

Stormwater Management Program (SWMP)

Town of Berkley

North Main Street, Berkley MA 02779

EPA NPDES Permit Number MAR041092

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 Alan Coutinho, Town Administrator

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)

Berkley, Massachusetts is located in Bristol County and has a total land area of 17.36 square miles. The Town of Berkley is surrounded by the Taunton River on the west and the Assonet River at the southeast point, and is located in the Taunton River Basin. There are no public surface drinking water supply sources or their tributaries located in Berkley. The Town has two public drinking water wells located at the Berkley Community School and the Berkley Middle School.

Berkley is a small rural town known as a "Bedroom Community" with most residents commuting out of town to work. According to the 2010 US Census, the population of the Town of Berkley was 6,411 and the regulated population was 4,700, as a result, the automatically designated MS4 area covers more of the Town than it did under the 2003 MS4 General Permit. The NPDES Phase II Stormwater Program Automatically Designated MS4 Areas developed by the EPA, which shows both the 2000 and the 2010 Urbanized Area is included as Attachment A.

Small MS4 Authorization

The NOI was submitted on Sep 27, 2018

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

<https://www.townofberkleyma.com/highway-department/pages/stormwater>

Authorization to Discharge was granted on Jun 4, 2018

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

<https://www.townofberkleyma.com/highway-department/pages/stormwater>

Stormwater Management Program Team

SWMP Team Coordinator

Name	Robert Rose	Title	Highway Surveyor
Department	Highway Department		
Phone Number	(508) 824-8380	Email	berhig@comcast.net
Responsibilities	Oversees the SWMP, coordinates between Departments, and compiles annual reports.		

SWMP Team

Name	Helen McCrohan	Title	
Department	Highway Department		
Phone Number	(508) 824-8380	Email	berhig@comcast.net
Responsibilities	Submits filings associated with the permit, maintains permit files for the Highway Department, and coordinates the preparation of annual reports.		

Name	Alan Coutinho	Title	Town Administrator
Department	Board of Selectmen		
Phone Number	(508) 822-4603	Email	
Responsibilities	Certifies MS4 reports related to the SWMP, including annual reports.		

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
Taunton River (MA62-02)	36	<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"/>	Fecal coliform
Taunton River (MA62-03)	5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Fecal coliform
Charles Brook	32	<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"/>	
Cuds 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"/>	
Assonet River (MA62-20)	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"/>	Fecal coliform
Quaker Brook	12	<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"/>	
Cedar Swamp River (MA62-44)	8	<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"/>	
Pierce Brook	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"/>	
Cotley River (MA62-41)	28	<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"/>	
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		<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.

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)

Official Species List, USFWS EPA 2016 MS4 Permit Letter

- 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

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):

Not 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):

Not 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/Pamphlet

BMP Number (Optional) 1-1

Document Name and/or Web Address:

Description:

Distribute pet waste annual message with license issuance or renewal or by mailing. This BMP also meets the additional requirements for discharges to water with an approved TMDL.

Targeted Audience: Residents, businesses, institutions and commercial facilities

Responsible Department/Parties: Town Clerk

Measurable Goal(s):

Increased awareness of pet waste impacts to water quality.

The annual report will include the method of distribution, the measures/methods used to assess effectiveness of the messages and overall effectiveness of the education program.

Message Date(s): Annually

BMP:Fertilizer Brochure/Pamphlet

BMP Number (Optional) 1-2

Document Name and/or Web Address:

Description:

Distribute proper fertilizer use message annually in the spring.

Targeted Audience: Residents, businesses, institutions and commercial facilities

Responsible Department/Parties: Highway Department and Board of Health

Measurable Goal(s):

Increased awareness of proper fertilizer use

The annual report will include the method of distribution, the measures/methods used to assess effectiveness of the messages and overall effectiveness of the education program.

Message Date(s): Annually in spring

BMP: Developer Brochure/Pamphlet

BMP Number (Optional) 1-3

Document Name and/or Web Address: _____

Description:

Distribute regulations fact sheet to developers when inquiring about new land development projects.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Planning Board

Measurable Goal(s):

Increased awareness of the local, state, and federal stormwater regulations.

The annual report will include the method of distribution, the measures/methods used to assess effectiveness of the messages and overall effectiveness of the education program.

