

Year 2 Annual Report
Massachusetts Small MS4 General Permit
Reporting Period: July 1, 2019-June 30, 2020

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. Please ONLY report on activities between July 1, 2019 and June 30, 2020 unless otherwise requested.

Part I: Contact Information

Name of Municipality or Organization:

EPA NPDES Permit Number:

Primary MS4 Program Manager Contact Information

Name: Title:

Street Address Line 1:

Street Address Line 2:

City: State: Zip Code:

Email: Phone Number:

Stormwater Management Program (SWMP) Information

SWMP Location (web address):

Date SWMP was Last Updated:

If the SWMP is not available on the web please provide the physical address:

Part II: Self-Assessment

First, in the box below, select the impairment(s) and/or TMDL(s) that are applicable to your MS4. Make sure you are referring to the most recent EPA approved Section 303(d) Impaired Waters List which can be found here: <https://www.epa.gov/tmdl/region-1-impaired-waters-and-303d-lists-state>

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 2 Requirements

- Completed Phase I of system mapping
- Developed a written catchment investigation procedure and added the procedure to the SWMP
- Developed written procedures to require the submission of as-built drawings and ensure the long term operation and maintenance of completed construction sites and added these procedures to the SWMP
- Enclosed or covered storage piles of salt or piles containing salt used for deicing or other purposes
- Developed written operations and maintenance procedures for parks and open space, buildings and facilities, and vehicles and equipment and added these procedures to the SWMP
- Developed an inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment and added this inventory to the SWMP
- Completed a written program for MS4 infrastructure maintenance to reduce the discharge of pollutants
- Developed written SWPPPs, included in the SWMP, for all of the following permittee owned or operated facilities: maintenance garages, public works yards, transfer stations, and other waste handling facilities where pollutants are exposed to stormwater

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Annual Requirements

- Provided an opportunity for public participation in review and implementation of SWMP and complied with State Public Notice requirements
- Kept records relating to the permit available for 5 years and made available to the public
- The SSO inventory has been updated, including the status of mitigation and corrective measures implemented
 - This is not applicable because we do not have sanitary sewer
 - This is not applicable because we did not find any new SSOs
 - The updated SSO inventory is attached to the email submission
 - The updated SSO inventory can be found at the following website:

<https://www.tewksbury-ma.gov/engineering-division/pages/tewksbury-illicit-discharge-detection-and-discharge-idde-plan-2019>

- Properly stored and disposed of catch basin cleanings and street sweepings so they did not discharge to receiving waters
- Provided training to employees involved in IDDE program within the reporting period
- All curbed roadways were swept at least once within the reporting period
- Updated outfall and interconnection inventory and priority ranking as needed

Optional: If you would like to describe progress made on any incomplete requirements listed above, provide any additional information, and/or if any of the above annual requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

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

Annual Requirements

*Public Education and Outreach**

- Annual message was distributed encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Permittee or its agents disseminated educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time
- Provided 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)*

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

Chloride

Annual Requirements

Public Education and Outreach

Included 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

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

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

Annual Requirements

*Public Education and Outreach**

- Distributed an annual message in the spring (April/May) encouraging the proper use and disposal of grass clippings and encouraging the proper use of slow-release and phosphorus-free fertilizers
- Distributed an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate
- Distributed 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

- Increased 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 already existing or installed in the regulated area by the permittee or its agents was tracked and the phosphorus removal by the BMP was estimated consistent with Attachment 3 to Appendix F. 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 were documented.

- The BMP information is attached to the email submission
- The BMP information can be found at the following website:

Optional: If you would like to describe progress made on any incomplete requirements listed above or provide any additional details, please use the box below:

In 2015, the Town installed 23 Rain Gardens BMPs around Long Pond which has a phosphorous impairment. The Rain Gardens were installed under Long Pond 319 Non-Point Source Pollution Grant. The total area treated and estimated phosphorus volume has not been calculated.

Optional: Use the box below to provide any additional information you would like to share as part of your self-assessment:

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:

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 this reporting period:**

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

BMP: Dedicated Town Web Page

Message Description and Distribution Method:

The Town's website has a dedicated url address that contains all information to residents about the stormwater management program, public outreach messages and important documents for public viewing.
www.tewksbury-ma.gov/stormwater

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

The Town's Stormwater Website was visited 646 times over the permit year. All of the public awareness messages, brochures, mailings and TV PSA's include a link to our dedicated web page.

