



# Stormwater Management Program (SWMP)

Town of Medway



EPA NPDES Permit Number # MAR0411132

June 28, 2019

# Background

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## Stormwater Regulation

The Stormwater Phase II Final Rule was promulgated in 1999 and was the next step after the 1987 Phase I Rule in EPA's effort to preserve, protect, and improve the Nation's water resources from polluted stormwater runoff. The Phase II program expands the Phase I program by requiring additional operators of MS4s in urbanized areas and operators of small construction sites, through the use of NPDES permits, to implement programs and practices to control polluted stormwater runoff. Phase II is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of stormwater discharges that have the greatest likelihood of causing continued environmental degradation. Under the Phase II rule all MS4s with stormwater discharges from Census designated Urbanized Area are required to seek NPDES permit coverage for those stormwater discharges.

## Permit Program Background

On May 1, 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (2003 small MS4 permit) consistent with the Phase II rule. The 2003 small MS4 permit covered "traditional" (i.e., cities and towns) and "non-traditional" (i.e., Federal and state agencies) MS4 Operators located in the states of Massachusetts and New Hampshire. This permit expired on May 1, 2008 but remained in effect until operators were authorized under the 2016 MS4 general permit, which became effective on July 1, 2018.

## Stormwater Management Program (SWMP)

The SWMP describes and details the activities and measures that will be implemented to meet the terms and conditions of the permit. The SWMP accurately describes the permittee's plans and activities. The document should be updated and/or modified during the permit term as the permittee's activities are modified, changed or updated to meet permit conditions during the permit term. The main elements of the stormwater management program are (1) a public education program in order to affect public behavior causing stormwater pollution, (2) an opportunity for the public to participate and provide comments on the stormwater program (3) a program to effectively find and eliminate illicit discharges within the MS4 (4) a program to effectively control construction site stormwater discharges to the MS4 (5) a program to ensure that stormwater from development projects entering the MS4 is adequately controlled by the construction of stormwater controls, and (6) a good housekeeping program to ensure that stormwater pollution sources on municipal properties and from municipal operations are minimized.

## Small MS4 Authorization

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- The NOI was submitted on September 28, 2019
- The NOI can be found on the Stormwater Management webpage under the link: [MS4 Notice of Intent \(NOI\)](#)
- Authorization to Discharge was granted on April 22, 2019.
- The Authorization Letter can be found (document name or web address):

# Stormwater Management Program Team

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## **SWMP Team Coordinator**

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Responsibilities:

## **SWMP Team**

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## **SWMP Team**

Name: Susan Affleck-Childs  
Title: Planning and Economic Development Coordinator  
Department: Community and Economic Development  
Phone Number:  
Responsibilities:

## **MCM 1 Public Education and Outreach**

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### Permit Part 2.3.2

**Objective:** The permittee shall implement an education program that includes educational goals based on stormwater issues of significance within the MS4 area. The ultimate objective of a public education program is to increase knowledge and change behavior of the public so that the pollutants in stormwater are reduced.

## **MCM 1: Public Education and Outreach Best Management Practices (BMP)**

<b>BMP 1: Brochures/pamphlets</b>	
Document Name	
Document Location	
Description	Grass clippings and fertilizer management: update existing Medway brochure. Include landscape management, fertilizer use, and snow and ice removal.
Target Audience	Businesses, Institutions and Commercial Facilities
Responsible Party	Department of Public Works
Measurable Goal	Continual distribution of brochure at the following locations: Town Hall, Planning Office, ConCom Office, DPS Office; Mailing to top 20% (by parcel size) commercial property owners in Medway.
Beginning year of implementation	2018
Implementation Date	

<b>BMP 2: Special events/festivals/fairs</b>	
Document Name	Clean Water Begin with You
Document Location	drfgdrg
Description	Engage residents during annual Medway Pride Day. Explain MS4 permit and why it matters and how it relates to everyday life. Focus on pet waste, lawn care and fertilizer BMPs, septic system management, snow and ice removal, rain barrels, and GI.
Target Audience	Residents
Responsible Party	Conservation Agent
Measurable Goal	Staff a booth/table minimum once every 2 years.
Beginning year of Implementation	2019
Implementation Date	May 18, 2019

<b>BMP 3: Brochures/pamphlets</b>	
Document Name	
Document Location	
Description	Sedimentation and erosion control messaging.
Target Audience	Developers (construction)
Responsible Party	Planning and Economic Development Coordinator
Measurable Goal	Distribution of pamphlet at Planning offices to developers seeking permits through site development process.
Beginning year of implementation	2019
Implementation Date	

