

TOWN OF MILTON, MA

STORMWATER MANAGEMENT PROGRAM

rev. 2019

Milton Department of Public Works
629 Randolph Avenue, Milton MA 02186

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Executive Summary

This document presents the Stormwater Management Program (SWMP) for the Town of Milton, MA. The SWMP was revised from previous versions to meet requirements of the US Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Phase II stormwater regulations.

ES-1 Background on the Phase II Program

In 1987, the US Environmental Protection Agency (EPA) amended the Clean Water Act to require a two-phased national program to address water pollution from stormwater. Phase I, promulgated in 1990, addressed stormwater discharges in approximately 900 of the nation's largest cities. Phase II regulations were published in the Federal Register in 1999. The Phase II regulations require operators of municipal separate storm sewer systems (MS4s) located in urbanized areas with populations of fewer than 100,000 people to obtain a NPDES permit for their stormwater discharges. In Massachusetts, permits are issued jointly by EPA Region 1 and the Massachusetts Department of Environmental Protection (MassDEP).

In 2003, EPA Region 1 issued its Final General Permit for Stormwater Discharges from Small Municipal Separate Storm Sewer Systems (MA Small MS4 General Permit). Milton was included under this permit's coverage as a Small MS4 operator in an urbanized area (as determined by US Census data). This permit expired on May 1, 2008, but remains in effect for authorized operators until the 2016 permit reauthorizes operators under new conditions.

EPA issued the 2016 Massachusetts Small MS4 General Permit in 2016 with an effective date of July 1, 2017. Due to multiple requests for judicial review of the permit, the EPA determined that justice would require postponement of the effective date until July 1, 2018. In order to remain consistent with EPA policy, MassDEP also postponed the permit's effective date to July 1, 2018.

Under the guidelines of the US EPA and MassDEP, the entire Town of Milton is an automatically designated MS4 area (see Figure ES-1) and the town must obtain a Phase II permit.

More information about the Massachusetts Small MS4 General Permit may be found at <https://www.epa.gov/npdes-permits/massachusetts-small-ms4-general-permit> .

ES-2 Previous Stormwater Programs in Milton

The Town of Milton has been executing its 2003 NPDES Phase II obligations for fifteen years. These programs can serve as the base for the expanded 2018 SWMP. Some of these measures include:

- Public Education and Outreach – maintenance of a stormwater page on the town website; television programming about stormwater education; partnerships with the Neponset River Watershed Association to assist with river cleanups and provide other technical assistance
- Illicit discharge detection and elimination – regulatory oversight by the Health Department to ensure compliance with Title 5 regulations; removal of sewer underdrains; maintenance of town-wide GIS drainage map; digital recording of catch basin cleanings and conditions
- Construction site runoff control – Stormwater ordinance that requires sediment and erosion controls; cluster development regulations
- Post-construction runoff control – Planning Board rules and regulations require the Statement of Development Effect to include estimated increase of peak runoff caused by altered surface conditions, and methods to be used to return water to the soil

- Pollution prevention/good housekeeping – the Town sweeps all streets twice per year; follows smart salting procedures; holds a household hazardous waste drop-off day annually for residents; and replaces street trees when trees are removed. In addition, the Town passed a stormwater bylaw and regulations that created a stormwater utility to fund NPDES compliance.

More information about Milton's previous stormwater programming is available at <https://www.townofmilton.org/stormwater-management/pages/npdes-annual-reports>.

ES-3 Stormwater Management Program

The central focus of the NPDES Phase II permit is the Stormwater Management Program (SWMP). Each permittee designs its own SWMP with the goals of reducing the discharge of pollutants from the MS4 to the maximum extent practicable and protecting water quality.

To the maximum extent practicable, the town must develop and implement best management practices (BMPs) for the following six minimum control measures:

1. Public Education and Outreach
2. Public Participation and Involvement
3. Illicit Discharge Detection and Elimination
4. Management of Construction Site Runoff
5. Post-Construction Stormwater Management in New Development and Redevelopment
6. Pollution Prevention/Good Housekeeping for Municipal Operations

In addition to the six minimum control measures, Milton must also comply with a number of additional requirements associated with any water bodies which are listed as "impaired" for one or more pollutants by the MassDEP. Additional requirements are triggered by the existence of one or more Total Maximum Daily Loads (TMDLs) that apply to waterways in Milton. A TMDL is a site-specific cleanup plan for a particular pollutant causing a water quality impairment under the Federal Clean Water Act. In Milton, the in-state TMDL for bacteria and pathogens applies due to impairment of the Neponset River.

The goal of the Stormwater Management Program is to provide a framework for permit compliance and administration for the Town. The SWMP is a living document that will be regularly updated as long-term goals are achieved and standards are developed. For example, BMP 4-3 requires the development of written procedures for site inspection. Once created, these written procedures will be incorporated into the SWMP. The SWMP is also a repository for data that must be collected and maintained by the town to document its compliance with the permit requirements, such as the results of outfall inspections conducted in accordance with minimum control measure number 3.

The BMPs are the core of the SWMP and are described in Sections 1 through 6 of this document. The Town's originally submitted Notice of Intent summarizes the SWMP. When the permit requires additional documents, these documents will be appended to the SWMP.

Each year, the Town is responsible for updating MassDEP, USEPA, and the public on the implementation of the SWMP by filing an annual report with both agencies, and making the SWMP available for inspection by the public.

ES-4 Responsible Individuals

While no one single party, Town department, or individual is responsible for stormwater management, the Town of Milton does designate a few key figures for managing and executing the stormwater management program. The table below shows the main individuals responsible for program management, their general responsibilities, and their contact information.

| Individual | Title | Responsibilities | Phone |
|-----------------|--|---|--------------|
| Chase Berkeley | Director of Public Works | Senior manager of DPW; manages stormwater enterprise budget; verifies and certifies NPDES compliance annually | 617-898-4971 |
| Thomas McCarthy | Asst. Director of Public Works/ Director of Operations | Ensures efficient stormwater management operations, infrastructure maintenance and management; ensures good housekeeping at Town facilities | 617-898-4970 |
| John Thompson | Town Engineer | Ensures stormwater regulatory compliance and good housekeeping on all engineering projects in town; manages stormwater permitting process | 617-898-4869 |
| Hillary Waite | Environmental Coordinator | Coordinates and manages SWMP tasks and related reporting | 617-898-4968 |

A Note on Reliance on another Entity for Satisfying One or More of the Control Measures

Under permit provisions, the Town may rely on other entities (such as a non-profit organization, a contractor, or school staff) to help perform one or more of the BMPs included in the SWMP.

The Town currently collaborates with other municipalities and the Neponset River Watershed Association as part of the Neponset Stormwater Partnership. The Partnership works towards permit compliance for each member municipality through knowledge and resource sharing. More information can be found at <http://yourcleanwater.org> .

Best Management Practices included in the Town's Notice of Intent become a part of the required stormwater management program even if outside groups administer BMPs. If the outside group becomes unable to administer the program, the Town is still responsible for compliance with the permit terms. The Town may choose to administer BMPs itself or secure another entity.

EPA and MassDEP will allow adjustments in the management program, including changes in responsibility for individual BMPs.

ES-5 Executing the Stormwater Management Program

This document describes the stormwater best management practices that Milton will complete during the next five years, through June 30, 2023. After the Town submits its Notice of Intent to EPA and MassDEP in summer 2018, the Town must begin implementing the plan. Because the SWMP includes modifications to current municipal practices, coordination among several Town Boards and departments, and interaction with the public, there is significant work to be done.

As the town executes its responsibilities under the 2016 permit, it is still subject to its responsibilities and stormwater management program under the 2003 permit. The 2018 Stormwater Management Program incorporates all BMPs from the 2003 SWMP, with the exception of BMPs that were phased out over the initial permit period. In this case, the 2018 SWMP incorporates replacement BMPs.

The Town has designated a position, Environmental Coordinator, as responsible for the implementation of the SWMP. The Environmental Coordinator is responsible for coordinating tasks among Town departments, completing the annual report to EPA and MassDEP, and generally making sure that the BMPs listed in the SWMP are completed. The current Environmental Coordinator is Hillary Waite, located at Town Hall at 525 Canton Avenue, Milton MA 02186.

The Town may be considered to be in violation of its NPDES Phase II Permit if it fails to complete BMPs within timelines described in the permit. BMPs that the Town assesses to be inappropriate or ineffective may be replaced according to permit guidelines.

ES-6 Supporting Documentation

EPA requires each Phase II permittee to maintain the data, records, and other documents used to develop the SWMP. The previous SWMP, future versions, and records of programming developed and executed are stored at the Town of Milton Engineering Department, located at Town Hall at 525 Canton Avenue, 2nd Floor, Milton MA 02186. Data, forms, and documents will be appended to the Stormwater Management Plan as necessary and included with each annual report. Appendices 1-6 catalog SWMP-related documents, organized by Minimum Control Measure.

ES-7 Notice of Intent, Authorization to Discharge, and Annual Reporting

The Town filed its Notice of Intent with EPA Region 1 and MassDEP on August 10, 2018. The NOI summarizes the SWMP. The Town's Authorization to Discharge was issued on December 14, 2018. Links to both of these documents can be found at <https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents> .

