

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 Eastham

EPA NPDES Permit Number: MAR041110

Primary MS4 Program Manager Contact Information

Name: Silvio Genao Title: Superintendent of Public Works

Street Address Line 1: 555 Old Orchard Road

Street Address Line 2:

City: Eastham State: MA Zip Code: 02642

Email: dpwdir@eastham-ma.gov Phone Number: (508) 240-5973

Fax Number: (774) 801-3951

Stormwater Management Program (SWMP) Information

SWMP Location (web address): https://www.eastham-ma.gov/sites/easthamma/files/uploads/eastham_swmp_2019_-_for_comment.pdf

Date SWMP was Last Updated: June 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:

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)*

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

Annual Requirements

*Public Education and Outreach**

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

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

Good Housekeeping and Pollution Prevention for Permittee Owned Operations

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

Potential structural BMPs

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

The Town of Eastham currently has zoning bylaws that address collection and disposal of stormwater runoff, providing design standards and encouraging the use of BMPs. The Town has also drafted and reviewed a comprehensive IDDE ordinance and it is working on placing it on the next Town Meeting's warrant (attached to email submission). In preparation for this, the Town of Eastham has had multiple review sessions with an environmental consultant to review the IDDE program. The Town of Eastham also hosted a series of talks from environmental experts in regards to protecting our ponds from pollution, which included best management practices to diminish the impact of nitrogen and phosphorous, but we are committed to creating handouts to hand out seasonally with information on the required topics.

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 the reporting period: 9

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:Brochures/Pamphlets

Message Description and Distribution Method:

Brochure with Q&A, Stormwater related language and Best Management Practices targeted to all audiences identified in the permit that are present in the municipality. Handed out a yearly parade event flyer and has been placed at reception counters in buildings throughout the municipality.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Printing discrete amount of brochures, replenishing as they run out.

Message Date(s): Has been available since 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:Brochures/Pamphlets

Message Description and Distribution Method:

Brochure with Q&A, Stormwater related language and Best Management Practices targeted to all audiences identified in the permit that are present in the municipality. Handed out a yearly parade event and has been placed at reception counters in buildings throughout the municipality.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Printing discrete amount of brochures, replenishing as they run out.

Message Date(s): Has been available since 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:Brochures/Pamphlets

Message Description and Distribution Method:

Brochure with Q&A, Stormwater related language and Best Management Practices targeted to all audiences identified in the permit that are present in the municipality. Handed out a yearly parade event and has been placed at reception counters in buildings throughout the municipality

Targeted Audience: Developers (construction)

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Printing discrete amount of brochures, replenishing as they run out.

Message Date(s): Has been available since 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:Brochures/Pamphlets

Message Description and Distribution Method:

Brochure with Q&A, Stormwater related language and Best Management Practices targeted to all audiences identified in the permit that are present in the municipality. Handed out a yearly parade event and has been placed at reception counters in buildings throughout the municipality

Targeted Audience: Industrial facilities

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Printing discrete amount of brochures, replenishing as they run out.

Message Date(s): Has been available since 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:MS4 Website

Message Description and Distribution Method:

Provided background, program information, related documentation, objectives & activities for the NPDES Permit , and documentation of what the public could do to help move forward the objectives of the permit.

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Tracking the amount of views the page gets and monitoring that number to improve visibility as necessary.

Message Date(s): Website has been continually live since April 10, 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:MS4 Website

Message Description and Distribution Method:

Provided background, program information, related documentation, objectives & activities for the NPDES Permit , and documentation of what the public could do to help move forward the objectives of the permit.

Targeted Audience: Businesses, institutions and commercial facilities

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Tracking the amount of views the page gets and monitoring that number to improve visibility as necessary.

Message Date(s): Website has been continually live since April 10, 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:MS4 Website

Message Description and Distribution Method:

Provided background, program information, related documentation, objectives & activities for the NPDES Permit , and documentation of what the public could do to help move forward the objectives of the permit.

Targeted Audience: Developers (construction)

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Tracking the amount of views the page gets and monitoring that number to improve visibility as necessary

Message Date(s): Website has been continually live since April 10, 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:MS4 Website

Message Description and Distribution Method:

Provided background, program information, related documentation, objectives & activities for the NPDES Permit , and documentation of what the public could do to help move forward the objectives of the permit.

