

Town of Milton, MA

NPDES Phase II Stormwater Rule Stormwater Management Plan

July 2003



Report

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Stormwater Management Plan**

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Executive Summary

Executive Summary

This document presents the Stormwater Management Plan (SWMP) for the Town of Milton. The SWMP was developed to meet requirements of the 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 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 of the stormwater program was published in the Federal Register on December 8, 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 I and the Massachusetts Department of Environmental Protection (DEP).

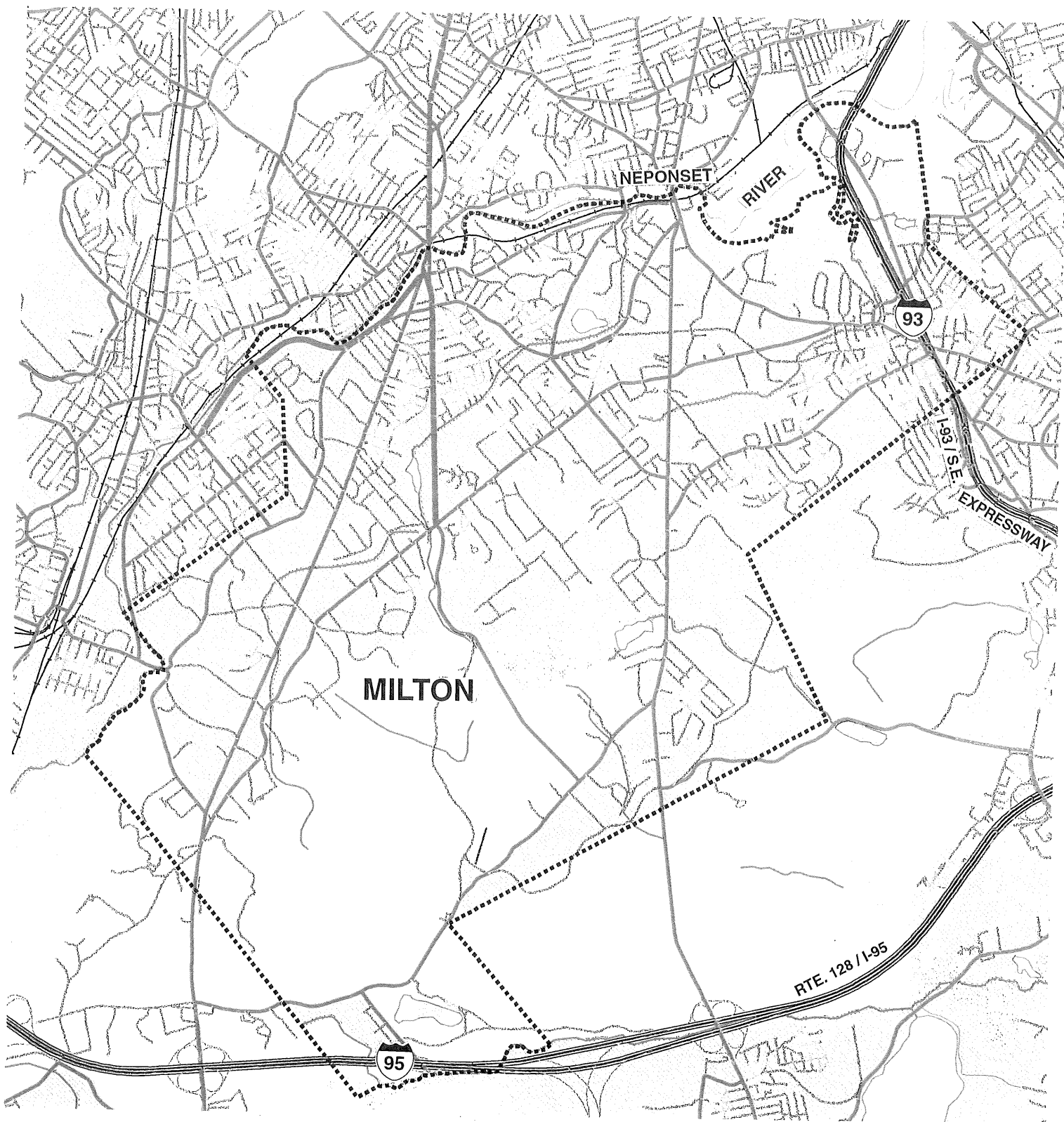
As determined by the 2000 census, the majority of the Town of Milton is classified as an "urbanized area" (see Figure ES-1) and the Town must obtain a Phase II permit. The non-urbanized area is primarily the Blue Hills Reservation and some adjacent streets. Note that the non-urbanized areas are not regulated under Phase II; however, the Town may choose to extend the BMPs developed in the Stormwater Management Plan to the entire Town.

ES.2 Stormwater Management Plans

The central focus of the NPDES Phase II permit is the Stormwater Management Plan (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 meet the "maximum extent practicable" standard, the Town must develop and implement best management practices (BMPs) for the following six minimum control measures:

- Public Education and Outreach
- Public Participation/Involvement
- Illicit Discharge Detection and Elimination
- Construction Site Runoff Control



The pink hatched area is an Urbanized Area and is regulated by Phase II.
The white area is not required to be included in Milton's Stormwater Management Plan.

Source: <http://www.epa.gov/region01/npdes/stormwater/ma.html>

- Post-construction Stormwater Management in New Development and Redevelopment
- Pollution Prevention/Good Housekeeping for Municipal Operations

The BMPs are the core of the SWMP and are described in Sections 1 through 6 of this document. Appendix A summarizes the BMPs in the SWMP, including the estimated cost for implementation.

ES.3 Reliance on Another Entity for Satisfying One or More of the Control Measures

The Town may rely on other entities (such as a non-profit organization or a school teacher) to help perform one or more of the BMPs included in the SWMP. Once an arrangement is established, it may be appropriate for the entities to consider a memorandum of understanding or a legal agreement that outlines the individual responsibilities of each party.

Best Management Practices included in the NOI become a part of the required stormwater management plan, even if the BMPs are administered by outside groups. If the outside group becomes unable to continue administering the program, the MS4 is still responsible for compliance with the permit terms.

EPA and DEP will allow adjustments in the management plan, so the Town may be able to replace a failing program with another one administered by the municipality.

ES.4 Executing the Stormwater Management Plan

This document describes the stormwater best management practices that Milton will complete during the next five years, through Spring 2008. After the Town submits its Notice of Intent to EPA and DEP in spring 2003, 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.

The Town should consider designating a “stormwater coordinator” for the Phase II SWMP, who would be responsible for coordinating tasks among Town departments, completing the annual report to EPA and DEP, and generally making sure that the BMPs listed in the SWMP are completed. It is important to note that the Town is legally required to complete all the BMPs listed in the NOI. The Town may be considered to be in violation of its NPDES Phase II permit if it fails to complete any of the BMPs.

ES.5 Existing Stormwater Programs in Milton

The Town of Milton has many existing stormwater programs and BMPs that can be used to fulfill the Phase II requirements. These include:

- Public education and outreach – Cooperation with and support for the Neponset River Watershed Association (NepRWA) Citizen Water Monitoring Network (CWMN) and other programs; in-kind support for river cleanups; partnering with the NepRWA to divert an existing outfall into a constructed wetland rather than directly to Pine Tree Brook; 24-hour hotline for citizens to report flooding and other emergencies
- Illicit discharge detection and elimination – Regular inspection of individual septic systems by the Board of Health; in progress of developing town-wide drainage map; developed town-wide sewer system map, including siphons, sewer underdrains, and combination sewer/storm drain manholes; developed map of stormwater outfalls to the Unquity and Pine Tree Brooks; developed report to summarize visual inspection of stormwater outfalls to the Unquity and Pine Tree Brooks; developed a Sanitary Sewer Overflow (SSO) report; conducted dry weather and wet weather sampling in 2002 and 2003; developed a report summarizing sampling results of each of the dry weather discharges from stormwater outfalls to Unquity and Pine Tree Brooks; in process of developing a report on wet weather sampling of these two brooks
- Construction site runoff control – Planning Board rules and regulations require the Statement of Development Effect (SDE) to include temporary and permanent erosion and sediment control during construction; Zoning Board regulations allow for cluster development
- Post-construction runoff control – Planning Board rules and regulations require the SDE to include estimated increase of peak run-off 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, in spring and fall; follows “smart salting” procedures for winter road maintenance, including use of calcium chloride, using pavement temperature to determine the deicer application rate, and storing all road salt in a covered salt shed; conducts all vehicle maintenance indoors and buys recycled antifreeze and recapped tires; cleans all catch basins once in three years; plants 150-200 street trees per year; holds an annual tire and battery drop-off day for residents; holds a household hazardous waste drop-off day at least once every other year; burns 90% of the Town’s waste oil and has the rest removed by a licensed hauler; and has a hazardous materials response team and two spill kits at the Town fire department

ES.6 Priority Resource Areas

As part of the Phase II permit, the Town must identify all receiving waters of the MS4 and note any “priority resource areas” within the Town, including public water supplies, public swimming beaches, Outstanding Resource Waters, shellfishing areas, waters on the state 303(d) listing, and cold water fisheries. These areas should receive

priority consideration in the SWMP. Section 8 identifies priority resource areas in Milton.

