*

## Part I: Contact Information

Name of Municipality or Organization: Town of Brookline

EPA NPDES Permit Number: MAR041075

**Primary MS4 Program Manager Contact Information**

Name: Peter M. Ditto Title: Director of Engineering and Transportation

Street Address Line 1: 333 Washington St

Street Address Line 2: 4th Floor

City: Brookline State: MA Zip Code: 02445

Email: pditto@brooklinema.gov Phone Number: 617-730-2138

Fax Number: na

**Stormwater Management Program (SWMP) Information**

SWMP Location (web address): Dept of Public Works - Engineering Division

Date SWMP was Last Updated: Aug 12, 2019

If the SWMP is not available on the web please provide the physical address and an explanation of why it is not posted on the web:

SWMP located at https://www.brooklinema.gov/483/Stormwater-Information

# Part II: Self Assessment

*First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4.*

**Impairment(s)**

☒ Bacteria/Pathogens ☒ Chloride ☐ Nitrogen ☒ Phosphorus

☒ Solids/ Oil/ Grease (Hydrocarbons)/ Metals

**TMDL(s)**

*In State:* ☐ Assabet River Phosphorus ☒ Bacteria and Pathogen ☐ Cape Cod Nitrogen

☒ Charles River Watershed Phosphorus ☐ Lake and Pond Phosphorus

*Out of State:* ☐ Bacteria/Pathogens ☐ Metals ☐ Nitrogen ☐ Phosphorus

Clear Impairments and TMDLs

*Next, check off all requirements below that have been completed.* ***By checking each box you are certifying that you have completed that permit requirement fully.*** *If you have not completed a requirement leave the box unchecked. Additional information will be requested in later sections.*

Year 1 Requirements

☒ Develop and begin public education and outreach program

☒ Identify and develop inventory of all known locations where SSOs have discharged to the MS4 in the last 5 years

- ◉ The SSO inventory is attached to the email submission
- ○ The SSO inventory can be found at the following website:

☒ Develop written IDDE plan including a procedure for screening and sampling outfalls

☒ IDDE ordinance complete

☒ Identify each outfall and interconnection discharging from MS4, classify into the relevant category, and priority rank each catchment for investigation

- ◉ The priority ranking of outfalls/interconnections is attached to the email submission
- ○ The priority ranking of outfalls/interconnections can be found at the following website:

☒ Construction/ Erosion and Sediment Control (ESC) ordinance complete

☒ Develop written procedures for site inspections and enforcement of sediment and erosion control measures

☒ Develop written procedures for site plan review

☒ Keep a log of catch basins cleaned or inspected

☒ Complete inspection of all stormwater treatment structures

Annual Requirements

- ☒ Annual opportunity for public participation in review and implementation of SWMP
- ☒ Comply with State Public Notice requirements
- ☒ Keep records relating to the permit available for 5 years and make available to the public
- ☒ Properly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving waters
- ☒ Annual training to employees involved in IDDE program
- ☒ All curbed roadways have been swept a minimum of one time per year

**Bacteria/ Pathogens** (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- ☒ Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☒ Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- ☐ Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

**Chloride**

Annual Requirements

*Public Education and Outreach*

- ☐ Include an annual message in November/ December to private road salt applicators and commercial industrial site owners on the proper storage and application rates of winter deicing material, along with the steps that can be taken to minimize salt use and protect local waterbodies

**Phosphorus** (Combination of Impaired Waters Requirements and TMDL Requirements as Applicable)

Annual Requirements

*Public Education and Outreach**

- ☒ Distribute an annual message in the spring (April/May) that encourages the proper use and disposal of grass clippings and encourages the proper use of slow-release and phosphorus-free fertilizers
- ☒ Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- ☐ Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

** Public education messages can be combined with other public education requirements as applicable (see Appendix H and F for more information)*

*Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

- ☒ Increase street sweeping frequency of all municipal owned streets and parking lots subject to Permit part 2.3.7.a.iii.(c) to a minimum of two times per year (spring and fall)

*Potential structural BMPs*

☐ Any structural BMPs listed in Attachment 3 to Appendix F already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the phosphorus removal by the BMP consistent with Attachment 1 to Appendix H. Document the BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in mass per year by the BMP in each each annual report

**Solids, Oil and Grease (Hydrocarbons), or Metals**

Annual Requirements

*Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

☒ Increase street sweeping frequency of all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads

☒ Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings

**Charles River Watershed Phosphorus TMDL**

☒ Begin Phase 1 Phosphorus Control Plan (PCP)

Use the box below to input additional details on any unchecked boxes above or any additional information you would like to share as part of your self assessment:

The Town of Brookline received Authorization to Discharge on July 30, 2019.

The Town of Brookline is utilizing the Think Blue Website to spread the message about road salt application and yard waste collection. That message was placed on DPW Facebook in June 2019.

Septic system notice was mailed out on August 6, 2019.

There are two structural BMPs (Separators) in Brookline. They are typically cleaned on annual or as needed basis. Going forward the Town will track the Tons of sediment removed and try and calculate a phosphorus removal number.

# Part III: Receiving Waters/Impaired Waters/TMDL

Have you made any changes to your lists of receiving waters, outfalls, or impairments since the NOI was submitted?

Yes ☒ No ☐

If yes, describe below, including any relevant impairments or TMDLs:

See updated list of outfalls and interconnections.

# Part IV: Minimum Control Measures

*Please fill out all of the metrics below. If applicable, include in the description who completed the task if completed by a third party.*

## MCM1: Public Education

Number of educational messages completed during the reporting period: 2

*Below, report on the educational messages completed during the first year. For the measurable goal(s) please describe the method/measures used to assess the overall effectiveness of the educational program.*

**BMP:Public Education**

Message Description and Distribution Method:

Distribute message to public regarding stormwater discharges and related topics. Information is located on Town's website. Includes links to "Think Blue Massachusetts". Flyers placed at Town Hall. Messages sent out on Facebook. Septic System notice mailed out to residents.

Targeted Audience: Residential, Commercial, Institutions, and Developers

Responsible Department/Parties: Engineering

Measurable Goal(s):

Track responses from messages.

Message Date(s): June 7, 2019 and June 26, 2019

Message Completed for: Appendix F Requirements ☒ Appendix H Requirements ☒

Was this message different than what was proposed in your NOI? Yes ☐ No ☒

If yes, describe why the change was made:

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Add an Educational Message

## MCM2: Public Participation

Describe the opportunity provided for public involvement in the development of the Stormwater Management Program (SWMP) during the reporting period:

SWMP is on the Town's website and available for public comment.

Was this opportunity different than what was proposed in your NOI? Yes ☐ No ☒

Describe any other public involvement or participation opportunities conducted during the reporting period:

Stormwater topics discussed at DPW day on May 21, 2019. Third graders from all over town were present to learn about stormwater.

## MCM3: Illicit Discharge Detection and Elimination (IDDE)

**Sanitary Sewer Overflows (SSOs)**

*Below, report on the number of SSOs identified in the MS4 system and removed during this reporting period.*

Number of SSOs identified: 0

Number of SSOs removed: 0

*Below, report on the total number of SSOs identified in the MS4 system and removed to date. At a minimum, report SSOs identified since 2013.*

Total number of SSOs identified: 1

Total number of SSOs removed: 1

**MS4 System Mapping**

Describe the status of your MS4 map, including any progress made during the reporting period:

Mapping complete.