Each year of the permit's coverage, the Town is obligated to submit an Annual Report for the reporting period July 1, (Year) – June 30 (Following Year). The first Annual Report will also account for the months of April – June in the year of permit issuance. Annual Reports are due within 90 days from the close of each reporting period. If the due date falls on a weekend day, the report is due the Monday following the due date. The first five years of the permit's coverage, reporting periods, and due dates for associated Annual Reports are summarized in the table below. References in the SWMP to permit years correspond to this table.

| Permit year | Reporting period | Annual Report due date |
|--------------------|-------------------------------|-------------------------------|
| 1 | April 1, 2018 – June 30, 2019 | September 30, 2019 |
| 2 | July 1, 2019 – June 30, 2020 | September 30, 2020 |
| 3 | July 1, 2020 – June 30, 2021 | September 30, 2021 |
| 4 | July 1, 2021 – June 30, 2022 | September 30, 2022 |
| 5 | July 1, 2022 – June 30, 2023 | October 2, 2023 |

Annual Reports are posted at this web address: <https://www.townofmilton.org/stormwater-management/pages/npdes-annual-reports> .

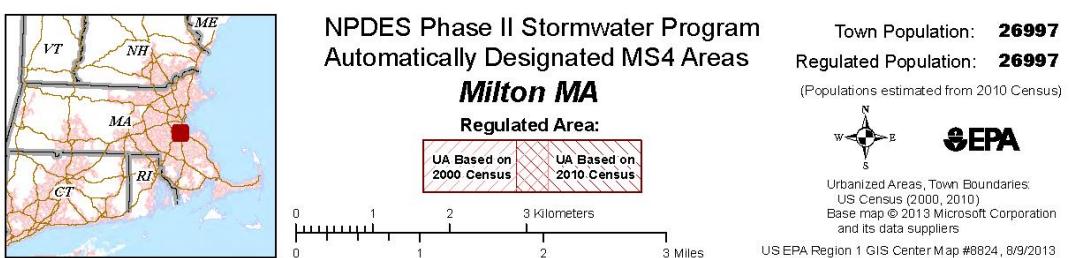
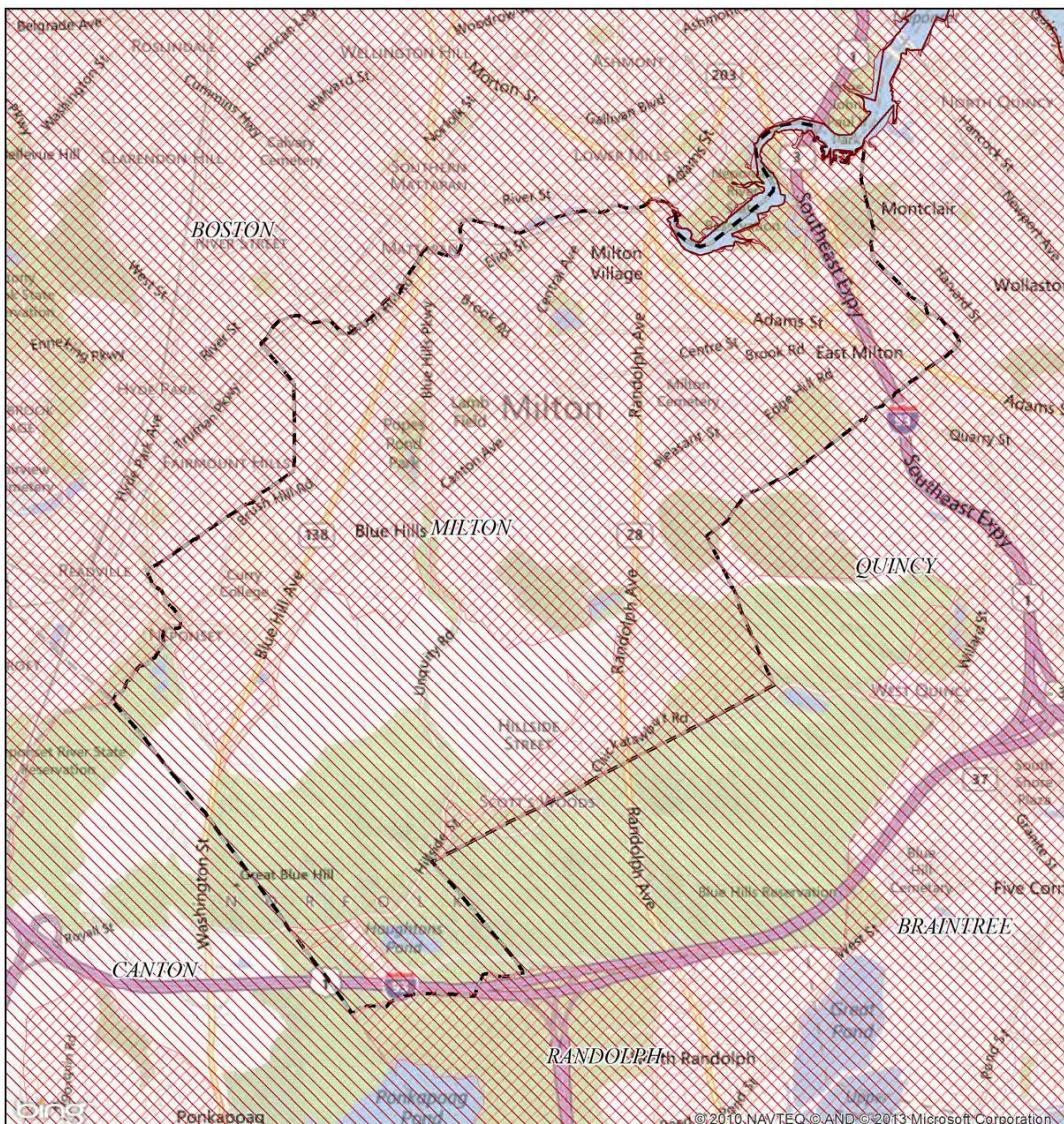


Figure ES- 1. NPDES Phase II Stormwater Program Automatically Designated MS4 Regulated Areas, from the United States Environmental Protection Agency. This map indicates that the entire Town of Milton and its MS4 is subject to regulation under the 2016 MA Small MS4 General Permit.

Permit Eligibility

This section supports Milton's NPDES Phase II permit eligibility with respect to endangered species, historic places, and impaired waters. EPA and MassDEP require permit applicants to certify that discharges or discharge-related activities will not adversely affect endangered species, endangered species' critical habitats, essential fish habitats (as designated by the US Fish and Wildlife Service), and properties listed on the National Register of Historic Places.

Endangered Species

The Phase II rule prohibits stormwater discharges (or discharge-related activities) that "adversely affect endangered and threatened species or critical habitat". The Town must confirm in its permit application that it is meeting its obligations under the US Endangered Species Act under one of three criteria.

The Town can certify eligibility for NPDES coverage according to US Fish and Wildlife Service Criterion C, as described below.

- The Town contains the following Threatened species:

*Northern long-eared bat *Myotis septentrionalis**

The Town does not contain any of the following species: the Dwarf wedge mussel, Northeastern bulrush, Piping Plover, Northern Red-bellied cooter, Bog Turtle, Roseate Tern, Puritan tiger beetle, or Northeastern beach tiger beetle.

- The Town agrees that if, during the course of the permit term, the Town plans to install a structural BMP not identified in the NOI that the Town will conduct an endangered species screening for the proposed site and contact the USFWS if it is determined that the new activity "may affect" or is "not likely to adversely affect" listed species or critical habitat under the jurisdiction of the USFWS.

As documentation of the Town's satisfaction of Criterion C, the Notice of Intent for permit coverage includes a letter from the US Fish and Wildlife Service with a list of Endangered or Threatened species and critical habitats in Milton. Also included is a certification from Milton's Director of Public Works that projects are not expected to affect the habitat of endangered species.

Historic Places

The Town of Milton has twenty-seven properties listed on the National Register of Historic Places, as seen in Table E-1. Some of these are multiple property submissions with a single entry on the list. Because Milton was authorized by the 2003 MA Small MS4 General Permit, the Town meets the eligibility requirements for Criterion A as described in Appendix D of the 2016 MA Small MS4 General Permit.

Table E-1. List of properties on the National Register of Historic Places. Data from the US National Parks Service and local records.

| Property Name | Address | Listed number |
|--|---|---------------|
| Hutchinson's, Gov. Thomas, Ha-ha | 100, 122 Randolph Ave. | 19750213 |
| Suffolk Resolves House | 1370 Canton Ave. | 19730723 |
| Forbes, Capt. Robert B., House | 215 Adams St. | 19661113 |
| Paul's Bridge | Neponset Valley Pkwy., over the Neponset River | 19721211 |
| Holbrook, Dr. Amos, House | 203 Adams St. | 19750213 |
| Refreshment Pavilion | Hillside St. | 19800925 |
| Old Barn | Off Hillside St. | 19800925 |
| Metropolitan District Commission Stable | Hillside St. | 19800925 |
| Great Blue Hill Observation Tower | Milton | 19800925 |
| Eliot Memorial Bridge | Milton | 19800925 |
| Comfort Station | Blue Hill Ave. | 19800925 |
| Blue Hills Headquarters | Hillside St. | 19800925 |
| US Post Office-Milton Main | 499 Adams St. | 19860530 |
| Massachusetts Hornfels-Braintree Slate Quarry | Address Restricted | 19800925 |
| Milton Centre Historic District | Canton Ave. between Reedsdale Rd. and Thacher and Highland Sts. | 19880428 |
| Brookwood Farm | Off Hillside Ave. | 19800925 |
| Belcher-Rowe House | 26 Governor Belcher Lane | 19820401 |
| Great Blue Hill Weather Observatory | Milton | 19800925 |
| Scott's Woods Historic District | Hillside St. between Randolph Ave. and MDC Blue Hills Reservation | 19921105 |
| Milton Hill Historic District | Roughly bounded by Adams and School Sts., Randolph and Canton Aves. and Brook Rd. | 19950609 |
| Brush Hill Historic District | Roughly Brush Hill Rd., from Robbins St. to Bradlee Rd., and Dana Ave., Brush Hill Ln. and Fairmount Ave. | 19980820 |
| Bent, G.H., Company Factory | 7 Pleasant St. | 20000210 |
| Railway Village Historic District | Roughly along Adams St., from Mechanic and Church Sts., and Washington St. | 20000306 |
| Milton Cemetery | 211 Centre St. | 20040602 |
| Metropolitan Park System of Greater Boston | Multiple property submission. Includes Neponset Valley Parkway, Truman Parkway Parts 1 and 2, Blue Hills Parkway, Blue Hills Reservation Parkways Parts 1, 2, and 3 | |
| Blue Hills Multiple Resource Area | Milton, Canton, Quincy, Randolph Blue Hills Reservation (MassDCR) | |
| Dorchester-Milton Lower Mills Industrial District | Boston/Milton | |

Receiving Waters

Below is a list of all water bodies within the Town of Milton. Included in the NOI is a list of only water bodies that receive flow from Milton's municipal separate storm sewer system. We have listed all water bodies within the Town's geographical borders because we believe some water bodies listed may receive flow from MS4s which are within Milton but not owned by the Town. This list is based on the 2014 Massachusetts Integrated List of Waters, which can be found online at

<http://www.mass.gov/eea/docs/dep/water/resources/07v5/14list2.pdf>.