Targeted Audience: Industrial facilities

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

Tracking the amount of views the page gets and monitoring that number to improve visibility as necessary

Message Date(s): Website has been continually live since April 10, 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:Stormwater Pollution is trash, oil, cigarette butts & dog waste

Message Description and Distribution Method:

Think Blue Massachusetts "Fowl Water" video (<https://www.thinkbluemassachusetts.org/>)
Advertisement on Facebook, Instagram, & YouTube

Targeted Audience: Residents

Responsible Department/Parties: DPW Operations

Measurable Goal(s):

4,502 social media impressions from residents of Eastham

Message Date(s): June 23, 2019 - June 30, 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:

To try to reach a broader and more diverse group and expand our messaging

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:

Hard copies were placed at the entrances of both Town Hall and the Public Library, and a digital copy on the Town's website, for review by the public since June 18, 2019. Encouraged the public to submit comments to the DPW's email address.

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:

Our municipality participated in the Massachusetts Statewide Municipal Stormwater Coalition (Statewide

Coalition). The Statewide Coalition presented on the Think Blue Massachusetts public awareness campaign and regional collaboration on stormwater at the following public events:

- Metrowest/495 Partnership (October 4, 2018)
- MetroWest Stormwater Roundtable hosted by MetroWest Regional Collaborative (MWRC) of the Metropolitan Area Planning Council (MAPC) (November 20, 2018)
- Massachusetts Municipal Association (MMA) Meeting & Trade Show (Jan 18-19 2019)
- New England Water Environment Association Annual Conference (Jan 28 2019)
- Massachusetts Association of Conservation Commissions Annual Conference (March 2, 2019)
- Massachusetts Congress of Lake and Pond Associations Annual Workshop (April 12, 2019)
- New England American Public Works Association Spring Conference (April 17, 2019)
- Ecotarium Earth Day activities (April 16 – 19, 2019)
- New England Water Environment Association Spring Meeting (June 4, 2019)

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:

Number of SSOs removed:

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:

Total number of SSOs removed:

MS4 System Mapping

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

Entirety of the Town is mapped. The latest update to the map was on July, 2019.

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:

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

As of June 2019, the Town of Eastham does not have a municipal sewer system. The Town has completed an inventory of SSOs that have discharged to the MS4 within the five (5) years prior to the effective date of the 2016 MS4 Permit, based on review of available documentation pertaining to SSOs, and concluded that there has not been any known SSOs from septic systems in that period. See attached table (Appendix G).

Employee Training

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

The Town of Eastham meets annually with its environmental consultant to discuss the IDDE program and stormwater management.

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:

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:

Currently working with a consultant to complete a DRAFT comprehensive ordinance. Expect to have in place in time before the end of year 2. Eastham Zoning By-Law Section V.I.G.7 already requires conformance with 310 CMR, the MA Stormwater Management Handbook, and to attain 80% SS removal as well as 44% of SS removal before prior to discharge to infiltration system. Section XIII requires design to meet the 25-year storm.

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:

Planning Board subdivision regulations Section 2.4.4.6 requires developers to provide a performance bond to secure performance with the regulations in the construction of ways and municipal services (drainage). Section 4.4.2 and 4.4.3 require drainage to be built per the Design Standards of the regulations and that As-Built plans are submitted before the release of the bond.

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:

Currently working with a consultant to complete an assessment and determine available improvement strategies based on the findings. Expect to have in place in time before the end of 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:

Internal staff discussions to determine the feasibility of green infrastructure practices when available.

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:

Currently working with a consultant to complete an assessment and determine available improvement strategies based on the findings. Expect to have in place in time before the end of year 4.

MCM6: Good Housekeeping

Catch Basin Cleaning

Describe the status of the catch basin cleaning optimization plan:

Complete

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:

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, if known.

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:

If sump is more than 50% at the time of cleaning, the Town of Eastham will prioritize cleaning of that structure during future cleaning events

Street Sweeping

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

The Town of Eastham owns a street sweeper and dedicates a staff person to sweep the roads and parking lots full time beginning in the Spring and continuing until the Winter season. The written procedure document is in draft mode and will be completed before the end of year 2

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

- ☒ Number of miles cleaned:
- ☐ Volume of material removed:
- ☐ Weight of material removed:

If applicable:

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

Most of Eastham's public ways fall under this category so they are continually monitored and swept in accordance with the plan described above

Winter Road Maintenance

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

Education on the use of environmentally friendly deicing materials and practices were provided to DPW staff earlier in the year. Equipment and operations are currently being updated to account for the change, including the written procedures for road maintenance. A draft has been completed and based on the results of this upcoming winter season, changes may be made to the plan next year. Existing deicing material storage practices are acceptable with current standard.

