Enter your transmittal number → X255679 (Transmittal Number)

Your unique Transmittal Number can be accessed online: http://mass.gov/dep/service/online/trasmfrm.shtml

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

1. Permit Code: 7 or 8 character code from permit instructions	2. Name of Permit Category
MAR041136	MS4 Stormwater

NPDES Phase II Small MS4 General Permit Annual Report
3. Type of Project or Activity

B. Applicant Information – Firm or Individual

Town of Millbury, Massachusetts
1. Name of Firm - Or, if party needing this approval is an individual enter name below:

2. **Last Name** of Individual	3. **First Name** of Individual	4. MI

127 Elm Street
5. Street Address

6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #
Millbury	MA	01527	508-865-4710	

11. Contact Person	12. e-mail address (optional)
Robert Spain, Town Manager	bspain@townofmillbury.net

C. Facility, Site or Individual Requiring Approval

Town of Millbury, Massachusetts
1. Name of Facility, Site Or Individual
127 Elm Street
2. Street Address

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Millbury	MA	01527	508-865-4710	

8. DEP Facility Number (if Known)	9. Federal I.D. Number (if Known)	10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

Tata & Howard, Inc.
1. Name of Firm Or Individual
222 St. John Street, Suite 1G
2. Address

3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #
Portland	ME	04102	207-518-9500	

8. Contact Person	9. LSP Number (BWSC Permits only)
Aubrey L Strause, P.E.	

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

1. ☒ **Fee** Exempt (city, town or municipal housing authority)(state agency if fee is $100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

Check Number	Dollar Amount	Date

Municipality/Organization:	Town of Millbury, Massachusetts
EPA NPDES Permit Number:	MAR041136
MassDEP Transmittal Number:	**X255679**
Annual Report Number & Reporting Period:	Year 10 April 1, 2012 – March 31, 2013

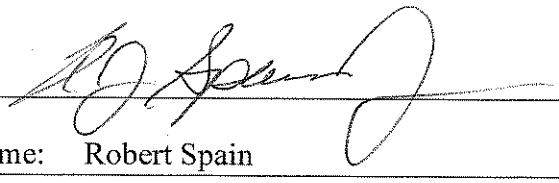
NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2013)

Part I. General Information

Contact Person:	Robert Spain	Title:	Town Manager
Telephone #:	(508) 865-4710	Email:	bspain@townofmillbury.net
Mailing Address:	127 Elm Street; Millbury, Massachusetts 01527		

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, 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.

Signature: 

Printed Name: Robert Spain

Title: Town Manager

Date: 4/26/2013

Part II. Self-Assessment

The following narrative sections describe the work of the Central Massachusetts Regional Stormwater Coalition (the Coalition) project in Fiscal Year 2012 (FY2012), which covered the period of May 2012 through the end of March 2013, entirely within Year 10 of the 2003 Massachusetts Small Municipal Separate Storm Sewer System (MS4) Permit.

The Coalition work in FY2012 was funded by a $310,000 Community Innovation Challenge (CIC) grant from the Massachusetts Executive Office of Administration and Finance. The 13 FY2012 Coalition communities included Auburn, Charlton, Dudley, Holden, Leicester, Millbury, Oxford, Paxton, Shrewsbury, Spencer (which served as the lead community), Sturbridge, Webster, and West Boylston.

The Coalition applied for $200,000 in additional funding from the CIC Grant program to continue the regional stormwater program in Fiscal Year 2013, which would allow 17 additional communities to join the Coalition. The 17 communities identified in the FY2013 proposal include Boylston, Grafton, Hardwick, Monson, New Braintree, Northbridge, Northborough, North Brookfield, Palmer, Princeton, Rutland, Southbridge, Sterling, Upton, Ware, Westborough, and Wilbraham. The Coalition received an award of $115,000 in FY2013 grant funds, and is currently working to confirm which of the 30 (total) communities are willing and able to make a small financial contribution to fund the gap between scope of work and the grant amount. It is expected that most of the 30 communities will make this commitment.

The work includes numerous technical tasks completed by the member communities, as facilitated by the consulting firm of Tata & Howard, Inc., as well as a number of purchases funded with the grant monies. The FY2012 effort included 13 meetings of the Coalition Steering Committee, four training sessions, and a presentation by Thelma Murphy (USEPA Region 1) on February 6, 2013. Two members of the Coalition Steering Committee (from Charlton and Millbury) presented the work of the project at the January 2013 Annual Meeting of the New England Water Environment Association. The group is actively engaged with other water quality organizations and is committed to sharing the knowledge it has developed for the benefit of other communities.