For each waterbody segment, the number of outfalls discharging into it and any applicable impairments are listed. Only outfalls owned by the Town of Milton are counted in the summary below. Outfalls owned by the Commonwealth of Massachusetts, its agencies, or any other MS4 are not counted.

This information is based on information from the Town's data, the Neponset River Watershed Association, MassGIS, and the Massachusetts 2014 Integrated List of Waters, found at this link:

<http://www.mass.gov/eea/docs/dep/water/resources/07v5/16ilwplist.pdf>.

As future MA Integrated Lists of Waters are published and approved, Milton will update its stormwater management plan and BMPs to reflect any changes.

Table A- 2. List of water bodies that receive flow from Milton's MS4 and pollutant impairments.

| Waterbody segment | Number of outfalls into receiving water segment (approximate) | Chloride | Chlorophyll-a | Dissolved oxygen/DO saturation | Nitrogen | Oil and Grease/PAH | Phosphorus | Solids/TSS/Turbidity | E. coli | Enterococcus | Other pollutants causing impairments |
|---------------------------|---|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| Pine Tree Brook | 97 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Physical substrate habitat alterations Aquatic plants Fecal coliform |
| Neponset River (MA 73-02) | 18 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | Debris/Floatables/Trash DDT Fecal coliform Foam/Flocs/Scum/Oil slicks PCB in fish tissue |
| Neponset River (MA 73-03) | 25 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Debris/Floatables/Trash DDT Fecal coliform Foam/Flocs/Scum/Oil slicks PCB in fish tissue PCB |
| Unquity Brook | 42 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Debris/Floatables/Trash Low flow alterations Physical substrate habitat alterations |

*water body does not receive flow from Milton's MS4

SECTION 1 Public Education and Outreach

No one person or group is completely responsible for stormwater management. Changes in habits and practices across every sector can help reduce watershed pollution and improve water quality for all. The Town can facilitate behavioral change by fostering community awareness about stormwater.

To comply with Minimum Control Measure 1, municipalities are required to provide educational material about stormwater to four audiences: residents, industry, institutional/commercial, and construction. The public education program should inform individuals, households, and other entities about the problem of stormwater pollution and the steps they can take to reduce or prevent pollution.

Milton is not zoned for industrial use, and as such has no industrial facilities in town. Because the industrial audience is absent for the community, Milton is not required to perform outreach to industry.

Milton is a mostly residential area, with large portions of the Town also belonging to private institutions including Beth Israel Deaconess Hospital, Milton Academy, and Curry College. The Town can share information and resources to improve stormwater management even in privately owned parts of Milton.

The Town will undertake the following BMPs to comply with Minimum Control Measure 1.

BMP 1-1 Educate dog owners about picking up dog waste.

Targeted audience: Residents

Description: Develop a fact sheet to explain the environmental health impacts from pet waste. The fact sheet should mention that dog waste should not be disposed of in catch basins. Fact sheets will be available in the Town Clerk's office and at the dog pound, to be distributed to dog owners at the time of adoption and licensing.

Measurable goal: Distribute a pet waste palm card with pet licenses. Post the palm card on the town website. Make periodic social media posts related to picking up dog waste.

Schedule: Currently in action. Social media posts should be timed for spring and fall of future permit years.

Assessment: Estimate number of dog owners reached based on palm cards distributed.

Responsible person/department: Department of Public Works, Town Clerk

Document: Attached.

BMP 1-2 Maintain mutt mitt stations in pet waste problem areas.

Targeted audience: Residents

Description: Town staff previously installed “Curb your dog” and other pet waste-related signage in areas in parks and playgrounds that had a pet waste problem. These stations shall be maintained and inspected to ensure functioning and cleanliness. The Town may employ a contractor for this work.

Measurable goal: Inspect mutt mitt stations to ensure functioning and cleanliness of signage. If station includes a bag dispenser, ensure bags are refilled regularly.

Schedule: Currently in action.

Assessment: Certify that mutt mitt stations are in good condition annually.

Responsible person/department: Department of Public Works, Parks Department

BMP 1-3 Continue to enforce pet pick-up bylaw.

Targeted audience: Residents and visitors

Description: Continue to enforce pet pick-up bylaw (Milton General Bylaws Ch. 6, Section 41).

Measurable goal: Continued enforcement; record instances of warnings or fines issued.

Schedule: Currently in action.

Assessment: Record number of violations annually.

Responsible person/department: Police Department

BMP 1-4 Inform owners of septic systems about proper maintenance.

Targeted audience: Property owners

Description: Inform owners of septic systems about proper maintenance of their systems. Provide an information document at the Health Department offices and on the Town website.

Measurable goal: Confirm distribution of septic system maintenance information annually.

Schedule: Ongoing.

Assessment: Estimate number of citizens reached with hit counter on webpage.

Responsible person/department: Health Department

Document: Found at <https://www.townofmilton.org/environmental-and-inspectional-services/pages/environmental-health-resources> .

BMP 1-5 Update stormwater section of town website a minimum of three times per year.

Targeted audience: Residents

Description: Periodically update the Town's stormwater management website, at least 3 times per year. Use these updates to provide information about bacteria and phosphate pollution per the requirements of Appendices F and H of the MA Small MS4 General Permit. For example, an update in spring might include information about low-phosphate lawn treatments or pollution control during car maintenance.

Measurable goal: Stormwater management page updated three or more times per year with timely topics.

Schedule: Currently in action. Plan for future posts to include timely information about lawn care, yard waste, leaf raking, automobile maintenance, household hazardous waste, and other topics.

Assessment: Records kept of information posted; hit counter and newsletter feature on website used to estimate number of residents reached.

Responsible person/department: Department of Public Works

Document: Found at <https://www.townofmilton.org/stormwater-management> . Different updates are posted on the sidebar at the left-hand side.

BMP 1-6 Inspect signs that identify water bodies or stormwater management structures within the town.

Targeted audience: Residents and visitors

Description: Inspect signs owned by the Town, MassDCR, or MassDOT that identify water bodies, the boundary of a watershed, or stormwater management structures. Notify the owner of signs if repairs are needed.

Measurable goal:

Schedule: Inspect all signs each spring of the permit term.

Assessment: As part of its stormwater infrastructure Operations and Maintenance Plan, the menu of stormwater management structures that require inspection and maintenance will include known locations of water body/stormwater signage in Milton. Regular inspection records and forms will include questions that assess the condition of signage.

Responsible person/department: Department of Public Works

BMP 1-7 Provide an annual update of the Stormwater Management Program at a Select Board meeting.

Targeted audience: Residents and town government

Description: Annually, the Department of Public Works will request time on the Select Board's agenda to provide an informational update on the Stormwater Management Program. Topics will include updates on the SWMP, progress on long-term goals, and feedback from the Select Board. The Board's meetings are televised on local access cable TV.

Measurable goal: Annual update of the SWMP at Select Board meeting.

Schedule: Spring of each permit year.

Assessment: DPW will request annual review of the SWMP and the annual report from the Select Board.

Responsible person/department: Department of Public Works

Document: After an update goes live to the Milton Access website, a link to the video recording will be included in this space.

BMP 1-8 Develop two press releases per year that describe the importance of stormwater management.

Targeted audience: Residents

Description: The Department of Public Works will develop two press releases per year that describe the importance of managing stormwater and will publish them in local newspapers. Articles may take the form of “stormwater tips” to share household BMPs, general education about pollution prevention, or other subjects.

Measurable goal: Two press releases published per year through Town channels and local media.

Schedule: Each year of the permit term.

Assessment: The Town will estimate the number of people reached by each stormwater message using metrics such as number of subscribers to a given publication and hit counters on web articles.

Responsible person/department: Department of Public Works

Document: Example press release at <https://www.townofmilton.org/home/news/awards-funding-communities-protect-coastal-water-quality>.

BMP 1-9 Develop or air two local access cable TV PSAs/programs per year that describe the importance of stormwater management.

Targeted audience: Residents

Description: The Department of Public Works will ensure that two public service announcements (PSAs) or programs per year for local access cable TV contain information about stormwater management, including but not limited to information about:

- Household best management practices
- Low-impact development and BMP retrofitting in Town
- Stormwater management efforts undertaken by the Town
- Public meetings where stormwater management initiatives are discussed

Measurable goal: Two PSAs/programs on local access cable TV.