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:

Currently working with a consultant to complete an assessment and determine available improvement strategies based on the findings. Expect to have in place in time before the end of year 2.

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:

Currently working with a consultant to complete an assessment and determine available improvement strategies based on the findings. Expect to have in place in time before the end of year 2.

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:

Currently working with a consultant to complete an assessment and determine available improvement strategies based on the findings. Expect to have in place in time before the end of year 2.

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:

O&M Procedures for Stormwater Treatment Structures

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

Complete

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:

A Stormwater Treatment Structure Report was developed by The Town of Eastham's consultant. The report determined that the Town's roster of BMPs includes only a total of 13, 12 of which are just standard structural BMPs (Deep Sump Catch Basins or Conventional Leaching Structures).

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:

SILVIO GENAO

Title:

DPW SUPERINTENDENT

Signature:



Date:

9/27/2019

[Signatory may be a duly authorized representative]

APPENDIX G
SSO INVENTORY

Sanitary Sewer Overflow (SSO) Inventory Eastham, MA									
Location	Discharge Location	Is Discharge Entering MS4? (Y/N)	Date/Time of SSO Occurrence	Estimated Volume of SSO Occurrence	Known/Suspected Cause	Mitigation Measures Completed	Mitigation Implementation Date	Mitigation Measures Planned	Mitigation Implementation Schedule
1 Example Rd	Enters into Example Pond	Yes	August 4, 2016 9:00 AM - August 5, 2016 3:00 PM	1,200 gallons	Illicit resident connection	Illicit connection removed	August 8, 2016		