**Screening of Outfalls/Interconnections**

*If conducted, please submit any outfall monitoring results from this reporting period. Outfall monitoring results should include the date, outfall/interconnection identifier, location, weather conditions at time of sampling, precipitation in previous 48 hours, field screening parameter results, and results from all analyses.*

◉ The outfall screening data is attached to the email submission

○ The outfall screening data can be found at the following website:

*Below, report on the number of outfalls/interconnections screened during this reporting period.*

Number of outfalls screened: 19

*Below, report on the percent of total outfalls/ interconnections screened to date.*

Percent of total outfalls screened: 83

**Catchment Investigations**

*If conducted, please submit all data collected during this reporting period as part of the dry and wet weather investigations. Also include the presence or absence of System Vulnerability Factors for each catchment.*

- (●) The catchment investigation data is attached to the email submission
- ( ) The catchment investigation data can be found at the following website:

*Below, report on the number of catchment investigations completed during this reporting period.*

Number of catchment investigations completed this reporting period: 1

*Below, report on the percent of catchments investigated to date.*

Percent of total catchments investigated: 90

*Optional:* Provide any additional information for clarity regarding the catchment investigations below:

**IDDE Progress**

*If illicit discharges were found, please submit a document describing work conducted over this reporting period, and cumulative to date, including location source; description of the discharge; method of discovery; date of discovery; and date of elimination, mitigation, or enforcement OR planned corrective measures and schedule of removal.*

- (●) The illicit discharge removal report is attached to the email submission
- ( ) The illicit discharge removal report can be found at the following website:

*Below, report on the number of illicit discharges identified and removed, along with the volume of sewage removed during this reporting period.*

Number of illicit discharges identified: 1

Number of illicit discharges removed: 1

Estimated volume of sewage removed: 1,000 GPD

*Below, report on the total number of illicit discharges identified and removed to date. At a minimum, report on the number of illicit discharges identified and removed since the effective date of the permit.*

Total number of illicit discharges identified: 53

Total number of illicit discharges removed: 53

*Optional:* Provide any additional information for clarity regarding illicit discharges identified, removed, or planned to be removed below:

See IDDE report.

**Employee Training**

Describe the frequency and type of employee training conducted during the reporting period:

Training conducted annually and as needed.

## MCM4: Construction Site Stormwater Runoff Control

*Below, report on the construction site plan reviews, inspections, and enforcement actions completed during this reporting period.*

Number of site plan reviews completed: 44

Number of inspections completed: 44

Number of enforcement actions taken: 0

## MCM5: Post-Construction Stormwater Management in New Development and Redevelopment

**Ordinance Development**

Describe the status of the post-construction ordinance required to be complete in year 2 of the permit term:

By-law 8.26 in place that covers new and re-development projects.

**As-built Drawings**

Describe the status of the measures the MS4 has utilized to require the submission of as-built drawings and ensure long term operation and maintenance of completed construction sites required to be complete in year 2 of the permit term:

As-builts are required for all projects in order to obtain a certificate of occupancy.

**Street Design and Parking Lots Report**

Describe the status of the street design and parking lots assessment due in year 4 of the permit term, including any planned or completed changes to local regulations and guidelines:

Brookline adopted the "Complete Streets Policy" in May 2016.

**Green Infrastructure Report**

Describe the status of the green infrastructure report due in year 4 of the permit term, including the findings and progress towards making the practice allowable:

Brookline is working on a Climate Action Plan that includes sections on implementing Green Infrastructure.

**Retrofit Properties Inventory**

Describe the status of the inventory, due in year 4 of the permit term, of permittee-owned properties that could be modified or retrofitted with BMPs to mitigate impervious areas and report on any properties that have been modified or retrofitted:

Review of properties for retrofit in progress. Typically, all new Park and School site re-development projects include onsite infiltration practices. Also, roadway projects are assessed to see if opportunities for infiltration are feasible.

## MCM6: Good Housekeeping

**Catch Basin Cleaning**

Describe the status of the catch basin cleaning optimization plan:

Plan in place. Every basin is cleaned at least once every two years.

*If complete, attach the catch basin cleaning optimization plan or the schedule to gather information to develop the optimization plan:*

- (●) The catch basin cleaning optimization plan or schedule is attached to the email submission
- ( ) The catch basin cleaning optimization plan or schedule can be found at the following website:

*Below, report on the number of catch basins inspected and cleaned, along with the total volume of material removed from the catch basins during this reporting period.*

Number of catch basins inspected: 1,907

Number of catch basins cleaned: 1,907

Total volume or mass of material removed from all catch basins: 704 Tons

*Below, report on the total number of catch basins in the MS4 system, if known.*

Total number of catch basins: 3,296

*If applicable:*

Report on the actions taken if a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:

Not applicable.

**Street Sweeping**

Describe the status of the written procedures for sweeping streets and municipal-owned lots:

Procedures are in place.

*Report on street sweeping completed during the reporting period using one of the three metrics below.*

- ○ Number of miles cleaned:
- ○ Volume of material removed:
- ◉ Weight of material removed: 1,209 Tons

*If applicable:*

For rural uncurbed roadways with no catch basins, describe the progress of the inspection, documentation, and targeted sweeping plan:

NA

**Winter Road Maintenance**

Describe the status of the written procedures for winter road maintenance including the storage of salt and sand:

Procedures are in place.

**Inventory of Permittee-Owned Properties**

Describe the status of the inventory, due in year 2 of the permit term, of permittee-owned properties, including parks and open spaces, buildings and facilities, and vehicles and equipment, and include any updates:

Inventory complete.

**O&M Procedures for Parks and Open Spaces, Buildings and Facilities, and Vehicles and Equipment**

Describe the status of the operation and maintenance procedures, due in year 2 of the permit term, of permittee-owned properties (parks and open spaces, buildings and facilities, vehicles and equipment) and include maintenance activities associated with each:

O&M procedures are in place.

**Stormwater Pollution Prevention Plan (SWPPP)**

Describe the status of any SWPPP, due in year 2 of the permit term, for permittee-owned or operated facilities including maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater:

SWPPPs in place for all required facilities.

*Below, report on the number of site inspections for facilities that require a SWPPP completed during this reporting period.*

Number of site inspections completed: 4

Describe any corrective actions taken at a facility with a SWPPP:

None required.

**O&M Procedures for Stormwater Treatment Structures**

Describe the status of the written procedure for stormwater treatment structure maintenance:

Procedures are in place.

# Additional Information

**Monitoring or Study Results**

*Results from any other stormwater or receiving water quality monitoring or studies conducted during the reporting period not otherwise mentioned above, where the data is being used to inform permit compliance or permit effectiveness must be attached.*

- (●) Not applicable
- ( ) The results from additional reports or studies are attached to the email submission
- ( ) The results from additional reports or studies can be found at the following website(s):

If such monitoring or studies were conducted on your behalf or if monitoring or studies conducted by other entities were reported to you, a brief description of the type of information gathered or received shall be described below:

**Additional Information**

*Optional:* Enter any additional information relevant to your stormwater management program implementation during the reporting period. Include any BMP modifications made by the MS4 if not already discussed above:

**Activities Planned for Next Reporting Period**

Please confirm that your SWMP has been, or will be, updated to comply with all applicable permit requirements including but not limited to the year 2 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree ☒

Complete system mapping Phase IBegin investigations of catchments associated with Problem OutfallsDevelop or modify an ordinance or other regulatory mechanism for post-construction stormwater runoff from new development and redevelopmentEstablish and implement written procedures to require the submission of as-built drawings no later than two years after the completion of construction projectsDevelop, if not already developed, written operations and maintenance proceduresDevelop an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; review annually and update as necessaryEstablish a written program detailing the activities and procedures the permittee will implement so that the MS4 infrastructure is maintained in a timely manner Develop and implement a written SWPPP for maintenance garages, public works yards, transfer stations, and other waste

handling facilities where pollutants are exposed to stormwaterEnclose or cover storage piles of salt or piles containing salt used for deicing or other purposesDevelop, if not already developed, written procedures for sweeping streets and municipal-owned lotsDevelop, if not already developed, written procedures for winter road maintenance including storage of salt and sandDevelop, if not already developed, a schedule for catch basin cleaningDevelop, if not already developed, a written procedure for stormwater treatment structure maintenance Develop a written catchment investigation procedure *(18 months)*