Schedule: Air two PSAs (minimum) or programs per year in each year of the permit term.

Assessment: Based on viewership of programming on Milton Access TV, the Town will estimate the number of people reached by each stormwater message.

Responsible person/department: Department of Public Works

Document: Example program available at <http://milton.vod.castus.tv/vod/?video=69ae9841-d06c-4b19-8081-171d715d9ccf>

BMP 1-10 Stuff water or stormwater bills with information about household Best Management Practices, or send out a separate informational mailer.

Targeted audience: Residents

Description: Develop a quarterly stuffer for water bills geared towards residential best management practices. Include in each water bill cycle. Use these updates to provide information about bacteria and phosphate pollution per the requirements of Appendices F and H of the MA Small MS4 General Permit, and/or to advertise opportunities for public participation in stormwater management. If a bill stuffer does not meet Town needs or plans, send out a separate outreach mailer.

Measurable goal: Send at least 1 stuffer or mailer per year. Estimate number of households reached and times reached based on number and timing of mailings.

Schedule: Plan for stuffer/mailers at 1 of the following times of year: September (Fall water bills), December (Winter water bills), March (Spring water bills), May (Summer water bills).

Assessment: Estimate percentage of households reached. Consider that renters may not see this information if water is billed to landlords or property managers.

Responsible person/department: Department of Public Works

Document: Example documents attached.

BMP 1-11 Work with neighborhood groups.

Targeted audience: Residents

Description: Set up meetings with Milton neighborhood organizations and homeowners' associations to discuss stormwater pollution and household best practices. Prioritize HOAs that have management responsibility for on-site stormwater BMPs. Work towards creating a record of these groups to add to the SWMP so that DPW can remind groups of management responsibilities.

Measurable goal: Create a record of HOAs and neighborhood organizations. Note those with stormwater management responsibilities. Meet with at least one of these organizations by the end of each permit year to discuss stormwater management.

Schedule: One meeting per year. By the end of Permit Year 2, create a list of organizations that includes stormwater management responsibilities.

Assessment: Records and notes kept of each meeting; list created and added to Stormwater Management Plan.

Responsible person/department: Department of Public Works

Document: In development.

BMP 1-12 Create a mailer for businesses.

Targeted audience: Businesses and commercial facilities

Description: Develop a mailing or brochure geared to business or commercial audiences, with a focus on businesses with stormwater management responsibilities. Topics might include building/parking lot maintenance, use and storage of salt, water disposal, or other issues. Disseminate this brochure by mailing to Milton businesses. Distribute at least twice, with focus on particular problems, BMPs, or business types. Consider partnering with the Milton Chamber of Commerce.

Measurable goal: Brochure developed and distributed.

Schedule: Develop brochure and distribute by June 2019. Continue to update annually with new BMPs.

Assessment: Estimate businesses reached based on address list and letters mailed. Record number of mailers sent with each mailing.

Responsible person/department: Department of Public Works

Document: Attached.

BMP 1-13 Meet with personnel from Milton campuses and institutions.

Targeted audience: Institutional facilities

Description: Engage personnel from institutions in Milton such as Milton Academy, Curry College, Beth Israel Deaconess Hospital, and other large-campus institutions to learn about their stormwater management practices and encourage good stormwater management.

Measurable goal: List of target institutions to engage and record of meetings and topics discussed. Each year, attempt to reinforce stormwater management messaging.

Schedule: In first permit year, develop a priority-ranked list of target institutions. Beginning in Year 2, meet with institutional representatives either individually or in groups to discuss campus stormwater management plans and programs.

Assessment: Record names and contact information of institutional personnel reached.

Responsible person/department: Department of Public Works

Document: In development.

BMP 1-14 Develop a construction and development webpage.

Targeted audience: Construction

Description: Develop a webpage for potential developers and redevelopers within the town about proper sediment and erosion control management practices/Low Impact Development; and information about the Construction General Permit.

Measurable goal: Webpage on Engineering Department section of the town website.

Schedule: Completed by permit year 2, updated annually.

Assessment: Hit counter on web page to estimate number of developers reached.

Responsible person/department: Department of Public Works, Engineering Department

Document: Will be found at <https://www.townofmilton.org/permits-and-regulations>.

BMP 1-15 Create an information sheet about new Town regulations.

Targeted audience: Construction

Description: Create an information sheet on new construction regulations, such as the “1-inch rule”, to provide developers with information about new Town ordinances related to stormwater management. Make this sheet available at permitting offices and online.

Measurable goal: Information sheet developed and reviewed by permitting offices.

Schedule: Information sheet available no later than one month after stormwater regulations are revised and approved by Town government (see BMP 5-1).

Assessment: Estimate number of sheets distributed and use hit counter on web page to estimate number of developers reached.

Responsible person/department: Department of Public Works, enforcement officers

Document: In development. When completed, the document will be linked here or attached.

SECTION 2 Public Participation and Involvement

The Town enacts the Stormwater Management Plan with the approval of Town executive and legislative bodies. The continued participation and input of Town residents and government provides the Town with a mandate for stormwater management.

To comply with Minimum Control Measure 2, municipalities are required to comply with applicable State and local public notice requirements. Municipalities are also required to provide an opportunity for the public to participate in the development or implementation of their Stormwater Management Program at least annually.

The Town will implement the following BMPs to fulfill the requirements of Minimum Control Measure 2.

BMP 2-1 Allow annual review of the SWMP.

Description: Create a space on the Town website for review of the SWMP. Make physical copies available for review at Town Hall and the DPW office.

Measurable goal: Announce annual opportunity for review of the SWMP.

Schedule: Maintain webpage and physical copies continuously. Send out a web announcement and press release annually reminding the public of the opportunity to review.

Assessment: Comments and inquiries about the SWMP will be recorded as they are received.

Responsible person/department: Department of Public Works

Document: Link to web copy at <https://www.townofmilton.org/stormwater-management/files/stormwater-management-program> .

BMP 2-2 Allow public comment on the SWMP.

Description: Notify the public when updates are made to the SWMP and solicit comments. Regardless of changes made to the SWMP, the Town will solicit comments annually each spring of the permit term. The Department of Public Works will review these comments as part of its annual review of the SWMP.

Measurable goal: Create public comment page when SWMP goes live on Town website. Respond to comments as necessary. Notify the public when changes to the SWMP occur. Comments kept in records.

Schedule: Comment page open year-round. Notify public of changes and annual updates.

Assessment: Record comments' content for possible changes or notes to the Stormwater Management Program. Attach comments to annual report.

Responsible person/department: Department of Public Works

Document: Link to web copy at <https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents> includes instructions for making written comments.

BMP 2-3 Comply with state public notification guidelines at MGL Chapter 39 Section 23B.

Description: Continue to post notices announcing upcoming meetings in Town Hall and the local newspapers.

Measurable goal: Notices posted as required.

Schedule: Ongoing throughout permit term.

Assessment: Record kept of notifications.

Responsible person/department: Town Clerk, Department of Public Works

Document: Town calendar found at <https://www.townofmilton.org/calendar-by-event-type/16/month> .

BMP 2-4 Provide trash pick-up services at town clean-up days.

Description: Some neighborhood and town organizations hold clean-up days to remove litter from their areas. The Department of Public Works will provide trash and recycling pick-up for the clean-ups as requested.

Measurable goal: Trash pickup provided each year.

Schedule: Each spring of the permit term.

Assessment: Each year, evaluate cleanup successes/failures and make notes for future improvements. Make qualitative assessment about the amount of litter observed and cleaned up.

Responsible person/department: Department of Public Works

BMP 2-5 Provide support for the Neponset River Watershed Association's watershed projects.

Description: The Town of Milton will support the Neponset River Watershed Association's river restoration project as necessary. In the past, this support has included support for engineering projects, grants, and public education.

Measurable goal: Assistance with wetlands projects as requested by NepRWA.

Schedule: Ongoing.

Assessment: Continue to meet with NepRWA and the Neponset Stormwater partnership. Record successes, such as invasive species removals.

Responsible person/department: Department of Public Works

BMP 2-6 Assist in providing Milton Public Schools with stormwater and water pollution-related curricula.

Description: Assist the nonprofit organization Sustainable Milton, the Neponset River Watershed Association, and school teachers in Milton in developing stormwater-related and environmental curricula to encourage the environmental stewardship of Milton students.

Measurable goal: Continue working with nonprofits and schools to coordinate water curricula.

Schedule: Ongoing.

Assessment: Estimate number of students reached per year.

Responsible person/department: Department of Public Works

BMP 2-7 Hold municipal roundtables with department heads.

Description: Hold municipal roundtable meetings with heads of Town departments to evaluate aspects of the Stormwater Management Program. As all departments play a role in executing the plan, these meetings should allow departments to understand program necessities, impacts, and responsibilities. Subsequent meetings should give departments the opportunity to identify program strengths, weaknesses, and opportunities.

Measurable goal: Hold one meeting per year with heads of any department that administer the SWMP to discuss the SWMP.

Schedule: Meetings in winter of each permit year.

Assessment: Request feedback from department heads to plan future discussions and assess effectiveness of past discussions. Record meeting agenda(s) in annual report.

Responsible person/department: All.

SECTION 3 Illicit Discharge Detection and Elimination

Much of stormwater pollution in suburban environments comes from illicit discharges. An illicit discharge is any discharge to a municipal separate storm sewer that is not composed entirely of stormwater, usually due to an illicit sewer connection or sanitary sewer overflow. A sanitary sewer overflow (SSO) is a discharge of untreated sanitary wastewater from a municipal sanitary sewer.

