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 Marion

EPA NPDES Permit Number: MAR041127

Primary MS4 Program Manager Contact Information

Name: David Willet Title: DPW Director

Street Address Line 1: 50 Benson Brook Road

Street Address Line 2: N/A

City: Marion State: MA Zip Code: 02738

Email: dwillett@marionma.gov Phone Number: (508) 748-3540

Fax Number: (508) 748-3864

Stormwater Management Program (SWMP) Information

SWMP Location (web address): N/A

Date SWMP was Last Updated: June 30, 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:

Website is in progress. A hard copy is available at 50 Benson Brook Road, Marion, MA.

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)*

Nitrogen (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 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 Table 3 of Attachment 1 to Appendix H already existing or installed in the regulated area by the permittee or its agents shall be tracked and the permittee shall estimate the nitrogen 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 nitrogen removed in mass per year by the BMP in each each annual report

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:

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:

Following a more detailed review of available record drawings, the total number of town-owned outfalls/ interconnections has been reduced from 112 to 80. The removed locations fell into one of two categories:
1. Outfalls owned by other MS4s (e.g. MassDOT) that had been incorrectly mapped as owned by the Town of Marion; or
2. The downstream end of culverts with no internal pipe connections (i.e., are strictly receiving water conveyance)

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:1-1: Pet Waste Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet titled "Scoop the Poop" was under development in Year 1. Pet waste boxes were posted at town parks and town beaches and were refilled during the off-season when dogs are allowed on the beach.

Targeted Audience: Residents

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The number of distributed pamphlets will be tracked starting in Year 2. The pamphlet will be distributed with census forms/dog license renewals in December.

Message Date(s): Pet waste boxes were posted during the beach off-season.

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:

Addition of pet waste box refills

BMP:1-2: Nitrogen Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet on the proper disposal of grass clippings and the proper use of slow-release fertilizers was developed. Copies were included in the Spring water and sewer bills.

Targeted Audience: Businesses, Institutions and Commercial Facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The number of pamphlets distributed this permit term was 2,958.

Message Date(s): All were mailed in June 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:

BMP:1-3: Construction Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet on construction BMPs was under development in Year 1. The Chief Building Official will distribute these to all contractors during the permitting process.

Targeted Audience: Developers (Construction)

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The number of distributed pamphlets will be tracked starting in Year 2.

Message Date(s): None to date

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:1-4: Industrial Brochures/Pamphlets:

Message Description and Distribution Method:

An educational pamphlet on stormwater best management practices for the industrial audience was under development in Year 1.

Targeted Audience: Industrial Facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

This pamphlet will be distributed to all industrial facilities starting in Year 2 and the number will be tracked.

Message Date(s): None to date

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:1-5: Leaf Litter Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet on the proper disposal of leaf litter was under development in Year 1. In future years the pamphlet will be distributed in the Fall.

Targeted Audience: Residents

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The total volume of leaf litter collected by the Town of Marion will be tracked starting in Year 2.

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:1-6: Commerical Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet on stormwater best management practices targeted at business owners was under development in Year 1.

Targeted Audience: Businesses, Institutions and Commercial Facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The number of educational pamphlets distributed to all business owners will be tracked starting in Year 2.

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: 1-7: Construction Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet for LID practices for small residential construction sites was under development in Year 1.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The number of distributed educational pamphlets will be tracked starting in Year 2.

Message Date(s): None to date

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: 1-9: Industrial Brochures/Pamphlets

Message Description and Distribution Method:

An educational pamphlet on general stormwater pollution prevention for industrial sites was under development in Year 1.

Targeted Audience: Industrial Facilities

Responsible Department/Parties: Department of Public Works

Measurable Goal(s):

The number of educational pamphlets distributed will be tracked starting in Year 2.

Message Date(s): None to date

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 the reporting period:

The Stormwater Management Program is publicly available. Meetings and reviews that the public may attend were posted in accordance with state public notice requirements (MGL Chapter 30A, Sections 18-25). Comments received from the public will be incorporated into the SWMP as appropriate.

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:

The Town held an Earth Day Town Clean-Up on 04/27/19 in which sidewalks and roads were swept and rubbish was collected on streets and town properties.

A Hazardous Waste Disposal Day was held on 06/01/19 in Wareham, which was sponsored by CMWRRDD. Marion residents, with proof of residency, were permitted to participate in the drop-off.

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: 1

Number of SSOs removed: 1

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: 2

Total number of SSOs removed: 2

MS4 System Mapping

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

Based on GIS mapping, digitized from Town of Marion record drawings by the Buzzards bay National Estuary Program, the Town's mapping consists of the locations of outfalls/interconnections, drainage structures and pipes, sewer structures and pipes, structural best management practices, receiving waters, and draft catchment areas.