Message Date(s): 2019

BMP: Salt Use Brochure/Pamphlet

BMP Number (Optional) 1-4

Document Name and/or Web Address: Highway Department

Description:

Distribute proper salt use messages.

Targeted Audience: Industrial facilities

Responsible Department/Parties:

Measurable Goal(s):

This BMP has been removed from the SWMP as there is no industrial audience in the Town of Berkley.

Message Date(s): 2020

BMP: Septic Smart Display/Poster/Kiosk

BMP Number (Optional) 1-5

Document Name and/or Web Address:

Description:

Utilize EPA's SepticSmart resources to increase awareness of septic system maintenance. To meet the additional requirements for discharges to water with an approved TMDL, information will be provided to owners of septic systems in all catchments that discharges to a waterbody impaired for bacteria.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Increased septic system testing/maintenance.

The annual report will include the method of distribution, the measures/methods used to assess effectiveness of the messages and overall effectiveness of the education program.

Message Date(s):

BMP: Leaf and Yard Waste Disposal Display/Poster/Kiosk

BMP Number (Optional) 1-6

Document Name and/or Web Address:

Description:

Post notices of proper leaf and yard waste disposal annually in the fall.

Targeted Audience:

Responsible Department/Parties:

Measurable Goal(s):

Increased disposal of leaf and yard waste at transfer station.

The annual report will include the method of distribution, the measures/methods used to assess effectiveness of the messages and overall effectiveness of the education program.

Message Date(s):

BMP: Stormwater Pollution Prevention for Small Residential Construction Sites Flier

BMP Number (Optional) 1-7

Document Name and/or Web Address: Town website

Description:
Post a flier regarding stormwater pollution prevention for small residential construction sites on the Town website.

Targeted Audience: Developers (construction)

Responsible Department/Parties: Planning Board

Measurable Goal(s):
Increase awareness of stormwater pollution prevention practices.
The annual report will include the method of distribution, the measures/methods used to assess effectiveness of the messages and overall effectiveness of the education program.

Message Date(s): 2022

BMP: Stormwater Pollution Prevention for Industrial Sites Flier

BMP Number (Optional) 1-8

Document Name and/or Web Address: _____

Description:
Distribute, by mailing, a flier regarding stormwater pollution prevention for industrial sites.

Targeted Audience: Industrial facilities

Responsible Department/Parties: Highway Department

Measurable Goal(s):
This BMP has been removed from the SWMP as there is no industrial audience in the Town of Berkley.

Message Date(s): 2023

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: <https://www.townofberkley.ma.com/highway-department/pages/stormwater>

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Provide the public the opportunity to review the SWMP by making the SWMP and annual reports publicly available.

BMP: Public Participation in Stormwater Management Program Development

BMP Number (Optional) 2-2

Description:

Provide the public with opportunities to submit comments on the SWMP by posting instructions on the Town's Stormwater webpage regarding how to submit comments.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Receive annual input on the SWMP from the public. Public comments on the SWMP will be compiled, reviewed, tracked, and incorporated into SWMP updates, as appropriate.

BMP: Annual Town-wide Cleanup

BMP Number (Optional) 2-3

Document Name and/or Web Address:

Description:

Provide the public with the opportunity to participate in an a public participation activity each year.

Responsible Department/Parties: Board of Selectmen and Highway Department

Measurable Goal(s):

Increased participation in the Town-wide clean-up held each year in the Spring by advertising for the event. The Town will provide a dumpster for disposal of waste collected during the clean-up.

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: Article 32 Storm Water Bylaw: <https://www.townofberkeleyma.com/sites/berkeleyma/files/uploads/4-stormwaterbylaw.pdf>

Department Responsible for Enforcement: Board of Health

BMP: Sanitary Sewer Overflow (SSO) Inventory

BMP Number (Optional) 3-2

Completed (by year 1)

Document Name and/or Web Address:

Description:

There is no sanitary sewer in the Town of Berkley as the town is on private septic systems; therefore, there have been no sanitary sewer overflows.

Responsible Department/Parties: Board of Health

Measurable Goal(s):

Complete inventory within one year of effective date of permit.

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.

Not applicable as Berkley has no municipal sanitary sewer	
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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: Highway Department: https://www.townofberkleyma.com/sites/berkleyma/files/uploads/2-sw_system_regulatedcomm_11x17.pdf

Description:

Update map during IDDE program implementation.

Responsible Department/Parties: Highway Department

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 within 10 years of the permit's effective date.