To comply with Minimum Control Measure 3, municipalities are required to find and eliminate sources of non-stormwater from their storm sewer system. Examples may be Sanitary Sewer Overflows, connections between the sanitary and stormwater sewers, or illegal dumping or discharge into the stormwater system. Municipalities are expected to systematically look in their system for non-stormwater sources and remove them.

A catchment is the area that drains to an individual outfall or interconnection.

The Illicit Discharge Detection and Elimination (IDDE) Program has a number of requirements:

- The Town must prohibit illicit discharges and sanitary sewer overflows to the MS4 and require removal of these discharges.
- Upon detection of these discharges, the Town shall eliminate them as quickly as possible.
- The Town must create an inventory of known SSOs and illicit discharges that have discharged to the MS4 within the last 5 years. This inventory is required within one year of the effective date of the permit.
- The Town must update its map of the MS4 (required in the 2003 permit) within 2 years of the effective date of the permit.
- The Town must provide a written program for IDDE within one year of the permit effective date and completely implement that program (that is, eliminate all illicit discharges detected) within ten years of the permit effective date.
- The Town must create a priority ranking of all outfalls and interconnections that discharge into the MS4 to assess illicit discharge potential.
- The Town shall create written procedures for dry weather screening of outfalls and for catchment investigations.
- The Town must provide information about the progress of the IDDE program and information about illicit discharges and SSOs detected, as well as their removal plans, in each annual report.

The Town will implement the following BMPs to comply with Minimum Control Measure 3.

The Town's written IDDE Program and related documents are attached in this section.

The Department of Public Works and the Department of Inspectional Services are responsible for enforcement of correct connections and illicit connection prevention.

BMP 3-1 Create an inventory of SSOs.

Description: The Town will identify all known locations where SSOs have discharged to the MS4 within the previous five years. This will include SSOs resulting, during dry or wet weather, from inadequate conveyance capacities, or where interconnectivity of the storm and sanitary sewer infrastructure allows for communication of flow between the systems.

The Town will develop an inventory of all identified SSOs indicating the following information (if available):

1. Location and receiving water, if any
2. A clear statement of whether the discharge entered a surface water directly or entered the MS4
3. Date(s) and time(s) of each known SSO occurrence
4. Estimated volume of the occurrence
5. Description of the occurrence indicating known or suspected cause(s)
6. Mitigation and corrective measures completed with dates implemented
7. Mitigation and corrective measures planned with implementation schedules

Measurable goal: Inventory completed within one year of permit effective date.

Schedule: Inventory completed June 2019 and updated at least annually.

Assessment: Require progress reports on SSO inventory regularly in the first permit year. Require annual updates in anticipation of annual report in May of each permit year.

Responsible person/department: Department of Public Works

Document: SSO Inventory is included in IDDE Program.

BMP 3-2 Report any SSO to environmental agencies.

Description: Upon becoming aware of an SSO to the MS4, the Town of Milton will provide oral notice to EPA and MassDEP within 24 hours. In addition, the Town will provide written notice to EPA and MassDEP within five days of becoming aware of the SSO occurrence and shall include the information in the updated inventory. Reporting requirements will be included in municipal operation and maintenance plans (see Section 6).

Measurable goal: Any newly-discovered SSOs reported.

Schedule: Ongoing.

Assessment: Record kept of any reported discharges.

Responsible person/department: Department of Public Works

BMP 3-3 Update and maintain the MS4 map.

Description: The Town will update its map of the MS4 in two phases as described below.

Phase I: to be completed within two years of the permit effective date. The map must include:

- Outfalls and receiving waters (as required by 2003 permit)
- Open channel conveyances (swales, ditches, etc.)
- Interconnections with other MS4s and other storm sewer systems
- Municipally-owned stormwater treatment structures (e.g. detention and retention basins, infiltration systems, bioretention areas, water quality swales, gross particle separators, oil/water separators, or other systems)
- Waterbodies identified by name and indication of all use impairments as identified on the most recent EPA approved Massachusetts Integrated List of waters report
- Initial catchment delineations
- Owner of outfall (Town or other entities)

Phase II: to be included in annual updates of the system map as catchments are investigated. This information must be included for all outfalls in the map within 10 years of the permit effective date:

- Outfall spatial location (latitude and longitude with a minimum accuracy of +/- 30 feet)
- Pipes
- Manholes
- Catch basins
- Refined catchment delineations
- Municipal sanitary sewer system
- Municipal combined sewer system (if applicable)

Information about progress towards these map updates shall be included in each annual report.

Measurable goal: Phase I updates completed by year 2 of permit effective date; Phase II updates completed by year 10 of permit effective date.

Schedule: Updates included in each annual report.

Assessment: Each year, provide a percentage estimate of completeness for Phase I and Phase II updates.

Responsible person/department: Department of Public Works

BMP 3-4 Develop a written IDDE program.

Description: The Town will develop a written program for illicit discharge detection and elimination. This plan will include:

- A statement of responsibilities with regard to eliminating illicit discharges (i.e. the departments and individuals responsible for implementation of program elements)
- An assessment and priority ranking of outfalls and interconnections in terms of their potential to have illicit discharges and SSOs and the related public health significance. This assessment and ranking will be completed within 1 year of the permit effective date. Information about factors and outfall classifications will be included in the town's written program. Per Appendices F and H of the permit, outfalls known to discharge phosphorus or bacteria to the MS4 will be classified as Problem Outfalls or High Priority Outfalls.
- A written procedure for dry-weather screening of catchments/outfalls/interconnections, to be completed within 1 year of the permit effective date.
- A follow-up ranking of outfalls and interconnections to be completed after dry weather screening of outfalls within 3 years of the permit effective date.

As part of compliance with the permit, outfalls which drain to water bodies designated as impaired for bacteria, pathogens, or phosphorus will be given priority in ranked lists.

Measurable goal: Initial ranking and written screening procedure completed by June 2019. Follow-up ranking completed by June 2021. Rankings included in Annual Reports and updated in the Stormwater Management Program.

Schedule: Draft IDDE program, including ranking and screening procedure, completed by January 2019. Dry-weather screening will be ongoing.

Assessment: A successful IDDE program will meet permit deadlines for written procedure development, screening of outfalls and catchments; and scheduling of these screenings. In addition, the Town will document in each annual report the number of SSOs and illicit discharges identified and removed; the number and percent of total outfall catchments evaluated during the year; all dry weather and wet weather screening and sampling results; and the volume of sewage removed. Consistent identification and removal of illicit discharges will be considered success for this BMP.

Responsible person/department: Department of Public Works

Document: IDDE Program is linked on this webpage: <https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 3-5 Investigate catchments based on priority.

Description: Develop a written procedure for investigating catchments associated with outfalls or interconnections within the MS4 and begin conducting catchment investigations according to the ranking of outfall priority.

Measurable goal: Investigations of catchments associated with all Problem outfalls begun by January 2020. Investigations of all Problem outfalls completed by June 2025. Investigations of all High- and Low-priority Outfalls completed within 10 years of the permit effective date (June 2028).

Schedule: Complete the written catchment investigation procedure by January 2020 (within 18 months of permit effective date). Begin investigating catchments no later than June 2020.

Assessment: Annual reporting included in IDDE plan, attached to annual report.

Responsible person/department: Department of Public Works

Document: Priority ranking included in IDDE plan, linked here: <https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 3-6 Conduct ongoing dry and wet weather screening, with a schedule for ongoing screening completed by 2021.

Description: Based on the information in the IDDE program and the ranked list of priority outfalls, the Town will conduct screening of outfalls.

Measurable goal: Create a schedule for and complete inspection of all outfalls (except as described in the permit) within 3 years of the permit effective date. Dry weather screening must be completed by 2021, and wet weather screening must be completed by 2028.

Schedule: Approximately 1/3 of outfalls screened per year.

Assessment: Annual reporting included in IDDE reporting.

Responsible person/department: Department of Public Works

BMP 3-7 Conduct annual employee training.

Description: The Town will conduct employee training for employees involved in the IDDE program about the program, proper maintenance, inspection, and record keeping of the Town's drainage system. The training will include how to recognize illicit discharges and SSOs. Require employees to attend a minimum of one training per year. Information about the training should be included in the annual report.

Measurable goal: Conduct at least one employee training opportunity per year and one makeup opportunity. Require attendance from all DPW staff.

Schedule: Ongoing, annually.

Assessment: Litmus test staff knowledge at the beginning of each training by asking questions about definitions and best practices. Use knowledge gaps to focus training on areas of concern.

Responsible person/department: Department of Public Works

Document: Agenda for 2018 (PY 1) training included in IDDE plan, previously attached. Agenda includes time, date, attendance, and post-training notes.

BMP 3-8 Continue to enforce the correct connection bylaw.

Description: As part of the 2003 permit requirements, the town passed a bylaw requiring that new construction be inspected for correct connection to the sanitary sewer. The Town has enforced this bylaw since its original implementation and will continue to do so.

Measurable goal: Continue to require inspection for correct connection.

Schedule: Ongoing.

Assessment: Record kept of inspections and findings.

Responsible person/department: Department of Public Works, Health Department

BMP 3-9 Continue to implement the town-wide sewer rehabilitation program.

Description: The Town will continue its sewer rehabilitation work and continue to secure funding for future years of the work. The work will reduce the frequency and magnitude of SSOs in the system.

Measurable goal: Secure funding each year for rehabilitation.

Schedule: Ongoing.

Assessment: Completion of the sewer rehabilitation program will be considered success for this BMP.