*The SSO occurrence listed above is an example

Appendix C

Catchment Delineation Mapping and Ranking Matrix

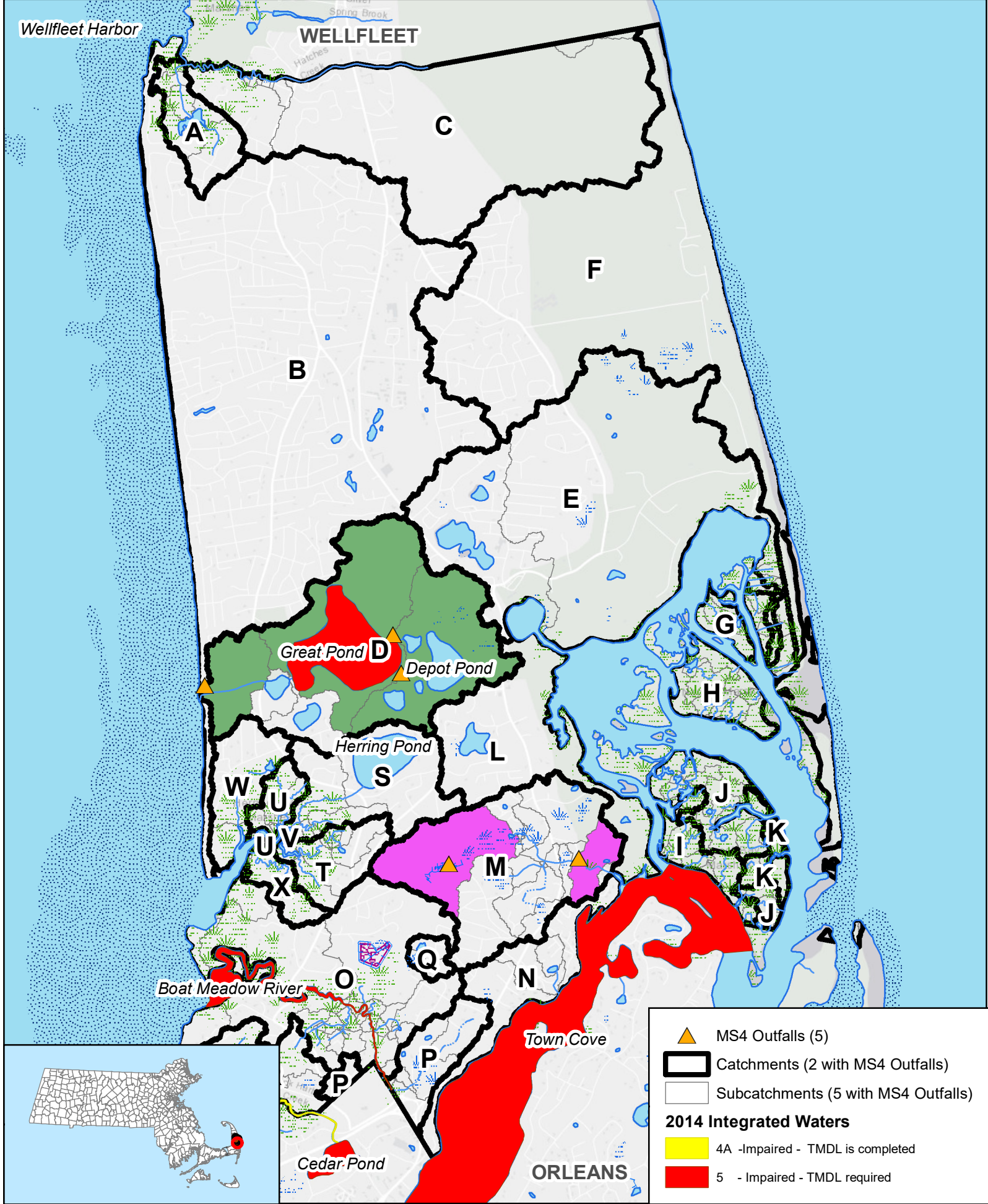


Stormwater Catchment Delineation
Eastham, Massachusetts

				Catchment Scores							Outfall Scores							
Catchment ID	Subcatchment ID	Receiving Water	Outfall ID	Density of Generating Sites	Age of Development/ Infrastructure	Historic Combined Sewers or Septic?	Aging Septic?	Receiving Water Quality	Culverted Streams?	Discharging to Area of Concern to Public Health? (Catchment)	Previous Screening Results Indicate Likely Sewer Input?	Frequency of Past Discharge Complaints	Discharging to Area of Concern to Public Health? (Outfall)	Outfall Sampled	Outfall Score	Catchment Score	Outfall Ranking	Catchment Ranking
Information Source				Land Use/GIS Maps, Aerial Photography, Google Earth	Land Use Information, Town Input	Town Input, GIS Maps	Parcel Age	Impaired Waters List	GIS and Storm System Maps	GIS Maps, Town Input	Outfall inspections and sample results	Town Input	GIS Maps, Town Input	Sampling Results				
Scoring Criteria				High = 2 Medium = 1 Low = 0	Older = 2 Medium = 1 Newer = 0	Yes = 2 No Data = 1 No = 0	Older = 2 Medium = 1 Newer = 0	Category 4a = 2 Category 5 = 1 Others = 0	Yes = 2 No Data = 1 No = 0	Yes = 2 No Data = 1 No = 0	Yes = 2 No Data = 1 No = 0	Frequent = 2 Occasional = 1 None = 0	Yes = 2 No Data = 1 No = 0	Yes No Dry				
D	17	Great Pond	1	0	0	0	2	3	1	2	1	0	2	No	3	8	High	High
D	18	Great Pond	2	0	0	0	2	3	1	2	1	0	2	No	3	8	High	High
D	20	Herring Brook	3	0	0	0	2	1	1	2	1	0	0	No	1	6	Low	High
M	108	Unnamed Wetlands to Town Cove	4	0	0	0	2	3	1	0	1	0	0	No	1	6	Low	Low
M	110	Unnamed Wetlands to Town Cove	5	0	0	0	2	3	1	0	1	0	0	No	1	6	Low	Low