BMP: IDDE Program

BMP Number (Optional) 3-4

Written Document Completed (by year 1)

Document Name and/or Web Address:

Description:

Develop written IDDE program and implement catchment investigations.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop written IDDE program by June 30, 2019. Complete catchment investigations for 100% of the Problem Outfalls by June 30, 2025. Complete 100% of all catchment investigations by June 30, 2028. Annually report results and progress.

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

All IDDE program related documents are maintained at the Highway Department.

BMP: Employee Training

BMP Number (Optional) 3-5

Description:

Train employees on IDDE implementation.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Provide training annually, and include a record of training and attendance in annual report.

BMP:Conduct Dry Weather Screening

BMP Number (Optional) 3-6

Completed

Document Name and/or Web Address:

Description:

Conduct in accordance with outfall screening procedures in the written IDDE program.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Conduct 100% of outfall screening on High and Low Priority Outfalls by June 30, 2021. Annually report results and progress.

BMP:Conduct Wet Weather Screening

BMP Number (Optional) 3-7

Completed

Document Name and/or Web Address: Highway Department

Description:

Conduct in accordance with outfall screening procedures in the written IDDE program.

Responsible Department/Parties:

Measurable Goal(s):

Conduct wet-weather screening of outfalls, as necessary during catchment investigations. Annually report

results and progress.

BMP:Ongoing Screening

BMP Number (Optional) 3-8

Completed

Document Name and/or Web Address:

Description:

Conduct dry weather and wet weather screening, as necessary.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Conduct ongoing outfall screening in accordance with the written IDDE program. Annually report results and progress.

BMP:IDDE Ordinance/Bylaw Review

BMP Number (Optional) 3-9

Completed

Document Name and/or Web Address:

Description:

Review existing bylaws and update.

Responsible Department/Parties: Highway Department, Planning Board, and Board of Health

Measurable Goal(s):

Review annually and update as needed.

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: Subdivision Rules and Regulations

Department Responsible for Enforcement: Planning Board

BMP: Site Plan Review Procedures

BMP Number (Optional) 4-2

Written procedures completed (by year 1)

Document Name and/or Web Address:

Description:

The Town's existing Stormwater Bylaw (Article 32), Site Plan Review procedures (Section 7.D of Article 21 Zoning), and Subdivision Rules and Regulations will be reviewed and updated to include specific review elements and design considerations by reference or otherwise, as appropriate.

Responsible Department/Parties: Board of Health and Planning Board

Measurable Goal(s):

Complete the review and update by June 30, 2019. Conduct site plan review of projects in accordance with the procedures outlined above.

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:

Review existing inspection requirements outlined in the Subdivision Rules and Regulations and update and/or expand requirements, as appropriate. Develop and implement a standard inspection form, as appropriate, and procedures for enforcement and tracking the number of site reviews, inspections, and enforcement actions.

Responsible Department/Parties: Planning Board

Measurable Goal(s):

Complete the review and updated by June 30, 2019. Conduct construction site inspections as outlined in the above document and take enforcement action as needed.

The number of inspections completed and enforcement action taken will be tracked and included in the annual report.

BMP: Construction Site Waste Control

BMP Number (Optional) 4-4

Completed

Document Name and/or Web Address: _____

Description:

Update existing bylaws or rules and regulations to incorporate requirements to control wastes, including but not limited to, discarded building materials, concrete truck wash out, chemicals, litter, and sanitary wastes.

Responsible Department/Parties: Building Inspector

Measurable Goal(s):

Complete by June 30, 2019.

BMP: [BMP name here]

BMP Number (Optional) _____

Completed

Document Name and/or Web Address: _____

Description:

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) 5-1

Completed (by year 2)

Town Ordinances Link or Reference: Article 32 Stormwater Bylaw: https://www.townofberkeleyma.com/sites/berkeleyma/files/uploads/storm_water_bylaw.pdf

Department Responsible for Enforcement: Board of Health

BMP: Street Design and Parking Lot Guidelines Report

BMP Number (Optional) 5-2

Completed (by year 4)

Document Name and/or Web Address:

Description:

Develop a report assessing requirements that affect the creation of impervious cover. The assessment will help determine if changes to design standards for streets and parking lots can be modified to support low impact design options.