ES.7 Supporting Documentation

EPA requires each Phase II permittee to maintain the data, records, and other documents used to develop the SWMP. The “NPDES Phase II Stormwater Permitting – Manual for Developing a Stormwater Management Plan” that accompanies this document provides extensive background information about each of the BMPs selected for Milton’s SWMP. The Manual draws upon available literature and discussions with industry representatives, municipal employees, and regulators from state and federal agencies. The Manual also lists other resources (websites, organizations, etc.) for stormwater management.

This Manual should be maintained with the SWMP for future reference.

ES.8 Notice of Intent

Appendix B includes the Notice of Intent (NOI) that will be filed with DEP and EPA – Region I. The NOI summarizes the SWMP, and is the only paperwork required by the permitting authorities.

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Section One

Section 1

Control Measure 1: Public Education and Outreach

To comply with Control Measure 1, the Town “must implement a public education program to distribute educational materials to the community or conduct equivalent outreach activities about the impacts of stormwater discharges on water bodies and the steps to reduce stormwater pollution. The public education program should inform individuals and households about the problem and the steps they can take to reduce or prevent stormwater pollution” (Federal Register, Volume 64, No. 235, December 8, 1999 – Final Rule of the NPDES – Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges, page 68754).

Educating the public about the importance of stormwater management can help lead to greater support for and compliance with the Stormwater Management Plan.

The following public education/outreach best management practices (BMPs) will be implemented to fulfill the requirements of Control Measure 1.

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

Description: Develop a fact sheet to explain the environmental and health impacts from pet waste. The fact sheet will 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: Pet waste fact sheets developed and placed at the Town Clerk’s office and at the dog pound.

Schedule: Develop the fact sheet by the end of the first permit year. Distribute to the Town Clerk’s office and the dog pound as necessary.

Responsible person/department: Department of Public Works

Cost: 24 hours of staff time to prepare the fact sheet. Copying costs will be minimal.

BMP #1-2: Prioritize areas in Town that have pet waste problems, and install and maintain up to three mutt mitt stations.

Description: Town staff will identify the areas (parks, playgrounds, open space, etc.) that have problems with pet waste, and will install and maintain mutt mitt stations in up to three locations.

Measurable goal: Ranking developed; mutt mitt stations installed.

Schedule: Prioritize Town areas for pet waste problems by the end of the first permit year. Install three mutt mitt stations by the end of the second year.

Responsible person/department: Department of Public Works

Cost: 16 hours of staff time to prepare the ranking. A mutt mitt station costs approximately \$90 for the sign and dispenser and \$100 for a case of 2,000 bags. Most manufacturers provide discounts for bulk purchases, and may include the dispenser free if bags are bought in large quantities. The mutt mitt stations will require regular maintenance to dispose of the pet waste (likely twice per week during summer and less frequently during winter, assume 40 hours staff time per year).

BMP #1-3: Develop a draft bylaw that requires dog owners to clean up after their dogs, and include provisions for fines and enforcement. Present to Town Meeting.

Description: The Town does not currently have a "pooper scooper" bylaw that requires pet owners to clean up their dog's waste. The Town will develop a draft bylaw and present it to Town Meeting for approval.

Measurable goal: Draft bylaw developed; presented to Town Meeting.

Schedule: The Draft bylaw will be developed by the end of the first permit year. The bylaw will be presented to Town Meeting by the end of the second permit year.

Responsible person/department: Town Attorney

Cost: 24 hours for developing the draft bylaw; 16 hours for presenting to Town Meeting

BMP #1-4: Update the online Department of Public Works newsletter with stormwater information twice per year.

Description: The Department of Public Works maintains a newsletter on the Town website that is updated approximately every other month. Twice per year, include information about stormwater management and the Town's Stormwater Management Plan. To comply with Control Measure 3, the educational information will describe the hazards associated with illegal discharges and improper disposal of waste.

Measurable goal: Online newsletter updated twice per year.

Schedule: Spring and fall of each permit year.

Responsible person/department: Department of Public Works

Cost: 16 hours per year.

BMP #1-5: Inspect signs that identify water bodies within the Town (e.g., "Communities Connected by Water").

Description: MDC/MHD has posted signs in Town that alert residents to the presence of water bodies or the boundary of a watershed. Inspect these signs once per year and notify the MDC/MHD if repairs are required.

Measurable goal: Number of signs inspected.

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

Responsible person/department: Department of Public Works

Cost: 4 hours of staff time per year to inspect signs.

BMP #1-6: Provide an annual update of the Stormwater Management Plan at a televised Selectmen's meeting.

Description: Annually, the Department of Public Works and/or Conservation Commission will request time on the Board of Selectmen's agenda to provide an informational update on the Stormwater Management Plan. Topics will include ongoing and upcoming events. The Selectmen's meetings are televised on local access cable TV.

Measurable goal: Annual update of the SWMP at a televised Selectmen's meeting.

Schedule: Spring of each permit year.

Responsible person/department: Department of Public Works or Conservation Commission

Cost: 16 hours of staff time to prepare and present the Stormwater Management Plan update.

BMP #1-7: Develop two press releases per year that describe the importance of stormwater management.

Description: Starting in Year 2, 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.

Measurable goal: Two newspaper articles published.

Schedule: Years 2 through 5 of the permit term.

Responsible person/department: Department of Public Works

Cost: 16 hours of staff time to prepare the press releases.

BMP #1-8: Develop two local access cable TV advertisements/programs per year that describe the importance of stormwater management.

Description: Starting in Year 2, the Department of Public Works will develop two public service announcements (PSAs) or programs per year for local access cable TV.

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

Schedule: Years 2 through 5 of the permit term.

Responsible person/department: Department of Public Works

Cost: 16 hours to prepare the PSAs/programs.



Section Two

Section 2

Control Measure 2: Public Participation and Involvement

To comply with Control Measure 2, the Town must comply with applicable State and local public notice requirements. This is the only requirement for this control measure. The following public participation best management practices (BMPs) will be implemented to fulfill the requirements of Control Measure 2.

BMP #2-1: 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.

Responsible person/department: Town Clerk

Cost: As currently budgeted.

BMP #2-2: Continue to provide trash pick-up services on Milton Pride Day.

Description: Milton Pride Day is held each spring. Residents and local groups conduct cleanups and plantings throughout the Town. The Department of Public Works provides trash pick-up for the cleanups as requested.

Measurable goal: Trash pickup provided each year.

Schedule: Each spring of the permit term.

Responsible person/department: Department of Public Works

Cost: As currently budgeted.

BMP #2-3: Provide support for the NepRWA 319 TMDL Implementation grant.

Description: The NepRWA has obtained a 319 grant to address bacteria discharges in the Neponset River Watershed. As part of this project, the Town of Milton will assist NepRWA in constructing a wetland buffer along Pine Tree Brook. Volunteers will also be used during the wetland construction.

Measurable goal: Assistance with the wetlands project as requested by NepRWA.

Schedule: Ongoing.

Responsible person/department: Department of Public Works

Cost: 480 hours staff time; already budgeted.

BMP #2-4: Apply for funding to hire a staff person to create a school education program.

Description: The Department of Public Works seeks to develop a curriculum unit on stormwater and other related topics, but cannot complete this task with current staffing levels. The Department of Public Works will apply for Town funding to hire a new staff member, whose responsibilities will include developing a school education program and coordinating other aspects of the Stormwater Management Plan.

Measurable goal: Funding request made.

Schedule: Funding request submitted by the end of the second permit year.

Responsible person/department: Department of Public Works

Cost: The cost of submitting the funding request to the Town is minimal; the salary of an additional staff member remains to be determined.

BMP #2-5: Develop an Unquity Brook Stewardship Program.

Description: The Town will develop a stewardship program with Milton Academy and other abutters to Unquity Brook. The program will focus on involving students and faculty in learning and teaching the Brook's ecology. Teaching pollution prevention will also be part of the program. Possible activities include seminars, community awareness activities, and technical assistance to abutters for fertilizer and pesticide use.

Measurable goal: Stewardship Program developed.

Schedule: Develop components of the Stewardship Program by the end of the first permit year. Contact potential participants and evaluate funding options during the second permit year. Begin program during third permit year.

Responsible person/department: Department of Public Works

Cost: 40 hours to develop program; 40 hours to enlist participants and evaluate funding options.