In the following sections, descriptions of the technical tasks and purchases made possible by the CIC grant funding have been separated into sections that mirror the six Minimum Control Measures (MCM's) in the 2003 Massachusetts Small MS4 Permit.

The exception to this organization is one of the more innovative tools developed by the Coalition in Year 10: an integrated mapping and inspection database. The database is cloud-based, and can be accessed by all 13 member communities through a desktop or tablet computer. Existing mapping completed by the 13 member communities was converted to a project standard format and uploaded to a single online map, so that the communities can see each other's stormwater collection system. This tool represents the essence of the Coalition project's message, which is that stormwater is regional- it doesn't stop at a community boundary. All mapped infrastructure is connected to inspection reports that mirror hard-copy forms developed in the 15 Standard Operating Procedures discussed under MCM 1, below: for example, outfall and catch basin inspections. The developed integrated mapping and inspection system is so comprehensive and flexible that it does not fit into just one of the MCM's. It aids communities with public education and outreach (MCM 1), as surveying is a highly-visible activity that will generate questions, and would make an engaging demonstration to school groups. The integrated mapping and inspection database documents evidence of potential illicit discharges or the absence thereof (MCM 3), aids construction site stormwater control (MCM 4) by allowing for data evaluation of how much sediment is contained in a sump, and makes good housekeeping (MCM 6) easier by collecting data on how often catch basins are cleaned. Other tasks and tools of the project connect to the integrated mapping and inspection database, which was designed to serve the needs of the Coalition communities well beyond the 2003 Massachusetts Small MS4 Permit.

Minimum Control Measure 1: Public Education and Outreach

The Coalition developed a DVD to be distributed to each member community. The DVD contained a number of materials appropriate for public

education and outreach, with materials on a variety of topics. The topics included illicit discharge detection and elimination, management of pet wastes, and appropriate use of fertilizer, among others. The benefit of this delivery format is that the group members can print materials on demand. The Coalition also developed a presentation on stormwater management, with content focused on educating the general public and volunteer groups.

The Coalition purchased 13 copies of the Pennsylvania State University documentary "Liquid Assets," and distributed a copy to each member community. Most of the Coalition communities intend to play this video on their local cable access channels and at appropriate community events in 2013.

The Coalition purchased 100 water quality monitoring kits from the World Water Monitoring Challenge program (www.worldwatermonitoringday.org), which "builds public awareness and involvement in protecting water resources around the world by engaging citizens to conduct basic monitoring of their local water bodies". Several communities have already worked with teachers in their local school department or district to do outreach to elementary and middle-school aged students. The kits are being stored in Spencer and Shrewsbury for distribution to the Coalition members.

The Coalition purchased an Enviroscape table focused on non-point source pollution education (http://www.enviroscapes.com/nonpoint-source.html). This tool is a hands-on, visual trainer to demonstrate the importance of good housekeeping and low-impact development for pollution prevention, with the objective of maintaining water quality in our communities. Two communities have done demonstrations for local schools using this tool, and many additional communities plan to use it at local Earth Day or other community fairs in spring and summer 2013.

The Coalition developed an educational website, www.CentralMAStormwater.org, focused on providing information about the project to a number of audiences, including the general public, educators, and kids. Five members of the Coalition Steering Committee received training on how to update the website's content.

Minimum Control Measure 2: Public Involvement and Participation

The Coalition developed a presentation on stormwater management, with content focused on educating elected officials and municipal department heads about the requirements of the 2003 Small MS4 Program, changes likely in the anticipated new Small MS4 Permit, and the financial impact these potential changes may have on Massachusetts communities.

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

The Coalition developed SOP 10, "Locating Illicit Discharges," intended to define the types of illicit discharges that may be observed in the Coalition communities and provide guidance on tools that can be used to identify each. SOP 10 includes an Illicit Discharge Incident Tracking Sheet.

The Coalition also developed the Illicit Discharge Detection and Elimination (IDDE) Documentation Packet, which specifies how illicit discharges are detected and what department or person is responsible for ensuring elimination. This issue remains a substantial challenge to many MS4 communities. Without documentation of the entity responsible for this task for a variety of types of illicit discharge, communities may not satisfy the requirements of the 2003 Massachusetts Small MS4 Permit and may be unprepared for increased IDDE compliance in the new Small MS4 Permit. This deliverable clarified USEPA's minimum IDDE requirements and incorporated appropriate existing IDDE Plans and materials by reference. More importantly, the task provides a framework for people in multiple departments to understand each person's responsibilities, encourage cooperation and communication toward a single objective, and provide templates for documenting observations, actions, and compliance.

