Municipality/Organization:	Town of Millbury, MA
EPA NPDES Permit Number:	MAR041136
MassDEP Transmittal Number:	**X265899**
Annual Report Number & Reporting Period:	**Year 12** **April 1, 2014 – March 31, 2015**

NPDES PII Small MS4 General Permit
Annual Report
(Due: May 1, 2015)

Part I. General Information

Contact Person: Robert Spain Title: Town Manager

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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: 4-30-2015

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 12, the Town of Millbury continued to be an active participant in the Central Massachusetts Regional Stormwater Coalition (the Coalition), with its Director of Public Works, Mr. Robert D. McNeil, III, P.E., serving as an active member of the Steering Committee. The Coalition's work in Year 12 was funded by an $80,000 fiscal year 2014 (FY2014) Community Innovation Challenge (CIC) grant from the Massachusetts Executive Office of Administration and Finance. This grant was supplemented by a contribution of approximately $4,000 from each of the 28 participating Towns, including Millbury.

Overview of the Coalition

The FY2014 Coalition included 28 towns: Auburn, Boylston, Charlton, Dudley, Grafton, Hardwick, Holden, Hopkinton, Leicester, Northbridge, Northborough, Oxford, Palmer, Paxton, Rutland, Shrewsbury, Southbridge, Spencer, Sterling, Sturbridge, Upton, Uxbridge, Ware, Webster, West Boylston, Westborough, and Wilbraham, in addition to Millbury.

The Coalition was officially formed in FY2012 with 13 members, expanding to 30 in FY2013. Its FY2014 work expanded efforts initiated in previous years to comply with requirements anticipated in the new Massachusetts MS4 Permit when it becomes final, which is expected sometime in 2016 or 2017. The Coalition's FY2014 efforts were facilitated by the consulting firms of Tata & Howard, Inc., and Verdant Water, supported by vendor PeopleGIS. However, the Coalition members themselves continue to be responsible for putting the tools developed by the Coalition to use.

The Coalition was honored as a recipient of the first Annual "Best Stormwater Idea in New England", also known as a STORMY Award (*see image below*). This honor was bestowed by the New England Stormwater Collaborative, a joint effort of the New England Water Environment Association (NEWEA), the New England Chapter of the American Public Works Association (APWA), and the New England Water Works Association (NEWWA). A representative from the Town of Uxbridge accepted this honor at a ceremony in Worcester, MA on April 1, 2015.

Figure 1: CMRSWC's "STORMY Award" for Collaborative Efforts in Stormwater Management

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
- New England Water Environment Association (NEWEA)
- 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, formally including budget in its FY2014 CIC Grant Application to support and assist in development of the stormwater-focused Interactive Qualifying Project (IQP) with four students at the Worcester Polytechnic Institute (WPI). Kickoff for this partnership began in September 2014 with a meeting at MassDEP's office in Worcester, MA. The IQP completed in fall 2014 was the fourth such project the Coalition has done in conjunction with MassDEP and WPI.

This IQP included activities that will benefit all Coalition towns, but especially Holden, Millbury, and Southbridge, all of which volunteered for an intensive evaluation. For this project, the Millbury DPW Director McNeil and other representatives, with support from Town Administrator Robert Spain, met with the WPI students and provided budgetary documentation from many Town departments and programs. The students used this information to compile a detailed summary of the full cost of Millbury's stormwater program.

The cost evaluation was developed in conjunction with the Coalition's consultants, and included not just line items budgeted by the Public Works Department (including operations and maintenance tasks), but also the cost of Department labor. The evaluation included stormwater-related work administered by the both Conservation Commission and Millbury's Planning & Development Department, and included waste disposal fees, consultants (for example: GIS mapping and hosting), reprographics and media, legal counsel, site plan reviews, construction and post-construction inspections, and other tasks. Some of these activities are core components of a town's stormwater program, but may be managed or budgeted by planning departments, conservation commissions, boards of health, code enforcement, or other entities and therefore not generally included in assessments.

The comprehensive report prepared by the WPI IQP students was presented to their university sponsors in December 2014 and can be downloaded at: www.centralmastormwater.org/pages/CRSC_documents/Attachment_B_WPI_Cost_Analysis_of_the_2014_MA_MS4_DraftPer.pdf. The findings of this report were also presented by the students to the 495/MetroWest Partnership in spring 2015. The framework used by the WPI students for the cost evaluation features into the ongoing stormwater program cost task discussed under *Coalition Activities in Year 13* (located at the end of this narrative.)

In addition to the stormwater program cost component, the Fall 2014 WPI students performed water quality monitoring in Coalition Communities.