3

Section Three

Section 3

Control Measure 3: Illicit Discharge Detection and Elimination

To comply with Control Measure 3, the Town will need a program that:

- Creates a storm sewer system map showing the location of all outfalls, and names and locations of all receiving waters
- Develops ordinances or other regulatory mechanisms prohibiting illicit discharges into the separate storm sewer system and develop associated enforcement procedures and implementation
- Develops and implements a plan to detect and address illicit discharges, including illegal dumping, to the storm sewer system
- Develops and implements an information program describing the hazards associated with illegal discharges and improper disposal of waste to public employees, businesses, and the general public (can be part of Control Measure 1)

The following best management practices (BMPs) will be implemented to fulfill the requirements of Control Measure 3. Note that BMP #1-1 will be used to fulfill the public information program requirement of this control measure, and BMP #6-1 will be used to educate Town staff about the hazards associated with illegal discharge and improper disposal of hazardous waste into the MS4.

BMP #3-1: Remove sewer underdrains if found during other routine maintenance.

Description: In Milton, some underdrains were installed during construction of the sewers to control groundwater. No known underdrains have their own outfalls to receiving waters. However, underdrains can cause problems when a leaky sewer leaks into the underdrain. The Town will remove sewer underdrains when found during other routine maintenance or sewer system repair/rehabilitation/replacement projects.

Measurable goal: Document the number of underdrains found and removed.

Schedule: As needed during permit term.

Responsible person/department: Department of Public Works

Cost: Variable, depending on number of underdrains found and difficulty of removal.

BMP #3-2: Map stormwater outfalls and receiving waters, and identify outfalls and other structures that are owned by other entities.

Description: Create a map of all outfalls and receiving waters of the storm drain system. Outfalls and other drainage structures that belong to other entities – such as state agencies – will be identified. Structures on the following state-owned roads will be evaluated for ownership: Neponset Valley Parkway, Truman Highway, Blue Hills Parkway, Unquity Road, Chickatawbut Road, Blue Hill River Road, Green Street, Hillside Street (From Canton to Blue Hills Reservation), Route 138/Blue Hills Avenue, Route 28/Randolph Avenue (Quincy to Reedsdale Avenue), Route 128, Route 93, Granite Avenue (Squantum Street to Boston), and Squantum Street (Granite Avenue to Christopher Drive).

Measurable goal: Map created.

Schedule: To be completed by December 31, 2003.

Responsible person/department: Department of Public Works

Cost: Already funded.

BMP #3-3: Digitize the stormwater collection system in a GIS-compatible format.

Description: The Town is currently digitizing its stormwater system maps into one electronic map of the entire Town. The electronic map is created in AutoCAD and is developed to be compatible with GIS for future upgrades.

Measurable goal: Electronic map of stormwater system created.

Schedule: The electronic mapping effort will be completed by March 31, 2003.

Responsible person/department: Department of Public Works

Cost: Already funded.

BMP #3-4: Develop and implement a plan to identify and remove non-stormwater discharges to the MS4.

Description: The Town has already conducted extensive dry weather screening for illicit connections, and has found little apparent contamination. The Town will continue its illicit discharge detection and elimination (IDDE) program by investigating problem areas upon request by citizens, or upon evidence of an obvious problem. The Town's ongoing sewer remediation program will also serve as a means for finding and remediating illicit connections. The Town will develop notification

and funding procedures for removing illicit connections, and develop and maintain a database showing illicit connections identified, located, and removed.

Measurable goal: Document number of illicit connections found and removed.

Schedule: By the end of the first permit year, evaluate funding sources for removing illicit connections, and develop a system for maintaining electronic records of the program.

Responsible person/department: Department of Public Works

Cost: 40 hours to evaluate funding options and develop a system for maintaining electronic records. It is not possible to estimate the cost of illicit connection removal prior to investigating the extent of the problem. As a benchmark, other communities have estimated that it costs as much as \$18,000 to locate an illicit connection (including dry weather field screening and field inspections), and \$6,000 to remove and reconnect to the sewer.

BMP #3-5: Develop a bylaw to require inspection of new construction for correct connection to the sanitary sewer.

Description: Develop a draft bylaw that requires the Town to inspect all new construction (prior to occupation by residents) to ensure that the sanitary sewer was correctly connected to the Town's sewer line. If a connection to the storm drain is found, the dwelling cannot be inhabited until the connection is redirected to the sewer.

Measurable goal: Draft bylaw developed and presented to Town Meeting.

Schedule: Develop draft bylaw by the end of the first year of the permit term. Present to Town Meeting annually thereafter until passed.

Responsible person/department: Town Attorney

Cost: 24 hours of staff time to develop a draft bylaw; 16 hours of staff time to present to Town Meeting.

BMP #3-6: Conduct a Town-wide sewer rehabilitation program.

Description: The Town is conducting a 10-year comprehensive sewer rehabilitation program. Every manhole and sewer line in Milton will be inspected, and any problems found – including I/I, leaks, collapsed pipes, grease problems, and illicit connections – will be remediated. Currently, the Town experiences sanitary sewer overflows (SSOs) during very high flow conditions due to excessive I/I. The sewer rehabilitation program will reduce the frequency and magnitude of SSOs by reducing I/I in the sewer lines .

Measurable goal: Implement program.

Schedule: Ongoing; in Year 1 of 10 year program.

Responsible person/department: Department of Public Works

Cost: Already budgeted.

4

Section Four

Section 4

Control Measure 4: Construction Site Runoff Control

The Town is required to "develop, implement, and enforce a pollutant control program to reduce pollutants in any stormwater runoff from construction activities that result in land disturbances of one or more acres." Construction activity on sites disturbing less than one acre must be included in the program if the construction activity is part of a larger common plan to disturb one acre or more. The permittee may choose to regulate construction sites smaller than one acre.

The program for this control measure must include:

- An ordinance or other regulatory mechanism to require erosion and sediment controls to the extent practicable and allowable under state or local law
- Sanctions to ensure compliance (such as fines, permit denials, non-monetary penalties, etc.)
- Requirements for construction site operators to implement appropriate erosion and sediment control BMPs
- Procedures for site plan review by the MS4 operator that incorporate consideration of potential water quality impacts
- Requirements to control other wastes such as discarded building materials, concrete truck washout, chemicals, litter, and sanitary waste
- Procedures for receipt and consideration of information submitted by the public to the MS4 operators
- Procedures for site inspection and enforcement of control measures by the MS4 operators

The following best management practices (BMPs) for construction sites will be implemented to fulfill the requirements of Control Measure 4.

BMP #4-1: Develop a Construction Site Erosion and Sediment Control bylaw for all construction sites requiring a building permit application.

Description: The Planning Board and the Conservation Commission both require erosion and sediment controls at construction sites subject to their jurisdiction. However, many small construction sites are not regulated by either of these bodies, but may still contribute extensive stormwater pollution. The Town will develop a bylaw requiring any construction site requiring a building permit application to develop an Erosion and Sediment Control Plan (ESCP). The Town would need to

determine the appropriate entity to have authority for bylaw enforcement. The following BMPs should be required as appropriate at construction sites: site entrance stabilization, perimeter controls, temporary stabilization of dirt piles and bare earth, storm drain inlet protection, construction sequencing, and grading and slope stabilization (if needed). The bylaw will be presented annually to Town Meeting until passed.

Measurable goal: Draft bylaw developed and presented to Town Meeting.

Schedule: Develop a draft bylaw by the end of the first year. Present annually (beginning in the second permit year) to Town Meeting until passed.

Responsible person/department: Town Attorney

Cost: 40 hours of staff time to prepare the bylaw; 20 hours of staff time for Town Meeting.

BMP #4-2: Require a waste management plan at construction sites.

Description: Building materials and other construction site wastes must be properly managed and discarded to reduce the risk of stormwater pollution. Routine practices such as trash disposal, recycling, proper material handling, and spill prevention and clean-up can reduce the amount of construction site wastes in stormwater and prevent the contamination of surface and/or groundwater.

Measurable goal: Regulatory mechanism in place for requiring a waste management plan for all construction sites.

Schedule: By the end of the second year, regulations or bylaw in place that requires a construction site waste management plan.

Responsible department/person: Planning Board, Conservation Commission

Cost: 20 hours to implement regulation or bylaw.

BMP #4-3: Review site plans for stormwater impacts.

Description: Review all construction site plans to be sure that adequate erosion and sediment controls will be in place during construction. The Conservation Commission and the Engineering Department already review all plans subject to Planning Board jurisdiction.

Schedule: By the end of the second permit year, develop internal protocol for reviewing site plans that are not currently subject to the jurisdiction of the Conservation Commission or the Planning Board.

Measurable goal: Protocol for site plan reviews developed.

Responsible person/department: Conservation Commission; Engineering Department

Cost: 24 hours of staff time for developing review program.

BMP #4-4: Consider public input for new construction sites.

Description: The Planning Board and Conservation Commission require a public hearing for all projects subject to their jurisdiction. The Town will develop a plan for consideration of public input for construction sites (such as logging phone calls, filing complaint letters, and responding to complaints) that are not subject to the jurisdiction of the Conservation Commission or the Planning Board.