The Coalition purchased two Leica surveying devices that can be used to map new structures with very high accuracy, using connection to a military-grade RTK satellite network. The Coalition also purchased 13 tablet computers, one for each member community. Both of these tools can be used to

directly access the online mapping and inspection system. The Leica will be most valuable for mapping outfalls, catch basins, pipe, drain manholes, BMPs, and other components of the MS4, while the tablet computers will be most valuable for ongoing inspection of the structures. These two activities serve as the foundation of IDDE. The Coalition purchased portable wireless devices (MiFi) for each of the 13 member communities so that both Leica and tablet computers can be used in the field. Members of all Coalition communities received training on both the Leica devices and the tablet computers during Year 10.

The Coalition purchased several water quality field kits and meters, most of which are focused on identifying illicit discharges and aligned with the field screening parameters expected to be listed in the pending Massachusetts Small MS4 permit. A summary of the water quality tools purchased is below. These tools are available to all 13 member communities.

Analyte or Parameter	Manufacturer	Number Purchased	Product Type*
Ammonia	CHEMetrics	1	Colorimeter
	Hach	3	Field
Surfactants (detergents)	CHEMetrics	1	Colorimeter
	Hach	2	Colorimeter
	CHEMetrics	4	Field Kit
	Hach	3	Field Kit
Fluoride	CHEMetrics	2	Colorimeter
	Hach	1	Colorimeter
Hardness	Hach	2	Colorimeter
pH	CHEMetrics	1	Meter
	Hach	2	Colorimeter
	Hach	2	Meter
	Extech	4	Meter
Chlorine	CHEMetrics	1	Colorimeter
	CHEMetrics	4	Field Kit
Turbidity	CHEMetrics	2	Meter
Total Dissolved Solids	Hach	2	Meter
	Extech	4	Meter
Conductivity	Hach	2	Meter
	Extech	4	Meter
Salinity	Hach	2	Meter
	Extech	4	Meter
Temperature	Extech	4	Meter

*- Some meters, such as the colorimeters and Extech meter, can be used for multiple parameters.

In February 2013, the Coalition began an evaluation of options to serve as a regional stormwater laboratory. It summarized the estimated capital costs to retrofit an existing laboratory at the Town of Millbury's unused wastewater treatment facility, as well as annual certification, calibration, and labor costs that would be associated with operating that facility. If retrofitted, the laboratory at this site has the potential to serve as a regional stormwater laboratory that may benefit the Coalition and other adjacent communities once the new Massachusetts Small MS4 Permit is finalized, particularly as the new permits will have an increased focus on IDDE. The Cost/Benefit Analysis calculates the approximate fee the regional laboratory would need to charge for services in order to cover the capital and annual cost(s) of maintaining the laboratory. This deliverable compares

the potential Millbury regional laboratory with alternatives in the area, including commercial laboratories and the laboratory at the Upper Blackstone Water Pollution Abatement District. This report is presently being finalized.

The Coalition developed a Request for Proposals (RFP) for a third-party firm to perform many of the field or inspection services defined in the 15 SOP's, including outfall inspection (dry weather and/or wet weather), water quality monitoring, catch basin inspection, and other related tasks. These services are all vital to the effort to identify illicit discharges in the Coalition communities. The work of the RFP will be funded using FY2013 CIC monies. The scope of the RFP will be reviewed and compared to the requirements of the proposed or final Massachusetts Small MS4 Permit in effect at that time.

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

The Coalition developed SOP 6, "Erosion and Sedimentation Control," intended to help communities minimize discharges from land-disturbing activities. The SOP addresses design, planning, construction, and inspection tools and activities that can serve as BMPs. The SOP also outlines inspection requirements for a variety of constructed BMPs that need to serve a long-term purpose for protecting surface waters from discharge of sediments.

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

The Coalition developed a Stormwater Best Management Practices (BMP) Toolbox, compiling the stormwater post-development tools currently permitted and encouraged for small development or redevelopment, specifically single-family homes and limited commercial renovations that have a small development footprint. The Stormwater BMP Toolbox provides technical data, design factors, and construction limitations with these BMPs in non-technical language. The objective was to provide the average property owner with easy-to-understand information that encourages them to select low-impact stormwater management tools for their properties, construct them safely, and maintain them for long-term benefit. The BMPs in the Toolbox are consistent with the requirements of the current Small MS4 Permit, the Massachusetts Stormwater Handbook (February 2008), and other current guidance documents.