Message Date(s):

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:

BMP:"All About Stormwater" Brochure Distribution

Message Description and Distribution Method:

The Town designed it's own town specific Tri-fold brochure "All About Stormwater" which is available for download and viewing on the website and is disturbed at displays at following public buildings:

- Library
- Town Hall
- Senior Center
- Public Works Building

The town also distributes the brochure at all Community Events and Presentations as needed

The canceling of the community events in the spring and summer and the temporary closing of public buildings hindered the the distribution of the paper version of Stormwater brochure

Link To View Brochure:

https://www.tewksbury-ma.gov/sites/g/files/vyhlf1316/f/uploads/all_about_stormwater_brochure_trifold_rev_4-8-19.pdf

Targeted Audience: Residents, Businesses

Responsible Department/Parties: Engineering

Measurable Goal(s):

Approximately 100 copies printed and distributed throughout the permit year.

(Less amount of brochures were distributed this permit year because of the cancellation of community events in the spring of 2020 and the temporary closing of public building due to Covid -19)

Message Date(s): July 1, 2019 to June 30, 2020

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:

The brochure is periodically updated to include more comprehensive and town specific information.

BMP: Resident Salt Use Public Awareness Message

Message Description and Distribution Method:

Public Awareness Message for Alternatives for De-Icing At Your Home or Business.

The message was distributed town-wide on our website, posted to facebook, twitter and broadcasted though the Town's local access TV station.

Link to Message Text:

<https://www.tewksbury-ma.gov/engineering-division/webforms/stormwater-public-awareness-messages>

Targeted Audience: Residents, Businesses

Responsible Department/Parties: Engineering

Measurable Goal(s):

Broadcasted 152 times on the Town's local access TV station

Message Contained Link to Town's Dedicated Web page, which received 646 views over the permit year

Message Date(s): December 2, 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:

For a more effective public awareness campaign, the Town has designed a series of Public Awareness Messages to be distributed on an annual basis through social media and local access TV.

BMP: Commercial and Contractor Road Salt Use Public Awareness Message

Message Description and Distribution Method:

Public Awareness Message for Alternatives for De-Icing At Your Home or Business.

Link to Message Text:

<https://www.tewksbury-ma.gov/engineering-division/webforms/stormwater-public-awareness-messages>

The message was distributed town-wide on our website, posted to facebook, twitter and broadcasted though the Town's local access TV station.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: Engineering

Measurable Goal(s):

Broadcasted 143 times on the Town's local access TV station

Message Contained Link to Town's Dedicated Web page, which received 646 views over the permit year

Message Date(s): December 16, 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:

For a more effective public awareness campaign, the Town has designed a series of Public Awareness Messages to be distributed on an annual basis through social media and local access TV.

BMP: Pest Waste Disposal Public Awareness Message

Message Description and Distribution Method:

Public Awareness Message for proper disposal of pet wastes.

The message was distributed town-wide on our website, posted to facebook, twitter and broadcasted though the Town's local access TV station.

Link to Message Text:

<https://www.tewksbury-ma.gov/engineering-division/webforms/stormwater-public-awareness-messages>

A messages is included in the text of all new and renewed dog permits

Additionally, a message was distributed, via door hanger, in problem area where pet waste had been discovered in the catch basins or wetland/wooded areas

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

2626 Annual Dog Permits issued that included the Pest Waste Disposal Public Awareness Message

The message was broadcasted 302 times on the Town's local access TV station

Message Contained Link to Town's Dedicated Web page which received 646 views over the permit year

Dog waste found in Catch Basins during inspection has significantly decreased due to this BMP and neighborhood door hanger notifications. Only one catch basin was found to have dog waste during inspection/cleaning of all of the Town's catch basin during this Permit Year.

Message Date(s): April 11, 2020

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:

For a more effective public awareness campaign, the Town has designed a series of Public Awareness Messages to be distributed on an annual basis through social media and local access TV.

BMP: Lawn Maintenance and Yard Waste Tips Public Awareness Message

Message Description and Distribution Method:

Public Awareness Message for Tips about lawn maintenance and yard waste. (The message includes leaf pick up, exterior cleaning, fertilizer use tips)

Link to Message Text:

<https://www.tewksbury-ma.gov/engineering-division/webforms/stormwater-public-awareness-messages>

The message was distributed town-wide on our website, posted to facebook, twitter.

Targeted Audience: Residents, Businesses

Responsible Department/Parties: Engineering

Measurable Goal(s):

The message was broadcasted 382 times on the Town's local access TV station

Message Contained Link to Town's Dedicated Web page which received 646 views over the permit year

Message Date(s): October 18, 2019, May 11, 2020

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:

For a more effective public awareness campaign, the Town has designed a series of Public Awareness Messages to be distributed on an annual basis through social media and local access TV.