Measurable goal: Plan developed for consideration of public input for construction sites that are not subject to the jurisdiction of the Conservation Commission or the Planning Board.

Schedule: By the end of the second permit year, develop a plan for receiving public input from construction sites that are not subject to the jurisdiction of the Conservation Commission or the Planning Board.

Responsible person/department: Conservation Commission; Planning Board; Town Attorney

Cost: 24 hours of staff time for developing public input program.

BMP #4-5: Inspect erosion and sediment controls at construction sites.

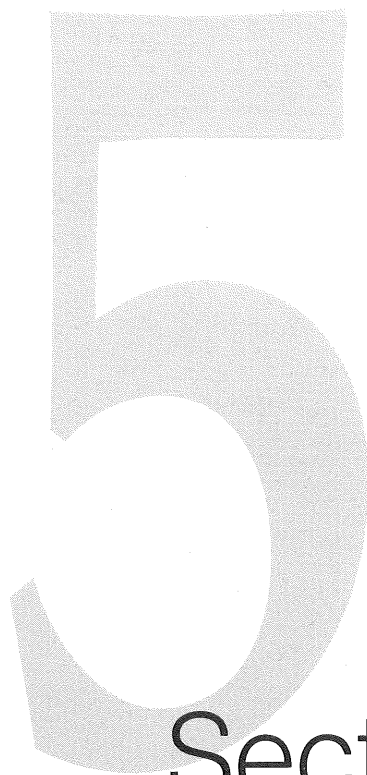
Description: Conduct Town inspections of construction sites at the beginning and end of construction, and after erosion and sediment controls have been installed. Inspections will be conducted at all construction sites.

Measurable goal: Number of inspections conducted.

Schedule: As needed throughout permit term.

Responsible person/department: Engineering Department and Conservation Commission

Cost: As currently budgeted with additional staff time needed for projects that are not subject to the jurisdiction of the Conservation Commission or the Planning Board (these projects are not currently inspected).



Section Five

Section 5

Control Measure 5: Post-construction Stormwater Management in New Development and Redevelopment

To comply with the requirements of Control Measure 5, the Town must “develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that result in land disturbances of one or more acres, including projects less than one acre that are part of a larger common plan of development or sale that discharge into the MS4. Specifically, MS4 operators are required to:

- Develop and implement strategies that include a combination of structural and/or non-structural BMPs appropriate for the community
- Use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under state or local law
- Ensure adequate long-term operation and maintenance of BMPs”¹

“Redevelopment” refers to property alterations that change the footprint of a site or building and result in the disturbance of one or more acres. Redevelopment is not intended to include activities such as exterior remodeling.

The following best management practices (BMPs) for new development and redevelopment will be implemented to fulfill the requirements of Control Measure 5.

Note that several of these BMPs require development and implementation of a bylaw. These BMPs can all be addressed as parts of a single bylaw if preferred by the Town.

¹ Federal Register, December 8, 1999, pp. 68721-68851.

BMP #5-1: Develop a draft bylaw to apply Standards 2, 3, 4, and 7 of the Massachusetts Stormwater Policy (MSP) to entire Town.² Present the bylaw to Town Meeting.

Description: Develop and present a draft bylaw to Town Meeting to apply Standards 2, 3, 4, and 7 of the MSP to the entire Town of Milton, and not only the area subject to the jurisdiction of the Conservation Commission. The bylaw will specify which Town Board will have responsibility for enforcement. The bylaw will be presented annually to Town Meeting until passed.

Measurable goal: Draft bylaw developed and presented to Town Meeting.

Schedule: Develop a draft bylaw by the end of the first year. Present annually to Town Meeting until passed.

Responsible person/department: Town Attorney

Cost: 40 hours of staff time to develop a draft bylaw; 20 hours to process through Town meeting.

BMP #5-2: Specify a stormwater BMP manual to be used for consistent design and performance standards.

Description: As part of the bylaw described above, specify a technical stormwater BMP reference to be used for design and performance standards of all stormwater BMPs in the Town (the Massachusetts DEP and CZM "Stormwater Management, Volume Two: Stormwater Technical Handbook," March 1997, is recommended).

Measurable goal: BMP manual selected.

Schedule: Specify a stormwater BMP manual to be included in a bylaw by the end of the first permit year.

Responsible person/department: Town Engineer

Cost: 8 hours of staff time to evaluate existing BMP manuals.

² These standards are: (2) Stormwater management systems must be designed so that post-development peak discharge rates do not exceed pre-development rates. (3) Loss of annual recharge to groundwater should be minimized through the use of infiltration measures to the maximum extent practicable. The annual recharge from the post-development site should approximate the annual recharge from the pre-development or existing site conditions, based on soil type. (4) For new development, stormwater management systems must be designed to remove 80% of the average annual load (post-development conditions) of total suspended solids (TSS). (7) Redevelopment of previously developed sites must meet the stormwater management standards to the maximum extent practicable. However, if it is not practicable to meet all the standards, new (retrofitted or expanded) stormwater management systems must be designed to improve existing conditions.

BMP #5-3 Develop a draft bylaw that ensures long-term maintenance of private structural BMPs.

Description: As part of a bylaw, require project proponents to submit to the Town a description of all new BMPs, including location, design and installation plans, vendor and manufacturer, and maintenance requirements. Require the project proponent to be responsible for future maintenance, set up a homeowner's association with fees, take out a bond, or set up a trust fund to pay the Town to conduct maintenance.

Measurable goal: Draft bylaw developed and presented to Town Meeting.

Schedule: By the end of the first permit year, develop a draft bylaw for long-term BMP maintenance. Present to Town Meeting during the second permit year.

Responsible person/department: Town Attorney

Cost: 40 hours of staff time to develop a draft bylaw; 20 hours to process through Town meeting.

BMP #5-4 Develop a draft zoning bylaw that allows and/or encourages use of low-impact development (LID).

Description: Milton already allows cluster development on lots of greater than 10 acres. Allowing low-impact development (LID) on smaller lots would help manage stormwater locally and would have other environmental benefits, including reduced water use for landscaping.

Measurable goal: Draft bylaw developed and presented to Town Meeting.

Schedule: By the end of the second permit year, develop a draft bylaw for low-impact development. Present to Town Meeting.

Responsible person/department: Town Attorney

Cost: 40 hours of staff time to develop a draft bylaw; 20 hours to process through Town meeting.



Section Six

Section 6

Control Measure 6: Pollution Prevention/Good Housekeeping for Municipal Operations

Control Measure 6, Pollution Prevention/Good Housekeeping for Municipal Operations, requires the Town to develop and implement a program to prevent or reduce pollution in stormwater from municipal operations. The following pollution prevention/good housekeeping best management practices (BMPs) will be implemented to fulfill the requirements of Control Measure 6.

BMP #6-1: Identify sensitive receptors (such as wetlands, beaches, etc.) within the Town.

Description: Develop a list of sensitive receptors, and inform Department of Public Works staff of their location and need for special protection. Include the priority resource areas (see Section 8) as sensitive receptors.

Measurable goal: List of sensitive receptors developed, staff notified.

Schedule: During winter of the first permit year, develop the list and give Department of Public Works staff a 30-minute training session about the location of sensitive receptors, and why special protection is needed.

Responsible person/department: Department of Public Works

Cost: 8 hours of staff time to make list; 3 hours of staff time to prepare and give the training session; 1 hour per employee to attend training session.

BMP # 6-2: Apply for funding to develop an employee training program.

Description: The Department of Public Works seeks to develop an employee training program, but cannot complete this task with current staffing levels. The Department of Public Works will apply for funding to hire a new staff member, whose responsibilities will include developing a staff training program and coordinating other aspects of the Stormwater Management Plan (same as BMP #2-4). Training topics would include basic good housekeeping, procedures for vehicle inspection and maintenance, spill control, and hazardous waste management.

Measurable goal: Funding request made.

Schedule: Funding request submitted by the end of the second permit year.

Responsible person/department: Department of Public Works

Cost: Minimal.

BMP #6-3: Sweep all streets once every spring and fall.

Description: Continue sweeping 100% of streets each spring and fall. Maintain records of sweeping schedule and daily volume of residuals collected.

Measurable goal: Percent of streets swept twice per year.

Schedule: Spring and fall of each permit year.

Responsible person/department: Department of Public Works

Cost: As currently budgeted, with an additional 24 hours of staff time per year to maintain records.

BMP #6-4: Continue existing road salting procedures.

Description: Continue existing salting procedures:

- Use liquid calcium chloride during cold temperatures to minimize the amount of salt used.
- Use a sand/salt mixture for normal deicing procedures.
- Calibrate the sand/salt spreaders at least twice per year, or as needed.
- Maintain calibration records and record the amount and type of deicers used.
- Use the pavement temperature to determine the appropriate application rate.
- Monitor industry standards and practices to continually evaluate new technologies that cost-effectively minimize deicer usage, and modify deicing practices as appropriate.