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: 0

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

Percent of total outfalls screened: 0

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: 0

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

Percent of total catchments investigated: 0

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: 0

Number of illicit discharges removed: 0

Estimated volume of sewage removed: 0 [UNITS]

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: 0

Total number of illicit discharges removed: 0

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

Employee Training

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

An employee training presentation was under development in Year 1 and is included as an appendix to the written IDDE Plan.

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: 1

Number of inspections completed: 1

Number of enforcement actions taken: 1

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:

The Town has an existing ordinance in place to enforce its post-construction stormwater requirements. This ordinance will be modified to include updates in the MS4 permit.

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:

According to Subdivision Regulation 300-6.4, as built plans are required to be provided to the Town.

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:

The Street Design and Parking Lots assessment will be completed in Year 4.

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:

The Green Infrastructure report will be completed in Year 4.

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:

The Retrofit Properties inventory will be completed in Year 4.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

The Town has mapped its catch basins in GIS and has developed a standard operating procedure (SOP).

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: 35

Number of catch basins cleaned: 28

Total volume or mass of material removed from all catch basins: 53 [UNITS]

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

Total number of catch basins: 620

If applicable:

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

Consecutive inspections have not yet occured.

Street Sweeping

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

The Town has completed a written SOP for sweeping streets and municipally-owned lots.

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

- ○ Number of miles cleaned: 61
- ○ Volume of material removed: 1500 [UNITS]
- ○ Weight of material removed: [UNITS]

If applicable:

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

N/A

Winter Road Maintenance

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

The Town has completed a written SOP for winter road maintenance.

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:

The Town has started the process of identifying and centralizing GIS data that will assist with the development of all inventory.

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:

The Town has completed draft written SOPs for procedures for O & M activities at town-owned properties.

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:

The Town has identified the locations of facilities that will require a 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: N/A

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

N/A

O&M Procedures for Stormwater Treatment Structures

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

The Town has completed a written SOP for maintenance of stormwater treatment structures.

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:

Attached is data collected by the Buzzards Bay National Estuary Program. Outfalls within the Town of Marion (including outfalls outside the regulated MS4 area) were visited to confirm locations. It was noted if the outfall had flow at the time of inspection.

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 I
- Begin investigations of catchments associated with Problem Outfalls
- Develop or modify an ordinance or other regulatory mechanism for post-construction stormwater runoff from new development and redevelopment
- Establish and implement written procedures to require the submission of as-built drawings no later than two years after the completion of construction projects
- Develop, if not already developed, written operations and maintenance procedures
- Develop 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 necessary
- Establish 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 stormwater
- Enclose or cover storage piles of salt or piles containing salt used for deicing or other purposes
- Develop, if not already developed, written procedures for sweeping streets and municipal-owned lots
- Develop, if not already developed, written procedures for winter road maintenance including storage of salt and sand
- Develop, if not already developed, a schedule for catch basin cleaning
- Develop, if not already developed, a written procedure for stormwater treatment structure maintenance
- Develop a written catchment investigation procedure *(18 months)*

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 in the last 5 years
- 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

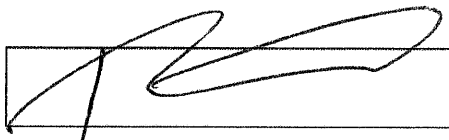
- Review site plans of construction sites as part of the construction stormwater runoff control program
- Conduct site inspection of construction sites as necessary
- Inspect and maintain stormwater treatment structures
- Log catch basins cleaned or inspected
- Sweep all uncurbed streets at least annually

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:	David Willett	Title:	DPW Director
Signature:		Date:	9/30/2019

[Signatory may be a duly authorized representative]

Sanitary Sewer Overflow Inventory

Town of Marion, Massachusetts

Notes: Inventory will contain SSO records for a minimum of the past five years

Upon becoming aware of an SSO to the MS4, provide oral notice to EPA within 24 hours and written notice to EPA and MassDEP within five days