BMP: Septic Systems Maintenance Public Awareness Message

Message Description and Distribution Method:

Public Awareness Message for Tips for homeowners about maintaining there septic system and what do do if its failing.

Link to Message Text:

<https://www.tewksbury-ma.gov/engineering-division/webforms/stormwater-public-awareness-messages>

The message was distributed town-wide on our website, posted to facebook, twitter and broadcasted though the Town's local access TV station.

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

The message was broadcasted 175 times on the Town's local access TV station

Message Contained Link to Town's Dedicated Web page which received 646 view over the permit year

Message Date(s): June 5, 2020

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:

For a more effective public awareness campaign, the Town has designed a series of Public Awareness Messages to be distributed on an annual basis through social media and local access TV.

BMP: Licensed Drain Layers Construction Site BMP's Mailing

Message Description and Distribution Method:

A list of Stormwater Best Management Practices (BMPs) for Construction Sites were distributed via US mail to all Licensed Drain Layers. Licensed Drain Layers work on water,sewer excavation and site work at residential/commercial developments.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Engineering

Measurable Goal(s):

Mailed Letter with list of BMP's to the 47 Licensed Drain Layers

Message Date(s): March 9, 2020

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:

BMP: Article in annual Consumer Confidence Report (CCR)

Message Description and Distribution Method:

Annual newsletter distributed by the Water Treatment Plant about the Town's Drinking water supply that is distribute to entire town that includes Stormwater Public Awareness Information

Link to CCR:

<https://www.tewksbury-ma.gov/water-treatment-plant/pages/consumer-confidence-reports>

Targeted Audience: Residents, Businesses

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Consumer Confidence Report (CCR) is displayed on the Town's Website and is distributed to be viewed by every resident and business in Town

Message Date(s): June 1, 2020

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:

BMP: Video PSA's On Local Access TV

Message Description and Distribution Method:

Broadcasting of two Stormwater Videos PSA's that were produced by NMCOG on the Town's Local Access TV Station

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

30 Second NMCOG Stormwater PSA aired 261 times

2 Minute NMCOG Stormwater PSA aired 175 times

Message Date(s): July 1, 2019 to June 30, 2020

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:

The Town added a Telemedia Department and Local Access TV after the NOI was submitted

BMP: Annual High School Science Class Presentation

Message Description and Distribution Method:

Engineering Division staff participated in a one hour presentation on Stormwater and performed a demonstration using EnviroScape Model for high school science classes on January 16, 2020

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Approximately 40 Students participated in high school science classes presentation

Message Date(s): January 16, 2020

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:

BMP: Newspaper Publications

Message Description and Distribution Method:

Public Awareness Messages published in Newspaper (Town Crier) in print and website as follows:

"Clean Stormwater Tips" published on October 2, 2019

Article about High School Presentation by Town Staff published on January 22, 2020

Link to Article:

http://homenewshere.com/tewksbury_town_crier/news/article_60a00134-3e22-11ea-ba76-7b98e850a1af.html

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Town Crier's print circulation estimate is 2,700 Copies

Article was also featured on newspapers website: http://homenewshere.com/tewksbury_town_crier/

Message Date(s): See Dates Above

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:

BMP: Public Stormwater Utility and Fee Information Sessions

Message Description and Distribution Method:

The Town held open information sessions for residents on the feasibility of a Stormwater Utility Fee and also included discussions and handouts on stormwater and NPDES Permit Requirements on the following dates:
Sept 3, 10, 16, 30 of 2019

Link To Newspaper Article:

http://homenewshere.com/tewksbury_town_crier/news/article_edb9842a-e0a1-11e9-9f06-93ab53198587.html

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

The sessions were attended by approx. 100 residents and sessions were also broadcast via the Town's Telemedia Local Access TV Station

Message Date(s): See Dates Above

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:

This was not included because was not anticipated during the time the NOI was submitted

BMP: Think Blue Massachusetts Online Campaign

Message Description and Distribution Method:

Think Blue Massachusetts ran an educational advertising campaign from May 16th to July 5th, 2019. The

“Fowl Water” video advertisement help viewers visualize stormwater pollution from motor oil, pet waste, and trash become stormwater pollution. The video was a Facebook and Instagram sponsored video and YouTube pre-roll advertisements.

Targeted Audience: Residents

Responsible Department/Parties: Other

Measurable Goal(s):

Metrics For Tewksbury:

Facebook/Instagram Impressions 49,769

YouTube Ad Impressions 40,870

Message Date(s): May 16, 2019 to July 5, 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:

Think Blue Massachusetts was included because it provides a broad reach to more residents and business owners through their grant funded advertisement campaigns.