Earlier in Year 12, a different team of WPI IQP students did inspection and mapping work in several Coalition towns, including Upton, MA, shown below, under the supervision of the Towns and consultants. Data from these activities was entered directly into the online mapping and inspection system.

Figure 2: The Coalition's Spring 2014 WPI IQP Student Team Inspecting and Mapping Stormwater Infrastructure in Upton, MA

The Coalition appreciates the ongoing dedication of MassDEP to work with our members so closely and collaboratively.

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.

Many members of the Coalition attended the USEPA's October 2014 workshops on the 2014 Draft Massachusetts MS4 Permit, and several attended the formal public hearing on this draft permit on November 19, 2014 at the Leominster Public Library. At this public hearing, Coalition members spoke about the need for the final Permit to focus on provisions that maintain (and improve) water quality, not those that cause administrative burden without demonstrated benefits. Our comments at this hearing also requested USEPA's assistance in educating community leaders, such as selectmen and Town Administrators, about the increased need for multiple town departments and staff members to work together to comply with expanded provisions, such as illicit discharge detection and elimination (IDDE) and good housekeeping. The Coalition submitted formal comments on the 2014 Draft Massachusetts MS4 Permit, which can be found at http://www.centralmastormwater.org/pages/CRSC_documents/MS4PermitComments.

The Coalition reached out to USEPA's Newton Tedder to suggest ways to present the drivers of expanded stormwater management to town leaders and decision makers at the "*Roofs, Roads, Runoffs and Regulations: New Standards for Treating Stormwater and Drinking Water*" session of the Massachusetts Municipal Association's Annual Conference in Boston on January 23, 2015. The approach resulted in an effective update to these leaders (who may be concerned about the scope and financial impacts of the proposed permit)- one that empowered them to serve as stormwater outreach resources in their own communities.

The Coalition continued to communicate with USEPA Region 1's Kyra Jacobs and Gina Snyder during Year 12. Ms. Jacobs is a connection to agency staff who work to protect water resources, and has been a positive advocate of the importance of stormwater management in accomplishing this goal. We will continue to engage with Ms. Jacobs as competitive grants for regional MS4 compliance work may become available from the agency in the near future. Ms. Snyder has served as an ongoing resource for the Coalition and its consultants about agency resources, most recently the approval of

easy-to-use field kits for ammonia, which we purchased and distributed in Year 12. We appreciate the support of these agency staff.

Other Massachusetts Stormwater Coalitions
The Coalition continues to coordinate with "sister" groups with a similar stormwater focus that are also funded at least in part by CIC Grants. These include:

- The Merrimack Valley Stormwater Collaborative (coordinated by the Merrimack Valley Regional Planning Commission);
- The Neponset Valley Regional Stormwater Collaborative (coordinated by the Metropolitan Area Planning Council); and
- The Northern Middlesex Stormwater Collaborative (coordinated by the Northern Middlesex Council of Governments)

Administrators from each of these groups are invited to attend Coalition Steering Committee meetings. Further, the Coalition coordinated with each of these "sister" coalitions during preparation of its comments on the 2014 Draft Massachusetts Small Municipal Separate Storm Sewer (MS4) Permit to ensure consistency in suggestions and revisions submitted to the US EPA.

Members of the Coalition were invited to attend training sessions the Merrimack Valley Stormwater Coalition hosted in March and April 2015. We shared digital versions of the Coalition's stormwater inspection forms with both the Neponset Valley Regional Stormwater Collaborative and the Northern Middlesex Stormwater Collaborative, and the latter has also benefitted from the structure of the online mapping and inspection system we developed and implemented in Years 10 and 11.

New England Water Environment Association (NEWEA)
The Coalition was pleased to receive a $2,000 competitive grant from the NEWEA Humanitarian Assistance & Grants Committee in September 2014. This grant was used to purchase a second Nonpoint Source hands-on educational EnviroScape model (www.enviroscapes.com/nonpoint-source.html) for use by Coalition members (the first was purchased in Year 10 with funds from the first CIC Grant).

The photo below was taken at the Coalition's October 7, 2014 training workshop for CMRSWC communities, and shows Todd Girard (Conservation Agent in Charlton, MA) demonstrating to other members how the EnviroScape table can be used as an education tool for kids of all ages, as well as adults. This train-the-trainer format increases confidence of our members to do outreach on the topic of stormwater pollution prevention in their own communities.