Revision Date: 6/30/2019

Year	Comments	Location	Discharge Statement	Start Date & Time	End Date & Time	Estimated Volume	Description	Mitigation Completed	Mitigation Planned
Reporting Year	Additional notes	Approximate street crossing/address and receiving water, if any	Clear statement of whether the discharge entered a surface water directly or entered the MS4	Date(s) and time(s) of each known SSO occurance (i.e., beginning and end of any known discharge)		Estimated volume of the occurance in Gallons	Description of the occurance indicating known or suspected cause(s)	Mitigation and corrective measures completed with dates implemented	Mitigation and corrective measures planned with implementation schedules
2014	No reported SSOs in 2014	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2015	No reported SSOs in 2015	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2016	No reported SSOs in 2016	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2017	No reported SSOs in 2017. A force main failure occurred on the Silvershell Pumping Station force main as the result of an outside contractor working on Town streets, but no SSOs resulted from this event.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2018	One reported SSO in 2018. Not capacity related.	Opposite #11 Hermitage Road. Fracture was found in woods in an easment bewteen the pump station and Hermitage Road.	Discharged to the ground surface. Did not enter a surface water or MS4 system.	7/13/2018 13:00	7/13/2018 15:00	< 330 gal	Cracked due to roots from a nearby tree and the weight that it endured.	Sewer Department staff repaired the pipe and removed the tree along with surrounding roots to prevent further damage on 7/13/2018. Rinsed outside of pipe and installed a wrap-around band repair clamp, tightened bolts and sealed the fracture.	Nothing planned. DPW recommends evaluation aof other pipes in the Town made of the same material to check for any potential issues.
2019	One reported SSO in 2019.	Opposite #7 Hermitage Road . Hole was in the roadside easement.	Discharged to ground surface. Did not enter a surface water or MS4 system.	4/18/2019 14:35	4/18/2019 15:15	~ 4-5 gal	Outside contractor was working nearby, hit the pipe and caused a break. Water was not under force; pump was not runing at the time. Pipe runs uphill so the water flowed backward under gravity.	DPW was onsite and was able to mitigate on 4/18/2019. The station was shut off immediately to prevent flow, and the water was drained. Referred to SPCC Plan to mitigate the spill. Outside company removed the coupling installed a wrap-arounf brand repair clamp, tightened bolts and sealed the seam.	Nothing planned. DPW recommends properly locating and recording locations of all sewer lines in accordance with new CMOM regulations.