BMP: Online Stormwater Survey/Quiz

Message Description and Distribution Method:

The Town issued a Stormwater Survey on it's website and social media. The survey had general questions about stormwater and municipal funding. It served as a tool to inform residents not only about stormwater but to make them aware of funding options for the town to use towards NPDES permit compliance and drainage improvements. The survey not only informed resident, it also generated valuable data and insights that will be used to customize our public awareness messages in the future.

Link:

www.surveymonkey.com/r/839L23Z

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

101 Responses and 40 Comments were collected using Survey Monkey.

Message Date(s): April 14, 2020

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:

The use of online surveys is very effective for public awareness, public participation and data collection.

BMP: Community Events

Message Description and Distribution Method:

The Town staffed a booth at town-wide public events and provide educational information about stormwater impacts to local residents and included demonstration with the EnviroScape Model. (The Town purchased its own EnviroScape Model during the Permit Year)

Staff participated in the following events:
Community Market on July 9, 2019 and July 16, 2019

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Approximately 50 visitors to the Stormwater booths at Community Events

Message Date(s): Multiple Dates as Shown Above

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:

BMP:[Message name here]

Message Description and Distribution Method:

Targeted Audience: Residents

Responsible Department/Parties: Engineering

Measurable Goal(s):

Message Date(s):

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:

Add an Educational Message

MCM2: Public Participation

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

The Town's SWMP and all related documents are available on the Town's website for public view and contact information is available for comments.

<https://www.tewksbury-ma.gov/engineering-division/pages/tewksbury-stormwater-management-plan-2019>

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

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

Of the 23 BMPs installed under Long Pond 319 Non-Point Source Pollution Grant, nine of the BMPs were installed on private property under a license agreement with the Town. Of the 23, six BMP have been adopted by the homeowner which includes a yearly agreement to maintain the BMP to its original capacity and functionality.

Due to Covid 19 any planned public involvement activities such as catch basin stenciling and school presentations have been postponed.

MCM3: Illicit Discharge Detection and Elimination (IDDE)

Sanitary Sewer Overflows (SSOs)

Check off the box below if the statement is true.

This SSO section is NOT applicable because we DO NOT have sanitary sewer

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

Number of SSOs identified:

Number of SSOs removed:

MS4 System Mapping

Below, check all that apply.

The following elements of the Phase I map have been completed:

- Outfalls and receiving waters
- Open channel conveyances
- Interconnections
- Municipally-owned stormwater treatment structures
- Waterbodies identified by name and indication of all use impairments
- Initial catchment delineations

Optional: Describe any additional progress you made on your map during this reporting period or provide additional status information regarding your map:

The Town purchased PeopleGIS Stormwater Suite which enables advanced asset management of the Town's catch basins, outfalls and municipally-owned stormwater treatment structures. The suite is used to collect data during field inspections and asset locations can be confirmed and geo-edited if necessary.

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:

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:

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

Percent of total catchments investigated:

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

The Town has begun its dry weather outfall investigation in September of 2020.

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:

<https://www.tewksbury-ma.gov/engineering-division/pages/tewksbury-illicit-discharge-detection-and-discharge-idde-plan-2019>

*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:

Number of illicit discharges removed:

Estimated volume of sewage removed: gallons/day

*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 (July 1, 2018).***

Total number of illicit discharges identified:

Total number of illicit discharges removed:

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

Illicit Discharges are being reported via catch basin cleaning inspections, resident reports or employee observations.

Employee Training

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

The Engineering Division staff conducted IDDE training for all employees who participate in field work, site inspections and facilities management. The Town offered three separate days so that all employees may attend.

15 Full Time Employees attended live sessions and additional employees viewed recording (approx. 15)

Due to COVID-19 Restrictions this years training was done via live WEBex video conference on 3 Separate Sessions on the following dates:

- Monday June 22, 2020 9:30AM-10:30AM

- Tuesday June 23, 2020 9:30AM-10:30AM
- Wednesday June 24, 2020 9:30AM-10:30AM

Slide Show Link:

https://www.tewksbury-ma.gov/sites/g/files/vyhlf1316/f/uploads/idde_training_2020_final.pdf

It was also recorded for use by employees remotely at anytime.

Link to Training Video:

<https://www.youtube.com/watch?v=-vxfmhQJUvE>

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:

Number of inspections completed:

Number of enforcement actions taken:

Optional: Enter any additional information relevant to construction site plan reviews, inspections, and enforcement actions:

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

Ordinance or Regulatory Mechanism

Below, select the option that describes your ordinance or regulatory mechanism progress.