Responsible person/department: Department of Public Works

BMP 3-10 Remove illicit discharges, including sewer underdrains, if found during routine maintenance.

Description: The Town will create a removal plan and timeline for any illicit discharges or sanitary sewer overflows. In Milton's sewer system, some underdrains were installed during construction of the sewers to control groundwater. No known underdrains have their own outfalls to receiving waters, but a leaky sewer can leak into the underdrain and convey pollutants to groundwater. The Town will also remove sewer underdrains when found during other routine maintenance or sewer repair projects.

Measurable goal: Maintain a record of illicit discharges or SSOs removed or set to be removed, and include in the annual report. Also report if any sewer underdrains are found and removed.

Schedule: Ongoing.

Assessment: Record kept of any underdrain removals and other illicit discharge eliminations.

Responsible person/department: Department of Public Works

SECTION 4 Management of Construction Site Runoff

To comply with Minimum Control Measure 4, municipalities are required to have an ordinance requiring management of stormwater discharges from construction sites that disturb one or more acres of land. These ordinances should include a written procedure for site plan review and erosion control requirements.

As per the requirements of the 2003 MA Small MS4 General Permit, Milton already has a bylaw that requires a sediment and erosion control plan and a waste management plan from construction sites that require a building permit.

The 2016 permit requires municipalities to make more specific requirements of construction developers. For example, the Town must establish regulations that developers use stormwater BMPs suitable for their particular construction site. All required regulatory changes are incorporated through BMPs in Section 5.

The Town will implement the following BMPs to comply with Minimum Control Measure 4.

BMP 4-1 Continue to require all applicable construction sites to develop a sediment and erosion control plan.

Description: Enforce the town bylaw that requires all construction sites that require a building permit (with certain exemptions) to develop a sediment and erosion control plan. Town Meeting approved this bylaw in 2008.

Measurable goal: Document all sediment and erosion control plans associated with construction sites.

Schedule: Ongoing.

Assessment: Site inspection form includes record of submission of sediment and erosion control plan.

Responsible person/department: Building Department, Engineering Department

BMP 4-2 Continue to require all applicable construction sites to implement a waste management plan.

Description: Enforce the town bylaw that requires all construction sites (with certain exemptions) to develop a waste management plan.

Measurable goal: Document all waste management plans associated with construction sites.

Schedule: Ongoing.

Assessment: Site inspection form includes record of waste management plan.

Responsible person/department: Building Department, Engineering Department

BMP 4-3 Develop written procedures for site inspections and enforcement of sediment and erosion control measures.

Description: Develop written procedures for site inspections and enforcement of sediment and erosion control measures.

Measurable goal: Written procedures included in stormwater management program. Procedures should include inspection forms to ensure consistent reporting.

Schedule: Within one year of permit effective date (June 2019).

Assessment: Complete inspection and enforcement records will be considered success for this BMP.

Responsible person/department: Engineering Department

BMP 4-4 Develop written procedures for site plan review, inspection, and enforcement.

Description: Develop written procedures for site plan review, inspection, and enforcement. Base these procedures on current practices and general best practices.

Measurable goal: Written procedures included in stormwater management program. Procedures should include inspection forms to ensure consistent reporting.

Schedule: Within one year of permit effective date (June 2019).

Assessment: Creation of written procedures/forms will be considered success for this BMP.

Responsible person/department: Engineering Department

Document: Site inspection procedures and forms attached.

SECTION 5 Stormwater Management in New Development and Redevelopment

To comply with Minimum Control Measure 5, municipalities are required to address stormwater runoff from new development and redevelopment that disturb one or more acres of land. The goal of this measure is to try to manage stormwater where it falls and retain it on site. This control measure encourages the use of low impact design techniques and requires the retention or treatment of runoff on site using green infrastructure practices.

For this section, a **site** is defined as “the area extent of construction activities, including but not limited to the creation of new impervious cover and improvement of existing impervious cover (e.g. repaving).” A **new development** is defined as “any construction activities or land alteration resulting in total earth disturbances equal to or greater than 1 acre (or activities that are part of a larger common plan of development disturbing greater than 1 acre) on an area that has not previously been developed to include impervious cover.” **Redevelopment** is defined as any construction, land alteration, or improvement of impervious surfaces resulting in total earth disturbances equal to or greater than 1 acre (or activities that are part of a larger common plan of development disturbing greater than 1 acre) that does not meet the definition of new development.

Under Minimum Control Measure 5, several requirements may be satisfied by developing or revising town bylaws and regulations to bring them into compliance with new permit standards. The implementation and enforcement of these standards will satisfy most of Milton’s obligations under the 2016 permit.

The Town will implement the following BMPs to fulfill the requirements of Minimum Control Measure 5.

BMP 5-1 Revise the Town's bylaws and regulations to ensure stormwater regulations meet permit requirements.

Description: The 2016 MA Small MS4 General Permit requires that permittees enforce stricter provisions related to stormwater management in development and redevelopment. In particular, the Town is expected to require stricter adherence to specific provisions delineated in the permit and reference the Massachusetts Stormwater Handbook and Standards. The bylaw or regulations will require BMP optimization for removal of phosphorus and sediments as required by appendices F and H of the General Permit. The bylaw or regulations will require BMP optimization that incorporates designs for shutdown and containment to isolate the system in the event of an emergency spill or other unexpected event per appendix H of the general permit.

For specific regulatory requirements, see the General Permit section 2.3.6a, and appendices F and H.

Measurable goal: Revise the town's stormwater bylaw and regulations to align with permit-required standards for stormwater management in development and redevelopment.

Schedule: Bylaw and regulations revised and passed within 2 years of permit effective date, June 2020.

Assessment: The Neponset Stormwater Partnership and the Town of Milton will review Milton's bylaw and regulation revisions to ensure compliance with the 2016 General Permit and protection of Milton's water bodies.

Responsible person/department: Select Board, Department of Public Works, Planning Department/Board, Building Department, Town Counsel, Town Meeting

Document: Any revised bylaws and regulations will be attached to the SWMP in this section.

BMP 5-2 Implement and enforce new Town regulations.

Description: After new Town stormwater regulations are promulgated, implement any new regulatory requirements and enforcement mechanisms as described in the bylaws and regulations.

Measurable goal: Records kept of permit applications, inspections, BMPs, and other regulatory and enforcement actions taken. A brief description of regulatory actions should be included with each annual report.

Schedule: Ordinances revised and passed within 2 years of permit effective date, June 2020. Regulatory actions included in permit annual reports each year after regulations are promulgated.

Assessment: Developers will be required to submit a permitting checklist certifying that they have satisfied regulatory requirements.

Responsible person/department: Engineering Department

BMP 5-3 Require as-built plans for on-site stormwater control.

Description: Require as-built plans for on-site stormwater control measures on new development and redevelopment.

Measurable goal: Written procedures for requiring as-built plans in new Town ordinances.

Schedule: Ongoing as ordinances are adopted.

Assessment: Town will maintain schedules for as-built plan deadlines for developments.

Responsible person/department: Engineering Department

BMP 5-4 Complete the EPA Water Quality Scorecard.

Description: Complete EPA's Clean Water Scorecard to help identify opportunities and priorities for green infrastructure and low impact development. The completed scorecard will serve as an aid to complete BMPs 5-5 and 5-6. The scorecard is available at the following link:

<https://www.epa.gov/sites/production/files/2014-04/documents/water-quality-scorecard.pdf>

Measurable goal: Water Quality Scorecard completed and included in annual report.

Schedule: Scorecard completed within 2 years of permit effective date and included in annual report for permit year 2.

Assessment: A completed scorecard will be considered success for this BMP.

Responsible person/department: All.

Document: The Water Quality Scorecard will be attached to the SWMP in this section when it is complete.

BMP 5-5 Develop a report on impervious cover creation requirements.

Description: The 2016 MA Small MS4 General Permit requires that permittees develop a report “assessing current street design and parking lot guidelines and other local requirements that affect the creation of impervious cover”.

This assessment should be used to give information to the Town to allow the Town to determine if changes to design standards for streets and parking lots can be made to support low impact design options. If the assessment indicates that changes can be made, the assessment shall include recommendations and proposed schedules to incorporate policies and standards into relevant documents and procedures to minimize impervious cover attributable to parking areas and street designs.

The Planning Board and Traffic Commission should be involved in this assessment. The assessment will become part of the SWMP, and the Town will report on the status of this assessment in each permit annual report.

Measurable goal: Assessment and report completed and included in permit year 4 annual report.

Schedule: Assessment ongoing, report completed by June 2022 for inclusion in annual report.

Assessment: Inclusion of the assessment in the annual report and follow-up with assessment findings and recommendations will be considered success for this BMP.

Responsible person/department: Department of Public Works, Planning Department, Traffic Commission

Document: The impervious cover creation report will be attached in this section when it is complete.

BMP 5-6 Develop a report to determine the feasibility of allowing low-impact development practices.

Description: Develop a report assessing existing local regulations to determine the feasibility of making, at a minimum, the following practices allowable when appropriate site conditions exist:

- i. Green roofs;
- ii. Infiltration practices such as rain gardens, curb extensions, planter gardens, porous and pervious pavements, and other designs to manage stormwater using landscaping and structured or augmented soils; and
- iii. Water harvesting devices such as rain barrels and cisterns, and the use of stormwater for non-potable uses.

The assessment should indicate if the practices are allowed in Milton and under what circumstances are they allowed. If the practices are not allowed, the Town will determine what factors hinder the use of these practices, what changes in local regulations may be made to make them allowable, and provide a schedule for implementation of recommendations. The Town will implement all recommendations, in accordance with the schedules, contained in the assessment. The Town will report in each annual report on its findings and progress towards making the practices allowable.