Note: Outfall IDs were populated in GIS by EP



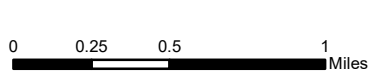
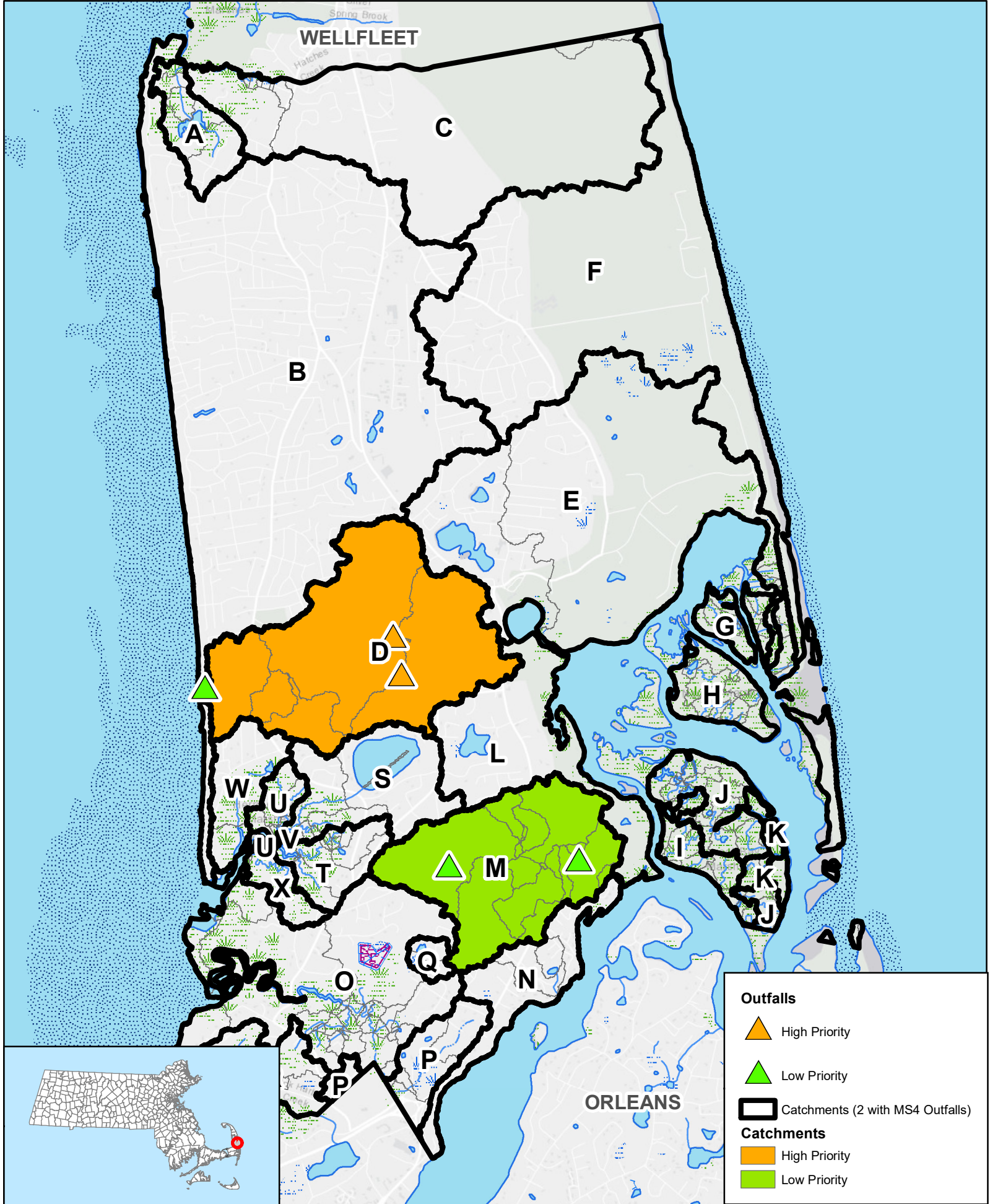


0 0.25 0.5 1 Miles



Stormwater Catchment Delineation Eastham, Massachusetts





Catchment Priority Map
Eastham, Massachusetts





TOWN OF EASTHAM

2500 State Highway, Eastham, MA 02642 - 2544

All departments 508 240-5900 Fax 508 240-1291

www.eastham-ma.gov

CATCH BASIN CLEANING OPTIMIZATION PLAN

This Catch Basin Cleaning Optimization Plan has been prepared by the Town of Eastham Department of Public Works as a dynamic document that will continue to be updated year-by-year as procedures become more advance and equipment available to our staff.