Figure 3: CMRSWC Members Learn How to Demonstrate Stormwater Pollution Prevention Using the Coalition's Nonpoint Source EnviroScape model

With the purchase of this second model, the CMRSWC can make this popular resource more readily available across the substantial geographic spread of our 28 municipal members. The presence of a second unit also allows towns to easily demonstrate the impacts of stormwater pollution and ways to prevent it, showing the resulting differences in water quality when Best Management Practices (BMPs) are installed on one unit, but not on the other unit. One model is stored in Charlton, MA, and the other stored in Shrewsbury, MA to facilitate any member town having easy access to the tool.

The NEWEA grant award exceeded the Coalition's application, so remaining funds will be used to replenish the consumable materials used in the demonstration, including food coloring, baking soda, clay, and sponges.

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 serves on 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.

In Year 12, the Coalition participated on the "*Underwater: Financing New Regulations"* session at MMA's Annual Conference in Boston on January 24, 2015, discussing how regionalization can be appropriate for stormwater management.

Finally, the Coalition coordinated with MMA during preparation of its comments on the 2014 Draft Massachusetts Small Municipal Separate Storm Sewer (MS4) Permit to ensure consistency in suggestions and revisions submitted to the US EPA.

Tasks Included in this Annual Report

In the following sections, descriptions of the technical tasks and resources 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.

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. Below is a screen shot of the platform showing the extent of the 28 Coalition communities.

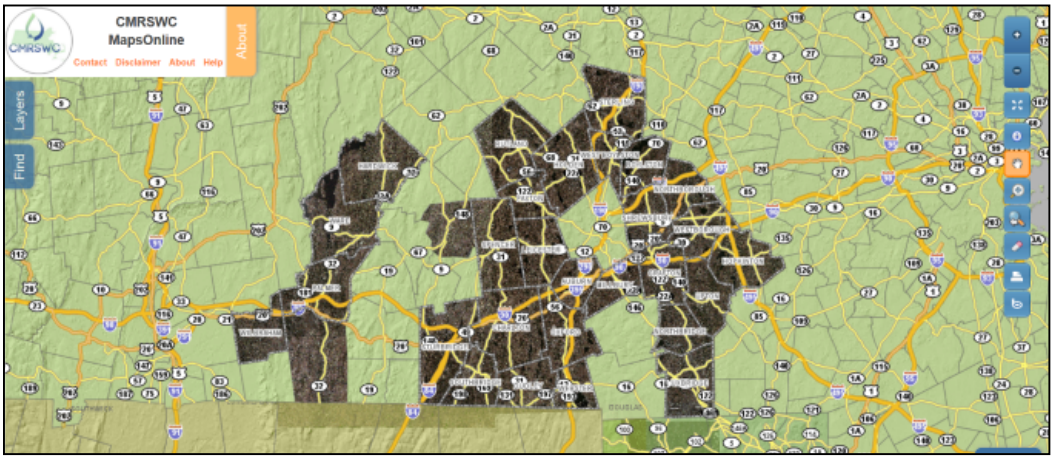

Figure 4: CMRSWC's Online Mapping and Inspection Platform

We were pleased to see the increased use in Year 12 by Coalition members of this resource, both in terms of inspections of existing infrastructure (such as outfalls) and mapping additional infrastructure, such as catch basins and pipe (a linear feature added in Year 11). Newer Coalition communities (those that joined in FY2013) continue to upload GIS shapefiles to the platform, managing their stormwater system infrastructure information in one location.

An investment in Year 12 intended to increase use of the online mapping and inspection platform was the purchase of new Samsung tablet devices for each community that are faster, allowing data to load more quickly than the ASUS tablets purchased in FY2012. The Town of Millbury made the transition to the new Samsung tablet device. We believe that the mapping and inspection tool will be used increasingly as town staff members become comfortable with the platform, realize how easy it is to use, and see how it facilitates compliance and documentation.

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

A highlight of Millbury's activities to comply with MCM 1 was a demonstration the Town hosted on May 23, 2014 of a group called Environmental Canine Services (ECS; www.ecsk9s.com*)*. These professionals use two highly-trained dogs to detect the presence of human sewage in stormwater- an important element of illicit discharge detection and elimination (see MCM 3 for more information on the IDDE elements of this demonstration). Coalition members, MassDEP representatives, members of the Massachusetts Coalition for Water Resources Stewardship (MCWRS) and other MS4 communities attended and observed the demonstration.

However, Millbury's DPW Director McNeil recognized that this demonstration was an excellent opportunity to share information about IDDE with the community, and published information in local papers (*see flyer attached at end of the Annual Report*), and hosted a demonstration at Millbury Memorial Junior/Senior High School for members of the Environmental Club.