Measurable goal: Maintain documentation of amount of deicers used.

Schedule: Winter of each permit year.

Responsible person/department: Department of Public Works

Cost: 40 hours of additional staff time per year to maintain records, in addition to current budget.

BMP #6-5: Minimize impacts from vehicle washing.

Description: The Town currently washes vehicles outdoors, and the washwater drains to a storm drain. Develop containment area for washing municipal vehicles (either indoor washing and connection to a sanitary sewer, or installation of an underground

holding tank that can be pumped out periodically). Use biodegradable, non-phosphorus soap for all vehicle washing.

Measurable goal: Containment area for vehicle washing built.

Schedule: By the end of the first permit year, switch to phosphate-free biodegradable soap and evaluate options for containing washwaters. Apply for Town funding by the end of the second permit year. Implement a vehicle washing containment area by the end of the permit term.

Responsible person/department: Department of Public Works

Cost: 24 hours of time to evaluate options in Year 1; 8 hours in Year 2 to apply for funding; capital cost of containment area or treatment device selected.

BMP #6-6: Minimize impacts from vehicle maintenance.

Description: Continue minimizing impacts from vehicle maintenance by doing all maintenance work indoors, training employees in "good housekeeping" techniques, maintaining a materials inventory, and using alternative (non-hazardous) materials.

Measurable goal: Employee training held; materials inventory developed.

Schedule: Train employees and begin materials inventory by the end of the second year.

Responsible person/department: Department of Public Works

Cost: 4 hours per vehicle maintenance employee for training, 24 hours per year staff time for maintaining materials inventory.

BMP #6-7: Maintain the storm drain system.

Description: Clean all catch basins at least once every three years, and inspect and clean drain pipes as necessary. Keep records of catch basin residuals volumes on a daily basis. Note catch basins with exceptionally large residual volumes; prioritize these basins for more frequent cleaning.

Schedule: Ongoing throughout permit term.

Measurable goal: Number of catch basins cleaned per year.

Responsible person/department: Department of Public Works

Cost: As currently budgeted, plus 24 hours per year staff time for records maintenance.

BMP #6-8: Train staff to minimize chemical applications in parks and other landscaped areas.

Description: Train staff to minimize application of herbicides, pesticides, and fertilizers. Keep maintenance records.

Measurable goal: Training held; amount of herbicides/fertilizers used.

Schedule: Ongoing throughout permit term.

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

Cost: 32 hours to prepare training materials; 4 hours per employee for training; 16 hours per year for record-keeping, in addition to the current budget.

BMP #6-9: Hold a Household Hazardous Waste Drop-off Day and Tire/Battery Drop-off Day at least once every two years.

Description: The Town currently holds one household hazardous waste drop-off day at least every other year. The Town also sponsors a tire and battery drop-off day each year.

Measurable goal: At least one household hazardous waste drop-off day held every other year, and at least one tire and battery drop-off day annually.

Schedule: At least twice during permit term.

Responsible department/person: Department of Public Works.

Cost: As currently budgeted.

BMP #6-10: Plant a new tree to replace every tree removed by the Town each year.

Description: The Town currently plants between 150 and 200 trees per year. The Town also removes dead or diseased trees. The Town will develop a plan to ensure that the same number (or more) trees are planted than cut down each year.

Measurable goal: The same number (or more) trees planted than cut down each year.

Schedule: Develop plan during first year; evaluate funding mechanisms during the second year; begin program during the third permit year.

Responsible department/person: Department of Public Works and Tree Warden

Cost: 24 hours during Year 1 to develop a program; 24 hours during Year 2 to evaluate funding options; capital cost of additional trees during subsequent years (likely to be a modest increase over existing costs).

BMP #6-11: Pursue a cooperative agreement with the Milton Garden Club and the Amateur Gardeners of Milton to implement a litter management program.

Description: The Town will work with the Milton Garden Club and the Amateur Gardeners of Milton to raise funds for the purchase of litter control equipment and implementation of a Town-wide litter management program.

Measurable goal: Litter management program developed.

Schedule: Ongoing.

Responsible department/person: Department of Public Works, Milton Garden Club, and Amateur Gardeners of Milton

Cost: 40 hours of staff time per year to coordinate program.

BMP #6-12: Identify the stormwater outfalls within Milton that are owned by other entities and inform them of their management responsibility.

Description: The Commonwealth of Massachusetts (Mass Highway, MDC, etc.) owns several large roadways (listed in BMP #3-2) in Milton and is responsible for stormwater management and outfall repair of these roads. The Department of Public Works will identify which roads and stormwater outfalls are owned by the State, and will notify the appropriate agency of their management responsibility.

Measurable goal: Outfalls assessed; state agencies notified.

Schedule: Assess outfalls and notify state agencies by the end of the first year.

Responsible department/person: Department of Public Works

Cost: 40 hours to assess outfalls and contact state agencies.



Section Seven

Section 7

Permit Eligibility

This section assesses Milton's NPDES Phase II permit eligibility with respect to endangered species, historic places, and impaired waters.

The Phase II rule prohibits stormwater discharges (or discharge-related activities) that "are likely to jeopardize the continued existence of any species that are listed as endangered or threatened under the Endangered Species Act (ESA) or result in the adverse modification or destruction of habitat that is designated as critical under the ESA." The rule also prohibits discharges that jeopardize Essential Fish Habitats, adversely affect properties listed (or eligible to be listed) on the National Register of Historic Places, or that cause or contribute to instream exceedances of water quality standards. If a municipality does not meet these requirements, it must apply for the more stringent individual permit, rather than the general permit.

Milton meets eligibility requirements for the general permit, as detailed below.

7.1 Endangered Species

In accordance with the guidance presented in Addendum A, CDM environmental scientists reviewed applicable published information regarding the occurrence of federally protected (threatened or endangered) species or their critical habitat in the Town of Milton, MA. Lists of federally protected species within the appropriate county available on the EPA and USFWS websites were reviewed and cross-referenced with the municipal list of state and federally protected species available on the Massachusetts Natural Heritage and Endangered Species Program (NHESP) website. Please note, the state list of protected species includes federally protected species. Based on our review, it is our opinion that there are no federally endangered or threatened species, or critical habitat of federally protected species in Milton or regulated portions thereof, or the points where authorized discharges reach the receiving waters. Therefore, the Town of Milton, MA meets the ESA eligibility requirements of the Final NPDES Phase II Stormwater Rule pursuant to Criteria A as described in Addendum A to the Final Rule. See attached memorandum and supporting documentation.

7.2 Historic Places

The Town of Milton has twenty-three properties listed on the National Register of Historic Places (see Table 7-1). None of these properties are adversely impacted by stormwater discharges.

7.3 Impaired Waters

The following five water bodies are listed on the Proposed Massachusetts Year 2002 Integrated List of Waters:

- Neponset River – Confluence with Mother Brook, Boston to Milton Lower Falls Dam, Milton/Boston (miles 7.9-4.2), for priority organics, metals, organic enrichment/low DO, pathogens, and oil and grease
- Pine Tree Brook – Outlet of Hillside Pond through Pope's Pond to confluence with Neponset River (miles 4.7-0.0), for organic enrichment/low DO and pathogens
- Popes Pond – for noxious aquatic plants and turbidity
- Turners Pond – for nutrients, organic enrichment/low DO, and turbidity
- Unquity Brook – Headwaters east of Sias Lane, west of Randolph Avenue to east of Otis Street, west of Govenor Belcher Lane (miles 1.4-0.0) – for nutrients, pH, siltation, organic enrichment/low DO, and pathogens

Table 7-1
Milton Properties Listed on the National Register of Historic Places

Name	Address	Date listed	Other designation
Belcher-Rowe House	26 Governor Belcher Lane	4/1/82	
Bent, G.H., Company Factory	7 Pleasant St.	2/10/00	
Blue Hills Headquarters	Hillside St.	9/25/80	Blue Hills and Neponset River Reservations MRA
Brookwood Farm	off Hillside St.	9/25/80	Blue Hills and Neponset River Reservations MRA
Brush Hill Historic District	Roughly Brush Hill Rd., from Robbins St. to Bradlee Rd., and Dana Ave., Brush Hill Ln. and Fairmount Ave.	8/20/98	
Comfort Station	Blue Hill Ave.	9/25/80	Blue Hills and Neponset River Reservations MRA
Eliot Memorial Bridge	Milton	9/25/80	Blue Hills and Neponset River Reservations MRA
Forbes, Capt. Robert B., House	215 Adams St.	11/13/66	
Great Blue Hill Observation Tower	Milton	9/25/80	Blue Hills and Neponset River Reservations MRA
Great Blue Hill Weather Observatory	Milton	9/25/80	Blue Hills and Neponset River Reservations MRA
Holbrook, Dr. Amos, House	203 Adams St.	2/13/75	
Hutchinson's, Gov. Thomas, Ha-ha	100, 122 Randolph Ave.	2/13/75	
Massachusetts Hornfels-Braintree Slate Quarry	Address Restricted	9/25/80	Blue Hills and Neponset River Reservations MRA
Metropolitan District Commission Stable	Hillside St.	9/25/80	Blue Hills and Neponset River Reservations MRA
Milton Centre Historic District	Canton Ave. between Readsdale Rd. and Thacher and Highland Sts.	4/28/88	
Milton Hill Historic District	Roughly bounded by Adams and School Sts., Randolph and Canton Aves. and Brook Rd.	6/9/95	

