

**Municipality/Organization:** Town of Millbury, MA  
**EPA NPDES Permit Number:** MAR041136  
**MassDEP Transmittal Number:** X270588

**Annual Report Number & Reporting Period:** Year 13  
April 1, 2015 – March 31, 2016

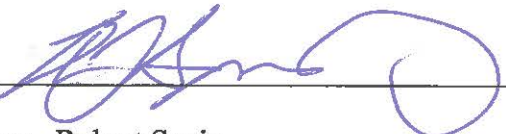
**NPDES PII Small MS4 General Permit  
Annual Report  
(Due: May 1, 2016)**

**Part I. General Information**

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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, Town of Millbury  
**Date:** April 29, 2016

## Part II. Self-Assessment

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.

### *Narrative*

In Year 13, the Town of Millbury continued to be an active participant in the Central Massachusetts Regional Stormwater Coalition (the Coalition). The Coalition's work in Year 13 (which overlaps municipal fiscal years 2014 and 2015) was funded entirely by contributions of approximately \$4,000 from each of the 28 participating Towns, including Millbury.

### Overview of the Coalition -

The FY2014/2015 Coalition, aligning with Permit Year 13, included 28 towns: Auburn, Boylston, Charlton, - Dudley, Grafton, Hardwick, Holden, Hopkinton, Leicester, Millbury, Northborough, Northbridge, Oxford, - Palmer, Paxton, Rutland, Shrewsbury, Southbridge, Spencer, Sterling, Sturbridge, Upton, Uxbridge, Ware, - Webster, West Boylston, Westborough, and Wilbraham. The Coalition was officially formed in FY2012 with - 13 members, expanding to 30 in FY2013. The FY2016 Coalition will be comprised of 31 towns with the recent - additions of Framingham, Lunenburg, and Marlborough. -

The Town of Millbury's Director of the Department of Public Works (DPW), Robert D. McNeil III, P.E., continued to serve as an active member of the Coalition's Steering Committee, as he has since the group was formed, attending several meetings in Year 13.

The Year 13 work of the Coalition focused on **implementation** and **preparation**.

- The **implementation** aspects included eight hours of one-on-one time, in which each member was provided with dedicated time from consultants that could be used for whatever was most needed, under one or more Minimum Control Measure. The Town of Millbury used its one-on-one time to have its IDDE Plan reviewed and updated (to include and reference IDDE resources that have been made available by participation with the Coalition, and to update staff roles), and to have a "Field Day" refresher, where they received refresher training on the use of field screening kits and the Coalition's online mapping and inspection system.
- The **preparation** aspects included work to both understand the technical components of the pending (at the time) Massachusetts MS4 Permit as well as how they will continue to afford the new Permit. The group hosted a September 3, 2015 workshop by Keith Readling of Raftelis Financial Consultants, who has assisted more communities develop a stream of dedicated funding for stormwater management than anyone else. The objective was not to force the concept of a "stormwater utility", but to get community leaders thinking of stormwater funding as an enterprise, similar to how many already manage sanitary sewer funds. Millbury DPW Director McNeil attended this session.

The Coalition continues work on a Stormwater Program cost assessment for member towns, with most already being delivered. This task looks at what the community is actually spending on stormwater management, including staff labor (across many departments and positions), operations and maintenance, equipment costs (rental and depreciation), and third party vendors and consultants.

On April 15, 2015, a meeting of all member communities was held in Charlton, MA to develop a potential scope for FY2016 and determine how the group would be funded and administered going forward. This meeting was

attended by Millbury DPW Director McNeil, who is a strong advocate for sustainability of the Coalition and the expanded sharing of stormwater management knowledge and resources across the Commonwealth.

An update for all member communities was also presented at a meeting on September 3, 2015 prior to the stormwater funding workshop.

Coalition members themselves continue to be responsible for putting to use the tools developed by the Coalition.

### **The Coalition's Partnerships in Central Massachusetts**

The Coalition continues to be actively engaged with many water quality agencies and organizations and is committed to sharing the knowledge it has developed for the benefit of other communities. These efforts are discussed in following sections as they relate to the following organizations:

- Massachusetts Department of Environmental Protection (MassDEP)
- United States Environmental Protection Agency (USEPA)
- Other Massachusetts Stormwater Coalitions
- Massachusetts Municipal Association (MMA)

Additional organizations and entities are mentioned elsewhere throughout this Annual Report, reflecting the wide network of knowledge and experience that the Coalition has tapped into.