During the demonstration at the school, DPW Director McNeil provided an overview of the importance of public works services to manage stormwater to protect (and improve) water resources. He explained the concept of illicit discharge detection and elimination (IDDE) in terms that were understood by the Club's members. The ECS professionals discussed the process through which the dogs are trained, and how they alert the handlers to the presence of human waste. This was followed by a demonstration with bottles of water that had been prepared to show how the dogs respond to potential pollution. The students were attentive throughout the entire demonstration, which was rewarding.


Figure 5: (L) Millbury DPW Director McNeil Explains Stormwater Management Elements, Including IDDE, to members of Millbury's Environmental Club; (R): ECS Performs a Demonstration with Trained Canines

Year 12 activities included routine meetings of the Coalition's Steering Committee, a day-long refresher training workshop (and FY2014 Kickoff Meeting) on October 7, 2014, and a workshop on November 12, 2014 to educate members about the 2014 Draft Massachusetts Small Municipal Separate Storm Sewer (MS4) Permit and identify concerns. Representatives from Millbury participated in the November MS4 Permit workshops.

Also in Year 12, DPW Director McNeil met with members of the Millbury High School Envirothon's team to discuss impacts of climate change on stormwater and wastewater management.

Millbury DPW Director McNeil has been an active, enthusiastic member of the Coalition's Steering Committee since the group formed in 2012. He attends the routine (usually monthly) meetings of the Steering Committee, reviews deliverables and proposed comment letters, and has served other key roles as described in this Annual Report. He is an active member of the New England Chapter of the American Public Works Association, which also implements public education programs about stormwater, including but not limited to its Public Works Week, which was May 18-24 in Year 12.

An exciting tool for public education that was rolled out in Year 12 is the Coalition's Twitter account, @MAStormH2O. As of the date of this report, the Coalition's account has 67 followers, including other stormwater coalitions around the country. The Coalition's Twitter account is also following the Town of Millbury's account (@townofmillbury).

Information tweeted (or retweeted) by the Coalition in Year 12 addressed such water quality topics and issues as:

- Sustainable infrastructure resources
- APWA's Public Works Week outreach activities
- Pet waste management
- Available webinars and training events
- Erosion control practices
- Green infrastructure
- Appropriate fertilizer application
- Environmentally-friendly best management practices for snow and ice control
- Drought and innovative water recycling/reclamation efforts
- Proposed changes to definition of Waters of the US
- USEPA's "WaterSense" program

- The role of public education in developing successful stormwater funding programs.

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 12, 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 16, 2014, Millbury DPW Director McNeil and a consultant presented on the Coalition's work at the 5th Annual Water Resources Strategies Symposium, hosted by the Massachusetts Coalition for Water Resources Stewardship (MCWRS) in Marlborough, MA, with a presentation entitled "*30 Towns Collaborating for Cost Savings, Efficiency in MS4 Compliance and Water Quality*". DPW Director McNeil continues to serve as a connection to the MCWRS to identify additional opportunities to share or reduce the cost of stormwater burdens.
- On August 7, 2014, the Coalition's outreach to other stormwater coalitions was demonstrated in a presentation entitled "*CMRSWC: Resources to Get the Most out of Your CIC Grant Funding*", given at the Community Innovation Challenge (CIC) Stormwater Symposium. We were invited by the Massachusetts Executive Office of Administration and Finance to present at this event, which it hosted in Worcester, MA.
- On September 19, 2014, John Woodsmall from Holden, MA gave a presentation called "*MA MS4 Permits: A Municipal Perspective – Implementing Stormwater Programs*" at the Environmental Business Council's Water Resource Management Program.
- On September 22, 2014, representatives from the Coalition (including Hopkinton, Shrewsbury, and a consultant) attended the Local Government Advisory Committee's "Protecting America's Waters" Workgroup, held in Worcester, MA, and commented on the record about the importance of encouraging appropriate long-term maintenance of stormwater Best Management Practices. The Coalition submitted formal comments to the USEPA on its Proposed Rule to clarify the definition of Waters of the United States (WOTUS) in the Clean Water Act.
- On January 24, 2015, the Coalition participated on a panel session entitled "*Underwater: Financing New Regulations"* at MMA's Annual Meeting in Boston. This session focused on new and established financing tools to ensure compliance with these requirements through means such as property surcharges, stormwater utilities, low-interest loans, principal forgiveness and regional stormwater opportunities.
- On January 26, 2015, the Coalition presented its work in a session entitled *"MS4 Compliance: Common Threads (and opportunities) in New England Permits*" at NEWEA's Annual Meeting in Boston, MA. This session, which was well-attended, highlighted the tools developed by the Coalition (and other groups) that can used to provide cost-effective solutions to regional stormwater management challenges.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 12, Millbury continued to have access to water quality monitoring kits from the World Water Monitoring Challenge program (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 12 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.

