**Stormwater Management Program (SWMP)**

Town of Sturbridge

308 Main Street

MA

01566

EPA NPDES Permit Number MAR041240

# 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

Signature Date

##### Revisions

Printed Name

Signature Date

 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)

# Small MS4 Authorization

The NOI was submitted on

Oct 26, 2018

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

[https://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities,](http://www.epa.gov/npdes-permits/regulated-ms4-massachusetts-communities) search Sturbridge

Authorization to Discharge was granted on

April 22, 2019

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

# Stormwater Management Program Team

##### SWMP Team Coordinator

Name Title

Butch Jackson Jr.

DPW Director

Department

Sturbridge Department of Public Works

Phone Number Email bjackson@town.sturbridge.ma.us

508-347-2515

Responsibilities

Directs and coordinates activities of Town’s Department of Public Works as required by the Sturbridge Town Charter by performing the following duties personally or through subordinate supervisors.Responsible for street and building construction and maintenance, and for supplying water, sewer, cemeteries, park maintenance, or other services and coordinating the use of human resources and equipment. Storm water Management BMP’s.

##### SWMP Team

Name Title

Mark Augello

Operations Manager

Department

Sturbridge Department of Public Works

Phone Number Email Maugello@town.sturbridge.ma.us

508-347-2515

Responsibilities

Manages all activities related to operations of the Public Works Department by performing the following duties personally or through subordinate supervisors.GIS-mapping for Storm Water systems, sewer collection and water distribution.

Name Title

Department

Phone Number Email

Responsibilities

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:

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **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** |
| Breakneck Brook | 3 |  |  |  |  |  |  |  |  |
| Hobbs Brook | 4 |  |  |  |  |
| Quinebaug River (41-01) | 1 |  |  |  |  |
| Quinebaug River (41-02) | 1 |  |  |  |  |
| Cedar Pond | 3 |  |  |  |  |  |  |  |  |  | Non-native plants |
| East Brimfield Reservoir | 1 |  |  |  |  |  |  |  |  |  | Mercury in fish tissue, non- native plants |
| Unnamed trib to Quinebaug R crossing Wallace Rd | 6 |  |  |  |  |  |  |  |  |  |  |
| Unnamed trib to Quinebaug R crossing Shepard Rd | 1 |  |  |  |  |  |  |  |  |  |  |
| Unnamed trib to Quinebaug R crossing Southbridge Rd west of Fairview Park Rd | 3 |  |  |  |  |  |  |  |  |  |  |
| Unnamed trib to Cedar Pond crossing Mountain Brook Rd | 1 |  |  |  |  |  |  |  |  |  |  |
| Unnamed trib to Cedar Pond crossing Westwood Dr | 1 |  |  |  |  |  |  |  |  |  |  |
| Unnamed trib to Cedar Pond crossing Cedar Pond Rd | 1 |  |  |  |  |  |  |  |  |  |  |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Unnamed Trib to Quinebaug R adjacent toCricket Dr | 1 |  |  |  |  |  |  |  |  |  |  |
| Unnamed Trib to Quinebaug R adjacent toArnold Rd | 1 |  |  |  |  |  |  |  |  |  |  |
| Unnamed trib to East Brimfield Res crossingBrookfield Rd | 1 |  |  |  |  |  |  |  |  |  |  |
| Unnamed Trib to Quinebaug R crossing HollandRd | 1 |  |  |  |  |  |  |  |  |  |  |
| **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** |
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 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.

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)

 Publicly available at the website listed below

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  Criterion D (NH only)

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):

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# 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/](http://www.epa.gov/) npdes-permits/stormwater-tools-new-england#peo

##### BMP:Web-Page

**BMP Number** (Optional)

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

##### Description:

[https://www.town.sturbridge.ma.us-pages/residents,](http://www.town.sturbridge.ma.us-pages/residents) & https:// [www.town.sturbridge.ma.us/public-works/pages/educational-](http://www.town.sturbridge.ma.us/public-works/pages/educational-) materials

Public Outreach

##### Targeted Audience:

Businesses, institutions and commercial facilities, residents

**Responsible Department/Parties:** Town Administrator, Conservation Commission

##### Measurable Goal(s):

For residents, businesses, commercial development and institutions the town continues to work on the Storm water management web page information.

**Message Date(s):**

**BMP:Local Cable Access**

**BMP Number** (Optional)

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

##### Description:

[https://www.town.sturbridge.ma.us/cable-advisory-committee-](http://www.town.sturbridge.ma.us/cable-advisory-committee-) public-access-television

Public Outreach

##### Targeted Audience:

Local Businesses, Local commercial facilities, Residents

**Responsible Department/Parties:** Town Administrator, Cable Access Production Coordinator

##### Measurable Goal(s):

Information Bulletins should be posted for a minimum of one month additionally, seasonally targeted preventive iniatives also. Town Administrator should assign duties to the Cable Access Production Coordinator

**Message Date(s):**

**BMP:Developer Educational Materials**

**BMP Number** (Optional)

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

##### Description:

[https://www.town.sturbridge.ma.us/conservation-commission/](http://www.town.sturbridge.ma.us/conservation-commission/) pages/developers

Public Outreach

##### Targeted Audience:

Developers (construction)

**Responsible Department/Parties:** DPW; Conservation

##### Measurable Goal(s):

For developers educational materials Common and effective Construction BMPs, \*Storm water what you can do as a developer

\*Construction storm water tips

How Low-Impact Development (LID) Principles and Technologies Reduce Development Cost,

•Builder's Guide to Low-Impact Development (LID)

Disturbing an Acre or More: How to Comply with EPA's Construction General Permit

•US EPA: Storm water Pollution Prevention for Small Residential Construction Sites THINK BLUE Resource(s):•Stop Erosion in its Tracks to Keep Our Waters Clean

**Message Date(s):**

**BMP:Industrial Users**

**BMP Number** (Optional)

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

##### Description:

[https://www.town.sturbridge.ma.us/conservation-commission/](http://www.town.sturbridge.ma.us/conservation-commission/) pages/industrial-users

Public Outreach

##### Targeted Audience:

Industrial Facilities

**Responsible Department/Parties:** Conservation commission ; D.P.W

##### Measurable Goal(s):

For industrial users; \*educational materials provided on industrial storm water best management practices.

\*Gas oil and grease, "Dos and don'ts" (Think blue) \*Put hazards in their place( Think blue).

**Message Date(s):**

**BMP:Brochures/Phamphlets**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

The Massachusetts Wetlands Protection Act

Public Outreach

##### Targeted Audience:

Residents, business, developers, industries

**Responsible Department/Parties:** Conservation Commission

##### Measurable Goal(s):

Re-print as needed avaliable at the Center Office building. This brochure educates the public on how the wetlands protection act protects our wetlands, floodplains and

riverfront areas. It gives information to property owners on what is allowed, penalties, and if wetlands are located near them.

**Message Date(s):**

**BMP:School Curricula/Programs**

**BMP Number** (Optional)

Education displays

##### Document Name and/or Web Address: Description:

##### Targeted Audience:

Public Outreach

institutions, residents

**Responsible Department/Parties:** Conservation Commission

##### Measurable Goal(s):

maintain educational material at the Center Office Building current practice is sufficient. Coordinated with school if there is any interest shown.

##### Message Date(s):

**BMP:Classroom Education Recycling**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

[https://www.town.sturbridge.ma.us/board-health](http://www.town.sturbridge.ma.us/board-health)

Public Outreach

##### Targeted Audience:

Residents, Institutions

**Responsible Department/Parties:** Board of Health Department

##### Measurable Goal(s):

Maintain yearly visits which have been on-going since year one. Will be coordinated if interest shown

**Message Date(s):**

**BMP:Hazardous Waste Collection Day**

**BMP Number** (Optional)

[https://www.town.sturbridge.ma.us/board-health](http://www.town.sturbridge.ma.us/board-health)

##### Document Name and/or Web Address: Description:

##### Targeted Audience:

Public Outreach

residents

**Responsible Department/Parties:** Board of Health Department

##### Measurable Goal(s):

the Town continues to hold hazardous waste collection day 3rd Saturday 9 months per year

**Message Date(s):**

**BMP:Classroom Education Storm Water**

**BMP Number** (Optional)

[https://www.town.sturbridge.ma.us](http://www.town.sturbridge.ma.us/)

Public Outreach

##### Document Name and/or Web Address: Description:

##### Targeted Audience:

Residents

**Responsible Department/Parties:** School Science Department, DPW, Conservation, Town Administrator

##### Measurable Goal(s):

Since 2003 all departments will continue the site visit programs and school requests

**Message Date(s):**

 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)

##### Location of Plan and/or Web Address:

**Responsible Department/Parties:** DPW, Conservation

[https://www.town.sturbridge.ma.us/public-works/pages/stormwater-](http://www.town.sturbridge.ma.us/public-works/pages/stormwater-) management

##### Measurable Goal(s):

Stormwater Management Plan is publicly available.

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

**BMP Number** (Optional)

##### Description:

Public Participation

**Responsible Department/Parties:** DPW, Conservation, Town Administrator

##### Measurable Goal(s):

Resident input always welcome.

**BMP: Community Clean up, Earth Day, River/Trails, Roadside**

**BMP Number** (Optional)

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

##### Description:

[https://www.town.sturbridge.ma.us/conservation-commission/](http://www.town.sturbridge.ma.us/conservation-commission/) events/81033

Public Participation

**Responsible Department/Parties:** D.P.W , Conservation, Board of Health

##### Measurable Goal(s):

Continue Town wide community day, trying to increase the numbers of volunteers each year. DPW picks up bagged and bulk material. Holds and maintains programs.

##### BMP: Adopt-A-Stream

**BMP Number** (Optional)

[www.town.sturbridge.ma.us](http://www.town.sturbridge.ma.us/)

##### Document Name and/or Web Address: Description:

**Responsible Department/Parties:** Conservation; DPW

Public Participation

##### Measurable Goal(s):

Volunteers continue to clean up spot river/stream locations townwide. DPW picks up materials as needed.

**BMP: Storm Drain Stenciling**

**BMP Number** (Optional)

[www.town.sturbridge.ma.us](http://www.town.sturbridge.ma.us/)

##### Document Name and/or Web Address: Description:

**Responsible Department/Parties:** Department of Public Works

Public Participation

##### Measurable Goal(s):

Maintain existing stenciling and expand as needed annually

**BMP: Adopt-A-Road**

**BMP Number** (Optional)

[www.town.sturbridge.ma.us](http://www.town.sturbridge.ma.us/)

Public Participation

##### Document Name and/or Web Address: Description:

**Responsible Department/Parties:** DPW;Town Administrator

##### Measurable Goal(s):

Continue to recruit sponsors for the program; One sponsor is in place. Several residents work in various locations. Post signs identifying party.

**BMP: Lake & Pond Management Program**

**BMP Number** (Optional)

[www.town.sturbridge.ma.us/conservation](http://www.town.sturbridge.ma.us/conservation)

##### Document Name and/or Web Address: Description:

**Responsible Department/Parties:** Conservation Commission

Public Participation

##### Measurable Goal(s):

Continue effort to test water quality/document conditions in Town lakes and ponds. The Town will continue to assist Lake Associations with their needs. An annual presentation is held.

 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/](http://www.epa.gov/) npdes-permits/stormwater-tools-new-england#idde

##### BMP: IDDE Legal Authority

**BMP Number** (Optional)

##### Ordinances Link or Reference: Department Responsible for Enforcement:

**Completed** (by May 1, 2008)

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

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Sanitary Sewer (SSO)/Bypass Notification Form.

On 07/16/2018 DEP was contracted for an Unanticipated bypass at 216 Charlton street Wendy's < 10,000 gallons ; ground to road to catch basin detention basin.

**Completed** (by year 1)

**Responsible Department/Parties:** Sewer Department

##### Measurable Goal(s):

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 occurence; 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

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

**BMP Number** (Optional)

##### Phase I Completed

(by year 2)

##### Phase II Completed

(by year 10)

**Document Location and/or Web Address:** https://mapsonline.net/sturbridgema/dpw.php. An Arc GIS map

version is located at Public Works [for reference.https://www.](http://www/) mapsonline.net/sturbridgema/dpw.php? ssid=37c1e528d7eccb7916a1a7e2e910eb9c

##### Description:

There is a cloud set up map of catch basins , pipes, outfalls, maholes as well as inventory forms provided by the CMRSWC. Sturbridge also has the Stormwater system mapped in ARC GIS. Identify Town outfalls mapping of Stormwater collection on-going in Urbanized areas of Town

**Responsible Department/Parties:** D.P.W. , Planning Department, Town Engineer

##### Measurable Goal(s):

Map 100% of outfalls and receving 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. DPW and Town non-municipal partners complete.

**BMP: IDDE Program**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Develop and Implement IDDE Program. Implement catchment investigations according to program and permit conditions/evaluate existing procedures and create written IDDE Program.

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

**Responsible Department/Parties:** D.P.W., Conservation, Town Administrator

##### 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:**

They will be attached .

##### BMP: Employee Training

**BMP Number** (Optional)

##### Description:

Employee Training/Education

**Responsible Department/Parties:** DPW Operations

##### Measurable Goal(s):

Evaluate existing regulations. Train annually, issue reminders and investigate any employee questions when they arise.

**BMP:Conduct Dry Weather Screening**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Conduct in accordance with outfall screening procedure and permit conditions.

**Completed**

**Responsible Department/Parties:** DPW Operations

##### Measurable Goal(s):

Complete 3 years after effective date of permit

**BMP:Conduct Wet Weather Screening**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Conduct in accordance with outfall screening procedures

**Completed**

**Responsible Department/Parties:** DPW Operations

##### Measurable Goal(s):

Complete 10 years after effective date of permit.

**BMP:On-going Screening**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Conduct dry weather and wet weather screening as necessary

**Completed**

**Responsible Department/Parties:** DPW Operations

##### Measurable Goal(s):

Complete on-going outfall screening upon completion of IDDE Program

**BMP:IDDE Plan-Non-Stormwater Discharge Bylaw**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

[https://www.town.sturbridge.ma.us/home/pages/charter-bylaws](http://www.town.sturbridge.ma.us/home/pages/charter-bylaws)

Post signs at areas of illegal dumping/remove waste that has been dumped

**Completed**

**Responsible Department/Parties:** DPW Operations

##### Measurable Goal(s):

Monitor problem areas with law enforcement, post signs where necessary and pick up debris as warranted

**BMP:IDDE Plan-Non-Stormwater Discharge Bylaw**

**BMP Number** (Optional)

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

[https://www.town.sturbridge.ma.us/home/pages/charter-bylaws](http://www.town.sturbridge.ma.us/home/pages/charter-bylaws)

**Completed**

**Description:**

Evaluate existing Town Bylaw regulations

**Responsible Department/Parties:** Town Administrator, Board of Selectmen, DPW

##### Measurable Goal(s):

Update Stormwater Bylaws as regulations change

**BMP:IDDE Plan- Non-Stormwater Discharge Inventory/Assessment**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Inspect outfalls annually to identify illicit connections

**Completed**

**Responsible Department/Parties:** DPW Operations

##### Measurable Goal(s):

Outfalls are continued to be monitored pre-storm and during to reduce flooding and find illicit connections year round.

 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-](http://www.epa.gov/npdes-) permits/stormwater-tools-new-england#csrc

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

**BMP Number** (Optional)

##### Ordinances Link or Reference:

**Completed** (by May 1, 2008)

**Department Responsible for Enforcement:** Conservation, D.P.W

[https://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/](http://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/) general\_bylaws\_updated\_wetland\_protection\_only\_2018.pdf

##### BMP: Site Plan Review Procedures

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

[https://www.town.sturbridge.ma.us/home/pages/charter-bylaws](http://www.town.sturbridge.ma.us/home/pages/charter-bylaws)

The project monitoring form indicates condition and installation of erosion/sedimentation control measures . Also looks for installation of storm water best management practices as well as site observations. Pre- construction form looks at approval of plan , DEP # file sign, and certificate of understanding.

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

**Responsible Department/Parties:** Conservation, Planning

##### Measurable Goal(s):

The Town will continue to review construction plans using past and present regulations.

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

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Project Monitoring form, Initial Site Visit Form.

Project monitoring form enforces erosion controls and their condition. The form also has checklists for storm water best management practices. The initial Site Visit Form has columns to comment on site visit observation and recommendations.

**Completed** (by year 1)

**Responsible Department/Parties:** Conservation, Planning

##### Measurable Goal(s):

Continue to enforce existing policies and regulations.

**BMP:**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

**Completed**

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

 Add BMP

**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) **Completed** (by year 2)

**Town Ordinances Link or Reference:**[https://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/](http://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/)

town\_of\_sturbridge\_permitting\_guidebook\_-\_1218018\_0.pdf

**Department Responsible for Enforcement:** Conservation, Planning, DPW, Zoning

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

**BMP Number** (Optional)

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

**Completed** (by year 4)

##### Description:

[https://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/](http://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/) town\_of\_sturbridge\_permitting\_guidebook\_-\_1218018\_0.pdf

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:** Conservation, Planning, DPW, Zoning, BOH, Building

##### Measurable Goal(s):

Recommendations are implemented with progress reported annually.

**BMP: Green Infrastructure Report**

**BMP Number** (Optional) **Completed** (by year 4)

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

##### Description:

[https://www.town.sturbridge.ma.us/sites/sturbridgema/files/events/](http://www.town.sturbridge.ma.us/sites/sturbridgema/files/events/) greencommunities.pdf

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:** Planning Department, DPW, Conservation

##### Measurable Goal(s):

Complete 4 years after effective date of permit and implement recommendations of report.

**BMP: List of Municipal Retrofit Opportunities**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

Identify at least 5 permittee-owned properties that could be modified or retrofitted with BMPs to reduce impervious areas and update annually.

**Completed** (by year 4)

**Responsible Department/Parties:** Conservation Committee

##### Measurable Goal(s):

Complete 4 years after effective date of permit and implement recommendations of report.

**BMP:As-built Plans for On-Site Stormwater Control**

**BMP Number** (Optional)

##### Document Name and/or Web Address: Description:

As-Builts

The procedures to require submission of as-built drawings and ensure long term operation and maintenance will be a part of the SWMP.

**Completed**

**Responsible Department/Parties:** Planning, D.P.W, Conservation, and Building Departments.

##### Measurable Goal(s):

Require submission of as-built plans for completed projects.

**BMP:StormWater Controls or Management Practices**

**BMP Number** (Optional)

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

**Completed**

##### Description:

[https://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/](http://www.town.sturbridge.ma.us/sites/sturbridgema/files/uploads/) npdesconstruction.pdf

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

**Responsible Department/Parties:** Board of Selectmen

##### Measurable Goal(s):

Board of Selectmen continue to enforce existing policies

 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 Pollutoin Prevention Plans can be found here: [https://www.epa.gov/npdes-permits/stormwater-](http://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)

##### Document Name and/or Web Address: Description:

Create inventory af all permittee-owned parks and open spaces, buildings and facilities, and vehicles and equipment

**Written Document Completed** (by year 2)

**Responsible Department/Parties:** Planning, Facilities Dept.,Building, DPW, Town Administrator

##### Measurable Goal(s):

Complete and implement 2 years after effective date of permit and implement annually

**Properties List** (Optional)**:**

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

**BMP Number** (Optional) **Written Document Completed** (by year 2) 

##### Document Name and/or Web Address: Description:

**Responsible Department/Parties:** Planning, Facilities Dept.,Building, DPW

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

##### Measurable Goal(s):

Complete and implement 2 years after effective date of permit

**Properties List** (Optional)**:**

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

**BMP Number** (Optional) **Written Document Completed** (by year 2) 

##### Document Name and/or Web Address: Description:

Create written O&M procedures including all requirements contained in 2.3.7.a.ii for vehicles and equipment.

##### Responsible Department/Parties: Measurable Goal(s):

Planning, Facilities Dept, Town Administrator, DPW

Complete and implement 2 years after effective date of permit

**Properties List** (Optional)**:**

### INFRASTRUCTURE

##### BMP: Infrastructure Operations and Maintenance Procedures

**BMP Number** (Optional) **Written Procedure Completed** (by year 2) 

##### Document Name and/or Web Address: Description:

Establish and implement program for repair and rehabilitation of MS4 infrastructure.

##### Responsible Department/Parties: Measurable Goal(s):

DPW Operations

Complete 2 years after effective date of permit

**BMP: Catch Basin Cleaning Program**

**BMP Number** (Optional) **Written Procedure Completed** (by year 1) 

##### Document Name and/or Web Address: Description:

Clean all catch basins at least once annually every other year (50/50)

##### Responsible Department/Parties:

D.P.W

##### 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. Continue to maintain program does not comply with North/South Route 20 demarcation do to needs

**BMP: Street Sweeping Program**

**BMP Number** (Optional) **Written Procedure Completed** (by year 1) 

##### Document Name and/or Web Address: Description:

Sweep all streets and sidewalks and permitee-owned parking lots in accordance with permit conditions.

##### Responsible Department/Parties: Measurable Goal(s):

DPW Operations

Continue to maintain Street and Sidewalk Sweeping Program annually

**BMP: Winter Road Maintenance Program**

**BMP Number** (Optional) **Written Procedure Completed** (by year 1) 

##### Document Name and/or Web Address: Description:

Establish and implement a program.

##### Responsible Department/Parties: 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) **Completed** (by year 1) 

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

**Description:**

Establish and implement inspection and maitenance procedures and frequencies.

##### Responsible Department/Parties: Measurable Goal(s):

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

**BMP: SWPPP**

**BMP Number** (Optional) **Completed** (by year 2) 

##### Document Name and/or Web Address: Description:

Create SWPPPs for maintenance garages, transfer stations, and other waste-handling facilities.

##### Responsible Department/Parties: Measurable Goal(s):

Facilities Dept, BOH, DPW, Water & Sewer Dept

Complete and implement 2 years after effective date of permit.

**BMP:Recycling Progam**

**BMP Number** (Optional) **Completed**

##### Document Name and/or Web Address: Description:

[https://www.town.sturbridge.ma.us/board-health](http://www.town.sturbridge.ma.us/board-health)

Offer recycling program free of charge to all Sturbridge residents

##### Responsible Department/Parties: Measurable Goal(s):

Health Department

To maintain Recycling Progam

**BMP:Oil Recycling Program**

**BMP Number** (Optional) **Completed**

##### Document Name and/or Web Address: Description:

[https://www.town.sturbridge.ma.us/board-health](http://www.town.sturbridge.ma.us/board-health)

Offer composting to residents only current cost is for a sticker to enter the facility if applicable

##### Responsible Department/Parties: Measurable Goal(s):

Health Department

To maintain Oil Recycling Program

**BMP:Trash Management Program**

**BMP Number** (Optional) **Completed**

##### Document Name and/or Web Address: Description:

[https://www.town.sturbridge.ma.us/board-health](http://www.town.sturbridge.ma.us/board-health)

Provide all residents a free service to dispose of solid waste

##### Responsible Department/Parties: Measurable Goal(s):

Health Department

MSW pay as you throw to maintain Trash Program bags are avaliable at local retailers

 Add BMP

**Annual Evaluation**

**Year 1 Annual Report**

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

MS4 Annual Report-#1

**Year 2 Annual Report**

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

MS4 Annual Report-#2

**Year 3 Annual Report**

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

MS4 Annual Report-#3

**Year 4 Annual Report**

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

MS4 Annual Report-#4

**Year 5 Annual Report**

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

MS4 Annual Report-#5

**Year X Annual Report**

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

MS4 Annual Report-#10

 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** |
| Quinebaug River (41-01) | Fecal Coliform | + - |
| Quinebaug River (41-02) | Turbidity | + - |

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:

*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))*

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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:

---------------------------------------------------------------------------------------------------------------------------

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:

---------------------------------------------------------------------------------------------------------------------------

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:

# Nitrogen

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

|  |  |  |
| --- | --- | --- |
| **Applicable Receiving Waterbody(ies)** | **TMDL Name**(if applicable) | **Add/Delete Row** |
| Applies to all receiving waterbodies | Long Island Sound TMDL | + - |

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:

*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 fertilizers

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

---------------------------------------------------------------------------------------------------------------------------

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:

---------------------------------------------------------------------------------------------------------------------------

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:

*Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

---------------------------------------------------------------------------------------------------------------------------

Establish requirements for the use of slow release fertilizers on permittee owned property currently using fertilizer, in addition to reducing and managing fertilizer use as provided in part 2.3.7.1

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

---------------------------------------------------------------------------------------------------------------------------

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:

---------------------------------------------------------------------------------------------------------------------------

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:

*Nitrogen 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 nitrogen 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 nitrogen removed in mass per year by the BMP is found in the following document or website and is updated yearly at a minimum:

Requirements Due by Year 2

*Stormwater Management in New Development and Redevelopment*

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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 nitrogen removal

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

Requirements Due by Year 4

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Complete a Nitrogen Source Identification Report

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

*Stormwater Management in New Development and Redevelopment*

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

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

Requirements Due by Year 5

*Potential Structural BMPs*

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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 Nitrogen 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:

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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:

# Solids, Oil and Grease (Hydrocarbons), or Metals

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

|  |  |  |
| --- | --- | --- |
| **Applicable Receiving Waterbody(ies)** | **TMDL Name**(if applicable) | **Add/Delete Row** |
| Quinebaug River (41-02) |  | + - |

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:

*Good Housekeeping and Pollution Prevention for Permittee Owned Operations*

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Increase street sweeping frequency of all municipal owned streets and parking lots to a schedule to target areas with potential for high pollutant loads

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

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Prioritize inspection and maintenance for catch basins to ensure that no sump shall be more than 50 percent full; Clean catch basins more frequently if inspection and maintenance activities indicate excessive sediment or debris loadings

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

Requirements Due by Year 2

*Stormwater Management in New Development and Redevelopment*

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Stormwater management systems designed on commercial and industrial land use area draining to the water quality limited water body shall incorporate designs that allow for shutdown and containment where appropriate to isolate the system in the event of an emergency spill or other unexpected event

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