#### *Massachusetts Department of Environmental Protection (MassDEP)*

The Coalition continued its partnership with the MassDEP in FY2014/2015, most recently announcing the receipt of a \$50,000 Stormwater Technical Assistance grant from the department. This grant will be used to develop training elements and outreach tools that target new or expanded elements in the new permit, and that can be used by communities across the Commonwealth.

MassDEP staff continue to attend CMRSWC Steering Committee events and make themselves available for technical assistance. The Coalition appreciates the ongoing dedication of MassDEP to work with our members so closely and collaboratively.

In FY2016, the CMRSWC hopes to develop another Interactive Qualifying Project (IQP) with students from the Worcester Polytechnic Institute (WPI). One potential concept for a FY2016 project is to work with MassDEP stormwater and solid waste staff to develop a streamlined method to determine appropriate beneficial reuse of street sweepings and/or grit from catch basin cleaning activities, thereby turning a material that can be costly to dispose into a source of revenue to our members.

#### *United States Environmental Protection Agency*

The Coalition continued collaboration with technical assistance staff in USEPA Region 1, with the goal of benefiting from knowledge and experience of the agency's staff and from its network. We appreciate the support of these agency staff, and believe this positive communication resulted in some modifications to the new MA MS4 permit (released on April 4, 2016) that make it more reasonable while still benefiting and protecting water quality.

#### *Other Massachusetts Stormwater Coalitions*

The Coalition continues to coordinate with "sister" groups with a similar stormwater focus. These include:

- The Merrimack Valley Stormwater Collaborative (coordinated by the Merrimack Valley Regional Planning Commission);
- The Neponset Stormwater Partnership (coordinated by the Metropolitan Area Planning Council and the Neponset River Watershed Association);
- The Northern Middlesex Stormwater Collaborative (coordinated by the Northern Middlesex Council of Governments);
- The Connecticut River Stormwater Committee (through the Pioneer Valley Planning Commission); and
- The Southeastern Massachusetts Stormwater Collaborative (coordinated by the Southeastern Regional Services Group)

Many members of these groups were invited to attend the September 2015 stormwater funding workshop, and the facilitators of these different collaboratives have made the effort to inform the other groups of events they're hosting.

Importantly, these separate regional groups met twice in Year 13- on June 23, 2015 and September 17, 2015- to compare notes on activities in progress and share ideas on future collaborations. This statewide partnership will be expanding in Year 14.

#### *Massachusetts Municipal Association (MMA)*

Members of the Coalition have been active in the MMA for years, including Robin Craver, Town Administrator for Charlton, MA and an active Coalition leader, who is the Chair of MMA's Policy Committee on Energy and the Environment. This Committee formulates policy related to stormwater, water quality, water supply, wetlands, coastal areas, and other related environmental issues and represents a way for the Coalition to learn from (and share) ideas around the Commonwealth.

#### **Tasks Included in this Annual Report**

In the following sections, descriptions of the technical tasks and resources performed by the CMRSWC in Year 13 have been separated into sections that mirror the six Minimum Control Measures (MCM's) in the 2003 Massachusetts Small MS4 Permit.

One of the more innovative tools developed by the Coalition- one that spans across multiple MCM's- is the integrated online mapping and inspection database, hosted by PeopleGIS. The database is cloud-based, and can be accessed by all 28 member communities through a desktop or tablet computer.

In Year 13, we observed that Coalition members expanded use of this resource, primarily by beginning the process of mapping linear infrastructure (like pipes and culverts) and doing more catch basin inspections using the tools. Both of these tasks are key to preparing to increase mapping and to perform the catchment evaluation process included in the 2016 MA MS4 Permit.

As noted in last year's report, this platform 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 is 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 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. Each of the online forms is fluid- they will continue to be revised, as needed, to meet the goals of the Coalition members and future Massachusetts MS4 Permit requirements.

### Minimum Control Measure 1: Public Education and Outreach -

Year 13 activities included routine meetings of the Coalition's Steering Committee.