<b>BMP 4: Brochures/pamphlets/direct mailer</b>	
Document Name	
Document Location	
Description	Management of SW from metal roofs (Zone II related); proper maintenance of parking lot surfaces
Target Audience	Industrial Facilities
Responsible Parties	Department of Public Works
Measurable Goal	Mail to 100% of industrially zoned parcels.
Beginning year of implementation	2019
Implementation Date	

<b>BMP 5: Electronic Messaging Boards</b>	
Document Name	
Document Location	
Description	Rotating (seasonal) messages on grass clippings and fertilizer management, pet waste management, snow and ice treatments, and septic system management.
Target Audience	Residents
Responsible Parties	Department of Public Works
Measurable Goal	Message Boards placed at publicly accessible locations.
Beginning year of implementation	2020
Implementation Date	

<b>BMP 6: Medway Matters monthly digital newsletter</b>	
Document Name	
Document Location	
Description	Preventing SSO's through FOG program; highlighting impacts of FOG article.
Target Audience	Businesses, Institutions and Commercial Facilities
Responsible Parties	Communications Department
Measurable Goal	Achieve "open" rate of greater than 50% for edition of newsletter.
Beginning year of implementation	2022
Implementation Date	

<b>BMP 7: Local Public Service Announcements; Medway Facebook page</b>	
Document Name	
Document Location	
Description	Posting of PSA on FB page re: good site maintenance and LID techniques for residential development
Target Audience	Developers (construction)
Responsible Parties	Communications Department
Measurable Goal	100% response to questions or comments posted on the page in relation to PSA.
Beginning year of Implementation	2022
Implementation Date	

<b>BMP 8: Newspaper Articles/Press Releases</b>	
Document Name	
Document Location	
Description	Waste management best practices such as covering dumpsters, sweeping regularly, keeping inventory and waste within buildings or protected from SW.
Target Audience	Industrial Facilities
Responsible Parties	Department of Public Works
Measurable Goal	Mail to 100% of industrially zoned parcels.
Beginning year of Implementation	2022
Implementation Date	

## **MCM 2: Public Involvement and Participation**

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### Permit Part 2.3.3

**Objective:** The permittee shall provide opportunities to engage the public to participate in the review and implementation of the permittee's SWMP.

**MCM 2: Public Involvement and Participation Best Management Practices (BMP)**

<b>BMP 1: Public Review</b>	
Document Name	Stormwater Management Plan
Description	SWMP Review; to be available through website redirect to stormwater page.
Responsible Party	Department of Public Works
Measurable Goal	Allow annual review of stormwater management plan and posting of stormwater management plan on website.

<b>BMP 2: Public Participation</b>	
Description	Public comment on SWMP.
Responsible Party	Department of Public Works
Measurable Goal	Allow public to comment on stormwater management plan annually.

<b>BMP 3: Public Participation</b>	
Description	Direct messages to support participation in Town's Household Hazardous Waste Day.
Responsible Party	Department of Public Works
Measurable Goal	Track volume of material collected and number of residents participating.

<b>BMP 4: Public Participation</b>	
Description	Direct messages to support participation in Town's "Clean Sweep" Day.
Responsible Parties	Department of Public Works
Measurable Goal	Track volume of material collected and number of residents participating.

## MCM 3 Illicit Discharge Detection and Elimination (IDDE) Program

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### Permit Part 2.3.4

**Objective:** The permittee shall implement an IDDE program to systematically find and eliminate illicit sources of non-stormwater discharges to its municipal separate storm sewer system and implement procedures to prevent such discharges.

**MCM 3: IDDE Program Best Management Practices (BMP)**

<b>BMP 1: IDDE Legal Authority</b>	
Ordinance Name and link	<a href="#">Stormwater and Land Disturbance Bylaw</a>
Responsible Parties for Enforcement	Department of Public Works, Conservation Agent, Community and Economic Development Department, Building Department
Completed by	