Millbury continued to have access to the EnviroScape models focused on non-point source pollution education (http://www.enviroscapes.com/nonpoint-source.html). One model was purchased by the Coalition in Year 10 and the second was purchased in Year 12 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.

The Coalition continued to expand its educational website, 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 2: Public Involvement and Participation

In Year 12, Millbury continued to have access to several presentations 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 2014 Massachusetts MS4 Permit, and the financial impact these potential changes may have on Massachusetts communities.

Minimum Control Measure 3: Illicit Discharge Detection and Elimination

On May 23, 2014, the Town of Millbury hosted a demonstration by Environmental Canine Services (ECS; www.ecsk9s.com*)* and invited Coalition members, MassDEP, and other communities to observe. ECS uses two highly-trained dogs (*see photos below*) to detect the presence of human sewage (both fecal bacteria and metabolic byproducts) very low levels in water at outfalls and catch basins, without interference from non-human sources of bacteria. This innovative approach represents an accurate, quick, and cost-effective screening tool for locating illicit discharges.

Figure 6: Environmental Canine Services, LLC,
Performing a Demonstration of Innovative IDDE Approaches in Millbury, MA

Water quality samples were collected to evaluate the observations noted by the dogs. Inspections were documented in the Coalition's online mapping and inspection system, with forms that have been updated to allow our communities to use this innovative approach to IDDE. The image, below, shows the mapped infrastructure in the area where the ECS demonstration was completed.

Figure 7: Stormwater Infrastructure in ECS Demonstration Area, from Millbury's PeopleGIS System

As noted under MCM 1, Millbury DPW Director McNeil recognized that the ECS demonstration would be an excellent opportunity to share with the community, and published information in local papers, and hosted a separate demonstration at Millbury Memorial Junior/Senior High School for members of the Environmental Club.

In Year 12, DPW Director McNeil's role expanded to serve as a liaison for the Coalition to the Massachusetts Department of Transportation (MassDOT), inviting representatives from MassDOT to speak to the Coalition about the agency's Standard Operating Procedure for connecting a municipal MS4 system to any MassDOT drainage system. This relationship is expected to develop in Year 13 and beyond as inter-agency and interdepartmental communication will be critical to implementing effective IDDE programs.

The Coalition provided training at a workshop on October 7, 2014 on 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. At this same workshop, training was provided on the Coalition's Illicit Discharge Detection and Elimination (IDDE) Documentation Packet, which specifies how illicit discharges are detected and what department or person is responsible for eliminating them. Identifying and removing illicit discharges, and ensuring that they are not reconnected, remains a substantial challenge to many MS4 communities. The October 2014 training workshop included a comprehensive review of many types of illicit discharges, and an interactive discussion with attendees about how several examples would presently be managed in their own community. Many Coalition communities began this inter-community discussion in Year 12, with others planning it for Year 13.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

In Year 12, Millbury continued to utilize the two 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. In Year 12, Millbury received a new, faster tablet device for field inspections and has transitioned to this device. 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.

In Year 12, the Coalition purchased new ammonia field kits (CHEMetrics K-1510 kits) and provided two kits to each member community. These were approved by USEPA in Year 11 for stormwater outfall monitoring and are easier to use than ammonia monitoring tools purchased in Year 10. In Year 11, the Coalition began the process of rotating two full sets of water quality kits and meters around the 28 Coalition communities, including Millbury, on a schedule that follows the use of two Leica devices; this rotating schedule continued in Year 12. The objective of this approach was that inspection and mapping activities completed with the Leica may result in a list of outfalls or structures for which screening-level monitoring should be completed. The Coalition provided refresher training on the water quality kits at the workshop on October 7, 2014. The Towns of Millbury and Oxford are hosting the two sets of water quality kits and meters. DPW Director McNeil accepted responsibility for managing the kit and replacing reagent packets in the set he hosts as they become depleted from use.

In Year 12, the Coalition finalized a review of industrial facilities located in each member community, including facilities that applied for coverage under the USEPA's Multi-Sector General Permit (MSGP) program, and the compliance status of each. The objective of this activity was to connect data from the two permit programs, consistent with the anticipated 2014 Massachusetts MS4 Permit.