Minimum Control Measure 6: Pollution Prevention and Good Housekeeping in Municipal Operations

The Coalition developed a Stormwater Pollution Prevention Plan (SWPPP) template in the form of a word processing document. The template addresses elements common to all SWPPPs, including storage of materials, site inspection practices, water sampling, training, spill prevention and cleanup, Standard Operating Procedures for a number of activities, and other sections. SWPPP template covers many types of municipal properties. This includes highway department garages and public works yards, where salt is stored and vehicle maintenance or storage is completed, as well as parks, golf courses, and cemeteries, where fertilizers and pesticides may be applied and lawn mowing activities may result in small spills. The SWPPP template includes built-in instructions to make it as simple as possible for each community to develop a SWPPP for a property, simply by deleting text that doesn't apply. Each community also received at least one detailed Site Plan that shows the location of materials storage, vehicle maintenance and other SWPPP-specific activities at a municipal facility, as well as the locations of structures that discharge to the MS4 and the direction of stormwater flow.

The Coalition developed 15 Standard Operating Procedures (SOP's) intended to provide guidance on activities required or encouraged by the 2003 Massachusetts Small MS4 Permit. These SOPs addressed such diverse activities or needs as outfall inspection (both dry weather and wet weather), catch basin cleaning, erosion and sedimentation control, oil/water separator maintenance, use and storage of pesticides and fertilizers, and many more. The group developed standard forms and methodologies for these procedures, many of which were incorporated into the Integrated Online Mapping and Inspection System, described in following paragraphs.

The Coalition developed two presentations on pollution prevention in stormwater management, with content focused on educating employees of public works, engineering, conservation, planning, highway, and other similar municipal departments on the requirements of the 2003 Small MS4 Program. This includes a training presentation on the SWPPP Template and the responsibilities of municipal personnel to implement requirements of the SWPPP. A second training presentation provides explanation and insight on the 15 SOP's described previously.

The Coalition developed a Sump Pump Discharge Policy that provides a framework for the member communities to respond to needs to remove sump pumps from the sanitary sewer system without causing property damage or creating a hazardous condition for the public. The Policy discusses considerations related to potential contamination and reduction in capacity of the storm drain system when sump pumps are permitted to connect to the drainage system, and lays out a situational approach to provide flexibility in administrating a policy. The Policy includes guidance for when such a connection should be considered, what information the municipality can request from a residential or commercial property to guide in its decision, and outlines the responsibilities of the property owner.

The Coalition developed a Salt/Sand Benchmarking tool to guide member communities in determining the present loading rate of chloride (per lane-mile) presently applied by its salt trucks and other municipal vehicles, regardless of the compound (e.g.: sodium chloride, green salt, calcium chloride) or form (e.g., solid or liquid, mixed with sand), and in evaluating alternative application methods and materials to current practices. The deliverable guides communities through an equipment calibration process and suggests a target reduction rate that is coupled to and appropriate for the benchmarked loading rate. The objective of this task is to reduce the overall loading of chlorides to surface waters in the region while maintaining safe conditions on roadways.

MISCELLANEOUS

The Sump Pump Policy, as well as a Private Drainage Connection SOP (SOP 15), both include technical criteria for a member community to evaluate when considering granting approval to residential and/or commercial users to connect such private drainage into engineered storm drain systems within the MS4. However, this approach is not effective in areas where no engineered storm drain system exists. In February 2013, the Coalition began to develop a process to connect pieces of data managed by multiple departments within a community for the benefit of all departments. Specifically, the task merges knowledge of areas where high inflow (i.e., sump pumps and drainage connections) to the sanitary sewer has been identified but where no engineered storm drain system exists. This knowledge includes drainage Capital Improvement Plan (CIP) categories and fields to prioritize the extension of the engineered drain system, within the parameters of the Sump Pump Policy and the Private Drainage Standard Operating Procedure, to reduce inflow to the sanitary sewer while protecting surface water quality. This report is presently being finalized.

The Town of Millbury has performed the required self-assessment and determined that, based on available information, our municipality is in compliance with the terms of our General Permit. Any exceptions to this are detailed in Part III below.

The Town of Millbury is encouraged that, per the narrative included in Section 319 Nonpoint Source Pollution Competitive Grants Program announced in March 2013, some MS4 work will again be eligible for grant funding. The Town intends to apply for appropriate grant opportunities.