Annual RequirementsAnnual report submitted and available to the publicAnnual opportunity for public participation in review and implementation of SWMPKeep records relating to the permit available for 5 years and make available to the publicProperly store and dispose of catch basin cleanings and street sweepings so they do not discharge to receiving watersAnnual training to employees involved in IDDE programUpdate inventory of all known locations where SSOs have discharged to the MS4 in the last 5 yearsContinue public education and outreach program Update outfall and interconnection inventory and priority ranking and include data collected in connection with the dry weather screening and other relevant inspections conductedImplement IDDE programReview site plans of construction sites as part of the construction stormwater runoff control programConduct site inspection of construction sites as necessary Inspect and maintain stormwater treatment structures Log catch basins cleaned or inspectedSweep all uncurbed streets at least annually

Provide any additional details on activities planned for permit year 2 below:

# Part V: Certification of Small MS4 Annual Report 2019

**40 CFR 144.32(d) Certification**

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

| | | | |
|---|---|---|---|
| Name: | Mel Kleckner | Title: | Town Administrator |
| Signature: | | Date: | 9-25-19 |

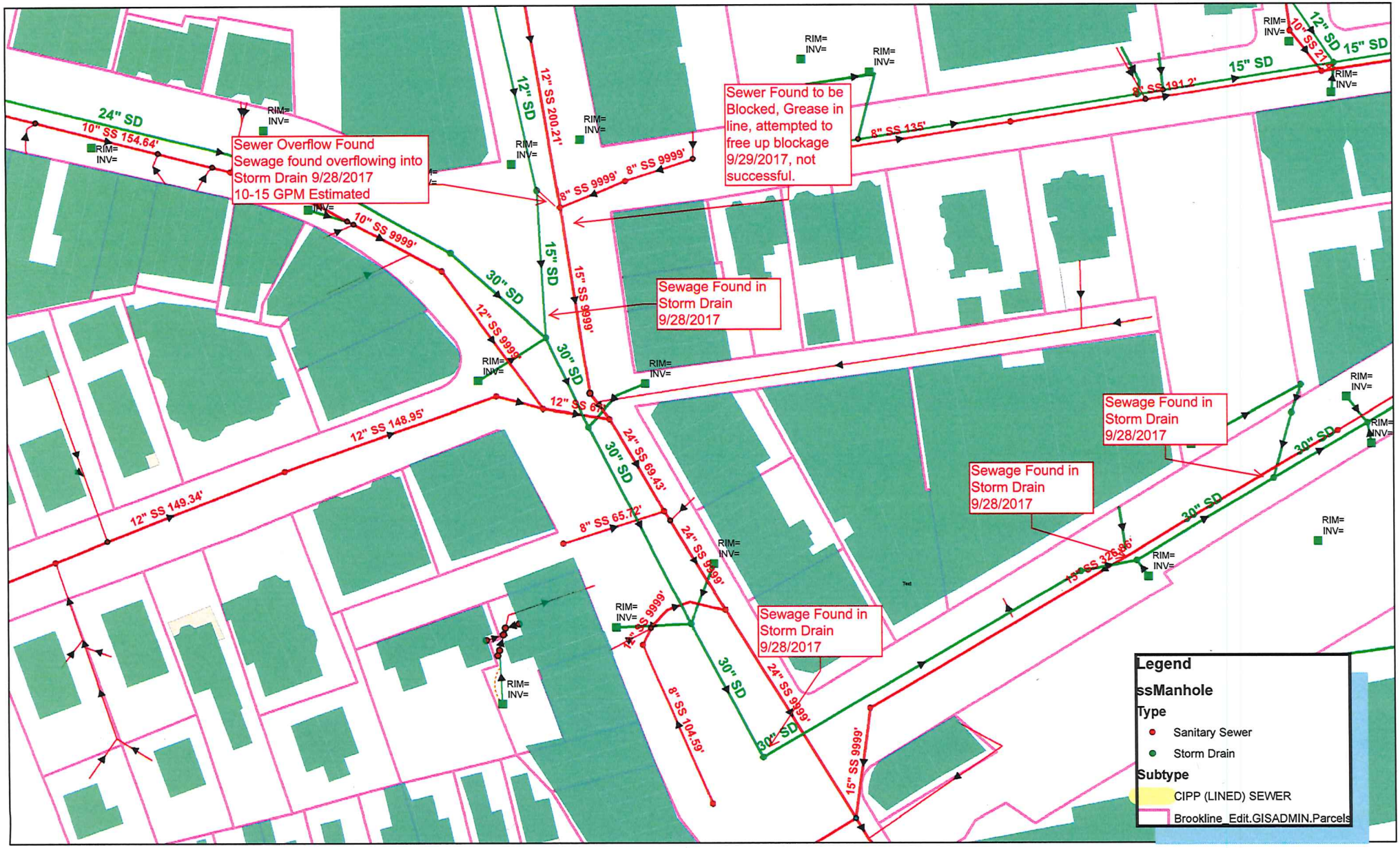
*[Signatory may be a duly authorized representative]*

| Town of Brookline SSO Locations | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| DMH/Outfall - ID | Drainage Area | Street/Outfall Location | Receiving Water | Waterbody Segment ID | Comments |
| SSMH-836 | 1A | Intersection of Harvard and Kent Streets | Muddy River | Muddy River (MA72-11) | September 2017 Harvard Street Sewer had a back up and blew out mechanical plug. SSO hydraulically plugged |