In Year 13, the Coalition purchased copies of the "Water Blues, Green Solutions" documentary (<http://waterblues.org/about>) for each member town, on DVD.

An exciting tool for public education continues to be the Coalition's Twitter account, [@MAStormH2O](#). As of the date of this report, the Coalition's account has 96 followers, including other stormwater coalitions around the country. Information tweeted (or retweeted) by the Coalition in Year 13 addressed such water quality topics and issues as:

- Stormwater infrastructure funding
- Nutrient credits and trading
- Sharing public service announcements (PSA's) developed by our member communities and partners
- Impact of leaking sanitary sewers on stormwater and water quality
- Low Impact Development (LID) workshops and training courses held by partners in or near our member communities

Many of our member communities and regional agencies follow [@MAStormH2O](#) and retweet our information, greatly expanding the audience reached by the message. We anticipate using this tool in the future to quantify the size of the audience reached by each message, and evaluating the success of the message.

In Year 13, the Coalition expanded its efforts to educate the public and other communities about its work. This includes the following presentations and events, listed in chronological order:

- On May 12, 2015, Robin Craver (Charlton, MA) presented at the 6th Annual Water Resources Strategies Symposium, hosted by the Massachusetts Coalition for Water Resources Stewardship, sharing information on stormwater program costs and ways to create regional efficiencies.
- On May 15, 2015, a Coalition consultant did a presentation to the New England Interstate Water Pollution Control Commission (NEIWPC) at its Board meeting in Bolton, MA.
- On June 26, 2015, Robin Craver (Charlton, MA) and a Coalition consultant did a presentation to the Central Massachusetts Regional Planning Commission at its Summer Legislative Breakfast, in Worcester, MA.
- On July 13, 2015, a Coalition consultant did a presentation to the National Association of Clean Water Agencies at its Summer Conference in Providence, Rhode Island.
- On November 18, 2015, Robin Craver (Charlton, MA) and a Coalition consultant did a presentation at the "Community Stormwater Solutions" conference, hosted at Worcester Polytechnic Institute by the Massachusetts Watershed Coalition.

Several Coalition members chose to use some of their "one-on-one" to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 13, the Town of Millbury continued to utilize water quality monitoring kits from the World Water Monitoring Challenge program ([www.worldwatermonitoringday.org](http://www.worldwatermonitoringday.org)), purchased by the Coalition in Year 10. These kits "build 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 used this in Year 13 to work with teachers in their local school department or district to do outreach to elementary and middle-school aged students. The kits continue to be stored in Spencer and Shrewsbury for distribution to the Coalition

members.

Town of Millbury continued to utilize the two Enviroscape models focused on non-point source pollution education (<http://www.enviropages.com/nonpoint-source.html>). One model was purchased by the Coalition in Year 10 and the second was purchased in Year 13 with a grant from NEWEA. These tools are hands-on, visual trainers to demonstrate the importance of good housekeeping and low-impact development for pollution prevention, with the objective of maintaining water quality in our communities. These tools are shared with our statewide partners, upon request.

The Coalition continued to expand its educational website, [www.CentralMAStormwater.org](http://www.CentralMAStormwater.org), focused on providing information about the project to a number of audiences, including the general public, educators, and kids.

#### Minimum Control Measure 3: Illicit Discharge, Detection and Elimination

Several Coalition members, including the Town of Millbury, chose to use some of their "one-on-one" time to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 13, Town of Millbury continued to utilize the Leica surveying devices (purchased by the Coalition in Year 10) that can be used to map new structures with very high accuracy, using connection to a military-grade Real Time Kinematic (RTK) satellite network. The Leica and tablets can be used to directly access the online mapping and inspection system: the Leica is the 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 Leica units rotate between the 28 Coalition communities on a schedule, with formal handoff between Towns documented.

#### Minimum Control Measure 4: Construction Site Stormwater Runoff Control

Several Coalition members chose to use some of their "one-on-one" time to expand their efforts on this MCM. - Updates will be provided in future Annual Reports. -

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

Several Coalition members chose to use some of their "one-on-one" time to expand their efforts on this MCM. - Updates will be provided in future Annual Reports. -

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

Several Coalition members, including the Town of Millbury, chose to use some of their "one-on-one" time to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 13, Town of Millbury continued to utilize the Stormwater Pollution Prevention Plan (SWPPP) template in the form of a word processing document. This document was developed in Year 10 and 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. The 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.