Town of Marion, Massachusetts
Priority Ranking of Outfalls/Interconnections

		Outfall Current Inspection Results						Excluded Outfall Screening		Problem Outfall Screening			High Priority Screening			Discharge Screening Factor Scores									
Outfall or Interconnection ID	Receiving Water	Flow Observed?	Stain	Material	Latitude	Longitude	Structural Condition	Excluded Outfall	Reason for Exclusion	Most Recent Dry Weather Sampling Date	Was Evidence of Sewer Input Found?	Problem Outfall	Receiving Water Impaired for Bacteria?	Discharges to an Area of Concern?	High Priority Outfall	Area of Concern	Poor Receiving Water Quality	Density of Generating Sites	Previous Septic Systems	Existing Septic Systems	Culvereted Streams	Water Quality Limited Waterbodies	Total Score	Outfall Designation
MRIS6DP-60	INNER SIPPICAN HARBOR							No					Yes	No	Yes	0	2	2			2	2	10	High
MRISFRDP-31	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	10	High
MRISFRDP-49	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	10	High
MRISFRDP-55	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	10	High
MRISMADP-21	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	10	High
MRISTADP-01	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	10	High
MRISTADP-05	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	10	High
MRISWADP-01	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	1			0	2	9	High
MRISWADP-07	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	1			0	2	9	High
MROSSSDP-01	SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	1			0	2	9	High
MRISFRDP-27C	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	2			0	2	9	High
MRISFRDP-29	INNER SIPPICAN HARBOR							No					Yes	No	Yes	1	2	2			0	2	9	High
MRISFRDP-46	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	1	2	2			0	2	9	High
MRISFRDP-63	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	1	2	2			0	2	9	High
MRISFRDP-67	INNER SIPPICAN HARBOR							No					Yes	No	Yes	1	2	2			0	2	9	High
MRISSPDP-33	INNER SIPPICAN HARBOR							No					Yes	No	Yes	1	2	2			0	2	9	High
MROSCODP-01	SIPPICAN HARBOR							No					Yes	No	Yes	0	2	2			1	2	9	High
MROSCVDP-01	SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	1			0	2	9	High
MRWEPPDP-01	SIPPICAN RIVER							No					Yes	Yes	Yes	2	2	1			0	2	9	High
MRWERIDP-01	SIPPICAN RIVER							No					Yes	Yes	Yes	2	2	1			0	2	9	High
MRISPRDP-02	HAMMETT COVE							No					Yes	Yes	Yes	2	2	1			0	2	8	High
MRISPRDP-04	HAMMETT COVE							No					Yes	Yes	Yes	2	2	1			0	2	8	High
MRISWADP-08	INNER SIPPICAN HARBOR							No					Yes	No	Yes	1	2	1			0	2	8	High
MRACRKDP-08	AUCOOT CREEK							No					Yes	No	Yes	1	2	1			0	2	8	High
MRISCTDP-01	INNER SIPPICAN HARBOR							No					Yes	No	Yes	0	2	2			0	2	8	High
MRISFRDP-13	INNER SIPPICAN HARBOR							No					Yes	No	Yes	0	2	2			0	2	8	High
MRISFRDP-27A	INNER SIPPICAN HARBOR							No					Yes	No	Yes	1	2	2			0	2	8	High
MRISFRDP-27B	INNER SIPPICAN HARBOR							No					Yes	No	Yes	1	2	2			0	2	8	High
MRISMPDP-02	INNER SIPPICAN HARBOR							No					Yes	No	Yes	0	2	2			0	2	8	High
MRISSPDP-10	INNER SIPPICAN HARBOR							No					Yes	No	Yes	0	2	2			0	2	8	High
MRWEBRDP-01	SIPPICAN RIVER							No					Yes	No	Yes	1	2	1			0	2	8	High
MRWEICDP-06	SIPPICAN RIVER							No					Yes	No	Yes	1	2	1			0	2	8	High
MRWEPWDP-09	SIPPICAN RIVER							No					Yes	No	Yes	1	2	1			0	2	8	High
MRWEWEDP-02	SIPPICAN RIVER							No					Yes	No	Yes	1	2	1			0	2	8	High
MRISDEDP-05	WEWEANTIC RIVER							No					Yes	Yes	Yes	2	2	0			0	2	8	High
MRWEEDDP-02	WEWEANTIC RIVER							No					Yes	Yes	Yes	2	2	0			0	2	8	High
MRIS6DP-93	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISCRDP-01	HAMMETT COVE							No					Yes	No	Yes	1	2	1			0	2	7	High
MRISCRDP-02	HAMMETT COVE							No					Yes	No	Yes	1	2	1			0	2	7	High
MRISPODP-18	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISPODP-21	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISPODP-23	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISWADP-10	INNER SIPPICAN HARBOR							No					Yes	Yes	Yes	2	2	1			0	2	7	High
MRISPODP-09	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISPODP-11	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBLDP-01	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBUDP-01	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBUDP-06	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRACABDP-04	AUCOOT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRACGCDP-01	AUCOOT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRACGCDP-03	AUCOOT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRACRKDP-02	AUCOOT CREEK							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISJEDP-02	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISCUDP-03	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISPODP-07	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBRDP-04	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBUDP-03	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBUDP-05	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEBUDP-20	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWECUDP-04	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWEPODP-01	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRWERVDP-01	SIPPICAN RIVER							No					Yes	No	Yes	0	2	1			0	2	7	High
MRISCEDP-01	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	6	High
MRISPODP-31	HAMMETT COVE							No					Yes	No	Yes	0	2	1			0	2	6	High
MRACOLDP-01	AUCOOT COVE							No					Yes	No	Yes	0	2	1			0	2	6	High
MROSOKDP-02	SIPPICAN HARBOR							No					Yes	No	Yes	0	2	1			0	2	6	High
MRWECNDP-01	WEWEANTIC RIVER							No					Yes	No	Yes	0	2	0			0	2	6	High
MRWESTDP-05	WEWEANTIC RIVER							No					Yes	No	Yes	0	2	0			0	2	6	High
MRWERVDP-02	SIPPICAN RIVER							No					Yes	No	Yes	0	2	0			0	2	6	High
MRISPCDP-01	INNER SIPPICAN HARBOR							No					Yes	No	Yes	0	2	1			0	2	5	High
MRISJODP-01	WINGS COVE							No					No	Yes	Yes	2	0	1			0	0	5	High
MRWCJODP-03	WINGS COVE							No					No	Yes	Yes	2	0	1			0	0	5	High
MRWCJODP-08	WINGS COVE							No					No	Yes	Yes	2	0	1			0	0	5	High
MRWCJODP-10	WINGS COVE							No					No	Yes	Yes	2	0	1			0	0	5	High
MRWCJNDP-05	WINGS COVE							No					No	Yes	Yes	2	0	1			0	0	3	High
MRISDEDP-01	WINGS COVE							No					No	No	No	0	0	1			0	0	3	Low