1 in = 50 ft

# PEARL STREET STORM DRAIN CROSS CONNECTION INVESTIGATION

PLAN BY:
MARC BESIO, P.E.
TOWN OF BROOKLINE
ENGINEERING DIVISION



**Town of Brookline Discharge Point Locations**

| DMH/Outfall - ID | Drainage Area | Street/Outfall Location | Receiving Water | Waterbody Segment ID | Comments |
|---|---|---|---|---|---|
| SWMH-1653 | 3 | Intersection of Amory Street & Commonwealth Avenue | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWOF-10 | 5A | Thorndike Street at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1851 | 5A | Comm Ave and Naples Road at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1639 | 5A | Comm Ave and Winslow Road at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1640 | 5A | Comm Ave and Babcock Street at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1641 | 5A | Comm Ave and Crowninsheild Road at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1643 | 5A | Comm Ave and Pleasant Street at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1646 | 5A | Comm Ave and St. Paul Street at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-217 | 5B | Summit Avenue at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWFIT-149 | 5B | Jordan Road at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWFIT-5047 | 5B | Mason Terrace at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-131 | 5B | Winchester Street at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWOF-11 | 5B | Verndale Street at Boston City Line | Charles River | Charles River (MA72-36) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWOF-1 | 9 | West Roxbury Parkway at Boston City Line | Bussey Brook | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1707 | 9 | VFW Parkway at Boston City Line | Bussey Brook | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWFIT-710 | 9 | Church Street at Boston City Line | Bussey Brook | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1712 | 9 | Bonad Road at Boston City Line | Bussey Brook | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-1713 | 9 | Russett Road at Boston City Line | Bussey Brook | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-837 | 12 | Intersection of St. Marys Street & Commonwealth Avenue | Charles River | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-636 | 13 | Newton Street at Boston City Line | Charles River | Charles River (MA72-38) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWMH-108 | 3 | End of Essex Street | Hall's Pond | Charles River (MA72-38) | Outfall to Hall's Pond. Flow from Halls Pond drains to intermunicipal connection at Amory & Comm. Ave. |
| SWMH-126 | 3 | Easement off Beacon Street | Hall's Pond | Charles River (MA72-38) | Outfall to Hall's Pond. Flow from Halls Pond drains to intermunicipal connection at Amory & Comm. Ave. |
| SWOF-13 | 7 | Sargent Pond Outfall | Sargent Pond | Jamaica Pond (MA72052) | Outfall to Sargent Pond. Sargent Pond drains to Jamaica Pond. |
| SWOF-4 | 11 | Cumberland Avenue Drain Outfall | Leverett Pond | Muddy River (MA72-11) | Outfall to Leverett Pond. Drains to the Muddy River. |
| SWOF-5 | 1A | Village Brook Drain Outfall | Leverett Pond | Muddy River (MA72-11) | Outfall to Leverett Pond. Drains to the Muddy River. |
| SWMH-1094 | 1A | Outfall of Reservoir Road at Newton City Line | Leverett Pond | Muddy River (MA72-11) | Location is an intermunicipal connection with Newton. Brookline discharges to Newton. |
| SWMH-830 | 1A | Intersection of Eliot and Clinton at Boston City Line | Leverett Pond | Muddy River (MA72-11) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWOF-6 | 2 | Tannery Brook Drain Outfall | Muddy River | Muddy River (MA72-11) | Outfall to the Muddy River |
| SWOF-7 | 4 | Longwood Drain Outfall | Muddy River | Muddy River (MA72-11) | Outfall to the Muddy River |
| SWFIT-757 | 4 | Parkway Road Outfall | Muddy River | Muddy River (MA72-11) | Outfall to the Muddy River. Drains small area from Netherlands and Parkway Roads |
| SWFIT-802 | 1A | Pearl Street Drain Outfall | Muddy River | Muddy River (MA72-11) | Outfall to the Muddy River |
| SWFIT-830 | 1A | Drain off of River Road Outfall | Muddy River | Muddy River (MA72-11) | Outfall to the Muddy River. Old drain only services small portion of Brookline Avenue and River Road. |
| SWOF-3 | 6 | Chestnut Street Drain Outfall | Willow Pond | Muddy River (MA72-11) | Outfall to Willow Pond. Drains to the Muddy River. |
| SWFIT-118 | 8A | Independence Drive at Boston City Line | Sawmill Brook | Sawmill Brook (MA72-23) | Location is an intermunicipal connection with BWSC. Brookline discharges to BWSC. |
| SWFIT-410 | 8A | Outfall of Gerry Road | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall at the end of Gerry Road. Drains through D. Blakely Hoar Sanctuary. |
| SWOF-2 | 8A | Outfall of Rangeley Road | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall off cross-country easement from Rangeley Road. |
| SWFIT-673 | 8A | Newton Street Outfall | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall off Newton Street |
| SWFIT-642 | 8A | Outfall from Transfer Station | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall from Transfer Station |
| SWFIT-343 | 8A | Outfall from Laurel Road | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall off Laurel Road |
| SWFIT-657 | 8A | Outfall from Hammond Pond Parkway | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall off Hammond Pond Parkway. |
| SWFIT-325 | 8A | Outfall from Woodland Road | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall off Woodland Road |
| SWFIT-330 | 8A | Outfall from Arlington Road | Sawmill Brook | Sawmill Brook (MA72-23) | Outfall off Arlington Road |
| SWOF-12 | 8B | Boylston Street at Newton City Line | Sawmill Brook | Sawmill Brook (MA72-23) | Location is an intermunicipal connection with Newton. Brookline discharges to Newton. Flows go to Hammond Pond. |

# TOWN OF BROOKLINE
*Massachusetts*

## DEPARTMENT OF PUBLIC WORKS
Engineering & Transportation Division

***Andrew M. Pappastergion***
*Commissioner*
***Peter M. Ditto, PE***
*Director*


**NOTICE**

August 6, 2019

Re: Septic System Use and Maintenance

Dear Resident:

The Department of Public Works is sending this notice to residents with septic systems. Septic systems must be maintained in accordance the Massachusetts Department of Environmental Protection (DEP) rules and regulations. Typically, septic tanks are cleaned once every three to five years. If you have a garbage disposal the frequency may need to be increased to once a year. Improperly maintained systems may cause backups on your property, release wastewater into water resource areas, and become a public health issue. Please visit the DEP website at https://www.mass.gov/guides/caring-for-your-septic-system#-how-often-should-i-pump-out-my-septic-system?- for helpful hints on maintaining your septic system.

If you have any questions please feel free to call Jay Hersey at 617-264-6467 or myself at (617) 730-2138.

Respectfully,

Peter M. Ditto, P.E.
Director of Engineering/Transportation

Cc: Jay Hersey, Environmental Engineer
Pat Maloney, Public Health


*333 Washington Street • Brookline, Massachusetts 02445-6863*
*Telephone: (617) 730-2139 Facsimile: (617) 264-6450*
*www.brooklinema.gov*

# Charles River Stormwater Collaborative

*Fiscal Year 2019 & 2020 Educational Advertisement Campaign Report*

On behalf of the members of the Charles River Stormwater Collaborative, Think Blue Massachusetts ran an educational advertising campaign from June 23 to July 12th, 2019. The "Fowl Water" advertisement helps viewers visualize stormwater pollution from motor oil, pet waste, and trash become stormwater pollution.

We selected Facebook and Instagram sponsored video and YouTube pre-roll advertisements because these channels offer superior "bang for the buck" to cable and broadcast television. They provide granular reporting that helps demonstrate what was accomplished.

This effort helps coalition members meet their requirements to "document in each annual report the messages for each audience; the method of distribution; the measures/methods used to assess the effectiveness of the messages, and the method/measures used to assess the overall effectiveness of the education program."

*View the ad at http://bit.ly/tbm-fowl-water*

### Advertising Budget

Our advertising budget for the campaign worked out to approximately 2.4 cents per resident, which we divided evenly between Facebook/Instagram and YouTube.

### Post Campaign Survey Highlights

At the close of the advertising campaign, we surveyed Massachusetts residents in the areas where the campaign ran:

- 15.25% of survey respondents recalled seeing the video (up from 8% in FY2018)
- Those who recalled seeing the video were more likely to correctly answer that stormwater pollution ends up in local waterways (comparable to FY2018)
- Those who recalled seeing the video rated polluted runoff as a more serious threat to waterways than those who didn't recall seeing the video (Comparable to FY2018)

Full survey results are available at www.thinkbluemassachusetts.org

Facebook and Google provided us with aggregate information for the region served by the stormwater coalition. We have allocated the impressions among each city on a proportional basis, using U.S. Census estimates of the population of each municipality.

# FY 2019 Campaign Performance

Your municipality can use this number as your measurable goal for MCM1 in your Year 1 annual report.