In Year 13, Town of Millbury continued to utilize the 15 Standard Operating Procedures (SOP's) developed by the Coalition in Year 10, and 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.

### **Coalition Activities in Year 14 (April 1, 2016 - March 31, 2017)**

The following are some, but not all, of the work presently underway by the Coalition in Year 14:

*Administration.* The long-term goal of the Coalition has always been to be self-sustaining, and this was made a reality in Year 13. The Coalition's Steering Committee drafted a bylaw in Year 13 that will govern how the group makes future decisions. The group will add three new communities in Year 14, continuing to be fully self-funded. The Coalition's leadership is committed to keeping the momentum developed in recent years, and sharing the resources for the improvement of water quality in New England.

*Funding.* The Coalition maintains a strong network of partners, and will continue to evaluate funding sources that become available, including competitive USEPA grants dedicated to MS4 communities as well as 319 and 604(b) grants appropriate for community-wide water quality projects.

*Public Outreach and Education.* We are implementing development of training and outreach tools, made possible through a \$50,000 MassDEP Stormwater Technical Assistance grant. We are also considering developing of Coalition-specific outreach materials using FY2016 funding. Finally, the Coalition plans to increase its use of Twitter as a measurable outreach tool.

*IDDE.* The Coalition is developing competitive pricing for its members that wish to use Environmental Canine Services to perform IDDE screening-level assessments. The catchment delineation tool initially developed during the WPI IQP Fall 2013 project will be revised, modified, finalized, and distributed for use by Coalition towns. The Request for Proposals (RFP) developed in Year 10 (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) will be re-evaluated in Year 14 to match the 2016 MA MS4 Permit. Improving the knowledge of IDDE components by many town departments will likely be a substantial component of FY2016 work.

*Good Housekeeping.* The Coalition may coordinate an on-site demonstration of calibrating deicing equipment at a member community's highway facility. This active demonstration will provide a real-life example of the benchmarking process developed in Year 10 and encourage members to calibrate their own equipment, with a goal of reducing pounds of chloride per lane mile. The Coalition is in the initial phases of developing an IQP project with Worcester Polytechnic Institute and MassDEP to develop a pilot project for beneficial reuse of catch basin cleaning materials.

**Part III. Summary of Minimum Control Measures**

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) Permit Year 13</b>	<b>Planned Activities</b>
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.



BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
2	Create Stormwater Program	Department of Public Works	<p>Millbury will identify appropriate sources of funding assistance (SRF, 319 Grant Program, 604(b) Grant Program, Lakes &amp; 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.</p>	<p>Measurable goal completed in previous permit years.</p> <p>Millbury actively participated in stormwater management activities as one of 28 municipalities involved in the CMRSWC.</p> <p>In Year 13, the Town spoke with MassDCR representatives about implementing a culvert habitat connectivity study to incorporate stormwater improvements, including adequate flow capacity. Components of this study have been integrated to the CMRSWC's online inspection forms so that towns can begin to compile this information.</p>	<p>Millbury will continue to participate in the CMRSWC.</p> <p>In Permit Year 14, the Town intends to re-apply for a 319 Grant application for stormwater improvements on Croydon Street and Dorothy Pond to alleviate flooding and capture sediments before discharge into Dorothy Pond. Originally applied for in previous permit years, this work would improve the performance of previously installed vortex BMPs. The grant was not awarded but the Town received detailed feedback on how to get the project ranked higher.</p> <p>Millbury will continue to evaluate the suitability of SWMI grants to fund projects that decrease runoff and/or encourage stormwater treatment and infiltration.</p>

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) Permit Year 13</b>	<b>Planned Activities</b>
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.	In Permit Year 13, stormwater educational messages were distributed at DPW offices in Town Hall and on the Town's website.  The DPW Director includes stormwater management in the monthly report provided to the Board of Selectmen. These meetings are advertised, open to the public, and shown on the local cable access channel.	Millbury will continue to distribute stormwater educational messages at public events.  Continue to use monthly meetings of the Board of Selectmen as a way to inform the public of stormwater management activities.
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 distributed.	Millbury will continue to distribute stormwater educational messages.
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. <a href="http://www.millbury-ma.org/">http://www.millbury-ma.org/</a> . Millbury will post links to Our Lady of Assumption School student storm drain project ( <a href="http://www.sdwgt.tripod.com/">www.sdwgt.tripod.com/</a> ). 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.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
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.	<p>Continue ongoing efforts to identify partners within the community who can assist in educating Millbury’s stormwater stakeholders.</p> <p>The Town intends to host another demonstration of Environmental Canine Services (ECS) early in Year 14, inviting other CMRSWC to bring samples for evaluation . These services can supplement any existing IDDE program by providing cost-effective, real-time feedback on potential illicit discharges. (An event involving ECS was hosted in Millbury in Year 12.)</p>
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.	<p>In Year 13, Millbury added the “Water Blues, Green Solutions”, documentary to regular rotation on its local cable access channel. This documentary was designed to promote the public’s understanding that green infrastructure will play a role in solving water quality issues and improving water resources.</p> <p>The DPW continued to show the documentary “Liquid Assets” on its local cable access channel during Year 13. This excellent documentary, produced by Penn State University, highlights the importance of water, wastewater, and stormwater infrastructure, which is too often hidden from view.</p>	<p>“Liquid Assets” and “Water Blues, Green Solutions” will continue to be rotation on the local cable access channel as often as possible.</p> <p>The local access channel will continue to air stormwater announcements, as appropriate.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
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.	<p>The DPW will stay maintain contact with the high school Principal, the Environmental Club, and Envirothon team for additional opportunities to serve as a resource, and invite students to participate in events hosted by the Department, including the ECS demonstration presently being planned.</p> <p>The Town will consider replicating the National Public Works mural contest (originally implemented in Permit Year 11) with the local school district. Students competed to design a mural for National Public Works week. The selected design was painted onto a DPW plow blade.</p> <p>The DPRC and the Ponds and Lakes Commission will continue to post meeting and event notices on the Town of Millbury's web page.</p> <p>Special events and seminars with guest speakers will be televised on Millbury's local access channel.</p> <p>New opportunities will be considered as elements of the next five year term.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
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.	<p>Measureable goal completed in previous permit years.</p> <p>The Town did not host a formal Household Hazardous Waste (HHW) Collection Event in Year 13. Instead, the Town continued the partnership developed in Year 12 with the New England Disposal Technologies (NEDT) Household Hazardous Products Collection Center in neighboring Sutton, where residents can dispose of HHW year-round. The Town provides information to residents on its website about this location.</p> <p>The Town continues to accept HHW- including Universal Wastes (fluorescent light ballasts, cathode ray tubes [CRTs], etc), waste oil, used batteries, and latex paints- at its transfer station.</p>	Recycling is expected to continue, and the Town will continue to educate residents about the importance of proper disposal of HHW through its website.

## 2. Public Involvement and Participation -

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	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.	Additional storm drain stenciling programs and/or the installation of inset medallions will be considered as an element of the next five year term.
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.	<p>Lake Singletary Watershed Association hosted several cleanup days during the year, including several that were assisted by the DPW.</p> <p>In Permit Year 13, the Town cleaned 18 Stormceptor vortex BMP units in conjunction with activities of the Dorothy Pond Restoration Committee.</p> <p>In Permit Year 13, the Town completed swale cleanups on Martin Street, Providence Street, Washington Street, and McCracken Road.</p>	The Town will continue to support area cleanups and maintain BMP systems.
12	Community clean-ups	Department of Public Works	Town will provide trucks and other material to support cleanup efforts and disposal of materials.	In Year 13, the Town continued to pick up and dispose of materials from Earth Day and other cleanups. This included events hosted by the Boy Scouts, the Girl Scouts, and the Blackstone River Watershed Association.	The Town will continue to support area cleanups. In fact, one has already been completed in Year 14 with the support of the DPW.