The main goal of this document is to address the catch basin inspection, cleaning and maintenance requirements of the United States Environmental Protection Agency's (USEPA's) 2016 National Pollutant Discharge Elimination System (NPDES) General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MS4) in Massachusetts, hereafter referred to as the "2016 MS4 Permit."

The 2016 MS4 Permit requires the permittee to document its plan for optimizing catch basin cleaning, inspections, or its schedule for gathering information to develop the optimization plan. This plan documents the Town's existing catch basin cleaning program and its plans for gathering additional information to refine its program to meet the requirements of the permit.

1. Existing Plan and Schedule

The Town of Eastham has approximately 836 catch basins town-wide, though many of these are leaching basins or otherwise small, disconnected systems that do not discharge to waterbodies of the United States. The Department of Public Works (DPW) usually starts catch basin cleaning activities as soon as weather allows in April (early spring) when it is safe to end Snow & Ice operations and begin Spring Cleanup operations.

The Town cleaned approximately 25% of the basins within its limits from April-June of 2019 using a town-owned street sweeper truck with a vacuum attachment, but in the past Eastham has also outsourced this work to a vendor.

A written binder, in conjunction with the Town's Stormwater Infrastructure Map, is used to document which structures have been cleaned and load counts are used to determine the amount of material discarded. The basins cleaning spoils are disposed of at the Town of Eastham DPW's site at 555 Old Orchard Road.



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CATCH BASIN CLEANING OPTIMIZATION PLAN

2. Optimization Plan

During Year 2, the Town of Eastham will evaluate the feasibility of expanding its cleaning operations to clean more basins annually with the addition of a vendor, so that in-house operations can focus on the “trouble spots” that require more attention, as well as areas of importance to the MS4 Permit (i.e. areas located near construction activities).

In the meantime, the Town will continue to implement its existing catch basin cleaning schedule that usually starts during the month of April (as soon as the weather allows and after Snow & Ice Operations completed) and continue until the end of Fall (and when Snow & Ice Operations begin again). During this time, it will collect data on the sump depth and sediment depth in each catch basin.

3. Standard Operating Procedure

A catch basin inspection form, currently being developed in conjunction with the Town’s Environmental Consultants (a draft form is part of this document), will be used for the time being while the Town looks into the possibility of leveraging its GIS-based Stormwater Map to track the cleaning work.

The Town of Eastham is developing a Capital Improvements Plan to upgrade its infrastructure so that it is more in line with the Massachusetts Stormwater Handbook. This will involve eliminating leaching basin systems and replacing them with deep sump catch basins piped to conventional leaching systems, as well as adding treatment BMPs where feasible and practical.

The plan will prioritize known “trouble spots”, structures in heavy traffic areas (main roads), structures near environmentally-sensitive areas (wetlands, marshes, ponds, beach parking lots, etc.) those catch basins reported by staff to constantly be at 50% or more full when cleaning.



**TOWN OF EASTHAM
CATCH BASIN CLEANING
FIELD INSPECTION FORM**

Inspection Information

Catch Basin ID (from Map):	
Street Name:	
Inspected By:	
Date/Time of Inspection:	
Weather Conditions:	<input type="radio"/> Dry <input type="radio"/> Rain <input type="radio"/> Other _____

Catch Basin Information

Casting Condition:	<input type="radio"/> Good <input type="radio"/> Damaged <input type="radio"/> Needs Replacement
Structure Material:	<input type="radio"/> Precast <input type="radio"/> Block <input type="radio"/> Other _____
Structure Condition	<input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Needs Replacement

Sediment Depth and IDDE (inches)

A. CB Cleaned?	<input type="radio"/> Yes <input type="radio"/> No
B. Depth from Top of: <input type="radio"/> Rim <input type="radio"/> Brick <input type="radio"/> Casting to Sediment:	
C. Depth from <input type="radio"/> Rim <input type="radio"/> Brick <input type="radio"/> Casting to Bottom of Structure:	
D. Depth of Sump:	
E. Calculated Depth of Sediment Present:	
F. Basin more than 50% full of Sediment?	<input type="radio"/> Yes <input type="radio"/> No
G. Grate Covered with Leaves?	<input type="radio"/> Yes <input type="radio"/> No
H. Illegal Connection Discovered (Sump Pump, Sewer Pipe)?	<input type="radio"/> Yes <input type="radio"/> No

I. Comments:
