

# **Stormwater Management Program (SWMP)**

City of Waltham

119 School Street, Waltham MA 02451

EPA NPDES Permit Number : MAR041066

# Certification

**Authorized Representative (Optional):** All reports, including SWPPPs, inspection reports, annual reports, monitoring reports, reports on training and other information required by this permit must be signed by a person described in Appendix B, Subsection 11.A or by a duly authorized representative of that person in accordance with Appendix B, Subsection 11.B. If there is an authorized representative to sign MS4 reports, there must be a signed and dated written authorization.

The authorization letter is:

☐ Attached to this document (document name listed below)

☐ Publicly available at the website below

"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 gathered and evaluated 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, 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."

Printed Name Jeannette A. McCarthy

Signature

Jeannette A. McCarthy, Mayor

Date

6/28/2019

Revisions

Printed Name Stephen A. Casazza

Signature

Stephen A. Casazza

Date

6/28/19

[Click Here for Revisions](#)

# Background

## 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 permittees 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.

## Town Specific MS4 Background (optional)

The City of Waltham is under a United States Environmental Protection Agency (EPA) Administrative Order (dated November 9, 2004) to implement an Illicit Discharge Detection and Elimination (IDDE) Program. The IDDE Program's main goal is to progressively eliminate illicit connections or flows into the City's stormwater system in order to minimize contamination in the receiving water bodies within the City of Waltham. This is being accomplished through systematic water quality sampling and detailed investigations of the outfalls and contributing areas to locate the sources of these illicit connections and subsequently eliminate the contaminated discharges.

The City is implementing the IDDE Program using a phased approach through investigations (closed circuit television inspection, manhole inspections, dye testing, etc.), manhole junction sampling and field investigations, design of construction repairs, and public bidding of work packages.

# Small MS4 Authorization

The NOI was submitted on

The NOI can be found at the following (document name or web address):

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Authorization to Discharge was granted on

The Authorization Letter can be found (document name or web address):

# Stormwater Management Program Team

## SWMP Team Coordinator

Name	Robert Winn	Title	City Engineer
Department	Engineering Department		
Phone Number	(781) 314-3830	Email	rwinn@city.waltham.ma.us
Responsibilities	Implement the SWMP, prepare and submit annual reports		

## SWMP Team

Name	Michael Chiasson	Title	PW Director
Department	Consolidated Public Works		
Phone Number	(781) 314-3800	Email	mchiasson@city.waltham.ma.us
Responsibilities	Implementation of relevant BMPs identified in the SWMP.		

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Name	William L. Forte	Title	Inspector of Buildings
Department	Building Department		
Phone Number	(781) 314-3275	Email	wforte@city.waltham.ma.us
Responsibilities	Implementation of relevant BMPs identified in the SWMP.		

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Name	Sheryl F. Waddick	Title	Environmental Specialist
Department	Emergency Management		
Phone Number	(781) 314-3296	Email	swaddick@city.waltham.ma.us
Responsibilities	Implementation of relevant BMPs identified in the SWMP.		

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Name	<input type="text" value="Philip Moser"/>	Title	<input type="text" value="Chair, Waltham Conservation Commission"/>
Department	<input type="text" value="Waltham Conservation Commission"/>		
Phone Number	<input type="text" value="(781) 314-3845"/>	Email	<input type="text" value="pmoser@city.waltham.ma.us"/>
Responsibilities	<input type="text" value="Implementation of relevant BMPs identified in the SWMP."/>		

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Name	<input type="text" value="Sam Bade"/>	Title	<input type="text" value="Stormwater Consultant"/>
Department	<input type="text" value="Consultant"/>		
Phone Number	<input type="text" value="508 745 4077"/>	Email	<input type="text" value="sbade@ssv-eng.com"/>
Responsibilities	<input type="text" value="Assist the City's Stormwater Management Program Team with implementing the SWMP"/>		

Add SWMP Member

# Receiving Waters

The following table lists all receiving waters, impairments and number of outfalls discharging to each waterbody segment.

OR

The information can be found in the following document or at the following web address:

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Waterbody segment that receives flow from the MS4	Number of outfalls into receiving water segment	Chloride	Chlorophyll-a	Dissolved Oxygen/DO Saturation	Nitrogen	Oil & Grease/PAH	Phosphorus	Solids/ TSS/ Turbidity	E. coli	Enterococcus	Other pollutant(s) causing impairments
Charles River	59	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pathogens
Beaver Brook	37	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pathogens
Hardy's Pond	17	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Excess Algal Growth
Chester Brook	50	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment Buildup
West Chester Brook	43	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment Buildup and Vegetation Overgrowth
Clematis Brook	21	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment Buildup
Lyman Pond	14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment Buildup
Stony Brook/Reservoir	14	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Deicing Chemicals from Winter Highway Maintenance
Master's Brook	6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Sediment (predominantly piped)
Hobbs Brook/Basin/Cambridge Reservoir	89	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Deicing Chemicals from Winter Highway Maintenance
Unnamed Tributary (MA 72-27)	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Low flow alterations
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Click here to lengthen table



# Eligibility: Endangered Species and Historic Properties

\*Reminder: The proper consultations and updates to the SWMP must be conducted for construction projects related to your permit compliance where Construction General Permit (CGP) coverage, which requires its own endangered species and history preservation determination, is NOT being obtained.

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## Attachments:

- ☒ The results of Appendix C U.S. Fish and Wildlife Service endangered species screening determination
- ☐ The results of the Appendix D historic property screening investigations
- ☒ If applicable, any documents from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), or other Tribal representative to mitigate effects

These attachments are required within one year of the permit effective date and are:

- ☒ Attached to this document (document names listed below)

Attachment A

- ☐ Publicly available at the website listed below

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Under what criterion did permittee determine eligibility for ESA?

- ☐ Criterion A      ☐ Criterion B      ☒ Criterion C

Under what criterion did permittee determine eligibility for Historic Properties?

- ☒ Criterion A      ☐ Criterion B      ☐ Criterion C

Below add any additional measures for structural controls that you're required to do through consultation with U.S. Fish and Wildlife Service (if applicable):

Below add any additional measures taken to avoid or minimize adverse impacts on places listed, or eligible for listing, on the NRHP, including any conditions imposed by the SHPO or THPO (if applicable):

# MCM 1

## Public Education and Outreach

### 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.

#### **Examples and Templates:**

[EPA's Stormwater Education Toolbox](#)

[MassDEP's Stormwater Outreach Materials](#)

Other templates relevant to MCM 1 can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#peo>

### **BMP: Pet Waste Brochure for Residents**

**BMP Number (Optional)** 1-1

**Document Name and/or Web Address:** Pet waste brochure

**Description:**

Copies of proper pet waste cleanup and disposal brochure will be included with the water and sewer bill mailings.

**Targeted Audience:** Residents

**Responsible Department/Parties:** Engineering

**Measurable Goal(s):**

Number of brochures distributed with the water and sewer bills

**Message Date(s):** 2019

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### **BMP: Stormwater Management for Residents**

**BMP Number (Optional)** 1-2

**Document Name and/or Web Address:** Residential Stormwater Management

**Description:**

A detailed stormwater management brochure will be posted on the City's stormwater webpage. The brochure will include proper fertilizer, pesticide, herbicide application, car washing and maintenance, deicing materials, hazardous waste and pet waste disposal.

**Targeted Audience:** Residents

**Responsible Department/Parties:** Engineering and Conservation Commission

**Measurable Goal(s):**

The number of website visits, stories placed and estimated audience.

**Message Date(s):** 2018

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### **BMP: Stormwater Management for Developers**

**BMP Number (Optional)** 1-3

**Document Name and/or Web Address:** SWPPP and required Permits

**Description:**

Information will be made available to developers and construction contractors via the City's stormwater website. Proper erosion and sediment control measures and elements of stormwater pollution prevention plans (SWPPPs) and required permits will be included.

**Targeted Audience:** Developers (construction)

**Responsible Department/Parties:** Building Department and Conservation Commission

**Measurable Goal(s):**

Website visits, number of stories placed and an estimate will be made of the audience.

**Message Date(s):** 2019

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**BMP: Stormwater Management for Businesses, Institutions and Commercial Facilities**

**BMP Number (Optional)** 1-4

**Document Name and/or Web Address:** Parking lots stormwater good housekeeping brochure

**Description:**

A brochure will be developed for parking lots at commercial buildings to describe proper equipment inspection, waste disposal, dumpster maintenance, use and storage of de-icing materials and parking lot sweeping. Copies of the brochure will be placed at the Building, Engineering and PW Department offices.

**Targeted Audience:** Businesses, institutions and commercial facilities

**Responsible Department/Parties:** Building, Engineering and PW Departments

**Measurable Goal(s):**

The number of brochures picked up will be tracked.

**Message Date(s):** 2020

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**BMP: Stormwater Education for Developers**

**BMP Number (Optional)** 1-5

**Document Name and/or Web Address:** Erosion Control Brochure

**Description:**

Erosion control brochures will be made available at the Building Department and Conservation Commission

Offices for Developers to pick up while obtaining permits.

**Targeted Audience:** Developers (construction)

**Responsible Department/Parties:** Building Department and Conservation Commission

**Measurable Goal(s):**

Number of brochures picked up by the Developers will be tracked at the City Department offices.

**Message Date(s):** 2019

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### **BMP: Stormwater Management for Businesses, Institutions and Commercial Facilities**

**BMP Number (Optional)** 1-6

**Document Name and/or Web Address:** Social Media Outreach

**Description:**

Information on proper waste disposal, erosion and sediment control measures and other stormwater related good housekeeping measures will be sent via social media.

**Targeted Audience:** Businesses, institutions and commercial facilities

**Responsible Department/Parties:** IT-City's Social Media Coordinator

**Measurable Goal(s):**

The number of followers, views, likes, comments and shares on the social media will be tracked.

**Message Date(s):** 2019

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### **BMP: Stormwater Management for Industrial Facilities**

**BMP Number (Optional)** 1-7

**Document Name and/or Web Address:** Proper waste disposal brochure

**Description:**

A brochure will be prepared and posted on the City's stormwater webpage on proper handling and disposal of waste at industrial facilities.

**Targeted Audience:** Industrial facilities

**Responsible Department/Parties:** PW, Health department with assistance from Environmental Specialist

**Measurable Goal(s):**

The number of website visits, stories placed and estimated audience will be tracked on the City's stormwater webpage.

**Message Date(s):** 2022

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**BMP: Stormwater Management for Industrial Facilities**

**BMP Number (Optional)** 1-8

**Document Name and/or Web Address:** Proper waste disposal brochure

**Description:**

A brochure will be prepared and copies will be placed at the PW and Health Departments.

**Targeted Audience:** Industrial facilities

**Responsible Department/Parties:** PW, Health department with assistance from Environmental Specialist

**Measurable Goal(s):**

Number of brochures picked up will be tracked at the City Department offices.

**Message Date(s):** 2023

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**BMP: Stormwater Management for Businesses, Institutions and Commercial Facilities**

**BMP Number (Optional)** 1-9

**Document Name and/or Web Address:** Parking lots stormwater good housekeeping brochure

**Description:**

A brochure will be developed for parking lots at commercial buildings to describe proper equipment inspection, waste disposal, dumpster maintenance, use and storage of de-icing materials and parking lot sweeping. This brochure will be placed at the City's stormwater webpage.

**Targeted Audience:** Businesses, institutions and commercial facilities

**Responsible Department/Parties:** Building, Engineering and PW Departments

**Measurable Goal(s):**

Website visits, number of stories placed and an estimate will be made of the audience.

**Message Date(s):** 2021

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Add BMP

## **MCM 2**

# **Public Involvement and Participation**

### **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.



## **BMP: Public Review of Stormwater Management Program**

**BMP Number (Optional)** 2-1

**Location of Plan and/or Web Address:** City's Stormwater Website

**Responsible Department/Parties:** Engineering

**Measurable Goal(s):**

Stormwater Management Plan is publicly available.

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## **BMP: Public Participation in Stormwater Management Program Development**

**BMP Number (Optional)** 2-2

**Description:**

The Engineering Department will host a workshop to present draft of the Stormwater Management Plan and seek comments and input.

**Responsible Department/Parties:** Engineering

**Measurable Goal(s):**

Annual public input provided.

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## **BMP: Public Participation**

**BMP Number (Optional)** 2-3

**Document Name and/or Web Address:** Hazardous waste collection

**Description:**

The City will continue household hazardous waste/used oil collection days for residents throughout the year.  
[https://www.city.waltham.ma.us/sites/walthamma/files/uploads/2019-20\\_online\\_recycling\\_brochure-c.pdf](https://www.city.waltham.ma.us/sites/walthamma/files/uploads/2019-20_online_recycling_brochure-c.pdf)

**Responsible Department/Parties:** PW (recycling)

**Measurable Goal(s):**

The number of household hazardous waste collection days will be noted in each of the permit years.

---

**BMP: Public Participation**

**BMP Number (Optional)** 2-4

**Document Name and/or Web Address:** Partnership with various local advocacy groups

**Description:**

Coordination with local groups such as the Waltham Land Trust to coordinate public participation events such as stream and river cleanups etc. will be undertaken. Continue Earthday volunteer City-wide cleanup.

**Responsible Department/Parties:** Conservation Commission, Engineering and PW Departments

**Measurable Goal(s):**

The number of events and the activities conducted will be tracked on an annual basis.

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**BMP: Public Participation**

**BMP Number (Optional)** 2-5

**Document Name and/or Web Address:** Curbside food waste collection

**Description:**

Continue to promote residential curbside food waste

**Responsible Department/Parties:** PW Department

**Measurable Goal(s):**

Estimate the amount of food waste collected and evaluate effectiveness of the program.

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**BMP: Public Participation**

**BMP Number (Optional)** 2-6

**Document Name and/or Web Address:** Annual stream cleanup

**Description:**

Continue to conduct the annual Earthday stream cleanup.

**Responsible Department/Parties:** PW Department

**Measurable Goal(s):**

Estimate amount of debris collected (number of trash bags) each year and the number of participants.

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**BMP: Public Participation**

**BMP Number (Optional)** 2-7

**Document Name and/or Web Address:** Rain barrel program

**Description:**

Continue offering rain barrel purchase program.

**Responsible Department/Parties:** PW (Recycling) Department

**Measurable Goal(s):**

Track the number of rain barrels purchased each permit year.

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Add BMP

# MCM 3

## Illicit Discharge Detection and Elimination (IDDE) Program

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.

### **Examples and Templates:**

[IDDE Program Template and SOPs](#)

Other templates relevant to IDDE can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#idde>

### **BMP: IDDE Legal Authority**

**BMP Number (Optional)** 3-1

**Completed** (by May 1, 2008) ☒

**Ordinances Link or Reference:**

**Department Responsible for Enforcement:**

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### **BMP: Sanitary Sewer Overflow (SSO) Inventory**

**BMP Number (Optional)** 3-2

**Completed** (by year 1) ☒

**Document Name and/or Web Address:**

**Description:**

**Responsible Department/Parties:**

**Measurable Goal(s):**

### **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

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### **BMP: Map of Storm Sewer System**

**BMP Number (Optional)** 3-3

**Phase I Completed** ☐  
(by year 2)

**Phase II Completed** ☐  
(by year 10)

**Document Location and/or Web Address:**

**Description:**

The City-wide storm sewer system mapping has been completed. The City will continue to update the map as new information is discovered and/or new projects completed.

**Responsible Department/Parties:**

**Measurable Goal(s):**

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.

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### **BMP: IDDE Program**

**BMP Number (Optional)** 3-4

**Written Document Completed** (by year 1) ☒

**Document Name and/or Web Address:**

**Description:**

The City has been implementing an IDDE Program and submits semi-annual reports to the EPA. An updated IDDE Program written document was prepared to conform with the permit requirements. City's consultant, Environmental Partners Group (EPG), has drafted the IDDE Plan and will assist in implementation.

**Responsible Department/Parties:**

**Measurable Goal(s):**

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.

**The outfall/interconnection inventory and initial ranking and the dry weather outfall and interconnection screening and sampling results can be found:**

### **BMP: Employee Training**

**BMP Number (Optional)** 3-5

**Description:**

Provide training to City Employees on IDDE implementation on an annual basis.

**Responsible Department/Parties:** PW, Engineering Departments with assistance from Environmental Specialist

**Measurable Goal(s):**

The dates when training was conducted will be noted along with the number of attendees.

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### **BMP:Dry Weather Outfall Screening**

**BMP Number (Optional)** 3-6

**Completed** ☐

**Document Name and/or Web Address:** IDDE Program

**Description:**

The City will continue with the dry weather outfall screening in accordance with the permit requirements and the Administrative Order.

**Responsible Department/Parties:** Engineering

**Measurable Goal(s):**

Complete dry weather outfall screening within 3 years of effective permit date.

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### **BMP:Wet Weather Outfall Screening**

**BMP Number (Optional)** 3-7

**Completed** ☐

**Document Name and/or Web Address:** IDDE Program

**Description:**

The City will continue with the wet weather outfall screening in accordance with the permit requirements and the Administrative Order.

**Responsible Department/Parties:** Engineering

**Measurable Goal(s):**

Complete wet weather outfall screening within 10 years of effective permit date.

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Add BMP



# MCM 4

## Construction Site Stormwater Runoff Control

### 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.

#### **Examples and Templates:**

Examples and templates relevant to MCM 4, including model ordinances and site inspection templates, can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#csrc>

### **BMP: Sediment and Erosion Control Ordinance**

**BMP Number (Optional)** 4-1

**Completed** (by May 1, 2008) ☒

**Ordinances Link or Reference:**

**Department Responsible for Enforcement:**

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### **BMP: Site Plan Review Procedures**

**BMP Number (Optional)** 4-2

**Written procedures completed** (by year 1) ☐

**Document Name and/or Web Address:**

**Description:**

**Responsible Department/Parties:**

**Measurable Goal(s):** (for wetland resource jurisdictional areas)

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### **BMP: Site Inspections and Enforcement of Sediment and Erosion Control Measures Procedures**

**BMP Number (Optional)** 4-3

**Completed** (by year 1) ☐

**Document Name and/or Web Address:**

**Description:**

**Responsible Department/Parties:**

**Measurable Goal(s):** (for wetland resource jurisdictional areas)

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### **BMP:Waste Control**

**BMP Number (Optional)** 4-4

**Completed** ☐

**Document Name and/or Web Address:**

**Description:**

**Responsible Department/Parties:**

**Measurable Goal(s):**

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# **MCM 5**

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

### **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.

#### **Examples and Templates:**

Examples and templates relevant to MCM 5, including model ordinances and bylaw review templates and guidance can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#pcsm>

### **BMP: Post-Construction Ordinance**

**BMP Number (Optional)** 5-1

**Completed (by year 2)** ☐

**Town Ordinances Link or Reference:**

**Department Responsible for Enforcement:**

---

### **BMP: Street Design and Parking Lot Guidelines Report**

**BMP Number (Optional)** 5-2

**Completed (by year 4)** ☐

**Document Name and/or Web Address:**

**Description:**

The City will 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 Department/Parties:**

**Measurable Goal(s):**

Recommendations are implemented with progress reported annually.

---

### **BMP: Green Infrastructure Report**

**BMP Number (Optional)** 5-3

**Completed (by year 4)** ☐

**Document Name and/or Web Address:**

**Description:**

The City will develop a report assessing existing local regulations to determine the feasibility of making green infrastructure practices allowable when appropriate site conditions exist.

**Responsible Department/Parties:**

**Measurable Goal(s):**

Recommendations are implemented with progress reported annually.

---

### **BMP: List of Municipal Retrofit Opportunities**

**BMP Number (Optional)** 5-4

**Completed** (by year 4) ☐

**Document Name and/or Web Address:** List of Municipal Retrofit Opportunities

**Description:**

The City will identify at least five (5) municipal properties that could be retrofitted to reduce impervious areas and update annually.

**Responsible Department/Parties:** Engineering, IT/GIS Departments

**Measurable Goal(s):**

The list is completed and updated as needed.

---

**BMP:Stormwater Retention and Treatment Requirements**

**BMP Number (Optional)** 5-5

**Completed** ☐

**Document Name and/or Web Address:** Stormwater Retention and Treatment Requirements

**Description:**

The City will amend the Stormwater Ordinance to ensure that any stormwater controls or management practices for new development or redevelopment meet the retention and treatment requirements of the permit and all applicable requirements of Massachusetts Stormwater Handbook.

**Responsible Department/Parties:** Conservation Commission, Engineering and Building Departments

**Measurable Goal(s):**

The Mayor will submit the modified Stormwater Ordinance to City Council for approval/adoption.

---

**BMP:As-Built Plans**

**BMP Number (Optional)** 5-6

**Completed** ☐

**Document Name and/or Web Address:** As-Built Plans

**Description:**

The City will adopt procedures to require submission of as-built drawings and ensure long term operation and maintenance plan will be a part of the project's Stormwater Management Plan.

**Responsible Department/Parties:** Conservation Commission, Engineering and Building Departments

**Measurable Goal(s):**

Require submission of as-built plans for completed projects

---

Add BMP

# MCM 6

## Good Housekeeping and Pollution Prevention for Permittee Owned Operations

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.

### **Examples and Templates:**

Examples and templates relevant to MCM 6, including SOP templates for catch basin cleaning, street sweeping, vehicle maintenance, parks and open space management, winter deicing, and Stormwater Pollution Prevention Plans can be found here: <https://www.epa.gov/npdes-permits/stormwater-tools-new-england#gh>



## PERMITTEE OWNED FACILITIES

### BMP: Parks and Open Spaces Operations and Maintenance Procedures

BMP Number (Optional) 6-1

Written Document Completed (by year 2) ☐

Document Name and/or Web Address:

**Description:**

The City will prepare written procedures O & M Procedures with the requirements contained in 2.3.7.a.ii for parks and open spaces. Pet waste brochure will be made available near the trash receptacles.

Responsible Department/Parties:

**Measurable Goal(s):**

Implement the SOP listed above on 100% of the parks and open spaces.

**Properties List (Optional):**

---

### BMP: Buildings and Facilities Operations and Maintenance Procedures

BMP Number (Optional) 6-2

Written Document Completed (by year 2) ☐

Document Name and/or Web Address:

**Description:**

The City will prepare written procedures O & M Procedures with the requirements contained in 2.3.7.a.ii for buildings and facilities.

Responsible Department/Parties:

**Measurable Goal(s):**

Implement the SOP listed above on 100% of buildings and facilities.

**Properties List (Optional):**

---

### BMP: Vehicles and Equipment Operations and Maintenance Procedures

BMP Number (Optional) 6-3

Written Document Completed (by year 2) ☐

**Document Name and/or Web Address:** Operations and Maintenance Procedures

**Description:**

The City will prepare written procedures O & M Procedures with the requirements contained in 2.3.7.a.ii for vehicles and equipment.

**Responsible Department/Parties:** PW, Recreation and Building Departments and Conservation Commission

**Measurable Goal(s):**

Implement the SOP listed above for 100% of vehicles and equipment according to the above document.