<b>BMP 2: Sanitary Sewer Overflow (SSO) Inventory</b>	
Document Name	
Description	
Responsible Party	
Measurable Goal	Annually track and report the following SSO information: the location; a clear statement of whether the discharge entered a surface water directly or entered the MS4; date(s) and time(s) of each known SSO occurrence; estimated volume(s) of the occurrence; description of the occurrence indicating known or suspected cause(s); mitigation and corrective measures completed with dates implemented; and mitigation and corrective measures planned with implementation schedules. Update inventory as needed.
SSO Reporting	In the event of an overflow or bypass, a notification must be reported within 24 hours by phone to MassDEP, EPA, and other relevant parties. Follow up the verbal notification with a written report following MassDEP's Sanitary Sewer Overflow (SSO)/Bypass notification form within 5 calendar days of the time you become aware of the overflow, bypass, or backup.
The MassDEP contacts are: Northeast Region (978) 694-3215 205B Lowell Street Wilmington, MA 01887 Central Region (508) 792-7650 8 New Bond Street Worcester, MA 01606 Southeast Region (508) 946-2750 20 Riverside Drive Lakeville, MA 02347 Western Region (413) 784-1100 436 Dwight Street Springfield, MA 01103 24-hour Emergency Line 1-888-304-1133	The EPA contacts are: EPA New England (617) 918-1510 5 Post Office Square Boston, MA 02109

<b>BMP 3: Map of Storm Sewer System</b>	
Document Location	<a href="#">Stormwater Map</a>
Description	Update map as appropriate during IDDE program completion.
Responsible Party	Department of Public Works and GIS Coordinator
Measurable Goal	Map 100% of outfalls and receiving waters, open channel conveyances, interconnections with other MS4s and other storm sewer systems, municipally-owned stormwater treatment structures, waterbodies identified by name and indication of all use impairments, and initial catchment delineations within 2 years of the permit's effective date. Map 100% of outfall spatial locations, pipes, manholes, catch basins, refined catchment delineations, municipal sanitary sewer system (if available), and municipal combined sewer system (if applicable) within 10 years of the permit's effective date.
Phase I Completed (by year two)	
Phase II Completed (by year ten)	

<b>BMP 4: IDDE Program</b>	
Description	Create a written program to systematically find and eliminate sources of non-stormwater discharges to the MS4 and implement procedures to prevent such discharges.
Responsible Party	Department of Public Works
Measurable Goal	Conduct 100% of outfall screening on High and Low Priority Outfalls within 3 years of the permit's effective date. Complete catchment investigations for 100% of the Problem Outfalls within 7 years of the permit's effective date. Complete 100% of all catchment investigations within 10 years of the permit's effective date.
Completed	April 2014
The outfall/interconnection inventory, initial ranking, dry weather outfall, interconnection screening, and sampling results can be found in Table 4-2 of the IDDE Program plan.	

<b>BMP 5: Employee Training</b>	
Description	Provide annual training to employees involved in the IDDE Program including how to recognize illicit discharges and SSOs.
Responsible Party for Enforcement	Department of Public Works
Measurable Goal	Annual training.
Completed	

<b>BMP 6: Implement revised IDDE program</b>	
Description	Implement catchment investigations according to program and permit conditions.
Responsible Party for Enforcement	Department of Public Works
Measurable Goal	Complete 10 years after effective date of permit.

<b>BMP 7: Dry weather screening</b>	
Description	Conduct in accordance with outfall screening procedure and permit conditions.
Responsible Party for Enforcement	Department of Public Works
Measurable Goal	Complete 3 years after effective date of permit.

<b>BMP 8: Wet weather screening</b>	
Description	Conduct in accordance with outfall screening procedure and permit conditions.
Responsible Party for Enforcement	Department of Public Works
Measurable Goal	Complete 10 years after effective date of permit.

<b>BMP 9: Ongoing screening</b>	
Description	Conduct dry weather and wet weather screening (as necessary).
Responsible Party for Enforcement	Department of Public Works
Measurable Goal	Complete ongoing outfall screening upon completion of IDDE program.

## **MCM 4 Construction Site Stormwater Runoff Control**

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### Permit Part 2.3.5

**Objective:** The objective of an effective construction stormwater runoff control program is to minimize or eliminate erosion and maintain sediment on site so that it is not transported in stormwater and allowed to discharge to a water of the U.S. through the permittee's MS4.

**MCM 4: Construction Site Stormwater Runoff Control Best Management Practices (BMP)**

<b>BMP 1: Site inspection and enforcement of Erosion and Sediment Control (ESC) measures</b>	
Description	Complete written procedures of site inspections and enforcement procedures
Responsible Parties for Enforcement	Department of Public Works, Conservation Agent, Community and Economic Development Department, Building Department
Measurable Goals	Maintain current procedures and document 100% of inspections.