Table 7-1 (continued)
Milton Properties Listed on the National Register of Historic Places

Name	Address	Date listed	Other designation
Old Barn	Off Hillside St.	9/25/80	Blue Hills and Neponset River Reservations MRA
Paul's Bridge	Neponset Valley Pkwy., over the Neponset River	12/11/72	
Railway Village Historic District	Roughly along Adams St., from Mechanic and Church Sts., and Washington St. Hillside St.	3/6/00	
Refreshment Pavillion		9/25/80	Blue Hills and Neponset River Reservations MRA
Scott's Woods Historic District	Hillside St. between Randolph Ave. and MDC Blue Hills Reservation	11/5/92	
Suffolk Resolves House	1370 Canton Ave.	7/23/73	
US Post Office--Milton Main	499 Adams St.	5/30/86	

If a total maximum daily load (TMDL) has been developed and approved for any water body in a municipality, then the permittee must include BMPs that will specifically address the impaired water body and be consistent with the TMDL. A TMDL for bacteria has been approved for the Neponset River Basin (approval date 6/21/2002).

The following BMPs will help mitigate against the priority pollutants listed above:

- BMP #1-1: Educate dog owners about picking up dog waste.
- BMP #1-2: Prioritize areas in Town that have pet waste problems, and install up to three mutt mitt stations.
- BMP #1-3: Develop a draft bylaw that requires dog owners to clean up after their dogs, and include provisions for fines and enforcement. Present to Town Meeting.
- BMP #2-2: Continue to provide trash pick-up services on Milton Pride Day.
- BMP #2-3: Provide support for the NepRWA 319 TMDL Implementation grant.
- BMP #2-5: Develop an Unquity Brook Stewardship Program.
- BMP #3-1: Remove sewer underdrains if found during other routine maintenance.
- BMP #3-4: Develop and implement a plan to identify and remove non-stormwater discharges to the MS4.
- BMP #3-5: Develop a bylaw to require inspection of new construction for correct connection to the sanitary sewer.
- BMP #3-6: Conduct a Town-wide sewer rehabilitation program.
- BMP #4-1 through #4-5: All the construction site runoff control BMPs will help prevent sediment, oil and grease, and other contaminants from reaching the receiving waters
- BMP #6-3: Sweep all streets once every spring and fall.
- BMP #6-7: Maintain the storm drain system.
- BMP #6-8: Train staff to minimize chemical applications in parks and other landscaped areas.
- BMP #6-11: Pursue a cooperative agreement with the Milton Garden Club and the Amateur Gardeners of Milton to implement a litter management program.

- BMP #6-9: Hold a Household Hazardous Waste Drop-off Day at least once every two years.

7.4 Conclusions

The Town of Milton complies with NPDES Phase II permit eligibility requirements. Application for the general permit is therefore appropriate.



Section Eight

Section 8

Receiving Waters and Priority Resource Areas

One of the goals of the SWMP is to protect water quality in the MS4's receiving waters. This section lists the receiving waters in Milton, and describes priority areas in the Town that will be the focus of the SWMP.

8.1 Receiving Waters

Milton's MS4 discharges stormwater to the following receiving waters:

- Neponset River
- Unquity Brook
- Pine Tree Brook
- Hemenway Pond
- Bolster Brook
- Houghtons Pond
- Hillside Pond
- Russell Pond
- Popes Pond
- Trout Brook
- Turners Pond
- Gulliver Creek

All these water bodies are in the Boston Harbor/Neponset River basin.

8.2 Priority Resource Areas

The Blue Hills Reservation – 7,000 acres of protected woodland – is located partially within Milton. The Reservation is owned, maintained, and managed by the Metropolitan District Commission (MDC). Milton's MS4 does not discharge to any water body in the Reservation. For the purposes of the Phase II stormwater permit, Blue Hills Reservation is not considered a priority resource area for the Town of Milton.

The Neponset River Estuary has been designated as a state Area of Critical Environmental Concern (ACEC). The Neponset River ACEC is approximately 1,300

acres in size and is located in Boston (435 acres), Milton (355 acres) and Quincy (470 acres). The ACEC boundary is based upon the Wetlands Protection Act Regulations (wetlands resource areas and a 100-foot buffer) plus adjacent public open space and historic districts. The ACEC begins at the Lower Mills Dam in Milton and Dorchester, which separates the coastal estuary from the inland fresh water portion of the Neponset River, and extends to the mouth of the river at Commercial Point in Boston and Squantum Point in Quincy.³

The MDC maintains a popular public swimming beach at Houghton's Pond. There are no public water supplies within the Town.

As described in Section 7, five water bodies – the Neponset River, Pine Tree Brook, Popes Pond, Turners Pond, and Unquity Brook – are listed on the Proposed Massachusetts Year 2002 Integrated List of Waters, and should be considered priority areas for the SWMP.

Thus, the following five water bodies will be considered priority resource areas and will be the focal point for the Town's Stormwater Management Plan:

- Pine Tree Brook
- Unquity Brook
- Neponset River
- Popes Pond
- Turner's Pond

The BMPs that target these water bodies are:

- BMP #1-1: Educate dog owners about picking up dog waste – educational materials will specifically mention the priority water bodies, and how dog waste impacts them.
- BMP #1-3: Pooper scooper ordinance – will help reduce bacteria and nutrient loads to all receiving waters in Town.
- BMP #1-4: Update online Department of Public Works newsletter – the priority resource areas and efforts to mitigate stormwater impacts will be mentioned specifically
- BMP #1-6: Annual update of the SWMP at a televised Selectmen's meeting – the priority water bodies will be specifically discussed.

³ <http://www.state.ma.us/dem/programs/acec/acecs/1-nepriv.htm>

- BMP #2-3: Support the NepWRA 319 TMDL implementation grant – this project will improve stormwater quality before discharge to Pine Tree Brook
- BMP #3-4: Develop and implement a plan to identify and remove non-stormwater discharges to the MS4 – any illicit connections found that discharge to the priority water bodies will be targeted first.
- BMP #6-1: Identify sensitive receptors (such as wetlands, beaches, etc.) within the Town – these include the priority water bodies.
- BMP #6-3 : Street sweeping – streets that drain to the priority water bodies will be given priority for sweeping.
- BMP #6-4: Roadway deicing – when deicing, special attention will be given to roads that drain to the priority water bodies (minimal salt, calibrated salt spreaders, etc.)
- BMP #6-7: Storm drain maintenance – catch basins and drain pipes that discharge to the priority water bodies will have highest priority for cleaning and repairs.
- BMP #6-8: Park and landscape maintenance – landscaped areas that abut the priority water bodies will receive minimal fertilizer applications and will be targeted for other green landscaping techniques (native plantings, less frequent mowing, etc.)



Appendix A

Appendix A

Summary of Best Management Practices

Table A-1
Summary of BMPs and Anticipated Additional Costs (Person-Hours) for Stormwater Management Plan Implementation

BMP ID	BMP	Responsible Department	Estimated Hours Required					Other Costs/Comments		
			Year 1	Year 2	Year 3	Year 4	Year 5		Total	
Public Education										
	Annual report to EPA and DEP			32	32	32	32	128		
1-1	Educate dog owners about picking up dog waste	DPW	24					24		Plus copying costs
1-2	Prioritize areas in Town that have pet waste problems, and install up to three mutt mitt stations.	DPW	16	40	40	40	40	176		Cost of mutt mitt dispenser is approximately \$90 plus \$100 for a case of 2,000 bags
1-3	Develop a draft pooper scooper bylaw and include provisions for fines and enforcement. Present to Town Meeting.	Town Attorney	24	16	0	0	0	40		
1-4	Update the online DPW newsletter with stormwater information twice per year	DPW	16	16	16	16	16	80		
1-5	Inspect signs that identify water bodies within the Town and notify MDC/MHD if repairs are necessary	DPW	4	4	4	4	4	20		
1-6	Provide an annual update of SWMP at a televised Selectmen's meeting	DPW/Conservation Commission	16	16	16	16	16	80		
1-7	Develop two press releases per year that describe the importance of stormwater management.	DPW	16	16	16	16	16	80		
1-8	Develop two local access cable TV advertisements/programs per year that describe the importance of stormwater management.	DPW	16	16	16	16	16	80		
Public Participation										
2-1	Comply with state public notification guidelines at MGL Ch. 39 s. 23B.	Town Clerk								As currently budgeted
2-2	Continue to provide trash pick-up services on Milton Pride Day	DPW								As currently budgeted
2-3	Provide support for the NepRWA 319 TMDL Implementation grant.	DPW								480 hours of staff time, already budgeted
2-4	Apply for funding to hire a staff person to create a school education program	DPW								Minimal time required
2-5	Develop an Unquity Brook Stewardship Program	DPW	40	40				80		