Measurable goal: Assessment and report completed and included in permit year 4 annual report.

Schedule: Assessment ongoing, report completed by June 2022 for inclusion in annual report.

Assessment: Completion of report and follow-up on any scheduled recommendations will be considered success for this BMP.

Responsible person/department: Planning Department

Document: The Low-Impact Development Feasibility Report will be attached to the SWMP in this section.

BMP 5-7 Identify Town-owned properties that could potentially be modified or retrofitted with structural BMPs to reduce impervious area.

Description: The Town will identify a minimum of 5 Town-owned properties that could potentially be modified or retrofitted with BMPs designed to reduce the frequency, volume, and pollutant loads of stormwater discharges to and from its MS4 through the reduction of impervious area.

Measurable goal: At least 5 properties identified for potential modification.

Schedule: Submit report with the annual report beginning in permit year 4.

Assessment: An up-to-date Structural BMP Report and implementation of any schedules therein will be considered success for this BMP.

Responsible person/department: Department of Public Works

Document: The Structural BMP Report will be attached to the SWMP in this section.

SECTION 6 Pollution Prevention and Good Housekeeping for Municipal Operations

To comply with Minimum Control Measure 6, municipalities are required to implement good housekeeping practices in municipal operations such as vehicle maintenance, open space, buildings, and infrastructure in order to reduce pollution in stormwater from municipal operations.

Previous stormwater management plans incorporated several of these municipal BMPs, including street sweeping, road salting procedures, and vehicle maintenance. These separate BMPs will be incorporated into the operations and maintenance procedures described in BMPs 6-2 and 6-3.

The Town will implement the following BMPs to fulfill the requirements of Control Measure 6.

BMP 6-1 Develop an inventory of all Town- buildings, facilities, parks, open spaces, vehicles, and equipment.

Description: Develop an inventory of all Town-owned buildings, facilities, parks, open spaces, vehicles, and equipment for use in Operations and Maintenance plans.

Measurable goal: Develop a municipal operations and maintenance inventory for facilities as described in section 2.3.7.a.ii in the MA Small MS4 General Permit.

Schedule: Within two years of the permit effective date, June 2020.

Assessment: Completion of the inventory will be considered success for this BMP.

Responsible person/department: DPW

Document: An inventory of Town facilities and vehicles will be part of the Operations and Maintenance plan described in BMP 6-2. The Operations and Maintenance Plan will be linked at this location:

<https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 6-2 Develop written procedures for operations and maintenance of municipal facilities.

Description: Develop a written procedure for operations and maintenance for all municipal facilities described in BMP 6-1 above. Specific actions to be included in the O&M procedures are outlined in the MA Small MS4 General Permit and include responsible use of fertilizer and automotive fluids, procedures for vehicle storage, and landscaping maintenance. Per appendix H, O&M procedures will include procedures to manage properly grass cuttings and leaf litter on permittee property, including prohibiting blowing organic waste materials onto adjacent impervious surfaces.

Measurable goal: Develop a municipal operations and maintenance manual for facilities as described in section 2.3.7.a.ii in the MA Small MS4 General Permit.

Schedule: Within two years of the permit effective date, June 2020.

Assessment: Written procedures will encompass all activities and facilities listed in the permit. Records will be kept of associated forms and checklists used by staff. Continual program evaluation will be conducted to ensure procedures are being followed.

Responsible person/department: DPW, Consolidated Facilities, Parks Department, Fire Department, Police Department

Document: The Facilities Operations and Maintenance Plan will be linked here:

<https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 6-3 Develop written procedures for operations and maintenance of municipal infrastructure.

Description: Develop a written program detailing the activities and procedures the Town will implement so that MS4 infrastructure is maintained in a timely manner to reduce pollutant discharge. Procedures include cleaning and maintenance of catch basins to ensure basins are not more than 50% full; frequent street sweeping and litter vacuuming of targeted areas to reduce pollutant loads; winter road maintenance programs; and maintenance programs for stormwater management structures. Most constructed stormwater BMPs in Milton have site-specific O&M plans, which will be included.

Per appendix H, the O&M plan will maintain our current street sweeping frequency of all municipal owned streets and parking lots to a minimum of 2x/year. The infrastructure plan should also include information about the following:

- Inventory of current assets (flow, leakage, replacement need, etc.)
- Community perception of failures (order, flooding, cost)
- Repairs and upgrades needed
- Timelines for programmatic and management actions
- Financing options (if funding additional to stormwater utility is necessary)

Measurable goal: Develop a municipal operations and maintenance manual for infrastructure as described in section 2.3.7.a.iii in the MA Small MS4 General Permit.

Schedule: Within two years of the permit effective date, June 2020.

Assessment: Written procedures will encompass all activities and facilities listed in the permit. Records will be kept of associated forms and checklists used by staff. Continual program evaluation will be conducted to ensure procedures are being followed.

Responsible person/department: Department of Public Works, Consolidated Facilities

Document: The Infrastructure Operations and Maintenance Plan will be linked here:

<https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 6-4 Optimize catch basin cleaning.

Description: The Town will optimize its current catch basin cleaning schedule to meet the goals of the permit. DPW will establish a schedule for catch basin cleaning with a goal that the frequency of routing cleaning will ensure that no catch basin at any time will be more than 50 percent full. If, during two consecutive cleanings, a catch basin sump is more than 50% full, the Town will document this finding and investigate the contributing drainage area for sources of excessive sediment loading, and to the extent practicable, abate contributing sources. The Town will also prioritize inspection and cleaning of catch basins located near construction activities.

Measurable goal: the Town will include the catch basin cleaning schedule in the Infrastructure Operations and Management manual described in BMP 6-2 and create records of each catch basin cleaning to indicate following of the schedule.

Schedule: Within two years of the permit effective date, June 2020.

Assessment: Production of an optimized schedule and following of the schedule will be considered success for this BMP. Catch basin cleaning records will be kept and audited to ensure compliance.

Responsible Person/Department: DPW (Operations)

Document: The catch basin cleaning schedule will be linked here:

<https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 6-5 Develop and implement a Stormwater Pollution Prevention Plan (SWPPP) for the DPW yard and the Cemetery.

Description: The 2016 MA Small MS4 General Permit requires that the Town develops and implements a Stormwater Pollution Prevention Plan for Town-owned facilities where pollutants are exposed to stormwater. The DPW yard is also home to the Town maintenance garage and recycling center. The Cemetery facility also has a maintenance garage, and will require a separate SWPPP. The SWPPPs will be separate documents based on facility needs.

Each SWPPP should include an identification of a “Pollution Prevention Team”, specific personnel who will develop, implement, maintain, and revise the SWPPP. The Plans should also include a description and map of the DPW and Cemetery facilities, a description of activities that occur at each, outfalls, structural controls, and floor drains. Specific best management practices will also be included.

Measurable goal: SWPPPs for the DPW facility and the Cemetery created, signed and implemented.

Schedule: No later than June 30, 2020.

Assessment: The SWPPPs should include specific goals and responsibilities of the Pollution Prevention Teams. The Pollution Prevention Teams should meet no fewer than once per year to evaluate the SWPPPs’ effectiveness at meeting these goals and responsibilities.

Responsible person/department: Department of Public Works, Cemetery Department, Town Administrator, and Pollution Prevention Teams

Document: The SWPPPs for the DPW and the Cemetery facilities will be linked here:

<https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 6-6 Identify potential sources of phosphorus and report to EPA and MassDEP.

Description: The 2016 MA Small MS4 General Permit requires that permittees with discharges into water bodies impaired by phosphorus complete a Nutrient Source Identification Report. The report should identify potential sources of phosphorus into Milton's impaired water bodies. The report should also identify potential structural BMPs that may be utilized, and where they may be utilized in the MS4, in order to reduce phosphorus discharges.

Measurable goal: Submit a Nutrient Source Identification Report.

Schedule: Submit the report with the permit year 4 annual report.

Assessment: Completion of the report and utilization of its findings in structural BMP planning will be considered success for this BMP.

Responsible person/department: Department of Public Works

Document: The Phosphorus Source Identification Report will be linked here:

<https://www.townofmilton.org/stormwater-management/pages/stormwater-management-program-documents>

BMP 6-7 Plan and construct structural BMPs to reduce nutrient loading to Unquity Brook.

Description: The 2016 permit requires the Town to plan structural BMPs that will help to reduce nutrient loading to phosphorus-impaired waterways. The Town will plan, schedule, and construct BMPs during the permit term. By 2023, the Town will plan at least one structural BMP to reduce phosphorus loading to Unquity Brook. The BMP will be constructed by 2024. Any structural BMPs will be tracked and the Town will estimate the phosphorus removal by the BMP according to methods described in the 2016 General Permit Appendix F Attachment 3. These BMPs may also appear in the report described in BMP 5-7.

Measurable goal: Structural BMPs scheduled and constructed.

Schedule: Schedule submitted in permit year 5 annual report; one BMP completed by end of permit year 6.

Assessment: Completion of scheduled construction will be considered success for this BMP.

Responsible person/department: Department of Public Works

Document: A report related to the scheduling, planning, and construction of BMPs will be attached to this section and updated as necessary.

BMP 6-8 Hold annual Household Hazardous Waste Collection Day.

Description: Continue to hold a household hazardous waste drop-off day at least once a year.

Measurable goal: One HHW drop-off day held every year.

Schedule: Annually.

Assessment: Estimate the number of households utilizing the drop-off opportunity and the amount of material disposed each year.

Responsible person/department: Department of Public Works

BMP 6-9 Maintain Tree City USA status.