**Properties List (Optional):**

---

## INFRASTRUCTURE

### BMP: Infrastructure Operations and Maintenance Procedures

**BMP Number (Optional)** 6-4

**Written Procedure Completed** (by year 2) ☐

**Document Name and/or Web Address:** Operation and Maintenance Procedures

**Description:**

The City will establish and implement a program for repair and rehabilitation of MS4 infrastructure - catch basins, stormdrain pipes, outfalls/headwalls, stormwater treatment and retention systems.

**Responsible Department/Parties:** Engineering and PW Departments

**Measurable Goal(s):**

100% of infrastructure is maintained to ensure proper function in accordance with the procedures above.

---

### BMP: Catch Basin Cleaning Program

**BMP Number (Optional)** 6-5

**Written Procedure Completed** (by year 1) ☐

**Document Name and/or Web Address:** Catch Basin Cleaning Program

**Description:**

The City will prepare and implement a Catch Basin Cleaning Program.

**Responsible Department/Parties:** PW Department

**Measurable Goal(s):**

All catch basins are cleaned in accordance to the document above such that no catch basin is more than 50% full at any given time.

---

**BMP: Street Sweeping Program****BMP Number (Optional)** 6-6 \_\_\_\_\_**Written Procedure Completed** (by year 1) ☐**Document Name and/or Web Address:** Street Sweeping Program**Description:**

The City will develop written procedures and implement the street sweeping program.

**Responsible Department/Parties:** PW Department**Measurable Goal(s):**

Annually sweep 100% of all streets five times and 100% of all municipal parking lots five times in accordance with the schedule in the written procedures.

---

**BMP: Winter Road Maintenance Program****BMP Number (Optional)** 6-7 \_\_\_\_\_**Written Procedure Completed** (by year 1) ☐**Document Name and/or Web Address:** Winter Road Maintenance Program**Description:**

The City will develop written procedures and implement the winter road maintenance program.

**Responsible Department/Parties:** PW**Measurable Goal(s):**

Evaluate at least one salt/chloride alternative for use in the municipality.

---

**BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures****BMP Number (Optional)** 6-8 \_\_\_\_\_**Completed** (by year 1) ☐**Document Name and/or Web Address:** Stormwater Treatment Structures Inspection and Maintenance Procedures

**Description:**

The City will develop written procedures and implement stormwater treatment structures inspection and maintenance procedures.

**Responsible Department/Parties:** PW and Engineering Departments

**Measurable Goal(s):**

Inspect and maintain 100% of treatment structures to ensure proper function.

---

**BMP: SWPPP**

**BMP Number (Optional)** 6-9

**Completed** (by year 2) ☐

**Document Name and/or Web Address:** SWPPP

**Description:**

The City will prepare SWPPPs for maintenance garages, transfer stations and other waste-handling facilities

**Responsible Department/Parties:** PW and Engineering Departments with assistance from Environmental Specialist

**Measurable Goal(s):**

Develop and implement SWPPPs for 100% of facilities.

---

**BMP: Inventory of Municipal Facilities**

**BMP Number (Optional)** 6-10

**Completed** ☐

**Document Name and/or Web Address:** Inventory of Municipal Facilities

**Description:**

The City will develop an inventory of municipal parks and open spaces, buildings and facilities.

**Responsible Department/Parties:** PW, Recreation Building, IT/GIS Departments and Conservation

Commission

**Measurable Goal(s):**

Compiled inventory of municipal facilities.

Add BMP

# Annual Evaluation

## Year 1 Annual Report

Document Name and/or Web Address:

https://www.city.waltham.ma.us/clean-stormwater-initiative/pages/npdes-ms4-annual-report

## Year 2 Annual Report

Document Name and/or Web Address:

https://www.city.waltham.ma.us/clean-stormwater-initiative/pages/npdes-ms4-annual-report

## Year 3 Annual Report

Document Name and/or Web Address:

## Year 4 Annual Report

Document Name and/or Web Address:

## Year 5 Annual Report

Document Name and/or Web Address:

## Year X Annual Report

Document Name and/or Web Address:

Add a Year

# TMDLs and Water Quality Limited Waters

Select the applicable Impairment(s) and/or TMDL(s).