Table A-1 (Continued)
Summary of BMPs and Anticipated Additional Costs (Person-Hours) for Stormwater Management Plan Implementation

BMP ID	BMP	Responsible Department	Estimated Hours Required					Other Costs/Comments	
			Year 1	Year 2	Year 3	Year 4	Year 5		Total
Illicit Discharge Detection & Elimination									
3-1	Remove sewer underdrains if found during other routine maintenance	DPW							Variable, depending on number of underdrains found and difficulty of removal
3-2	Map stormwater outfalls and receiving waters, and identify outfalls and other structures that are owned by other entities	DPW							Already funded.
3-3	Digitize the stormwater collection system in a GIS-compatible format	DPW							Already funded.
3-4	Develop and implement plan to identify and remove non-stormwater discharges	DPW	40					40	Plus the cost of removing any illicit connections found.
3-5	Develop a bylaw to require inspection of new construction for correct connection	DPW	24	16				40	
3-6	Conduct a Town-wide sewer rehabilitation program.	DPW							Already funded.
Construction Site Runoff Control									
4-1	Develop a construction site erosion and sediment control bylaw for all construction sites requiring a building permit application	Town Attorney	40	20				60	
4-2	Require a waste management plan at construction sites	Planning Board, Conservation Commission		20				20	
4-3	Review site plans for stormwater impacts	Engineering Department; Conservation Commission		24				24	
4-4	Consider public input	Planning Board, Conservation Commission; Town Attorney		24				24	
4-5	Inspect erosion and sediment controls	Engineering Department; Conservation Commission							Staff time for inspecting projects that currently do not require inspections.

Table A-1 (Continued)
Summary of BMPs and Anticipated Additional Costs (Person-Hours) for Stormwater Management Plan Implementation

BMP ID	BMP	Responsible Department	Estimated Hours Required					Other Costs/Comments	
			Year 1	Year 2	Year 3	Year 4	Year 5		Total
Post Construction Runoff Control									
5-1	Develop a bylaw to apply Standards 2, 3, 4, and 7 of the Massachusetts Stormwater Policy to the entire Town. Present to Town Meeting	Town Attorney	40	20				60	
5-2	Specify a stormwater BMP manual to be used for consistent design and performance standards	Town Engineer	8					8	
5-3	Develop draft bylaw that ensures long-term maintenance of structural BMPs. Present to Town Meeting	Town Attorney	40	20				60	
5-4	Develop a draft zoning bylaw that allows and/or encourages use of low-impact development	Town Attorney	40	20				60	
Good Housekeeping									
6-1	Identify sensitive receptors within the Town	DPW	11					11	Plus one hour of time per employee for training.
6-2	Apply for funding to develop an employee training program	DPW							Minimal cost.
6-3	Sweep all streets once every spring and fall	DPW	24	24	24	24	24	120	As currently budgeted, w/ 24 hours addition for recordkeeping
6-4	Continue existing road salting procedures	DPW	40	40	40	40	40	200	As currently budgeted plus time for maintaining records and monitoring industry standards
6-5	Minimize impacts from vehicle washing	DPW	24	8				32	Plus capital cost of a containment area or facility upgrades
6-6	Minimize impacts from vehicle maintenance	DPW	24	24	24	24	24	120	Plus 4 hours training per employee
6-7	Maintain the storm drain system	DPW	24	24	24	24	24	120	As currently budgeted plus time for maintaining records
6-8	Train staff to minimize chemical applications in parks and other landscaped areas	Parks Department and DPW	48	16	16	16	16	112	As currently budgeted plus 16 hrs/yr for maintaining records, plus 4 hrs/yr training per employee
6-9	Hold a Household Hazardous Waste Drop-off Day and a Tire/Battery Drop-off Day at least once every two years	DPW							As currently budgeted
6-10	Plant a new tree to replace every tree removed by the Town each year	DPW and Tree Warden	24	24				48	Cost of additional trees likely modest increase over existing expenditures
6-11	Pursue a cooperative agreement with the Milton Garden Club and the Amateur Gardeners of Milton to implement a litter management program	DPW, Garden Club, Amateur Gardeners	40	40	40	40	40	200	
6-12	Identify the stormwater outfalls within Milton that are owned by other entities and inform them of their management responsibility	DPW	40						
TOTAL COSTS			703	560	308	308	308	2147	

B

Appendix
B

Appendix B

Notice of Intent



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management

W039893

Transmittal Number

BRP WM 08A NPDES Stormwater General Permit

**Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)**

Facility ID (if known)

A. Instructions

Important:
When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Submission of this Notice of Intent constitutes notice that the entity named at item B1. of this form intends to be authorized by the DEP General Permit issued jointly with EPA for stormwater discharges from the small municipal separate storm sewer system (MS4), in the location identified at item B2. of this form. Submission of the Notice of Intent also constitutes notice that the party identified at item B1. has read, understands and meets the eligibility conditions of Part I.B. of the NPDES Small MS4 General Permit, agrees to comply with all applicable terms and conditions of the NPDES Small MS4 General Permit, and understands that continued authorization to discharge is contingent on maintaining eligibility for coverage. **In order to be granted coverage, all information required on BRP WM 08A, including the Stormwater Management Program Summary and Time Frames form, must be completed. Please read the permit and make sure you comply with all requirements, including the requirement to develop and implement a stormwater management program.**

B. Applicant Information

1. Small MS4 Operator/Owner Information:

Mr. David A. Colton, Director of Public Works

Name

525 Canton Avenue

Mailing Address

Milton

City/Town

617-696-5728

Telephone Number

MA

State

dcolton@townofmilton.org

Email (if available)

2. Municipality Name

Town of Milton

City/Town

3. Legal Status:

☐ Federal

☒ City/Town

☐ State

☐ Tribal

☐ Private

☐ Other public entity:

Specify Public Entity

4. Other regulated MS4(s) within municipal boundaries:

Massachusetts District Commission roads: Neponset Valley Parkway, Truman Highway, Blue Hills Parkway; Unquity Road, Chickatawbut Road, Blue Hill River Road, Green Street, Hillside Street (partial)

Massachusetts Highway Department roads: Route 138, Route 28 (partial), Route 128, Route 93, Granite Avenue (partial) Squantum Street (partial)

5. Based on the instructions provided in Part I of the NPDES Small MS4 General Permit, have the eligibility criteria for "listed species" and critical habitat been met?

☒ yes

☐ pending

☐ no



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Watershed Management

W039893

Transmittal Number

BRP WM 08A NPDES Stormwater General Permit

Notice of Intent for Discharges from Small Municipal Separate
Storm Sewer Systems (MS4s)

Facility ID (if known)

B. Applicant Information (cont.)

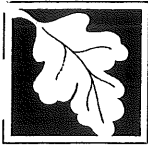
6. Based on the instructions provided in Part I of the NPDES Small MS4 General Permit, have the eligibility criteria for protection of historic properties been met?

☒ yes ☐ pending ☐ no

Note:
Section C may
be duplicated to
accommodate a
larger list of
receiving waters

C. Names of (Presently Known) Receiving Waters

Receiving Water:	No. of Outfalls	Listed as Impaired?	Impairment
Neponset River Name	Number	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Priority organics, metals, organic enrichment/DO, pathogens, oil and grease Specify
Unquity Brook Name	Number	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Nutrients, pH, siltation, organic enrichment/low DO, pathogens Specify
Pine Tree Brook Name	Number	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Organic enrichment/low DO, pathogens Specify
Hemenway Pond Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify
Bolster Brook Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify
Houghtons Pond Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify
Hillside Pond Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify
Russell Pond Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify
Popes Pond Name	Number	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Noxious aquatic plants, turbidity Specify
Trout Brook Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify
Turners Pond Name	Number	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Nutrients, organic enrichment/low DO, turbidity Specify
Gulliver Creek Name	Number	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Specify



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Transmittal Number

Facility ID (if known)

D. Stormwater Management Program Summary (Cont.)

3. Illicit Discharge Detection and Elimination:

3-1

BMP ID #

Remove sewer underdrains if
found during other routine
maintenance.

Specify Best Management Practice

Department of Public Works
Responsible Dept./Person Name

Document the number of
underdrains found and
removed.

Specify Measurable Goal

3-2

BMP ID #

Map stormwater outfalls and
receiving waters, and identify
outfalls and other structures
that are owned by other
entities.