Millbury continues to await issuance of the 2013 (tentative) Massachusetts Small MS4 General Permit, and will review its Stormwater Management Program when the new Permit is issued.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
1	Create a Stormwater Program	Department of Public Works, Planning Board, Conservation Commission, Board of Health, Board of Selectmen	Millbury will present to the public at a public meeting Millbury's Comprehensive Stormwater Management Program.	Measurable goal completed in previous permit years.	No further action required at this time: awaiting issuance of the Final Massachusetts Interstate, Merrimack and South Coastal Small MS4 General Permit.
2	Create Stormwater Program	Department of Public Works	Millbury will identify appropriate sources of funding assistance (SRF, 319 Grant Program, 604(b) Grant Program, Lakes & Ponds Grant Program, Source Water Protection Grant Program, Recycling Grant Program) and apply for assistance in implementing portions of Millbury's Comprehensive Stormwater Management Program, including public education and outreach.	Measurable goal completed in previous permit years. Millbury participated in stormwater activities as one of 13 MS4 municipalities involved in a Community Innovation Challenge Grant project.	Millbury will continue to participate in the Central Massachusetts Regional Stormwater Coalition. Millbury will continue to look for additional funding opportunities including Section 319 grants to support protection of local water bodies.
3	Address specific groups	Department of Public Works	Distribute EPA and other relevant educational brochures to targeted audiences. Distribution points include Town Hall, Library and Transfer Station.	Basic stormwater educational messages were distributed at a Household Hazardous Waste collection day on September 8, 2012 and had 69 participants.	Millbury will continue to distribute stormwater educational messages. In Year 11, the Town will use Household Hazardous Waste Collection events as an opportunity to expand public education and outreach. The Town has planned a Household Hazardous Waste Collection event for June 8, 2013.
4	Target groups likely to impact stormwater	Department of Public Works	Brochures targeting specific audiences and activities will be available. These target groups include homeowner and lawn maintenance activities, disposal of household waste and pet maintenance.	Basic stormwater educational messages were distributed. A bicentennial sign for the mill on Ramshorn Brook was installed on Carleton Road	Millbury will continue to distribute stormwater educational messages. The Town is considering installing watershed and stream crossing signs in Year 11.

5	Identify alternate information sources	Department of Public Works, MIS Department	Millbury will post links to stormwater BMPs and other water quality education resources, including EPA and DEP on its website. http://www.millbury-ma.org/. Millbury will post links to Our Lady of Assumption School student storm drain project (www.sdwgt.tripod.com/). The Town will work with Lake Singletary Watershed Association in the collection and dissemination of data from the association's sampling program. Data will be posted on Town website along with relevant BMPs for target audiences.	The Lake Singletary Watershed Association sampling data was distributed to association members and other interested parties.	The Town will incorporate new outreach activities as elements of the next five year Permit term. The Town will add a link on its website to direct visitors to the CMRSWC website, www.CentralMAStormwater.org, which hosts educational and outreach materials, targeted toward a variety of audiences.
6	Identify alternative information sources	Department of Public Works, MIS Department	The Town of Millbury will contact Blackstone River Watershed Council to review opportunities in Millbury. These opportunities include hosting a watershed association meeting in Millbury with notice on website and local access channel, and televising a meeting reviewing watershed activities or needs specific to Millbury.	Town continued to work with the Lake Singletary Watershed Association (LSWA), the Dorothy Pond Restoration Committee (DPRC), and the Blackstone River Watershed Council (BRWC) to support their programs and events.	Continue ongoing efforts.
7	Utilize local public access channel.	Department of Public Works	Public meeting notice and a meeting reviewing Millbury's Comprehensive Stormwater Management program will be posted/broadcast on Millbury's local access channel.	Measurable goal completed in previous permit years. "Liquid Assets" documentary continues to be shown on local public access channel on a regular schedule.	No further action required at this time; however, local access channel will continue to regularly air stormwater announcements, the "Liquid Assets" documentary and CMRSWC Public Education and Outreach presentation on Stormwater Management .
8	Develop, conduct and document educational programs.	Department of Public Works Selectmen Liaison	The Town of Millbury will contact Blackstone River Watershed Council to review opportunities in Millbury. These opportunities include hosting a watershed association meeting in Millbury with notice on website and local access channel, and televising a meeting reviewing watershed activities or needs specific to Millbury. The Dorothy Pond Restoration Committee and the Ponds and Lakes Commission (appointed by the Town) will post meeting and event notices on the Town of Millbury's web page. Special events and seminars with guest speakers will be televised on Millbury's local access channel.	The DPRC and the Ponds and Lakes Commission (appointed by the Town) posted meeting and event notices on the Town of Millbury's web page.	The DPRC and the Ponds and Lakes Commission (appointed by the Town) will continue to post meeting and event notices on the Town of Millbury's web page. Special events and seminars with guest speakers will be televised on Millbury's local access channel. World Water Monitoring Challenge water quality monitoring kits will be distributed to schools and the Environscape table will be at one or more events in Year 11. New opportunities will be