- Bylaw, ordinance, or regulations are updated and adopted consistent with permit requirements
- Bylaw, ordinance, or regulations are updated consistent with permit requirements but are not yet adopted
- Bylaw, ordinance, or regulations have not been updated or adopted

As-built Drawings

Describe 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:

The Town has as-built requirements in Chapter 19 of the General Bylaw, Site Plan Special Permit Regulations, and Subdivision Rules and Regulations. The Planning Board requires Applicants/Developers to submit an as-built plan. This is a condition of the project approval either through the Site Plan Special Permit or Definitive Subdivision process. As additional assurance, the Applicant/Developer is also required to post a bond to cover the cost of an as-built should they not provide one on their own.

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:

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:

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:

MCM6: Good Housekeeping

Catch Basin Cleaning

*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:

Number of catch basins cleaned:

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

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

Total number of catch basins:

If applicable:

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

In this permit year the town's contractor utilized PeopleGis Stormwater Suite to collect data during the cleaning of all the Town's catch basins and has generated a Catch Basin Cleaning Optimization Map based on percentage of sump filled. In The following year we will have the data from the two consecutive routine inspections/cleaning to implement our Catch Basin Cleaning Optimization Plan which is can be viewed here:

<https://www.tewksbury-ma.gov/engineering-division/pages/tewksbury-stormwater-management-plan-2019>

Street Sweeping

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

Number of miles cleaned:

Volume of material removed: [Select Units]

Weight of material removed: [Select Units]

O&M Procedures and Inventory of Permittee-Owned Properties

Below, check all that apply.

The following permittee-owned properties have been inventoried:

- Parks and open spaces
- Buildings and facilities
- Vehicles and equipment

The following O&M procedures for permittee-owned properties have been completed:

- Parks and open spaces
- Buildings and facilities
- Vehicles and equipment

Stormwater Pollution Prevention Plan (SWPPP)

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

Number of site inspections completed:

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

The Town had it's SWPPPs completed as part of the O & M Plans which can be viewed here:
<https://www.tewksbury-ma.gov/engineering-division/webforms/stormwater-operations-and-maintenance-plans>

The Town did not perform quarterly SWPPP site inspection during the Permit Year, but is currently conducting quarterly inspections at the following Buildings/Properties in town:

- 999 Whipple Road (Department of Public Works)
- 255 Livingston St (Park and Recreations)

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:

The Town inspected 48 town owned Detention Basins.

The Town began rehabilitation of its detention basins in August of 2020. A contractor was hired to rehabilitate four detention basins. The rehabilitation work includes but is not limited to: Clearing and Grubbing, Tree Removal, Stump Removal, Stone for Pipe Ends, Earth Excavation and Grading of the stormwater detention basins to original design elevation and all incidental work necessary to complete the work. The Town plans to continue an annual contract to rehabilitate and maintain detention ponds.

COVID-19 Impacts

Optional: If any of the above year 2 requirements could not be completed due to the impacts of COVID-19, please identify the requirement that could not be completed, any actions taken to attempt to complete the requirement, and reason the requirement could not be completed below:

Due to COVID-19 Restriction the Town was not able to attend many community events with its Stormwater Informational booth. The canceling of the community events in the spring and summer and the temporary closing of public buildings hindered the the distribution of the paper version of Stormwater brochure "All

About Stormwater". The Town continued its web based public awareness campaign through the permit year.

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 3 requirements summarized below. (Note: impaired waters and TMDL requirements are not listed below)

Yes, I agree

- Inspect all outfalls/ interconnections (excluding Problem and Excluded outfalls) for the presence of dry weather flow
- Complete follow-up ranking as dry weather screening becomes available

Annual Requirements

- Annual report submitted and available to the public
- Annual opportunity for public participation in review and implementation of SWMP
- 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
- Update inventory of all known locations where SSOs have discharged to the MS4
- Continue 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 conducted
- Implement IDDE program
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all uncurbed streets at least annually
- Continue investigations of catchments associated with Problem Outfalls
- Review inventory of all permittee owned facilities in the categories of parks and open space, buildings and facilities, and vehicles and equipment; update if necessary

Provide any additional details on activities planned for permit year 3 below:

The Town's consultant Weston & Sampson has begun its dry weather outfall investigation in September of 2020.

The Town was able to successfully establish a Stormwater Enterprise Fund and implement a Stormwater Utility Fee which began billing on July 1, 2020. This will secure funding for permit requirements along with future drainage improvements in the Town.

Part V: Certification of Small MS4 Annual Report 2020

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: Title:

Signature: Date:

[Signatory may be a duly authorized representative]