Town of Marion, Massachusetts
Priority Ranking of Outfalls/Interconnections

		Outfall General Inspection Results						Excluded Outfall Screening		Problem Outfall Screening			High Priority Screening			Discharge Screening Factor Scores									
Outfall or Interconnection ID	Receiving Water	Size (inches)	Shape	Material	Latitude	Longitude	Physical Condition	Excluded Outfall	Reason for Exclusion	Most Recent Dry Weather Sampling Date	Was Evidence of Sewer Input Found?	Problem Outfall	Receiving Water Impaired for Bacteria?	Discharges to an Area of Concern?	High Priority Outfall	Area of Concern	Poor Receiving Water Quality	Density of Generating Sites	Previous Septic Systems	Existing Septic Systems	Culvereted Streams	Water Quality Limited Waterbodies	Total Score	Outfall Designation
MRISPODP-10	SIPPICAN RIVER							Yes	roadway drainage only, contains no sewer pipes nor dwellings															
MRISPODP-02	SIPPICAN RIVER							Yes	roadway drainage only, contains no sewer pipes nor dwellings															
MRWE6DP-110	WEWEANTIC RIVER							Yes	roadway drainage only, contains no sewer pipes nor dwellings															
MRWECUDP-05	SIPPICAN RIVER							Yes	roadway drainage only, contains no sewer pipes nor dwellings															

Town of Marion
Monitoring Report - June 30 2019

Buzzards Bay National Estuary Program Inspection Results

Notes:
Data presented below was collected in the process for confirming pipe location
Outfalls/Interconnections listed below are for the entire Town of Marion, including locations outside of the regulated MS4 area

VisitDate	FacilityID	VisitTime	Weather	Comments	Discharges Facility ID	Flow	Town	Collectors
11/19/2018	NSR1109PI	11:00:00 AM		no flow	NSR1109PI	No	Marion	bt,kb
11/19/2018	NSR1110PI	11:00:00 AM		no flow	NSR1110PI	No	Marion	bt,kb
11/19/2018	NSH1045PI	12:00:00 PM		no flow	NSH1045PI	No	Marion	bt,kb
11/19/2018	NSH1036PI	12:00:00 PM		no flow	NSH1036PI	No	Marion	bt,kb
11/19/2018	NSH1109PI	12:00:00 PM		no flow	NSH1109PI	No	Marion	bt,kb
11/19/2018	NSH1110PI	12:00:00 PM		no flow	NSH1110PI	No	Marion	bt,kb
11/19/2018	NSH1065RC	1:30:00 PM		no flow	NSH1065RC	No	Marion	bt,kb
11/19/2018	NSH1066RC	1:30:00 PM		no flow	NSH1066RC	No	Marion	bt,kb
5/30/2019	NSR1122PI	9:00:00 AM		no flow	NSR1122PI	No	Marion	sr,mf
5/30/2019	NSR1119PI	9:10:00 AM		no flow	NSR1119PI	No	Marion	sr,mf
5/30/2019	NSR1117PI	9:21:00 AM		Small flow	NSR1117PI	Yes	Marion	sr,mf
5/30/2019	AWE1002PI	9:57:00 AM		Flow, may be tidal, only accesable at low tide	AWE1002PI	Yes	Marion	sr,mf
5/30/2019	AWE1001PI	10:07:00 AM		no flow	AWE1001PI	No	Marion	sr,mf
5/30/2019	NSH1078PI	10:27:00 AM		Small flow, may be tidal, pipe not visible	NSH1078PI	Yes	Marion	sr,mf
6/3/2019	NSR1109PI	9:35:00 AM		no flow	NSR1109PI	No	Marion	sr,mf
6/3/2019	NSH1039RC	10:05:00 AM		no flow	NSH1039RC	No	Marion	sr,mf
6/3/2019	NSH1036RC	10:08:00 AM		no flow	NSH1036RC	No	Marion	sr,mf
6/3/2019	NSH1061RC	10:15:00 AM		no flow	NSH1061RC	No	Marion	sr,mf
6/3/2019	NSH1062RC	10:15:00 AM		no flow	NSH1062RC	No	Marion	sr,mf
6/3/2019	NSH1064RC	10:15:00 AM		no flow	NSH1064RC	No	Marion	sr,mf
6/3/2019	NSH1063RC	10:15:00 AM		no flow	NSH1063RC	No	Marion	sr,mf
6/3/2019	NSH1040RC	10:15:00 AM		no flow	NSH1040RC	No	Marion	sr,mf
6/3/2019	NSH1042RC	10:19:00 AM		no flow	NSH1042RC	No	Marion	sr,mf
6/3/2019	NSH1113PI	10:40:00 AM		no flow	NSH1113PI	No	Marion	sr,mf
6/3/2019	NSH1096PI	10:43:00 AM		no flow	NSH1096PI	No	Marion	sr,mf
6/3/2019	NSH1112PI	10:50:00 AM		no flow	NSH1112PI	No	Marion	sr,mf
6/3/2019	NSH1078PI	10:55:00 AM		no flow	NSH1078PI	No	Marion	sr,mf
6/5/2019	NSH1090PI	8:30:00 AM		no flow	NSH1090PI	No	Marion	sr,mf
6/5/2019	AWE1004PI	9:00:00 AM		no flow	AWE1004PI	No	Marion	sr,mf
6/5/2019	NSH1066RC	9:13:00 AM		no flow	NSH1066RC	No	Marion	sr,mf
6/5/2019	NSH1065RC	9:15:00 AM		no flow	NSH1065RC	No	Marion	sr,mf
6/5/2019	NSH1054PI	9:40:00 AM		no flow	NSH1054PI	No	Marion	sr,mf
6/5/2019	NSH1055PI	9:52:00 AM		no flow	NSH1055PI	No	Marion	sr,mf
6/5/2019	NSH1027PI	10:07:00 AM		no flow	NSH1027PI	No	Marion	sr,mf
6/5/2019	NSH1036PI	10:15:00 AM		no flow	NSH1036PI	No	Marion	sr,mf
6/6/2019	NSH1045PI	10:25:00 AM		no flow	NSH1045PI	No	Marion	sr,mf,mh
6/6/2019	NSH1044PI	10:30:00 AM		no flow	NSH1044PI	No	Marion	sr,mf,mh
6/10/2019	NSH1035PI	9:18:00 AM		no flow	NSH1035PI	No	Marion	sr,mf
6/10/2019	NSH1062PI	9:45:00 AM		no flow	NSH1062PI	No	Marion	sr,mf
6/10/2019	NSH1060PI	9:58:00 AM		no flow	NSH1060PI	No	Marion	sr,mf
6/10/2019	NSH1064PI	10:03:00 AM		no flow	NSH1064PI	No	Marion	sr,mf
6/10/2019	NSH1056PI	10:07:00 AM		no flow	NA	No	Marion	sr,mf
6/10/2019	NSH1058PI	10:10:00 AM		no flow	NSH1058PI	No	Marion	sr,mf
6/10/2019	NSH1036PI	10:16:00 AM		no flow	NSH1036PI	No	Marion	sr,mf
6/10/2019	NSH1066PI	10:31:00 AM		no flow	NSH1066PI	No	Marion	sr,mf