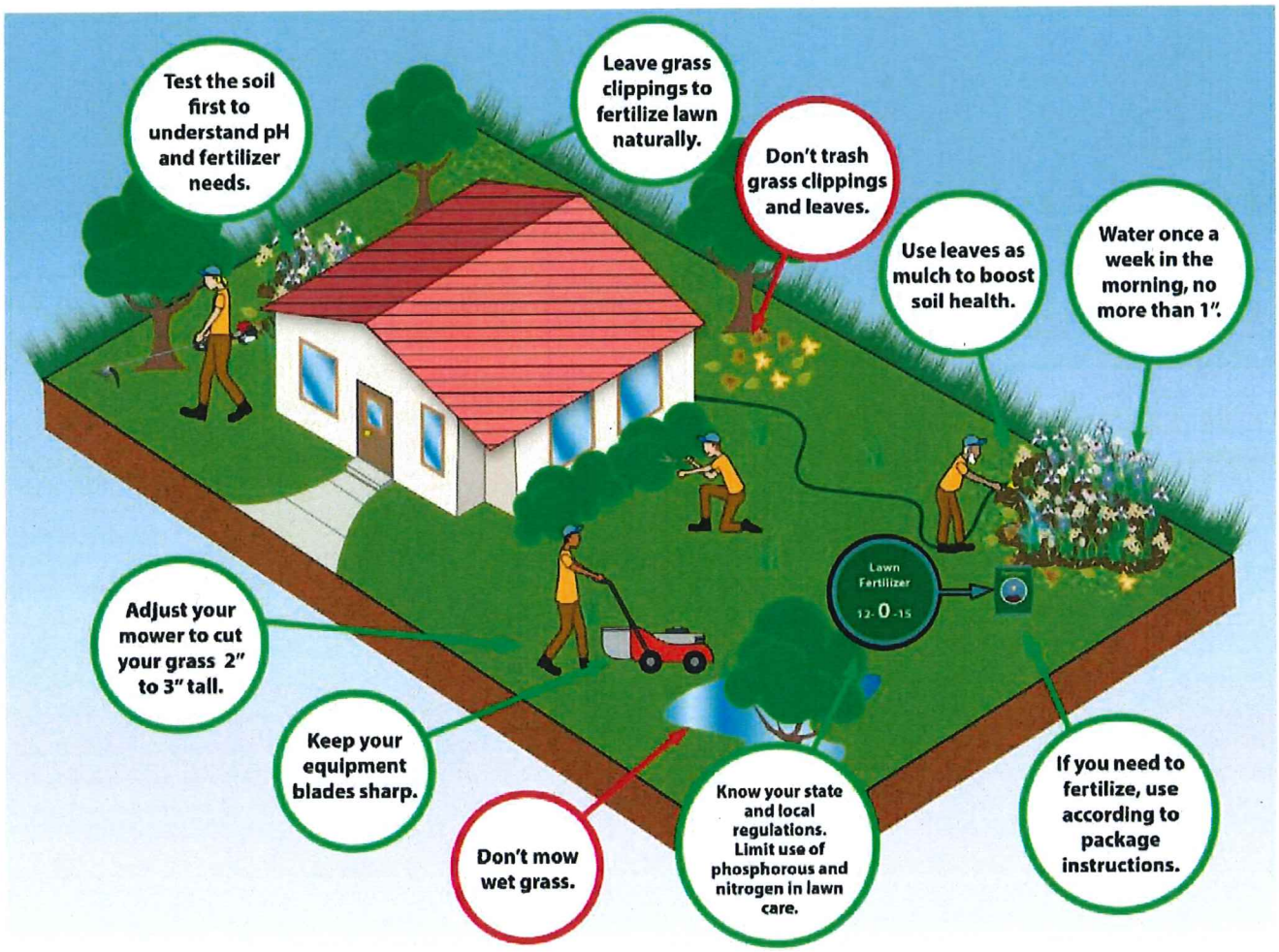
| Town | Facebook/Instagram Ad Impressions | YouTube Ad Impressions | Total: |
|---|---|---|---|
| Newton | 49,981 | 47,810 | 97,791 |
| Needham | 17,410 | 16,654 | 34,063 |
| Waltham | 35,069 | 33,546 | 68,615 |
| Wellesley | 15,715 | 15,033 | 30,748 |
| Weston | 6,324 | 6,050 | 12,374 |
| Lincoln | 3,573 | 3,418 | 6,991 |
| Brookline | 32,985 | 31,553 | 64,538 |
| Cambridge | 63,817 | 61,046 | 124,863 |
| Franklin | 17,767 | 16,995 | 34,762 |
| | 242,642 | 232,104 | 474,746 |

# FY 2020 Campaign Performance

Your municipality can use this number as your measurable goal for MCM1 in your Year 2 annual report.

| Town | Facebook/Instagram Ad Impressions | YouTube Ad Impressions | Total: |
|---|---|---|---|
| Newton | 161,251 | 52,873 | 214,125 |
| Needham | 56,168 | 18,417 | 74,585 |
| Waltham | 113,141 | 37,098 | 150,239 |
| Wellesley | 50,702 | 16,625 | 67,326 |
| Weston | 20,404 | 6,690 | 27,095 |
| Lincoln | 11,528 | 3,780 | 15,307 |
| Brookline | 106,419 | 34,894 | 141,312 |
| Cambridge | 205,890 | 67,510 | 273,400 |
| Franklin | 57,321 | 18,795 | 76,116 |
| | 782,823 | 256,682 | 1,039,505 |

# Lawn and Garden Tips to Help Curb Stormwater Pollution

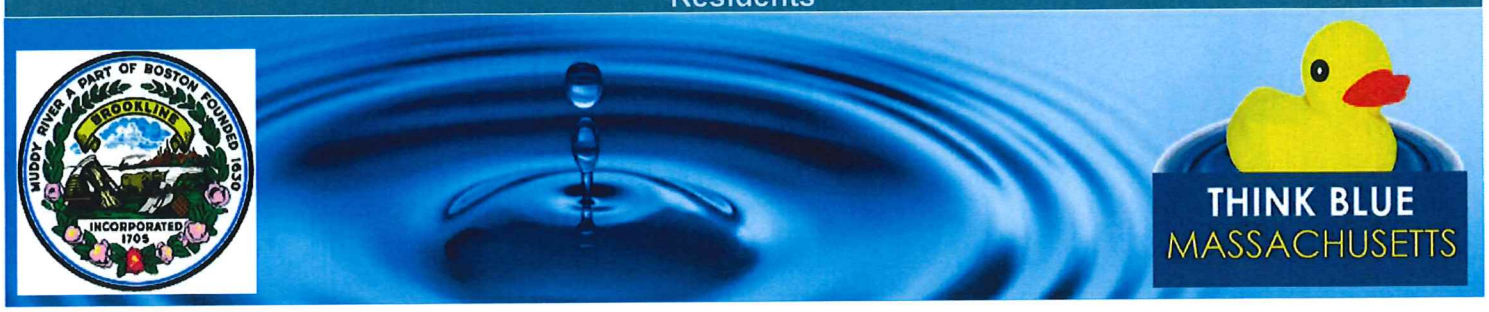



Under Massachusetts law, only apply fertilizer with phosphorus if:

1. A soil test shows that phosphorus is needed; or
2. During the first growing season for a newly established lawn.

Contact the UMass Cooperative Extension Soil Nutrient Testing Laboratory to learn how to conduct a routine soil test: https://ag.umass.edu/services/soil-plant-nutrient-testing-laboratory/ordering-information-forms

Learn more at: www.ThinkBlueMassachusetts.org




# Do Your "Doody" for Clean Water

You hate stepping in it. And fish hate swimming in it, too! Dogs produce a lot of waste which, if not disposed of properly, can end up in our waterways. Do your part to keep our waters and public areas clean and healthy! Bag your pet's waste and throw it in a trashcan..

**DO**

**DON'T**

**Did you know that the average dog can produce nearly a pound of waste each day?**

- Pet waste left on lawns and in public spaces is not only gross. It can be quite harmful too.
- Pet waste contains twice as much bacteria as human waste!
- If left in your yard, pet waste can kill grass and other plants.
- Adults and children who come in contact with it can get sick.
- When pet waste washes into storm drains and waterways, it can make the water unhealthy for people and wildlife.
- Pet waste in waterways can even cause algae to grow, making the water turn an unpleasant green color.

**Do your "doody" in both public areas and in your yard.**

To learn more, visit the www.ThinkBlueMassachusetts.org

Adapted from materials provided by Neponset Stormwater Partnership and used by permission

# TOWN OF BROOKLINE
*Massachusetts*

**DEPARTMENT OF PUBLIC WORKS**
Engineering & Transportation Division

***Andrew M. Pappastergion***
*Commissioner*
***Peter M. Ditto, PE***
*Director*


September 18, 2019

Todd Borci
Office of Environmental Stewardship
U.S. EPA New England
5 Post Office Square
Suite 100 (OES 04-4)
Boston, MA 02109-3912

Re: Comprehensive Illicit Discharge Detection and Elimination Plan Progress Report

Dear Mr. Borci:

The Town is pleased to submit the twenty-first progress report to the U.S. Environmental Protection Agency (EPA) regarding the Town's Comprehensive Illicit Discharge Detection and Elimination (IDDE) Plan. The following is a summary of the work completed during the months of July 2018 through July 2019:

**SUMMARY OF WORK**

Investigations and corrective actions:

DA1 – Village Brook

During the month of May 2019, the Town found a sewer main collapse on Washington Street in close proximity to the Village Brook Drain. No flow was observed in the downstream sewer manhole. It appears sewage was entering the drain at this location. The Town installed a cured-in-place liner in the sewer main on May 16, 2019 to restore proper flow and eliminate exfiltration into the drain.