Minimum Control Measure 4: Construction Site Stormwater Runoff Control

Construction activities- including erosion control, stormwater pollution prevention, and appropriate management of waste materials- are covered in the Stormwater Best Management Practices (BMP) Toolbox, development of which began in Year 10 and which was finalized in Year 11. The Stormwater BMP Toolbox was written to inform the general public about the importance of managing private construction projects responsibly. The Coalition provided training on this topic at a workshop on October 7, 2014.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) 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

In Year 12, Millbury continued to use the Stormwater Best Management Practices (BMP) Toolbox, developed as a Draft in Year 10 and finalized in Year 11. This tool compiles 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, and other current guidance documents. The Coalition provided training on this topic at a workshop on October 7, 2014.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) 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

In Year 12, 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 Coalition provided training on the SWPPP Template at a workshop on October 7, 2014. 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 12, 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. The Coalition provided training on these SOP's at a workshop on October 7, 2014. 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 forms most commonly used in Millbury include the outfall inspection forms (both dry and wet weather), catch basin cleaning and inspection forms, and field water quality monitoring forms.

In Year 12, Millbury continued to utilize two presentations developed in Year 10 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. The Coalition provided training on how to use these presentations to educate a variety of staff members at a workshop on October 7, 2014. One presentation is focused on using the SWPPP Template and the responsibilities of municipal personnel to implement requirements of the SWPPP, and the second training presentation provides explanation and insight on the 15 SOP's described previously.

In Year 12, Millbury continued to utilize a modified version of the Coalition Sump Pump Discharge Policy developed in Year 10. That Policy 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 Coalition provided training on the Sump Pump Discharge Policy at a workshop on October 7, 2014. 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.

In Year 12, Millbury continued to utilize a Salt/Sand Benchmarking tool developed in Year 10 to guide member communities in calibrating deicing equipment. The Benchmarking tool calculates 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.

Several Coalition members have chosen to use some of their "one-on-one" time (currently underway; see *Coalition Activities in Year 13* at the end of this narrative) to expand their efforts on this MCM. Updates will be provided in future Annual Reports.

Coalition Activities in Year 13 (April 1, 2015 – March 31, 2016)

The following are some, but not all, of the work presently underway by the Coalition in Year 13:

- *Administration*. The long-term goal of the Coalition when it formed in FY2012 was to become self-sustaining. The Coalition's Steering Committee has reached out to similar organizations around the country, and is presently evaluating three funding mechanisms. 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. The Coalition plans to finalize its long-term plans in June 2015.

- *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.

- *One-on-One Consulting Time*. As noted previously, each of the 28 Coalition communities has been allocated one-on-one time with the group's consultants. Each town has chosen the MCM or tasks that benefit it most strongly. This may include refresher training on water quality kits and meters, development of public outreach materials, review of stormwater enforcement tools, updates to IDDE Programs, or other related services. This focused effort lets each town optimize its investment in the Coalition.

- *Understanding Stormwater Program Costs*. In Year 13, the Coalition is expanding on the WPI IQP program to quantify the actual (albeit rough) cost of all 28 participants' existing stormwater programs. The current costs will be scaled up to match the anticipated provisions of the future Massachusetts MS4 Permit and will serve as the foundation for ongoing discussions about how each community will fund future stormwater programs. This is the first time many of these towns will have performed a community-wide review of these costs, which tend to be managed within many departments. We will follow this with a focused workshop on mechanisms to develop sustainable stormwater program funding mechanisms.

- *Public Outreach and Education*. Coalition members will present at the 6th Annual Water Resources Strategies Symposium on May 12, 2015, hosted by the Massachusetts Coalition for Water Resources Stewardship, sharing information on stormwater program costs and ways to create regional efficiencies. The Coalition is purchasing copies of the "Water Blues, Green Solutions" documentary (http://waterblues.org/about) for each member town, on DVD. We are also considering re-allocating funding to the development of Coalition-specific outreach materials. 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 evaluations. 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 13 if a final Massachusetts MS4 Permit is issued.

- *Good Housekeeping*. The Coalition is coordinating 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 considering approaching MassDEP and USEPA with a proposal to develop a pilot project for beneficial reuse of catch basin cleaning materials, and/or developing such a pilot project through a grant.