Town of Marion, MA	
SOP 10 Catch Basin Inspection and Cleaning Revised August 27, 2015	
Purpose:	Catch basins help minimize flooding and protect water quality by removing trash, sediment, decaying debris, and other solids from stormwater runoff. These materials are retained in a sump below the invert of the outlet pipe. Catch basin cleaning reduces foul odors, prevents clogs in the storm drain system, and reduces the loading of suspended solids, nutrients, and bacteria to receiving waters. This SOP addresses Best Management Practices for inspecting and cleaning waste from catch basins. All personnel that schedule, inspect, or clean catch basins should read and understand this SOP.

Summary of the Method

Use best management practices to keep catch basins clean of debris.

Acronyms

DEP	*Department of Environmental Protection*
DPW	*Department of Public Works*
EPA	*Environmental Protection Agency*
PPE	*Personal Protection Equipment*
QA/QC	*Quality Assurance/Quality Control*
SOP	*Standard Operating Procedure*

Health and Safety Warnings and Cautions

All proper Personal Protection Equipment (PPE) will be worn and all Safety Procedures will be followed. Deviating from this SOP could result in pollution entering the stormwater system. To use the following procedures, you must be able to recognize the possibility of extraordinary conditions and be ready to modify the procedures to prevent equipment damages or process upset and ensure personal safety. You should be well trained in the safety risks associated with the procedures outlined in this SOP. Whenever in doubt as to the appropriateness of any procedure, consult your supervisor.

Equipment and Supplies

The following equipment may be used in the implementation of this SOP. Before performing the procedural steps, review the list and determine the appropriate equipment and supplies for the specific tasks.

- Proper PPE (Rubber gloves, protective eyewear, steel toed boots, etc.)

Procedural Steps

1. General

a. Keep a log of catch basins cleaned or inspected annually.
b. Document the total number of catch basins inspected, total number of catch basins cleaned, and the total volume or mass of material removed from all catch basin.

2. Schedule and Frequency

a. Create an inspection and cleaning schedule, with a goal that the frequency of routine cleaning will ensure that no catch basin at any time will be more than 50 percent full.
   i. Prioritize inspection and maintenance activities for catch basins located near impaired waters and construction activities (i.e. roadway construction, residential, commercial, or industrial development or redevelopment).
   ii. Clean catch basins in such areas more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings (i.e., >50% full)
b. If a catch basin sump is more than 50% full during two consecutive routine inspections/cleaning events:
   i. Investigate the contributing drainage area for sources of excessive sediment loading
   ii. Reduce sediment from contributing sources to the maximum extent possible
   iii. Increase the frequency of cleaning
c. Document the number of catch basins with sumps more than 50% full and any abatement actions.