DA9 – Bussey Brook

During the month of March 2019, the Town installed a cured-in-place liner on the sewer main located on the West Roxbury Parkway. This area has documented underdrains. These underdrains may have been a source of bacterial pollution. The sampling results obtained after the lining work show a reduction in bacterial contamination.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## SUMMARY OF CORRECTIVE ACTION

As of July 2019, 53 illicit discharges with an estimated **15,313 GPD** of wastewater flows have been removed from the town's drainage system.

## PHASE TWO WATER QUALITY TESTING

On June 13, 2019, the Town's consultant Brown and Caldwell conducted wet weather sampling at the three major outfalls to the Muddy River. The results are as follows:

| | |
|---|---|
| Village Brook Drain | E-coli = 49,906 MPN/100mL |
| Tannery Brook Drain | E-coli = 4,562 MPN/100mL |
| Longwood Drain | E-coli = 1,986 MPN/100mL |

On July 31, 2019, the Town conducted another round of dry weather sampling. The results are attached to this report.

## PHASE FOUR

Phase four testing will continue in areas that exhibit high bacteria numbers. Ammonia test kits have proven reliable to isolate sections and zero in on possible cross-connections. This program is ongoing and results are logged into the IDDE database.

## INTER-MUNICIPAL WORK

The Town continues to work with Boston Water and Sewer Commission (BWSC) to address inter-municipal drainage connections. A copy of the IDDE progress report will be sent to BWSC.

## FUTURE WORK

Based on the wet and dry weather sampling, many of the drains require follow up investigation. The Town will implement the junction manhole testing procedure to try and locate the source of pollution.

If you have any questions please feel free to call me at (617) 730-2138 or Jay Hersey at (617) 264-6467.

Respectfully,

Peter M. Ditto, P.E.
Director of Engineering and Transportation

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cc. Andrew M. Pappastergion, Commissioner of Public Works
Fredrick W. Russell, P.E., Director of Water and Sewer
Jay Hersey, P.E. Environmental Engineer
Bill Walsh-Rogalski, EPA
John Sullivan, BWSC

Attachments: Storm Drain Sampling Results

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**Storm Drain Sampling Results (IDDE Plan)**

| Sample ID | Fecal Coliform / E. Coli (CFU/100 mL) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dry Weather | | | | | Wet | Wet | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | |
| | 07/28/05 | 06/14/06 | 11/01/06 | 03/30/07 | 07/27/07 | 11/26/07 | 4/28/08 | 11/4/08 | 9/16/09 | 7/21/10 | 5/26/11 | 5/21/12 | 6/6/13 | 7/22/14 | 7/30/15 | 7/26/16 | 7/18/17 | 7/31/18 | 7/31/19 | Drain |
| 1A-A-1 | 52,000 | 5,500 | <10 | 10,000 | 360 | 14,000 | 5,700 | <10 | 5,900 | 2,200 | 3,700 | 72,000 | 2,400 / 790 | 1,900 / 340 | 170 / 190 | 420 / 330 | 3,900 / 4,300 | 27,000 / 3,300 | 3,820 / 5,800 | Village Brook |
| 1A-A-2 | Note B | <100 | 1,500 | 10 | 100 | 1,700 | 48,000 | 260 | 310 | 410 | 310 | 30 | 18,000 / 5,100 | 1,500 / 290 | 160 / 30 | 340 / 310 | >80,000 / >80,000 | 27,000 / 1,300 | 1,100 / 1,300 | Pearl Street |
| 1A-C-1 | 7,300 | 1,500 | 840,000 * | 10,000 | 10,000 ** | 730,000 * | 8,100** | 1,550 | 1700** | 2,000 | 10,000 | 3,400 | 330 / 80 | 1,300 / 390 | <10 / <10 | <10 / <10 | <10 / <10 | 12,000 / 20,000 | 1,100 / 600 | Village Brook |
| 1A-E-1 | 7,800 | 4,600 | 600 | 230 | 57,000 | 3,400 | 2,000 | 2,800 | 4,100 | 27,000 | 2,100 | 5,500 | 470 / 410 | 2,900 / 2,500 | 5,900 / 2,200 | 14,000 / 7,900 | 42,000 / 46,000 | 1,000 / 1,800 | 11,000 / 11,000 | Village Brook |
| 1A-F-1 | 3,600 | 200 | 630 | 90 | 380 | 1,300 | 360 | 21,000 | 240 | 290 | 10 | 130 | 1,200 / 4,500 | <10 / <10 | 330 / 440 | 280 / 140 | 230 / 310 | 3,500 / 220 | 1,640 / 730 | Village Brook |
| 1B-B-1 | 5,400 | <100 | <10 | 480 | 4,900 | 21,000 | 3,100 | <10 | 2,300 | 23,000 | 2,300 | 2,200 | 280 / 1,900 | 2,900 / 590 | 1,600 / 1,500 | 1,600 / 2,600 | 570 / 700 | 17,000 / 1,900 | 44,000 / 1,000 | South Branch Village Brook |
| 2-A-1 | 54,000 | 700 | 25,000 | 3,300 | 73,000 | 14,000 | 590,000 | 32,000 | 7,400 | 6,500 | 2,100 | 6,300 | 35,000 / 5,500 | 15,000 / 17,000 | >80,000 / >80,000 | 13,000 / 5,400 | 48,000 / 9,000 | 36,000 / 5,400 | 4,000 / >80,000 | Tannery Brook |
| 2-C-1 | 440,000 | 9,000 | 120,000 | 150,000 | 55,000 | 20,000 | 940,000 | 27,000 | Dry* | 94,000 | Dry* | >80,000 | 6,000 / 5,000 | >80,000 / 25,000 | 24,000 / 24,000 | 16,000 / 3,900 | 33,000 / 11,000 | 3,200 / 4,500 | 6,800 / 6,900 | Tannery Brook |
| 3-A-1 | 18,000 | 5,400 | 76,000 | 730 | 21,000 | 7,500 | 2,400 | 4,400 | 14,000 | >100,000 | 7,100 | 56,000 | 18,000 / 40,000 | >80,000 / >80,000 | 9,000 / 12,000 | 4,900 / 4,500 | 7,100 / 6,300 | 27,000 / 32,000 | 60 / 30 | Hall's Pond |
| 4-A-1 | 34,000 | 4,700 | 6,600 | 360 | 8,400 | 13,000 | 5,400 | 5,400 | 3,000 | 3,500 | 600 | 4,100 | 2,400 / 720 | 9,000 / 6,600 | 16,000 / 2,500 | 15,000 / 1,800 | 25,000 / 12,000 | 15,000 / 30,000 | 1,900 / 3,000 | Longwood Ave |
| 5A-A-1 | Note A | 2,600 | 25,000 | 230 | 6,100 | 4,800 | 4,800 | Note C | 1,700 | Note A | 210 | 800 | 460 / 70 | 4,200 / 3,900 | Note A | Note A | Note A | Note A | Note A | Smelt Brook |
| 5B-1 | 1,400,000 | 4,100 | 27,000 | Note A | Note A | 22,000 | 1,800 | Note A | Note A | Note A | <10 | <10 | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Smelt Brook |
| 6 | 910 | 1,200 | 3,400 | 70 | 60 | 3,400 | 4,900 | 110 | 160 | 110 | <10 | 130 | 160 / 140 | 4,000 / 140 | 820 / 330 | 320 / 160 | 260 / 90 | 11,000 / 120 | 160 / 180 | Chestnut |
| 7 | 20,000 | 300 | 10 | 10 | 48,000 | 600 | 610 | 10 | 230 | 400 | 190 | 200 | 60 / 70 | 130 / 40 | 30 / 10 | Note A | 280 / 160 | 150 / 210 | 1,500 / 470 | Sargent |
| 8A-C-1 | 900 | 400 | 3,000 | 30 | 1,600 | 690 | 260 | 60 | 660 | 840 | 140 | 160 | 570 / 430 | 2,100 / 1,500 | 170 / 70 | 350 / 310 | 210 / 150 | 1,200 / 1,300 | 690 / 130 | Sawmill |
| 8A-E-1 | 5,800 | 1,600 | 5,800 | 70 | 4,200 | 25,000 | 21,000 | 3,700 | >100,000 | 35,000 | <10 | 3,800 | <10 / <10 | <10 / <10 | <10 / <10 | 3,300/ 4,700 | >80,0000/ 64,000 | 23,000/ 12,000 | 1,000/ 15,000 | Sawmill |
| 8A-F-1 | 70,000 | 30,000 | 16,000 | 6,900 | Note A | 10,000 | 620,000 | 290,000 | 5,000 | 780 | 430 | 700 | 200 / 500 | 2,200 / 250 | 22,000 / 7,000 | Note A | Note A | Note A | 31,000/ 3,640 | Sawmill |
| 8B-1 | 50 | 300 | >850,000* | <10 | 360 | 1,100 | 560** | <10 | 50** | 2,700 | 1,000 | 180 | 50 / 60 ** | 50 / <10 ** | <10 / <10 ** | Note A** | 160 / 50 | <10 / 120 | 6,910 / 50 | Hammond Pond |
| 9-A-1 | 51,000 | 7,500 | 3,600 | 80 | 1,600 | 3,400 | 9,400 | 3,200 | 8,900 | 3,400 | 390 | 190 | >80,000 / 37,000 | >80,000 / 76,000 | 3,000 / 900 | >80,000 / >80,000 | >80,000 / >80,000 | >80,000 / 55,000 | 6,730 / 6,000 | West Roxbury Pkwy |
| 11 | Note A | Note A | 1,600 | Note A | Note A | 4,100 | 600 | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Cumberland Ave |
| 12-1 | | | | | | | | | | | | | | <10 / <10 | <10 / <10 | <10 / <10 | 55 / 40 | 14,000 / 140 | 150 / 40 | Lower Beacon |
| 12-2 | | | | | | | | | | | | | | 320 / 120 | 3,000 / 50 | 12,000 / 420 | 510 / 460 | 10,000 / 500 | 300 / 20 | Lower Beacon |