### 3. Illicit Discharge Detection and Elimination -

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	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.	<p>Measurable goal of mapping outfalls was completed in previous permit years.</p> <p>In Permit Year 13, the Town focused efforts on using the online mapping and inspection system to map and inspect catch basin, drain manhole, and pipe structures as well as any new outfalls constructed. The online system currently includes 1,260 catch basins.</p>	<p>In Permit Year 14, the Town will continue to focus on mapping additional system structures and inspecting existing structures.</p> <p>Additional information relative to state road outfalls will be sought as part of the next five year program.</p>
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.	Measurable goal (map of outfalls and receiving waters). completed in previous permit years	In Permit Year 14, the Town will continue to focus on mapping new outfalls that are constructed and inspecting existing outfalls.
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.	<p>Measurable goal completed in previous permit years.</p> <p>In Permit Year 13, outfall inspection and catch basin mapping and inspection by the Millbury DPW did not indicate the presence of any illicit discharges. Several sump pumps were removed from the sanitary sewer and discharged to daylight.</p> <p>Mapping and inspections completed in Year 13 fully utilized the CMRSWC online platform and equipment.</p>	The Town will continue to implement the IDDE Program, including using the Coalition's water quality field kits and meters for outfall and catch basin monitoring.

### 3. Illicit Discharge Detection and Elimination *(continued)*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
16	Enforcement procedures addressing illicit discharge	Department of Public Works  <i>Revised:</i> Department of Public Works/ Code Enforcement	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 (enforceable IDDE program) completed in previous permit years. In Year 13, the Town reviewed and updated its IDDE plan.  All new building foundations continue to be inspected by the Plumbing Inspection before a sewer connection permit is issue, to ensure that there are no cross-connections or potential illicit discharges to the storm drain system.	Continue enforcement of bylaw and inspection of new construction for illicit discharges.
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.



### 3. Illicit Discharge Detection and Elimination *(continued)*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
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 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.	<p>Millbury obtained 319 grant and CWSRF loan for stormwater activities in prior permit years.</p> <p>No additional funding grants/loans were obtained during this permit term.</p> <p>Town volunteers participated in BRWC water quality sampling effort.</p>	<p>Millbury will continue to look for funding and public participation opportunities for assessments/ studies in the local watersheds, and is re-applying for a 319 grant originally submitted in a previous permit year (with revisions).</p> <p>In Permit Year 14, the Town will expand use of the Coalition's water quality field kits and meters for outfall and catch basin monitoring.</p>
20	Watershed assessments and studies	Department of Public Works, Public Water Suppliers	<p>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.</p> <p>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.</p>	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 -**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) Permit Year 13</b>	<b>Planned Activities</b>
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.	Measurable goal (development of bylaw) completed in previous permit years.	<p>No further action required at this time.</p> <p>The DPW will work with the Planning Board to ensure that site plan reviews and inspections of any approved project occur during and after construction.</p>

**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 13	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.	<p>Measurable goal completed in previous permit years.</p> <p>In Permit Year 13, the Town cleaned 18 Stormceptor vortex BMP units in conjunction with activities of the Dorothy Pond Restoration Committee.</p> <p>In Permit Year 13, the Town incorporated stormwater BMPs into the design of a new fueling station to be constructed at the DPW facility. This design includes a rain garden, vegetated swales, a retention basin, and deep sump catch basins in addition to a culvert replacement. This project was placed on the May 2015 Town Meeting Warrant, but was not funded. This rain garden will be constructed when funding has been secured.</p>	<p>Cleaning of vortex BMPs per the O&amp;M schedule.</p> <p>Construction of the DPW facility fueling station and associated rain garden when funding has been dedicated.</p>

**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 13	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.  Rip rap and basic maintenance were performed at several outfalls to prevent erosion.	Replacing old catch basin structures with deep sump structures as opportunities are identified.  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.	<p>Measureable goal completed in previous permit years.</p> <p>In Permit Year 13, the Town completed swale cleanups on Martin Street, Providence Street, Washington Street, and McCracken Road.</p> <p>In Permit Year 13, the Town maintained calibration of hopper-type salt spreaders on its trucks, quantifying the pounds of material applied at each device setting at different speeds. The Town switched to magnesium chloride (from calcium chloride) as a pre-wetting agent in Permit Year 12, but did not need to use pre-wetting in Year 13.</p> <p>In Permit Year 13, the Town cleaned 100% of all catch basin structures at least once, using its own equipment.</p> <p>In Permit Year 13, the Town swept all streets in the Urbanized Area at least once, using its own equipment. Sidewalks in the downtown area were also swept using mechanical means.</p>	<p>Millbury will continue its ongoing O&amp;M program, and keep records of activities undertaken, including calibration sheets and deicing materials.</p> <p>In Year 14, the DPW will document how full catch basins are when they are cleaned (using CMRSWC online inspection system) and document structures that may require more than one cleaning per year.</p> <p>Calibration maintenance will be performed each year.</p>
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6. Pollution Prevention and Good Housekeeping in Municipal Operations (continued) -