Responsible Department/Parties: Planning Board

Measurable Goal(s):

Complete report by June 30, 2022 with progress reported annually. Implement recommendations of report.

BMP: Green Infrastructure Report

BMP Number (Optional) 5-3

Completed (by year 4)

Document Name and/or Web Address:

Description:

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 Board

Measurable Goal(s):

Complete report by June 30, 2022 with progress reported annually. Implement recommendations of report.

BMP: List of Municipal Retrofit Opportunities

BMP Number (Optional) 5-4

Completed (by year 4)

Document Name and/or Web Address:

Description:

Identify at least five municipally-owned properties that could be modified or retrofitted with best management practices (BMPs) to reduce impervious areas.

Responsible Department/Parties: Highway Department, Planning Board, and Board of Selectmen

Measurable Goal(s):

Develop list of municipal retrofit opportunities by June 30, 2022. Starting in Permit Year 5, report annually on retrofitted properties and continue to identify additional municipal retrofit opportunities to maintain a minimum of 5 sites on the list.

BMP: As-built Plans for On-site Stormwater Control

BMP Number (Optional) 5-5

Completed

Document Name and/or Web Address:

Description:

The existing Subdivision Rules and Regulations require "as-built" plans and operation and maintenance (O&M) plans for stormwater management. The existing Subdivision Rules and Regulations, Site Plan Review, and/or Stormwater Bylaw will be reviewed and updated and/or expanded, as appropriate to ensure long-term operation and maintenance for on-site stormwater control.

Responsible Department/Parties: Planning Board

Measurable Goal(s):

Continue to require submission of as-built plans and operation and maintenance plans for completed projects. Report annually on measures utilized.

BMP: Post-Construction Stormwater Control or Management Practices

BMP Number (Optional) 5-6

Completed

Document Name and/or Web Address:

Description:

Review and update regulatory mechanisms to 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: Planning Board

Measurable Goal(s):

Complete the review and update by June 30, 2020.

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:

Create written operations and maintenance (O&M) procedures including all requirements contained in 2.3.7.a.ii for all municipally-owned or operated parks and open spaces. The completed O&M procedures will be included as part of the SWMP.

Responsible Department/Parties: Highway Department and Board of Selectmen

Measurable Goal(s):

Develop written O&M procedures by June 30, 2020, and implement them annually thereafter. Annually report on the status and implementation of the O&M procedures, including associated maintenance.

Properties List (Optional):

See BMP 6-11

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:

Create operations and maintenance (O&M) procedures including all requirements contained in 2.3.7.a.ii for all municipally-owned or operated buildings and facilities where pollutants are exposed to stormwater runoff. The completed O&M procedures will be included as part of the SWMP.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop written O&M procedures by June 30, 2020, and implement them annually thereafter. Annually report on the status and implementation of the O&M procedures, including associated maintenance.

Properties List (Optional):

See BMP 6-11

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:

Description:

Create Operations and Maintenance (O&M) procedures including all requirements contained in 2.3.7.a.ii related to storage, fueling, and washing of municipally-owned or operated vehicles and equipment. The completed O&M procedures will be included as part of the SWMP.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop written O&M procedures by June 30, 2020, and implement them annually thereafter. Annually report on the status and implementation of the O&M procedures, including associated maintenance.

Properties List (Optional):

See BMP 6-11

INFRASTRUCTURE

BMP: Infrastructure Operations and Maintenance Procedures

BMP Number (Optional) 6-4

Written Procedure Completed (by year 2)

Document Name and/or Web Address:

Description:

Establish a program for maintenance, repair, and rehabilitation of MS4 infrastructure. The completed O&M procedures will be included as part of the SWMP.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop and implement the procedures by June 30, 2020 to ensure all MS4 infrastructure is maintained. Annually document program implementation, including associated maintenance.

BMP: Catch Basin Cleaning Program

BMP Number (Optional) 6-5

Written Procedure Completed (by year 1)

Document Name and/or Web Address:

Description:

Establish schedule for catch basin cleaning such that each catch basin is no more than 50% full, and clean catch basins according to the developed schedule. The schedule will include a prioritization to optimize routine inspections, cleaning, and maintenance, as applicable.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

By June 30, 2019, report on the plan for optimizing catch basin cleaning or a schedule for gathering information to develop the optimization plan.

Clean catch basins on established schedule. Annually report the total number of catch basins, the number of catch basins inspected, the number of catch basins cleaned, and the total volume of material removed.