Note A - No flow in manhole (dry)
Note B - Did not sample, oil spill, oil in drain.
Note C - could not be sampled due to a car parked on DMH
* - Samples taken SMH (wrong location)
** - Sample at location 1A-C-1 was taken from the alternate location.
** - Sample taken from alternate location (RT 9 DMH paved over temporarily) , collected across street in Mall area
Dry* - sample collected from wrong DMH location
Added E. Coli Testing 6/6/13
Added two new locations in the lower Beacon Street Area as a result of the sewer separation project 7/22/14

# TOWN OF BROOKLINE
*Massachusetts*

**DEPARTMENT OF PUBLIC WORKS**
Engineering & Transportation Division

***Andrew M. Pappastergion***
*Commissioner*
***Peter M. Ditto, PE***
*Director*


September 7, 2018

Todd Borci
Office of Environmental Stewardship
U.S. EPA New England
5 Post Office Square
Suite 100 (OES 04-4)
Boston, MA 02109-3912

Re: Comprehensive Illicit Discharge Detection and Elimination Plan Progress Report

Dear Mr. Borci:

The Town is pleased to submit the twentieth progress report to the U.S. Environmental Protection Agency (EPA) regarding the Town's Comprehensive Illicit Discharge Detection and Elimination (IDDE) Plan. The following is a summary of the work completed during the months of July 2017 through July 2018:

**SUMMARY OF WORK**

Investigations and corrective actions:

DA1 – Village Brook

During the month of September 2017, the Town used ammonia test kits to locate the source of sewerage entering the Pearl Street Drain (1A-A-2). Working upstream from the outfall, sewage was found to be backing up into the drain through a sanitary sewer overflow on Harvard Street. The overflow had been mechanically plugged, but must have let go due to the pressure from the sewer. It was later determined that a section of the 15" sewer main had collapsed and was causing the backup. Repairs were made in October 2017.

**SUMMARY OF CORRECTIVE ACTION**

As of July 2018, 52 illicit discharges with an estimated **14,585 GPD** of wastewater flows have been removed from the town's drainage system.


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## PHASE TWO WATER QUALITY TESTING

On July 31, 2018, the Town conducted another round of dry weather sampling. The results are attached to this report.

## PHASE FOUR

Phase four testing will continue in areas that exhibit high bacteria numbers. Ammonia test kits have proven reliable to isolate sections and zero in on possible cross-connections. This program is ongoing and results are logged into the IDDE database.

## INTER-MUNICIPAL WORK

The Town continues to work with Boston Water and Sewer Commission (BWSC) to address inter-municipal drainage connections. A copy of the IDDE progress report will be sent to BWSC.

## FUTURE WORK

In DA9 bacteria counts still remain high even with the removal of two cross-connections. It appears sewer underdrains in this area may be the cause of the contamination. The Town intends on lining the sewers in this area to reduce and/or eliminate any potential exfiltration into the underdrains. The work is scheduled to bid this fall/winter and be completed early next year.

The remaining areas that came back with elevated results will also be investigated to try and locate the source of bacteria.

If you have any questions please feel free to call me at (617) 730-2138 or Jay Hersey at (617) 264-6467.

Respectfully,

Peter M. Ditto, P.E.
Director of Engineering and Transportation

cc. Andrew M. Pappastergion, Commissioner of Public Works
Fredrick W. Russell, P.E., Director of Water and Sewer
Jay Hersey, P.E. Environmental Engineer
Bill Walsh-Rogalski, EPA
John Sullivan, BWSC