<b>BMP 2: Site plan review</b>	
Description	Complete written procedures of site plan review and begin implementation.
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Complete update to existing review procedures (if necessary) within 1 year of the effective date of permit.

<b>BMP 3: Erosion and Sediment Control</b>	
Description	Adoption of requirements for construction operators to implement a sediment and erosion control program
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Maintain current procedures and document 100% of project close-outs of construction phase controls.

<b>BMP 4: Waste Control</b>	
Description	Adoption of requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Maintain current procedures.

## **MCM 5 Post Construction Stormwater Management in New Development and Redevelopment**

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### **Permit Part 2.3.6**

**Objective:** The objective of an effective post construction stormwater management program is to reduce the discharge of pollutants found in stormwater to the MS4 through the retention or treatment of stormwater after construction on new or redeveloped sites and to ensure proper maintenance of installed stormwater controls.

<b>BMP 1: As-built plans for on-site stormwater control</b>	
Description	The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Require submission of as-built plans for 100% of completed projects.

<b>BMP 2: Target properties to reduce impervious surfaces</b>	
Description	Identify at least 5 permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and update annually
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Analysis complete and properties identified; report annually on status of retrofit-candidate properties.

<b>BMP 3: Green Infrastructure</b>	
Description	Develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Complete 4 years after effective date of permit and implement recommendations of report.

<b>BMP 4: Street design and parking lot guidelines</b>	
Description	Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Complete 4 years after effective date of permit and implement recommendations of report.

<b>BMP 5: Ensure any stormwater controls or management practices for new development and redevelopment meet the retention or treatment requirements of the permit and all applicable requirements of the Massachusetts Stormwater Handbook and MS4 permit (e.g. 1" retention from impervious area for new development).</b>	
Description	Adoption, amendment, or modification to current regulation to meet permit requirements
Responsible Parties for Enforcement	Community and Economic Development Department
Measurable Goals	Complete update to existing mechanism (if necessary) 2 years after effective date of permit.

## **MCM 6 Good Housekeeping and Pollution Prevention for Permittee Owned Operations**

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### **Permit Part 2.3.7**

**Objective:** The permittee shall implement an operations and maintenance program for permittee-owned operations that has a goal of preventing or reducing pollutant runoff and protecting water quality from all permittee-owned operations.

**MCM 6: Good Housekeeping and Pollution Prevention for Permittee Owned Operations**

**PERMITTEE OWNED PROPERTIES**

<b>BMP 1: Parks and Open Spaces Operations and Maintenance Procedures</b>	
Description	Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment.
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Implement the SOP listed above on 100% of the parks and open spaces.

<b>BMP 2: Buildings and Facilities Operations and Maintenance Procedures</b>	
Description	Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment.
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Implement the SOP listed above on 100% of buildings and facilities.

<b>BMP 3: Vehicles and Equipment Operations and Maintenance Procedures</b>	
Description	Create written O&M procedures including all requirements contained in 2.3.7.a.ii for parks and open spaces, buildings and facilities, and vehicles and equipment.
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Implement the SOP listed above for 100% of vehicles and equipment according to the above document.

**INFRASTRUCTURE**

<b>BMP 4: Infrastructure Operations and Maintenance Procedures</b>	
Description	Establish and implement program for repair and rehabilitation of MS4 infrastructure
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	100% of infrastructure is maintained to ensure proper function in accordance with the procedures above.

<b>BMP 5: Catch Basin Cleaning Program</b>	
Description	Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full and clean catch basins on that schedule
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Clean catch basins on established schedule and report number of catch basins cleaned and volume of material moved annually.

<b>BMP 5: Street Sweeping Program</b>	
Description	Sweep all streets and permittee-owned parking lots in accordance with permit conditions
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Annually sweep 100% of all streets and 50% of all municipal parking lots in accordance with the schedule listed above.

<b>BMP 6: Winter Road Maintenance Program</b>	
Description	Establish a Snow and Ice Removal Policy.
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Evaluate at least one salt/chloride alternative for use in the municipality.

<b>BMP 7: Stormwater Treatment Structures Inspection and Maintenance Procedures</b>	
Description	Establish and implement inspection and maintenance procedures and frequencies.
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Inspect and maintain 100% of treatment structures to ensure proper function.

<b>BMP 8: SWPPP</b>	
Description	Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities
Responsible Parties for Enforcement	Department of Public Works
Measurable Goals	Develop and implement SWPPPs for 100% of facilities.