3. Inspection

a. Start an inspection on the catch basin.
   i. Document whether a catch basin sump is more than 50 percent full at the time of cleaning.
      1. A catch basin sump is more than 50% full if the contents within the sump exceed one half the distance between the bottom interior of the catch basin to the invert of the deepest outlet of the catch basin.
   ii. Document the volume and/or mass of the material removed from the structure.
   iii. Document remaining Inspection Form items.

4. Cleaning

a. Where possible, work upstream to downstream if catch basins are tributary to the same system.
b. Clean sediment and trash off grate and/or inlet (if one exists)
c. Determine the most appropriate equipment and method for cleaning each catch basin.
   i. Use a high-pressure washer to clean material out of catch basin while capturing the slurry with a vacuum.
   ii. If necessary, after the catch basin is clean, use the jetter of the vacuum truck to clean downstream pipe and pull back sediment that might have entered downstream pipe.

d. Following cleaning of catch basin, uses paint to "mark" the basin with a "dot". Rotate the color of the paint annually. (for example: green is used in Year 1, red is used in Year 2, yellow is used in Year 3, etc.)

5. Disposal of Screening

a. Dispose of catch basin cleanings in accordance with DEP policies, including 310 CMR 19.000: Solid Waste Management Facility Regulations http://www.mass.gov/eea/agencies/massdep/recycle/regulations/management-of-catch-basin-cleanings.html

Attachments / Checklists

1. Catch Basin Inspection Form

Catch Basin Inspection Form **Bold = Required Information**		Date:		Time:
		Crew Members:		
		Catch Basin ID:		
Street Address:				
Catch Basin Type:	☐ Catch Basin with Sump	☐ Drop Inlet	☐ Gutter Inlet (No Sump)	☐ Bradley Head
Depth of Sump (ft):		Depth of Sediment Observed (ft):		
Is Catch Basin Sump more than 50% Full?:		☐ **Yes**	☐ **No**	
Volume of Material Removed (cy):				
Mass of Material Removed (lbs):				
Catch Basin Condition:		☐ Good ☐ Fair	☐ Poor ☐ Crumbling	
Required Maintenance:		☐ Cannot Remove Cover ☐ Tree Work ☐ New Grate ☐ Pipe Maintenance	☐ Frame Maintenance ☐ Corrosion ☐ Erosion	
Illicit Discharge Observations				
Are there signs of illicit (sewage) connections to the catch basin? If yes, answer remaining questions.		☐Yes	☐ No	
Weather Conditions[1]:		☐ Dry	☐ Wet	
Description of Flow, if present:		☐ Heavy ☐ Moderate ☐ Slight ☐ Trickling	☐ No Flow (Dry) ☐ Standing Water ☐ Submerged Pipe	
Odor		☐ Yes: _____	☐ No	
Color		☐ Yes: _____	☐ No (Clear)	
Visual Observations:		☐ Foam ☐ Sanitary Waste ☐ Orange Staining ☐ Excessive Sediment	☐ Oil Sheen ☐ Floatables ☐ Pet Waste ☐ Other: _____	
Comments:				
Last Previous Inspection (FOR OFFICE USE ONLY)				
Date:		Depth of Sediment (inches):		
Excessive Sediment[2] Investigation Needed:		☐ Yes	☐ No	

Notes:

(1) Dry weather is defined as <0.1-inches of rain within a 24-hour period of time .

(2) An *Excessive Sediment Investigation* is needed if a catch basin is more than 50 percent full during two consecutive routine inspections/cleaning events.

Nitrogen Removal by BMP
Marion, MA

Note: Calculations performed in accordance with Attachment 1 to Appendix H of the MS4 Permit

Location	BMP Type	Total Area Treated (ac)	Design Storage Volume of BMP (ac-ft)	Estimated Nitrogen Removed (lbs/yr)
Sprague's Cove	Constructed Wetland	32.4	0.94	53.31
Island Wharf	Bioretention	20.1	0.13	20.40
South Street Treatment Unit	Propriety Structure - calcs not required per appendix H			
Old Landing Treatment Unit	Propriety Structure - calcs not required per appendix H			

Town of Marion, MA

SOP 9: Street Sweeping

Revised August 27, 2019

Purpose:	Street sweeping gives the Town an overall clean appearance and prevents pollutants such as sediment particles, organics, oil, grease, trash, road salt, and trace metals from entering and/or plugging the stormwater system. This SOP addresses Best Management Practices for scheduling, operating, and disposing of waste from street sweeping activities. All personnel that schedule or operate street sweeping equipment on both roadways and Town-owned parking lots should read and understand this SOP.

Summary of the Method

Use best management practices to keep Town streets and parking lots clean of debris and particulates through street sweeping.

Acronyms

BMP	*Best Management Practice*
DEP	*Department of Environmental Protection*
DPW	*Department of Public Works*
EPA	*Environmental Protection Agency*
PPE	*Personal Protection Equipment*
QA/QC	*Quality Assurance/Quality Control*
SOP	*Standard Operating Procedure*

Health and Safety Warnings and Cautions

All proper Personal Protection Equipment (PPE) will be worn and all Safety Procedures will be followed. Deviating from this SOP could result in pollution entering the stormwater system. To use the following procedures, you must be able to recognize the possibility of extraordinary conditions and be ready to modify the procedures to prevent equipment damages or process upset and ensure personal safety. You should be well trained in the safety risks associated with the procedures outlined in this SOP. Whenever in doubt as to the appropriateness of any procedure, consult your supervisor.

Equipment and Supplies

The following equipment may be used in the implementation of this SOP. Before performing the procedural steps, review the list and determine the appropriate equipment and supplies for the specific tasks.

- Proper PPE (Rubber gloves, protective eyewear, steel toed boots, etc.)
- Street sweeper manufacturer's instructions, and operating manual or video

Procedural Steps

1. General

a. Street sweeping is to be performed on all streets and Town-owned parking lots.
b. All streets shall be swept a minimum of once per year in the spring following winter activities such as sanding. However, the following exceptions apply:
    i. Rural, uncurbed roads with no catch basins and limited access highways may be swept less than once per year. If they are swept less than once a year, an individualized inspection, documentation and targeted sweeping plan must be in place.
    ii. Areas that discharge to water quality limited waterbodies and their tributaries where nitrogen or phosphorus is the cause of the impairment. These streets and parking lots must be swept a minimum of two times per year, once in the spring (following winter activities such as sanding) and at least once in the fall (Sept 1 – Dec 1; following leaf fall).
    iii. More frequent sweeping may be warranted based on inspections, pollutant loads, catch basin cleaning or inspection results, land use, water quality limited or TMDL water, or other relevant factors.
    iv. Additional sweeping may also be warranted before and after outdoor special events or for aesthetics.
c. Contracted or hired sweeping companies must comply to the standards and mandates set by National Pollution Discharge Elimination System (NPDES) permits. Include language to this effect in any contract.

2. Operation

a. Operate and maintain all sweepers according to the manufacturer's recommended procedures and schedule.
b. Before starting out, make sure brushes and water spray hoses are functional and the equipment is not leaking. Follow the procedures in SOP 7: Spill Response if a leak is detected.
c. Do no conduct street sweeping during or immediately after wet weather.
d. Start at the "top" (upstream end of the sewer system and furthest from receiving waters) and work down.
e. Do not wash down any streets or parking lots. Fine water spray for dust control is acceptable, but should use as little water as possible.
f. Never purposely sweep into the stormwater or combined sewer system.

3. Disposal of Street Sweepings

a. Disposal of debris should be done on a regular basis and debris should not be allowed to accumulate.
b. Ensure that debris from sweeper hoppers is collected and taken to a temporary storage area or directly to its permanent disposal site.

c. All management of materials must comply with current Department of Environmental Protection (DEP) policies, including Policy #DWP-94-092: Reuse & Disposal of Street Sweepings.

4. Cleaning the Sweeper

a. Clean out solid debris and store in an impervious area or in a temporary disposal area such as a truck or dumpster.
b. Scrape out left over debris from the hopper after the last dump of the day. Dispose of waste in trash/dumpster or temporary storage area.
c. Follow the procedures in **SOP 8: Vehicle and Equipment Storage, Operations, and Washing** for inspecting and cleaning the vehicle and equipment.

Attachments / Checklists

1. Street Sweeping Tracking Form

Street Sweeping Tracking Form	Driver:
	Date:

Street	From (Cross Street)	To (Cross Street)	No. of Curb Miles Swept	Volume of Material Removed (CY)

General Notes:

Notes:

(1) All streets shall be swept a minimum of once per year in the spring following winter activities such as sanding.

(2) Streets and parking lots in areas that discharge to water quality limited waterbodies and their tributaries where nitrogen or phosphorus is the cause of the impairment must be swept a minimum of two times per year, once in the Spring (following winter activities) and at least once in the fall (Sept. 1-Dec. 1; following leaf fall).

(3) More frequent sweeping may be warranted based on inspections, pollutant loads, catch basin cleaning or inspection results, land use, water quality or TMDL water, or other relevant factors.

(4) Do not conduct street sweeping during or immediately after wet weather.

(5) All management of disposal materials must comply with current DEP policies, including Policy #DWP-94-092: Reuse & Disposal of Street Sweepings.