					considered as elements of the next five year permit term.
9	Promote Household Waste Recycling	Department of Public Works, Board of Health	The Town of Millbury will work with its contracted waste hauler and the Board of Health to continue to sponsor Hazardous Waste Collection days.	Measureable goal completed. Household hazardous waste is collected Wed - Sat at the Transfer Station. In Year 9, the Town received a $30,000 donation from Wheelabrator Technologies, Inc., a local municipal waste combustion facility. In Year 10, the Town continued to use this funding for a formal Household Hazardous Waste Collection program.	Recycling and hazardous waste collection is expected to continue and the collection events will be used as an opportunity to expand public education and outreach. Previously received funding will continue to be used for the Household Hazardous Waste Collection program.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
10	Storm drain stenciling	Department of Public Works	The Town of Millbury will work with local students at Our Lady of Assumption School in continuing its support of storm drain stenciling by students.	Measurable goal completed in previous permit years. School provided stenciling during permit years 1-4. Locating paint was refreshed during catch basin cleanings.	Additional catch basin stenciling programs will be considered as an element of the next five year term. Continue to refresh stenciling on catch basins as needed.
11	Community clean-ups	Department of Public Works, Millbury Conservation Commission	The Town of Millbury will encourage local stream team cleanups with local residents and area Scout groups. The Town will provide solicitation of sponsors and notice of events on local access channel and website.	LSWA hosted several cleanup days during the year. Cooperation included the Brierly Pond Association and Ramshorn Pond, both for pond cleanouts. The DPW assisted with trash collection at area cleanups.	The Town will continue to support area cleanups.
12	Community clean-ups	Department of Public Works	Town will provide trucks and other material to support cleanup efforts and disposal of materials.	The Town continues to utilize the services of the Worcester County Sheriff's Department prisoner program to assist in these cleanup events.	The Town will continue to support area cleanups.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
13	Inventory and mapping of storm drain system	Department of Public Works	The Town of Millbury will identify appropriate sources of funding assistance (SRF, 319 Grant Program, 604(b) Grant Program, Lakes & Ponds Grant Program, Source Water Protection Grant Program, Recycling Grant Program) and apply for assistance in implementing portions of its Comprehensive Stormwater management Program, Including public education and outreach.	Measurable goal completed in previous permit years. The Leica GPS device purchased by the CMRSWC was used in Year 10 to locate (or correct the location of) numerous stormwater outfalls, and to locate catch basins. These structure locations were uploaded to the CMRSWC's integrated mapping and inspection system. The tablet computer received as part of the CMRSWC project is being used to perform inspections of structures in the drainage system. The Town used smoke testing to verify system connections and detect illicit discharges.	Using the tablet computer received as part of the CMRSWC project, the Town will continue to review and update storm drain system maps and inventory, and complete inspections of structures in the drainage system. The Town will use the Leica GPS device on a rotating schedule with other communities to locate additional structures and pipes in the drainage system. The Town will continue to use smoke testing to verify system connections and detect illicit discharges.
14	Mapping and identification of outfalls and receiving waters	Department of Public Works, Board of Assessors	Millbury will develop and implement a plan to map all outfalls and receiving bodies of water, contingent on Town Meeting approval of funding.	Measureable goal completed in previous permit years (map of drainage system).	The Town will continue to use the Leica GPS device and tablet to update the integrated mapping and inspection system, and add outfalls and other structures as needed and as new developments are completed.
15	Identification/ description of problem areas	Department of Public Works	The Town of Millbury will develop and implement an Illicit Discharge Detection and Elimination (IDDE) plan, contingent on Town Meeting approval of funding.	Measureable goal completed in previous permit year. In Year 10, the Town began using tablets and an electronic catch basin inspection form to improve the ability to identify potential illicit discharges.	The Town will continue to implement the IDDE Program, including using catch basin cleaning activities as an opportunity to identify illicit discharges. The Town will continue to use smoke testing to verify system

				The Town used smoke testing to verify system connections and detect illicit discharges. In Year 10, the Town began using a Sump Pump Discharge Policy developed by CMRSWC. This policy encourages discharge of sump pumps to the storm drain system, not the sanitary sewer, while preventing illicit discharges. In Year 10 the policy was used once. The Town continues to require Building Inspector to certify that all new building foundation drains run to daylight to prevent connection of illicit discharges to Town system.	connections and detect illicit discharges. The Town plans to continue using tablets and electronic inspection forms to document the condition of outfalls and other structures and pipes in the drainage system.
16	Enforcement procedures addressing illicit discharge	Department of Public Works	The Town of Millbury will review whether local authority is appropriate and able to respond to potential illicit discharges. New by-laws, if necessary will be proposed to Town Meeting.	Measurable goal completed in previous permit years. No stop work orders were issued during this permit year.	Continue enforcement of bylaw. Review existing bylaw for compliance with any new requirements defined in the 2013 (tentative) Massachusetts Small MS4 General Permit
17	Public information program regarding hazardous wastes and dumping	Department of Public Works, Board of Health	The Town of Millbury will provide educational brochures to residents promoting proper disposal of household hazardous wastes and conditions for regional collections	Recycling/disposal programs continued and were advertised to residents.	Continue ongoing efforts.
18	Initiation of recycling programs	Planning Board, Board of Health	Millbury will apply for funding assistance from DEP's Recycling Grant Program for assistance in public education and the purchase of recycling materials.	Recycling program established in prior permit years, and continued throughout this permit year.	Millbury expects to continue the recycling program.
19	Watershed assessments and studies	Department of Public Works, Conservation Commission, Board of Health	Millbury will identify opportunities for funding assistance from DEP's 604(b) and 319 grant programs and the Department of Environmental Management's Lake and Ponds Grant Program to support watershed assessment and implementation activities. Task can include design and installation of stormwater BMPs and public	Millbury obtained 319 grant and CWSRF loan for stormwater activities in prior permit years. Stormwater outfalls were visually monitored.	Millbury will continue to look for funding, including Section 319 grants, and public participation opportunities for assessments and studies in the local watersheds. In Year 11, the Town plans to

			outreach including storm drain stenciling. Emphasis will be on assessments and remediation for stormwater related problems impacting water quality in Brierly Pond, Dorothy Pond, Hathaway Pond, Howe Pond, Howe Reservoirs, Slaughterhouse Pond and Woolshop Pond. These waterbodies have been identified as impaired and on DEP's 303d list.		monitor outfalls using field test kits and meters provided by the CMRSWC.
20	Watershed assessments and studies	Department of Public Works, Public Water Suppliers	The Town of Millbury will encourage the Massachusetts American Water Works Co. to apply for funding assistance from DEP's Source Water Protection Program for grant assistance to develop wellhead protection plans and stormwater management plans within Zones II. These plans can include stormwater management programs. The proposed tasks will include a public education component. The Lake Singletary Watershed Association will be consulted and asked to provide educational data from their studies and monitoring of Lake Singletary for posting on Millbury's local access channel and website.	LSWA water quality data was distributed to members and other interested parties.	Millbury will continue to work on its Source Water Protection Program and seek data from the Lake Singletary Watershed Association for distribution.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
21	Bylaw: Storm water management regulations for construction sites 1 acre or larger	Planning Board, Conservation Commission, Town Counsel, Board of Health, ZBA	Millbury will review model by-law developed by DEP in consultation with the Attorney General's Office.	Measureable goal completed in previous permit year. The Planning Board completes a review of plans for proposed developments in conjunction with a consultant.	No further action required at this time. Review existing bylaw for compliance with any new requirements defined in the 2013 (tentative) Massachusetts Small MS4 General Permit

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
22	Bylaw: Require post-construction runoff controls	Planning Board, Conservation Commission, Town Counsel, Board of Health, ZBA	Millbury will review model by-law developed by DEP in consultation with the Attorney General's Office.	Chapter 16 Section 3 of the Town's General Bylaws addresses post-construction stormwater management of new development and redevelopment. In Year 10, five developments were inspected after construction before the Town accepted these roads.	No further action required at this time. Review existing bylaw for compliance with any new requirements defined in the 2013 (tentative) Massachusetts Small MS4 General Permit The Town intends to include the design and construction of a rain garden at its Highway Facility as part of a UST tank removal and restoration project. This treatment BMP will serve as a demonstration project for other communities.

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
23	Develop a municipal Operations and Maintenance Plan	Department of Public Works	Using regulations and recommendations from the DEP and EPA, Millbury will develop and update an operations and maintenance plan to include proper disposal of street sweepings, catch basin cleanout, snow disposal, roadway de-icing procedures, vehicle washing, and outside storage of materials.	Measurable goal completed in previous permit years. In Year 10, Town continued to implement street sweeping, sidewalk sweeping, catch basin cleaning, and other O&M activities consistent with the MS4 Permit.	Millbury will continue to follow the O&M plans as described in the SWPPP documents.
24	Develop a municipal Operations and Maintenance Plan	Department of Public Works	Millbury will implement a formal inspection program, including maintenance logs and scheduling, for catch basin cleaning, repairs, and new installation.	Measureable goal completed in previous permit years. In Year 10, the Town continued to use the 23 established Work Routes for tasks including storm drain system O&M.	Millbury will continue its ongoing O&M program, and keep records of activities undertaken. The Town will continue to use the work routes method.
25	Develop and	Department of	Millbury will send a minimum of 3 public works	Municipal employees attended	Millbury will continue to train