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 13	Planned Activities
25	Develop and implement training programs for municipal employees	Department of Public Works	Millbury will send a minimum of 3 public works employees annually to training seminars sponsored by MassDOT, BayState Roads, and other relevant agencies or vendors.	In Permit Year 13, DPW staff members received training on deicing practices, illicit discharge detection and elimination tools, and water quality at training sessions.	Millbury will continue to train public works employees on stormwater pollution prevention, IDDE, good housekeeping, and other Permit components.
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.	<p>Millbury intends to resubmit a 319 grant application for stormwater improvements on Croydon Street and Dorothy Pond to alleviate flooding and capture sediments before discharge into Dorothy Pond.</p> <p>Millbury will continue to identify opportunities to incorporate stormwater improvements into future capital projects, and grant opportunities available to fund these projects.</p>

**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 13</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities</b>
	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Revised	-----	-----	-----	-----	-----

**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, 2015 through March 31, 2016)

<b>Programmatic</b>	<b>(Preferred Units)</b>	<b>Response</b>
Stormwater management position <del>created</del> /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		
<ul style="list-style-type: none"> <li>▪ days sponsored **</li> </ul>	(#)	Ongoing through NEDT facility in Sutton; event plus Working Hrs @ BOH/Transfer Station
<ul style="list-style-type: none"> <li>▪ community participation **</li> </ul>	(# or %)	Unknown
<ul style="list-style-type: none"> <li>▪ material collected **</li> </ul>	(tons or gal)	
School curricula implemented	(y/n)	Yes



<b>Legal/Regulatory</b>	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	(%)	98%
Estimated or actual number of outfalls	(#)	267
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	98%
Mapping method(s)		
▪ Paper/Mylar	(%)	0
▪ CADD	(%)	0
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	
Outfalls inspected/ <del>screened</del> (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) **	(#)	0
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	N/A
Site inspections completed **	(# or %)	N/A

Tickets/Stop work orders issued **	(# or %)	0
Fines collected **	(# and \$)	0
Complaints/concerns received from public **	(#)	0

**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 <sup>1</sup>
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+/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1+/yr
Qty of structures cleaned **	(#)	~1,250
Qty. of storm drain cleaned **	(%, LF, mi.)	300 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
<b>Basin Cleaning Costs</b>		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr, \$/CB)	
• Disposal cost**	(\$)	
<b>Cleaning Equipment</b>		
• 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 vector **	(%)	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
<b>Annual Sweeping Costs</b>		
• Annual budget/expenditure (labor & equipment)**	(\$)	~\$75,000
• Hourly or lane mile contract rate **	(\$/hr, ln.mi.)	N/A
• Disposal cost**	(\$)	\$0
<b>Sweeping Equipment</b>		
• Rotary brush street sweepers owned/leased	(#)	2
• 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 <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	95% - - - - - 5%
Pre-wetting techniques utilized **	(y/n or %)	Yes: MgCl <sub>2</sub>
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



Household Hazardous Products Collection Center



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# NEDT Household Hazardous Products Collection Center

Sutton, MA Open Tues & Thurs, 9AM to 4PM (except)

The NEDT Household Hazardous Products Collection Centers located in Sutton and Westfield, MA are permitted to accept household hazardous products (see "What We Accept" below) from households of any municipality in Massachusetts and certain adjoining states.

Households now have a safe, and environmentally conscious, way to dispose of Household Hazardous Products that have been accumulating in cupboards, closets, and garages of their homes. Stop worrying about the health effects that these hazardous/toxic materials can have on your children and pets. Stop wondering about the environmental problems and cleanup costs that will occur if they are spilled.

The Collection Center operates on a "pay-as-you-throw" basis. Cash or credit cards are accepted for payment. See "Price Lists" page for details.

If you are unable to deliver your Household Hazardous Products to the Collection Center please ask us about our pick up service.

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