BMP: Street Sweeping Program

BMP Number (Optional) 6-6

Written Procedure Completed (by year 1)

Document Name and/or Web Address:

Description:

Establish a schedule for street sweeping such that all streets and municipally-owned parking lots are swept once per year. The schedule will include more frequent sweeping in targeted areas.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Annually sweep all streets and municipally-owned parking lots in the spring (following winter activities, such as sanding), and document the number of miles cleaned or the volume or mass of material removed.

BMP: Winter Road Maintenance Program

BMP Number (Optional) 6-7

Written Procedure Completed (by year 1)

Document Name and/or Web Address:

Description:

Establish and implement procedures for winter road maintenance that includes use and storage of salt and sand, optimizes the use of road salt, and evaluates opportunities for use of alternative materials.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop the winter road maintenance procedures by June 30, 2020 and implement annually thereafter. Evaluate at least one salt/chloride alternative for use in the municipality. Annually provide a status update on how this BMP is being met.

BMP: Stormwater Treatment Structures Inspection and Maintenance Procedures

BMP Number (Optional) 6-8

Completed (by year 1)

Document Name and/or Web Address:

Description:

Establish and implement inspection and maintenance procedures and frequencies for municipally-owned stormwater treatment structures.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop inspection and maintenance procedures by June 30, 2020. Inspect all municipally-owned stormwater treatment structures (excluding catch basins) each year. Examples of stormwater treatment structures includes water quality swales, retention/detention basins, infiltration structures, proprietary treatment devices, etc. Track and annually report maintenance and inspections completed.

BMP: SWPPP

BMP Number (Optional) 6-9

Completed (by year 2)

Document Name and/or Web Address:

Description:

Develop Stormwater Pollution Prevention Plans (SWPPPs) for the Highway Garage and Transfer Station / Recycling Facility.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop SWPPPs for all applicable facilities by June 30, 2020, and implement annually thereafter. Provide a status update on the development of the SWPPPs and document findings from SWPPP inspections in the annual report.

BMP: Parks and Open Spaces, Buildings and Facilities, and Vehicles and Equipment Inventory

BMP Number (Optional) 6-10

Completed

Document Name and/or Web Address:

Description:

Develop an inventory of all municipally-owned parks and open spaces, buildings and facilities, and vehicle and equipment activities (storage, fueling, and washing). Examples of buildings and facilities include schools, Town Office, Public Safety Building, municipal pools, and parking garages.

Responsible Department/Parties: Highway Department

Measurable Goal(s):

Develop inventory by June 30, 2020. Annually review and update the inventory.

Add BMP

Annual Evaluation

Year 1 Annual Report

Document Name and/or Web Address:

Year 2 Annual Report

Document Name and/or Web Address:

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

Bacteria/Pathogens

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
Taunton River Watershed	Bacteria and Pathogen TMDL	<input type="checkbox"/> + <input type="checkbox"/> -

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:

BMP 3-4

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:

BMP 1-1

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:

BMP 1-1

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 1-5

Nitrogen

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
		<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 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 I 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 I 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

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

Complete a Nitrogen 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 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

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:

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:

Chloride

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
		<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))

Include an annual message in November/December to private road salt applicators and commercial industrial site owners on the proper storage and application rates of winter deicing material, along with the steps that can be taken to minimize salt use and protect local waterbodies

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 3

Develop a Salt Reduction Plan

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

Requirements Due by Year 4

Continue implementation of the Salt Reduction Plan

Requirements Due by Year 5

Fully implement the Salt Reduction Plan

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

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

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:

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

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:

Phosphorus

Combination of Impaired Waters Requirements and TMDL Requirements as Applicable

Applicable Receiving Waterbody(ies)	TMDL Name (if applicable)	Add/Delete Row
		<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:

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

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:

Requirements Due by Year 4

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:

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:

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:

Charles River Watershed Phosphorus TMDL

PCP Phase	Document Location
I (completed by year 5)	
II (completed by year 10)	
III (completed by year 15)	

Lake and Pond Phosphorus TMDL

Begin Phase 1 of the Lake Phosphorus Control Plan during year 1 and complete by year 5.

Applicable Receiving Waterbody(ies)	PCP Complete	Document Location	Add/Delete Row
	<input type="checkbox"/>		<input type="checkbox"/> + <input type="checkbox"/> -