Specify Best Management Practice

Department of Public Works
Responsible Dept./Person Name

Map created.

Specify Measurable Goal

3-3

BMP ID #

Digitize the stormwater
collection system in a GIS-
compatible format.

Specify Best Management Practice

Department of Public Works
Responsible Dept./Person Name

Electronic map of stormwater
system created.

Specify Measurable Goal

3-4

BMP ID #

Develop and implement a plan
to identify and remove non-
stormwater discharges to the
MS4.

Specify Best Management Practice

Department of Public Works
Responsible Dept./Person Name

Document number of illicit
connections found and
removed.

Specify Measurable Goal

3-5

BMP ID #

Develop a bylaw to require
inspection of new construction
for correct connection to the
sanitary sewer.

Specify Best Management Practice

Town Attorney
Responsible Dept./Person Name

Draft bylaw developed and
presented to Town Meeting.

Specify Measurable Goal

3-6

BMP ID #

Conduct a Town-wide sewer
rehabilitation program.

Specify Best Management Practice

Department of Public Works
Responsible Dept./Person Name

Implement program.

Specify Measurable Goal



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Facility ID (if known)

4. Construction Site Runoff Control:

4-1

BMP ID #

Develop a Construction Site
Erosion and Sediment Control
bylaw for all construction sites
requiring a building permit
application.

Specify Best Management Practice

Town Attorney

Responsible Dept./Person Name

Draft bylaw developed and
presented to Town Meeting.
Specify Measurable Goal

4-2

BMP ID #

Require a waste management
plan at construction sites.

Specify Best Management Practice

Planning Board, Conservation
Commission

Responsible Dept./Person Name

Regulatory mechanism in
place for requiring a waste
management plan for all
construction sites.

Specify Measurable Goal

4-3

BMP ID #

Review site plans for
stormwater impacts.

Specify Best Management Practice

Conservation Commission;
Engineering Department

Responsible Dept./Person Name

Protocol for site plan reviews
developed.

Specify Measurable Goal

4-4

BMP ID #

Consider public input for new
construction sites.

Specify Best Management Practice

Conservation Commission;
Planning Board; Town
Attorney

Responsible Dept./Person Name

Plan developed for
consideration of public input
for construction sites that are
not subject to the jurisdiction
of the Conservation
Commission or the Planning
Board.

Specify Measurable Goal

4-5

BMP ID #

Inspect erosion and sediment
controls at construction sites.

Specify Best Management Practice

Engineering Department and
Conservation Commission

Responsible Dept./Person Name

Number of inspections
conducted.

Specify Measurable Goal

5. Post Construction Runoff Control:

5-1

BMP ID #

Develop a draft bylaw to apply
Standards 2, 3, 4, and 7 of the
Massachusetts Stormwater
Policy (MSP) to entire Town.
Present the bylaw to Town
Meeting.

Specify Best Management Practice

Town Attorney

Responsible Dept./Person Name

Draft bylaw developed and
presented to Town Meeting.

Specify Measurable Goal



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Facility ID (if known)

5-2

BMP ID #

Specify a stormwater BMP
manual to be used for
consistent design and
performance standards.

Specify Best Management Practice

Town Engineer

Responsible Dept./Person Name

BMP manual selected.

Specify Measurable Goal

5-3

BMP ID #

Develop a draft bylaw that
ensures long-term
maintenance of private
structural BMPs.

Specify Best Management Practice

Town Attorney

Responsible Dept./Person Name

Draft bylaw developed and
presented to Town Meeting.

Specify Measurable Goal

5-4

BMP ID #

Develop a draft zoning bylaw
that allows and/or encourages
use of low-impact
development (LID).

Specify Best Management Practice

Town Attorney

Responsible Dept./Person Name

Draft bylaw developed and
presented to Town Meeting.

Specify Measurable Goal

6. Municipal Good Housekeeping:

6-1

BMP ID #

Identify sensitive receptors
(such as wetlands, beaches,
etc.) within the Town.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

List of sensitive receptors
developed, staff notified.

Specify Measurable Goal

6-2

BMP ID #

Apply for funding to develop
an employee training program.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Funding request made.

Specify Measurable Goal

6-3

BMP ID #

Sweep all streets once every
spring and fall.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Percent of streets swept twice
per year.

Specify Measurable Goal

6-4

BMP ID #

Continue existing road salting
procedures.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Maintain documentation of
amount of deicers used.

Specify Measurable Goal

6-5

BMP ID #

Minimize impacts from vehicle
washing.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Containment area for vehicle
washing built.

Specify Measurable Goal



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Storm Sewer Systems (MS4s)**

Facility ID (if known)

6-6

BMP ID #

Minimize impacts from vehicle
maintenance.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Employee training held;
materials inventory developed.

Specify Measurable Goal

6-7

BMP ID #

Maintain the storm drain
system.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Number of catch basins
cleaned per year.

Specify Measurable Goal

6-8

BMP ID #

Train staff to minimize
chemical applications in parks
and other landscaped areas.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Training held; amount of
herbicides/fertilizers used.

Specify Measurable Goal

6-9

BMP ID #

Hold a Household Hazardous
Waste and a Tire/Battery
Drop-off Day at least once
every two years.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

At least one household
hazardous waste drop-off day
held every other year.

Specify Measurable Goal

6-10

BMP ID #

Plant a new tree to replace
every tree removed by the
Town each year.

Specify Best Management Practice

Department of Public Works
and Tree Warden

Responsible Dept./Person Name

The same number (or more)
trees planted than cut down
each year.

Specify Measurable Goal

6-11

BMP ID #

Pursue a cooperative
agreement with the Milton
Garden Club and the Amateur
Gardeners of Milton to
implement a litter
management program.

Specify Best Management Practice

Department of Public Works,
Milton Garden Club, and
Amateur Gardeners of Milton

Responsible Dept./Person Name

Litter management program
developed.

Specify Measurable Goal

6-12

BMP ID #

Identify the stormwater outfalls
within Milton that are owned
by other entities and inform
them of their management
responsibility.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Outfalls assessed; state
agencies notified.

Specify Measurable Goal



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Facility ID (if known)

7. BMPs for Meeting TMDL: **BACTERIA**

1-1

BMP ID #

Educate dog owners about
picking up dog waste.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Pet waste fact sheets
developed and placed at the
Town Clerk's office and at the
dog pound.

Specify Measurable Goal

1-2

BMP ID #

Prioritize areas in Town that
have pet waste problems, and
install up to three mutt mitt
stations.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Ranking developed; mutt mitt
stations installed.

Specify Measurable Goal

1-3

BMP ID #

Develop a draft bylaw that
requires dog owners to clean
up after their dogs, and
include provisions for fines
and enforcement. Present to
Town Meeting.

Specify Best Management Practice

Town Attorney

Responsible Dept./Person Name

Draft bylaw developed;
presented to Town Meeting.

Specify Measurable Goal

2-3

BMP ID #

Provide support for the
NepRWA 319 TMDL
Implementation grant.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Assistance with the wetlands
project as requested by
NepRWA.

Specify Measurable Goal

2-5

BMP ID #

Develop an Unquity Brook
Stewardship Program.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Stewardship Program
developed.

Specify Measurable Goal

3-1

BMP ID #

Remove sewer underdrains if
found during other routine
maintenance.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Document the number of
underdrains found and
removed.

Specify Measurable Goal

3-4

BMP ID #

Develop and implement a plan
to identify and remove non-
stormwater discharges to the
MS4.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Document number of illicit
connections found and
removed.

Specify Measurable Goal



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Facility ID (if known)

3-5

BMP ID #

Develop a bylaw to require
inspection of new construction
for correct connection to the
sanitary sewer.

Specify Best Management Practice

Town Attorney

Responsible Dept./Person Name

Draft bylaw developed and
presented to Town Meeting.

Specify Measurable Goal

3-6

BMP ID #

Conduct a Town-wide sewer
rehabilitation program.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Implement program.

Specify Measurable Goal

6-7

BMP ID #

Maintain the storm drain
system.

Specify Best Management Practice

Department of Public Works

Responsible Dept./Person Name

Number of catch basins
cleaned per year.

Specify Measurable Goal

E. Certification

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 gather and evaluate 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, I certify that 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.

DAVID W. OWEN, TOWN ADMINISTRATOR

Printed Name

Signature

7-8-03
Date



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F. Storm Water Management Program TIME FRAMES

BMP ID #	PERMIT YEAR		PERMIT YEAR TWO				PERMIT YEAR THREE				PERMIT YEAR FOUR				PERMIT YEAR FIVE				Next Permit	
	Summer 03	Fall 03	Winter 03-04	Spring 04	Summer 04	Fall 04	Winter 04-05	Spring 05	Summer 05	Fall 05	Winter 05-06	Spring 06	Summer 06	Fall 06	Winter 06-07	Spring 07	Summer 07	Fall 07		Winter 07-08
1-1																				
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