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 12	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.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	Planned Activities
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 actively participated in stormwater management activities as one of 28 municipalities involved in the CMRSWC. In Permit Year 12, the Town applied 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. Work would have improved 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. In Year 12, the Town spoke with MassDCR representatives about implementing a culvert habitat connectivity study to incorporate stormwater improvements, including adequate flow capacity.	Millbury will continue to participate in the CMRSWC. The Town will consider submitting a revised 319 grant application for the Croydon Street area, and continue discussions with MassDCR about culvert improvements. Millbury will continue to evaluate the suitability of SWMI grants to fund projects that decrease runoff and/or encourage stormwater treatment and infiltration.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	Planned Activities
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 12, 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. 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.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	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. In Permit Year 12, the Town of Millbury hosted a demonstration by Environmental Canine Services to demonstrate new methodologies for	Continue ongoing efforts to identify partners within the community who can assist in educating Millbury's stormwater stakeholders. The Town has received requests to host another ECS demonstration. These services can supplement any existing IDDE program by providing cost-effective, real-time feedback on potential illicit discharges.
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.	In Year 12, the DPW continued to show the documentary "Liquid Assets" on its local cable access channel. This excellent documentary, produced by Penn State University, highlights the importance of water, wastewater, and stormwater infrastructure, which is too often hidden from view. The cable access channel was also used to host an invitation to the public to attend the May 2014 demonstration of Environmental Canine Services.	In Year 13, Millbury will be receiving a copy of "Water Blues, Green Solutions", a documentary designed to promote the public's understanding that green infrastructure will play a role in solving water quality issues and improving water resources. This will be added to the local cable access channel. "Liquid Assets" will continue to be rotation on the local cable access channel as often as possible. The local access channel will continue to air stormwater announcements, as appropriate.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	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.	In Permit Year 12, the DPW coordinated and presented an information session at the High School about the May 2014 Environmental Canine Services demonstration event. This was also good opportunity to remind the general public of the level of service the Town provides, so information about the event was posted in local papers, the local cable access channel, and on the DPW website. Also in Year 12, the DPW Director met with members of the Millbury High School Envirothon's team to discuss impacts of climate change on stormwater and wastewater management. 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 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. 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. 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. New opportunities will be considered as elements of the next five year term.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	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.	Measureable goal completed in previous permit years. The Town hosted a Household Hazardous Waste (HHW) Collection Event in Year 12 on June 28, 2014.The Town also developed a partnership 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. 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.	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 12	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.	Lake Singletary Watershed Association hosted several cleanup days during the year, including several that were assisted by the DPW. In Permit Year 12, the Town cleaned 18 Stormceptor vortex BMP units in conjunction with activities of the Dorothy Pond Restoration Committee. In Permit Year 12, the Town completed swale cleanups on Martin Street, Providence Street, Washington Street, and McCracken Road.	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.	The DPW picked up and disposed of materials from Year 12 Earth Day cleanups at a variety of locations around the community.	The Town will continue to support area cleanups. In fact, one Earth Day event was already completed in Year 13 with the support of the DPW. (*see notice from the Millbury Conservation Committee attached at end of the Annual Report)*

3. Illicit Discharge Detection and Elimination -

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	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 of mapping outfalls was completed in previous permit years. In Permit Year 12, the Town focused efforts on using the online mapping and inspection system to map and inspection catch basin, drain manhole, and pipe structures as well as any new outfalls constructed. The online system currently includes 1,210 catch basins.	In Permit Year 13, the Town will continue to focus on mapping additional system structures and inspecting existing structures. Additional information relative to state road outfalls will be sought as part of the next five year program.
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 (map of outfalls and receiving waters). completed in previous permit years	In Permit Year 13, 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.	Measurable goal completed in previous permit years. In Permit Year 12, 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. Mapping and inspections completed in Year 12 fully utilized the CMRSWC online platform and equipment.	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 12	Planned Activities
16	Enforcement procedures addressing illicit discharge	Department of Public Works *Revised*: 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. 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.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	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.	Millbury obtained 319 grant and CWSRF loan for stormwater activities in prior permit years. No additional funding grants/loans were obtained during this permit term, although the Town applied for a 319 Grant. Town volunteers participated in BRWC water quality sampling effort.	Millbury will continue to look for funding and public participation opportunities for assessments/ studies in the local watersheds. In Permit Year 13, the Town will expand use of the Coalition's water quality field kits and meters for outfall and catch basin monitoring.
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 12	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.	Measurable goal (development of bylaw) completed in previous permit years.	No further action required at this time. 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.

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 12	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.	Measurable goal completed in previous permit years. In Permit Year 12, the Town cleaned 18 Stormceptor vortex BMP units in conjunction with activities of the Dorothy Pond Restoration Committee. In Permit Year 12, 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.	No further action required at this time. Construction of the DPW facility fueling station will be voted on at the May 2015 Town meeting.