## **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 and Pathogen      ☐ Metals      ☐ Nitrogen      ☐ Phosphorus

Clear Impairments and TMDLs

# Bacteria/Pathogens

## Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Charles River Watershed	Bacteria/Pathogens	<input type="button" value="+"/> <input type="button" value="-"/>

### Annual Requirements Beginning Year 1

Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 3-4 and 3-6

### *Public Education and Outreach*

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

Annual message encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 1-1 and 1-2 and City's Stormwater Ordinance

Permittee or its agents disseminate educational material to dog owners at the time of issuance or renewal of dog license, or other appropriate time

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 1-1 and 1-2



-----  
Provide information to owners of septic systems about proper maintenance in any catchment that discharges to a water body impaired for bacteria

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMP 1-2
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# Phosphorus

## Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Lower Charles River	Phosphorus	<input type="button" value="+"/> <input type="button" value="-"/>

### Annual Requirements Beginning Year 1

#### *Public Education and Outreach*

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

-----  
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

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 1-2, 1-4 and 1-9

-----  
Distribute an annual message in the summer (June/July) encouraging the proper management of pet waste, including noting any existing ordinances where appropriate

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 1-1 and 1-2 and City's Stormwater Ordinance

-----  
Distribute an annual message in the fall (August/September/October) encouraging the proper disposal of leaf litter

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 1-2, 1-4 and 1-9

*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)

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMP 6-6

---

Establish procedures to properly manage grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMP 6-2

#### *Stormwater Management in New Development and Redevelopment*

---

Retrofit inventory and priority ranking under 2.3.6.1.b. shall include consideration of BMPs to reduce phosphorus discharges

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 5-3 and 5-5

#### *Phosphorus Reduction Tracking BMP*

---

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 phosphorus removal by the BMP consistent with Attachment 1 to Appendix H.

The BMP type, total area treated by the BMP, the design storage volume of the BMP and the estimated phosphorus removed in pass per year by the BMP is found in the following document or website and is updated yearly at a minimum:

The City has located, mapped and implements O & M at the particle separators that have been installed to-date. The City has also installed subsurface infiltration systems. An estimate of phosphorus removed on an annual basis will be tracked.

#### Requirements Due by Year 2

#### *Stormwater Management in New Development and Redevelopment*

---

The requirement for adoption/amendment of the permittee's ordinance or other regulatory mechanism shall include a requirement that new development and redevelopment stormwater management BMPs be optimized for phosphorus removal

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 5-3 and 5-5

#### Requirements Due by Year 4

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Complete a Phosphorus Source Identification Report

The document name (if attached) and/or web address is/are:

*Stormwater Management in New Development and Redevelopment*

---

Retrofit inventory and priority ranking under 2.3.6.1.b. shall include consideration of BMPs that infiltrate stormwater where feasible

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMP 5-5

#### Requirements Due by Year 5

*Potential Structural BMPs*

---

Evaluate all permittee-owned properties identified as presenting retrofit opportunities or areas for structural BMP installation under Permit part 2.3.6.d.ii or identified in the Phosphorus Source Identification Report that are within the drainage area of the impaired water or its tributaries

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMPs 5-3 and 5-4

---

Complete a listing of planned structural BMPs and a plan and schedule for implementation

The relevant BMP number(s) listed above in the Stormwater Management Program OR the description of implementation actions and document location(s) are:

BMP 5-4

# Charles River Watershed Phosphorus TMDL

PCP Phase	Document Location
I (completed by year 5)	Engineering Department and City's Stormwater Webpage
II (completed by year 10)	Engineering Department and City's Stormwater Webpage
III (completed by year 15)	Engineering Department and City's Stormwater Webpage