	implement training programs for municipal employees	Public Works	employees annually to training seminars sponsored by MassDOT, BayState Roads, and other relevant agencies or vendors.	hazardous waste, oil storage, MSDS, SWPPP and oil spill cleanup training. The Town also attended a sand/salt calibration class. Three municipal employees attended training on December 12, 2012 on the Leica device, and two municipal employees attended a tablet training event on March 12, 2013, both events provided through the Coalition.	public works employees on stormwater pollution prevention and good housekeeping. The Town will update its hazardous material inventory.
26	Review storm drainage infrastructure needs	Department of Public Works	Millbury will incorporate storm drain infrastructure review in Millbury's Chapter 90 project utilizations.	Drainage improvements are completed as necessary in conjunction with Chapter 90 projects, and through the Town's I/I program.	Millbury will continue to identify opportunities to incorporate stormwater improvements into future capital projects.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 10	Planned Activities
Not Applicable	Not Applicable	Not Applicable	The following Millbury water bodies have been designated impaired under the Proposed 2012 Massachusetts Integrated List of Waters: Blackstone River, Brierly Pond, Dorothy Pond, Pondville Pond, Singletary Pond, Woolshop Pond and Howe Reservoir. TMDLs have been developed for Brierly Pond, Dorothy Pond, Howe Pond, and Pondville Pond due to non-native aquatic plants or turbidity. Water bodies requiring a TMDL include Woolshop Pond and the Blackstone River. Singletary Pond is a Category 3 water body on the Final Massachusetts Year 2010 Integrated List of Waters and a TMDL will not be required.	Evaluate any TMDLs developed for impaired waters.	Continue to evaluate TMDLs developed for impaired waters.

Part IV. Summary of Information Collected and Analyzed

No additional information was collected or analyzed outside of that identified in Part III above.

Part V. Program Outputs & Accomplishments (OPTIONAL)

(Since beginning of permit coverage unless specified otherwise by a **, which indicates response is for period covering April 1, 2012 through March 31, 2013)

Programmatic	**(Preferred Units)**	**Response**
Stormwater management position ~~created~~/staffed	(y/n)	Yes
Annual program budget/expenditures **	($)	
Total program expenditures since beginning of permit coverage	($)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		General Fund

Education, Involvement, and Training		
Estimated number of property owners reached by education program(s)	(# or %)	13,000
Stormwater management committee established	(y/n)	No
Stream teams established or supported	(# or y/n)	No
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	Working Hrs @ BOH/Transfer Station
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	Yes

Legal/Regulatory	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
Regulatory Mechanism Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination					X
▪ Erosion & Sediment Control					X
▪ Post-Development Stormwater Management					X
Accompanying Regulation Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination					N/A
▪ Erosion & Sediment Control					N/A
▪ Post-Development Stormwater Management					N/A

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	100%
Estimated or actual number of outfalls	(#)	266
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	100%
Mapping method(s)		
▪ Paper/Mylar	(%)	0
▪ CADD	(%)	0
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	0
Outfalls inspected~~/screened~~ (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	0
Illicit discharges identified (Since beginning of permit coverage)	(#)	3
Illicit connections removed **	(#), (gpd)	0
Illicit connections removed (Since beginning of permit coverage)	(#), (gpd)	3
% of population on sewer	(%)	75%
% of population on septic systems	(%)	25%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	5
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	5
Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and $)	0
Complaints/concerns received from public **	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	100%
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	Yes[1]
Low-impact development (LID) practices permitted and encouraged	(y/n)	Yes

1 O&M Plan requires maintenance agreement.

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	1 per year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	As-needed
Qty of structures cleaned **	(#)	
Qty. of storm drain cleaned **	(%, LF, mi.)	100 LF
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Worcester Landfill
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	
• Hourly or per basin contract rate **	($/hr, $/CB)	
• Disposal cost**	($)	
Cleaning Equipment		
• Clam shell truck(s) owned/~~leased~~	(#)	1
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	N/A
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vactor **	(%)	0%

Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1+/yr
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	1+/yr
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Worcester Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	~$75,000
• Hourly or lane mile contract rate **	($/hr, ln.mi.)	N/A
• Disposal cost**	($)	$0
Sweeping Equipment		
• Rotary brush street sweepers owned/~~leased~~	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	No
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	0%

Operations and Maintenance (continued)

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	95% NaCl, 5% Sand
Pre-wetting techniques utilized **	(y/n or %)	No
Manual control spreaders used **	(y/n or %)	Yes
Zero-velocity spreaders used **	(y/n or %)	No
Estimated net reduction or increase in typical year salt/chemical application rate	(lbs/ln mi, %)	0%
Estimated net reduction or increase in typical year sand application rate **	(lbs/ln mi, %)	0%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	N/A
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Yes

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	0%
▪ Herbicides	(lbs. or %)	0%
▪ Pesticides	(lbs. or %)	0%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	Yes

Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	N/A
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	N/A
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	N/A