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 12	Planned Activities
23	Develop a municipal Operations and Maintenance Plan	Department of Public Works	Using regulations and recommendations fro 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 Permit Year 12, several old catch basin structures were replaced with structures that feature a deep sump. Rip rap and basic maintenance were performed at several outfalls to prevent erosion.	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 Permit Year 12, the Town completed swale cleanups on Martin Street, Providence Street, Washington Street, and McCracken Road. In Permit Year 12, 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. This calibration will be repeated each year. The Town did not use any pre-wetting agent in Year 12. In Permit Year 12, the Town cleaned 100% of all catch basin structures at least once, using its own equipment. Approximately 100 structures were cleaned twice. In Permit Year 12, the Town swept all streets in the Urbanized Area at least once, using its own equipment. Approximately two miles of roadway were swept twice. Sidewalks in the downtown area were also swept using mechanical means. The Town jetted approximately 300 linear feet of storm drain pipe in Permit Year 12, using its own equipment. Refresher training on the importance of Stormwater Pollution Prevention at municipal facilities was provided by the CMRSWC in Permit Year 12.	Millbury will continue its ongoing O&M program, and keep records of activities undertaken, including calibration sheets and deicing materials. If and when the Town resumes pre-wetting operations in Year 13, it will switch to magnesium chloride (from calcium chloride) as a pre-wetting agent. In Year 13, 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.
BMP ID #	**BMP Description**	**Responsible Dept./Person Name**	**Measurable Goal(s)**	**Progress on Goal(s) Permit Year 12**	**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 12, DPW staff members received training at CMRSWC workshops. Topics addressed included practical illicit discharge detection and elimination tools, and using the Coalition's water quality field kits and meters, among other things. In addition, DPW field staff received ongoing training on smoke testing as a method to identify illicit discharges.	Millbury will continue to train public works employees on stormwater pollution prevention, IDDE, good housekeeping, and other Permit components.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) Permit Year 12	Planned Activities
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 is considering 319 and/or 604(b) grant applications for stormwater improvements on Croydon Street and Dorothy Pond to alleviate flooding and capture sediments before discharge into Dorothy Pond, and a second project that would implement a culvert habitat connectivity study to incorporate stormwater improvements, including adequate flow capacity. Millbury will continue to identify opportunities to incorporate stormwater improvements into future capital projects, and grant opportunities available to fund these projects.

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 12 (Reliance on non-municipal partners indicated, if any)	Planned Activities
	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, 2014 through March 31, 2015)

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 **	(#)	a) one local HHW event; b) ongoing through NEDT facility in Sutton; event; c) Working Hrs @ BOH/ Transfer Station
▪ community participation **	(# or %)	Unknown
▪ 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	(%)	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~~/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) **	(#)	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[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+/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	1+/yr
Qty of structures cleaned **	(#)	~1,300
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
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~~	(#)	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 % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	95% - - - - - 5%
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

Town of Millbury, MA

Town of Millbury, 127 Elm Street, Millbury MA 01527
ph: (508) 865-4710

Earth Day Clean Up 2015

Earth Day Cleanup A Success

The Millbury Conservation Commission would like to thank all our volunteers for a successful Earth Day cleanup that took place Saturday, April 25, 2015 at the Brierly Pond Conservation Area and roadway. Volunteers included Commissioners, family and friends of the Conservation Commission, deputy regional animal control officer, homeowners at Brierly Pond, and students and advisor from Millbury High School. In addition, we would like to thank the Millbury DPW for their assistance with providing supplies as well as support with removal of accumulated debris. The efforts of all are truly appreciated. Thank you again for a successful event.

The Millbury Conservation Commission encourages the use of the Town's Conservation areas for passive recreation such as hiking and bird watching. Please help us keep our valuable resources clean and safe for all to enjoy.

Come See the Sniffer Dogs in Action!

Discover a Unique Tool to Identify Sources of Bacteria in Millbury!

This <u>free demonstration</u> is designed for municipalities, watershed associations, and other interested citizens to learn more about <u>canine detection</u> and to see how this unique tool can be used to identify sources of bacteria to the storm drain system in Millbury. Hosted by FB Environmental and Environmental Canine Services, in collaboration with the Town of Millbury and the CMRSWC.

Friday, May 23, 2014
12:30 PM - 1:30 PM
Millbury High School
12 Martin Street
Millbury, MA

FB environmental

Environmental Canine Services LLC
Protecting Our Precious Resources With Natures Gift

<u>To Register</u>, contact: Emily DiFranco
emilyd@fbenvironmental.com
(603) 343-6311
Or visit our website for more information

www.fbenvironmental.com/CanineDetection2013.html


NEDT
Household Hazardous Products Collection Center
If you have this...
Then we have this solution!
Introducing the . . .
NEDT Household Hazardous Products Collection Center
Sutton, MA Open Tues & Thurs, 9AM to 4PM (excep
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.
What We Accept
Hours & Directions
Fact Sheets & Links
Price Lists
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Privacy Policy
83 Gilmore Drive Sutton, MA 01590 866-769-1621 info@NEDT.org
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