Attachments: Storm Drain Sampling Results

**Storm Drain Sampling Results (IDDE Plan)**

| Sample ID | Fecal Coliform / E. Coli (CFU/100 mL) | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Dry Weather | | | | | Wet | Wet | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | Dry | |
| | 07/28/05 | 06/14/06 | 11/01/06 | 03/30/07 | 07/27/07 | 11/26/07 | 4/28/08 | 11/4/08 | 9/16/09 | 7/21/10 | 5/26/11 | 5/21/12 | 6/6/13 | 7/22/14 | 7/30/15 | 7/26/16 | 7/18/17 | 7/31/18 | Drain |
| 1A-A-1 | 52,000 | 5,500 | <10 | 10,000 | 360 | 14,000 | 5,700 | <10 | 5,900 | 2,200 | 3,700 | 72,000 | 2,400 / 790 | 1,900 / 340 | 170 / 190 | 420 / 330 | 3,900 / 4,300 | 27,000 / 3,300 | Village Brook |
| 1A-A-2 | Note B | <100 | 1,500 | 10 | 100 | 1,700 | 48,000 | 260 | 310 | 410 | 310 | 30 | 18,000 / 5,100 | 1,500 / 290 | 160 / 30 | 340 / 310 | >80,000 / >80,000 | 27,000 / 1,300 | Pearl Street |
| 1A-C-1 | 7,300 | 1,500 | 840,000 * | 10,000 | 10,000 ** | 730,000 * | 8,100** | 1,550 | 1700** | 2,000 | 10,000 | 3,400 | 330 / 80 | 1,300 / 390 | <10 / <10 | <10 / <10 | <10 / <10 | 12,000 / 20,000 | Village Brook |
| 1A-E-1 | 7,800 | 4,600 | 600 | 230 | 57,000 | 3,400 | 2,000 | 2,800 | 4,100 | 27,000 | 2,100 | 5,500 | 470 / 410 | 2,900 / 2,500 | 5,900 / 2,200 | 14,000 / 7,900 | 42,000 / 46,000 | 1,000 / 1,800 | Village Brook |
| 1A-F-1 | 3,600 | 200 | 630 | 90 | 380 | 1,300 | 360 | 21,000 | 240 | 290 | 10 | 130 | 1,200 / 4,500 | <10 / <10 | 330 / 440 | 280 / 140 | 230 / 310 | 3,500 / 220 | Village Brook |
| 1B-B-1 | 5,400 | <100 | <10 | 480 | 4,900 | 21,000 | 3,100 | <10 | 2,300 | 23,000 | 2,300 | 2,200 | 280 / 1,900 | 2,900 / 590 | 1,600 / 1,500 | 1,600 / 2,600 | 570 / 700 | 17,000 / 1,900 | South Branch Village Brook |
| 2-A-1 | 54,000 | 700 | 25,000 | 3,300 | 73,000 | 14,000 | 590,000 | 32,000 | 7,400 | 6,500 | 2,100 | 6,300 | 35,000 / 5,500 | 15,000 / 17,000 | >80,000 / >80,000 | 13,000 / 5,400 | 48,000 / 9,000 | 36,000 / 5,400 | Tannery Brook |
| 2-C-1 | 440,000 | 9,000 | 120,000 | 150,000 | 55,000 | 20,000 | 940,000 | 27,000 | Dry* | 94,000 | Dry* | >80,000 | 6,000 / 5,000 | >80,000 / 25,000 | 24,000 / 24,000 | 16,000 / 3,900 | 33,000 / 11,000 | 3,200 / 4,500 | Tannery Brook |
| 3-A-1 | 18,000 | 5,400 | 76,000 | 730 | 21,000 | 7,500 | 2,400 | 4,400 | 14,000 | >100,000 | 7,100 | 56,000 | 18,000 / 40,000 | >80,000 / >80,000 | 9,000 / 12,000 | 4,900 / 4,500 | 7,100 / 6,300 | 27,000 / 32,000 | Hall's Pond |
| 4-A-1 | 34,000 | 4,700 | 6,600 | 360 | 8,400 | 13,000 | 5,400 | 5,400 | 3,000 | 3,500 | 600 | 4,100 | 2,400 / 720 | 9,000 / 6,600 | 16,000 / 2,500 | 15,000 / 1,800 | 25,000 / 12,000 | 15,000 / 30,000 | Longwood Ave |
| 5A-A-1 | Note A | 2,600 | 25,000 | 230 | 6,100 | 4,800 | 4,800 | Note C | 1,700 | Note A | 210 | 800 | 460 / 70 | 4,200 / 3,900 | Note A | Note A | Note A | Note A | Smelt Brook |
| 5B-1 | 1,400,000 | 4,100 | 27,000 | Note A | Note A | 22,000 | 1,800 | Note A | Note A | Note A | <10 | <10 | Note A | Note A | Note A | Note A | Note A | Note A | Smelt Brook |
| 6 | 910 | 1,200 | 3,400 | 70 | 60 | 3,400 | 4,900 | 110 | 160 | 110 | <10 | 130 | 160 / 140 | 4,000 / 140 | 820 / 330 | 320 / 160 | 260 / 90 | 11,000 / 120 | Chestnut |
| 7 | 20,000 | 300 | 10 | 10 | 48,000 | 600 | 610 | 10 | 230 | 400 | 190 | 200 | 60 / 70 | 130 / 40 | 30 / 10 | Note A | 280 / 160 | 150 / 210 | Sargent |
| 8A-C-1 | 900 | 400 | 3,000 | 30 | 1,600 | 690 | 260 | 60 | 660 | 840 | 140 | 160 | 570 / 430 | 2,100 / 1,500 | 170 / 70 | 350 / 310 | 210 / 150 | 1,200 / 1,300 | Sawmill |
| 8A-E-1 | 5,800 | 1,600 | 5,800 | 70 | 4,200 | 25,000 | 21,000 | 3,700 | >100,000 | 35,000 | <10 | 3,800 | <10 / <10 | <10 / <10 | <10 / <10 | 3,300/ 4,700 | >80,0000/ 64,000 | 23,000/ 12,000 | Sawmill |
| 8A-F-1 | 70,000 | 30,000 | 16,000 | 6,900 | Note A | 10,000 | 620,000 | 290,000 | 5,000 | 780 | 430 | 700 | 200 / 500 | 2,200 / 250 | 22,000 / 7,000 | Note A | Note A | Note A | Sawmill |
| 8B-1 | 50 | 300 | >850,000* | <10 | 360 | 1,100 | 560** | <10 | 50** | 2,700 | 1,000 | 180 | 50 / 60 ** | 50 / <10 ** | <10 / <10 ** | Note A** | 160 / 50 | <10 / 120 | Hammond Pond |
| 9-A-1 | 51,000 | 7,500 | 3,600 | 80 | 1,600 | 3,400 | 9,400 | 3,200 | 8,900 | 3,400 | 390 | 190 | >80,000 / 37,000 | >80,000 / 76,000 | 3,000 / 900 | >80,000 / >80,000 | >80,000 / >80,000 | >80,000 / 55,000 | West Roxbury Pkwy |
| 11 | Note A | Note A | 1,600 | Note A | Note A | 4,100 | 800 | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Note A | Cumberland Ave |
| 12-1 | | | | | | | | | | | | | | <10 / <10 | <10 / <10 | <10 / <10 | 55 / 40 | 14,000 / 140 | Lower Beacon |
| 12-2 | | | | | | | | | | | | | | 320 / 120 | 3,000 / 50 | 12,000 / 420 | 510 / 460 | 10,000 / 500 | Lower Beacon |

Note A - No flow in manhole (dry)
Note B - Did not sample, oil spill, oil in drain.
Note C - could not be sampled due to a car parked on DMH
* - Samples taken SMH (wrong location)
** - Sample at location 1A-C-1 was taken from the alternate location.
** - Sample taken from alternate location (RT 9 DMH paved over temporarily) , collected across street in Mall area
Dry* - sample collected from wrong DMH location
Added E. Coli Testing 6/6/13
Added two new locations In the lower Beacon Street Area as a result of the sewer separation project 7/22/14

# Town of Brookline APWA Manual Chapter 27 – Catch Basin Cleaning

The Water & Sewer Division cleans basins at least once every two years. Typically 80% of the catch basins are cleaned annually. There are approximately 3,296 Catch Basin that require cleaning. The catch basin maintenance vehicle is in service April 1 – December 1.

1. The Town has been divided into seven sections for this purpose. The vehicle travels from section to section, cleaning basins on the main streets in early morning hours. As traffic increases, the vehicle moves to the less-traveled side streets.

2. The vehicle load is usually emptied twice a day at the Newton St. transfer station. The tonnage is weighed and a copy of the printout is given to the driver. The tonnage information is also transmitted electronically for recording in the catch basin database.

3. The driver of the catch basin vehicle

- Cleans all the basins on the route
- Fills out a Catch Basin Inspection Report on every basin that is cleaned that day on a tablet
- At the end of the shift, submits the Daily Report and the weight slips to the supervisor and lists streets he has completed on the tablet.

4. The supervisor examines the daily maintenance report. If any catch basins need repair, he will prepare a repair work order. The supervisor also records the tonnage dumped in a paper file.

5. The Maintenance Daily Report is then entered into the catch basin database which tracks all basins cleaned and the tonnage of catch basin cleaning. The database contains records for each catch basin by basin ID#, street address, and by district or location.