Description: The Town currently plants between 100 and 150 trees per year. The Town also removes dead or diseased trees. The Town will keep a record of trees planted and removed to ensure that trees are replaced in number each year.

Measurable goal: The town will maintain a record of trees planted and removed each year. The record will be updated and maintained by members of the Shade Tree Advisory Committee. The Town intends to maintain its status as a Tree City USA.

Schedule: Ongoing.

Assessment: Maintenance of the Town's Tree City USA status will serve as the measure of success for this BMP.

Responsible person/department: Department of Public Works and Shade Tree Advisory Committee

BMP 6-10 Identify stormwater outfalls within Milton owned by other entities and inform them of their management responsibility.

Description: The Commonwealth of Massachusetts owns several roadways in Milton and is responsible for stormwater management and outfall repair of these roads. Under the 2003 MA Small MS4 General Permit, the Department of Public Works identified which roads and stormwater outfalls are owned by the Commonwealth of Massachusetts and notified the appropriate agency of their management responsibility.

In the course of BMP 3-4, Milton will conduct evaluations of stormwater interconnections and outfalls. Outfalls owned by state agencies or other entities, such as private owners, will be identified. The Department of Public Works will notify the owners of these outfalls of their management responsibility when they are found during regular evaluations.

Measurable goal: Outfall map update will denote ownership of outfalls. Owners notified of their management responsibility.

Schedule: Entities notified in course of Phase I mapping (see BMP 3-1).

Assessment: Record kept of notifications as made.

Responsible person/department: Department of Public Works

BMP 6-11 Commission a flyover of Milton to ensure accurate stormwater utility fees.

Description: In 2012, Milton commissioned a flyover for mapping purposes. Milton uses GIS layers generated by the flyover data to measure impervious surface square footage in town. The square footage data are used to determine each household's stormwater utility fee.

Measurable goal: Flyover completed and stormwater utility fees updated.

Schedule: Within 15 years of the permit effective date (June 30, 2033).

Assessment: Integration of new flyover data into Milton's GIS will be considered success for this BMP.

Responsible person/department: Department of Public Works

Actions for Meeting Additional Permit Requirements

Background

Milton is subject to additional permit requirements based on the water bodies to which Milton's MS4 discharges. The Neponset River Watershed has been issued a Total Maximum Daily Load (TMDL) by EPA for pathogens and bacteria. The Town is also home to water bodies listed as Impaired by MassDEP for pathogens and bacteria, phosphorus and nutrients, and solids, oil, and grease.

The 2016 Massachusetts Small MS4 General Permit outlines specific requirements for MS4s discharging to waterbodies with a TMDL in Appendix F of the General Permit. The permit outlines specific requirements for MS4s discharging to other water quality limited waterbodies in Appendix H.

Table 7-1 describes the actions the Town will take to meet Total Maximum Daily Load requirements. Table 7-2 describes the actions the Town will take to meet requirements related to water quality limited waters.

Table 7-1. Actions for Meeting Total Maximum Daily Load Requirements

| Applicable TMDL | Action Description | Associated BMP(s) | Responsible Party |
|---|--|------------------------------|----------------------------|
| Neponset River (Bacteria/Pathogen) | <p>Adhere to requirements in part A.III of Appendix F</p> <p>Includes:</p> <ul style="list-style-type: none">• Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking• Annual message about pet waste• Message to dog owners at time of dog license issuance/renewal• Provide information to septic system owners about proper maintenance | 1-1, 1-2, 1-3, 1-4, 1-5, 3-4 | Department of Public Works |
| Neponset River Addendum (Bacteria/Pathogen) | See above | 1-1, 1-2, 1-3, 1-4, 1-5, 3-4 | Department of Public Works |

Table 7-2. Actions for Meeting Requirements Related to Water Quality Limited Waters

| Pollutant | Waterbody ID(s) | Action Description | Associated BMP(s) | Responsible Party |
|----------------------|---|--|--|--|
| E. coli/pathogens | Pine Tree Brook Neponset River (MA 73-02, 73-03, 73-04) Unquity Brook Popes Pond | <p>Adhere to requirements in part III of Appendix H</p> <p>Includes:</p> <ul style="list-style-type: none"> Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking Pet waste messaging as described in Table 7-1 Septic System messaging as described in Table 7-1 | 1-1, 1-2, 1-3, 1-4, 1-5, 1-8, 1-10, 3-4, 5-1, 6-1, 6-2 | Department of Public Works, Engineering |
| Phosphorus/nutrients | Pine Tree Brook | <p>Adhere to requirements in part II of Appendix H</p> <p>Includes:</p> <ul style="list-style-type: none"> Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking Annual message encouraging responsible lawn care practices Pet waste messaging as described in Table 7-1 Annual message encouraging proper disposal of leaf litter Increase sweeping frequency of municipal streets and parking lots Establish procedures to manage grass cuttings and leaf litter on municipal property Retrofit inventory shall include consideration of BMPs to reduce nitrogen discharges Structural BMPs tracked for P removal Require BMPs on new development and redevelopment to be optimized for P removal Phosphorus Source Identification Report | 1-5, 1-8, 1-10, 3-4, 5-1, 6-1, 6-2, 6-4, 6-5, 6-6 | Department of Public Works, Engineering, Planning Department |

| | | | | |
|-------------------|---|---|----------|--|
| | | <ul style="list-style-type: none"> • Retrofit inventory and ranking shall include infiltration BMPs • Evaluate permittee-owned properties within the drainage area of the impaired water or tributaries for retrofit opportunities and structural BMPs • Complete list of planned structural BMPs and implementation schedule | | |
| Solids/Oil/grease | Pine Tree Brook Neponset River (MA73-02, 73-03) Unquity Brook Russell Pond Turners Pond Popes Pond | <p>Adhere to requirements in part V of Appendix H</p> <p>Includes:</p> <ul style="list-style-type: none"> • Rank outfalls to these receiving waters as high priority for IDDE implementation in the initial outfall ranking • Increase sweeping frequency of municipal streets and parking lots • Prioritize maintenance for catch basins to ensure that no sump shall be more than 50% full • Stormwater management systems on commercial areas 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 | 5-1, 6-2 | Department of Public Works, Engineering, Planning Department |

Permit Timelines

This section details permit requirements chronologically. All requirements listed should be updated annually after initial inclusion. Updates of the SWMP will include the date each requirement was first reported.

Within one year of permit effective date: June 30, 2019

The following items are required in the Town's Notice of Intent, due within 90 days of the permit effective date:

- Identification of names and titles of people responsible for program implementation
- Documentation of compliance with Endangered Species Act obligations
- Documentation of compliance with National Historic Preservation Act obligations
- Documentation of authorization of all new or increased discharges granted by MassDEP in compliance with part 2.1.2
- Listing of all discharges to water bodies subject to an approved Total Maximum Daily Load (TMDL) requirement or water bodies that are water quality limited as determined by MassDEP

The following items are due within one year of the permit effective date:

- Stormwater Management Plan and any updates within the first year. The Stormwater Management plan should include a BMP for each permit requirement, a measurable goal, a time frame for implementation, and a measure of assessment.
- Sanitary Sewer Overflow (SSO) inventory including all of the information required in part 2.3.4.4.b
- Written IDDE Program pursuant to BMP 3-4
- Written procedures for site inspections and enforcement of sediment and erosion control procedures in accordance with BMPs 4-3 and 4-4
- Annual program evaluation. Update annually and maintain copies.

Within two years of permit effective date: June 30, 2020

- Listing of all receiving waterbody segments, their classification under the applicable state water quality standards, any impairment(s) and associated pollutant(s) of concern, applicable TMDLs and Waste Load Allocations, and number of outfalls from the MS4 that discharge to each waterbody. In addition to the receiving water, the Town shall document in the SWMP all surface public drinking water sources that may be impacted by MS4 discharges
- Listing of all interconnected MS4s and other separate storm sewer systems receiving a discharge from the permitted MS4, the receiving waterbody segment(s) ultimately receiving the discharge, their classification under the applicable state water quality standards, any impairment(s) and associated pollutant(s) of concern, applicable TMDLs and WLAs, and the number of interconnections
- Written procedures to require submission of as-built drawings and ensure long term operation and maintenance in accordance with BMP 5-1
- Documentation of updated stormwater ordinances as described in BMP 5-1
- Map of the separate storm sewer system detailed in BMP 3-3

Within four years of permit effective date: June 30, 2022

- Report(s) assessing current street design and parking lot guidelines and other local requirements within the municipality that affect the creation of impervious cover as described in BMP 5-4
- Report(s) assessing feasibility of Low-Impact Development as described in BMP 5-5

Within five years of permit effective date: June 30, 2023

- Report assessing a minimum of 5 Town-owned properties that could potentially be modified or retrofitted with BMPs designed to reduce the frequency, volume, and pollutant loads of stormwater discharges to and from its MS4 through the reduction of impervious area as described in BMP 5-65
- Plan and construction schedule for at least one structural BMP to reduce phosphorus loading to Unquity Brook as described in BMP 6-5

Within six years of permit effective date: June 30, 2024

- Construction of at least one structural BMP to reduce phosphorus loading to Unquity Brook as described in BMP 6-5

Within seven years of permit effective date: June 30, 2025

- Investigation of catchments associated with problem outfalls must be completed
- Investigation of catchments where any information gathered on the outfall identifies sewer input must be completed

Within ten years of permit effective date: June 30, 2028

- Completed Phase II update of the MS4 map with outfall spatial locations, pipes, manholes, catch basins, refined catchment delineations, sanitary sewers, and combined sewers
- Investigation of catchments associated with all problem, high-and low-priority outfalls must be completed