NPDES Phase II Small MS4 General Permit
Annual Report

***Municipality/Organization*:** Town of Uxbridge

***EPA NPDES Permit Number*:** MAR-04-1166

***MaDEP Transmittal Number*:** W- 050211

Annual Report: No. 11

***Number & Reporting Period*:** April 2013 through 31 March 2014

Part I. General Information

Contact Person:	Benn Sherman, P.E.	*Title*:	Director of Public Works
Telephone #:	(508)278-8616	*Email*:	bsherman@uxbridge-ma.gov

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: Benn S. Sherman, P.E.

Title: Director of Public Works

Date: April 30, 2014

Part II. Self-Assessment

The Town of Uxbridge has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions:

Part II.B.1-6 Any Provisions of Part II.B.1-6 that have not been met are detailed in Part III below.

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 11** (Reliance on non-municipal partners indicated, if any)	**Continuing Activities**
1.1	Classroom Education on Stormwater	Department of Public Works	Three grade levels participate, three sets of educational materials, two workshops for teachers.	Materials from the EPA, BRWA and DEP distributed to the public schools. Teachers currently teaching environmental sciences to three plus grade levels.	Review BMP and goals with the School Department. Revise and/or update program to reflect current school curriculum.
Revised					
1.2	Flyer and Brochure Distribution	Department of Public Works	Develop and distribute one flyer and two fact sheets, distribute in utility bills and Town buildings (eg. DPW, library, town hall).	A stormwater flyer is posted in DPW office entryway. Uxbridge joined the Central Massachusetts Regional Stormwater Coalition (CMRSWC). The Coalition has developed a number of public information products for use by the member communities.	Continue to post a stormwater flyer in the DPW office and Town Hall. In anticipation of the new MS4 permit, evaluate materials and develop new materials which reflect the changing trends in stormwater management. Continue with our involvement with the CMRSWC.
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
1.3	Using the Media	Department of Public Works	One article published local cable service announcement and press release each year.	Stormwater Management Guides for Homeowners, Small Farms, and Horse Owners are posted on the Town's website for the Planning Department No stormwater messages were aired on the local cable service; however, the environmental hotline number continues to be aired on the local cable service. No articles or press releases were published in Permit Year 11. Uxbridge joined the Central Massachusetts Regional Stormwater Coalition (CMRSWC). The Coalition has developed a number of public information products for use by the member communities.	Update and continue posting Stormwater Management articles on the Town's website. Restart stormwater messages to be aired on the local cable service announcement. Publish one article and one press release during next program year. Continue with our involvement with the CMRSWC.
Revised					
1.4	Hazardous Waste Management	Department of Public Works	Track the amount of household hazardous waste collected during days.	Continued teaming with Town of Blackstone for collection of household hazardous materials in Blackstone. The facility is typically open three days per week and year round. Additionally, a metals recycling collections and leaf/brush disposal program was conducted 2-3 days per week from April through December. Local organizations in the Town of Uxbridge ran recycling fundraising programs for tv's, appliances, and computers.	Continue to encourage teaming efforts with area Town's to collect household hazardous materials. Uxbridge to continue to leaf/brush disposal and metal recycling program at the Compost Facility. Continue to promote local organizations to run recycling fundraising programs for tv's, appliances, and computers.
Revised		Department of Public Works / Board of Health	Team with neighboring towns to hold monthly collection days.		

In Year 11, UXBRIDGE gained access a number of materials appropriate for public education and outreach, with materials on a variety of topics, which were compiled or developed by the Coalition in Year 10. The topics included illicit discharge detection and elimination, management of pet wastes, and appropriate use of fertilizer, among others. These materials are all available on the Coalition's website, www.CentralMAStormwater.org. The benefit of this delivery format is that the group members can print materials on demand. UXBRIDGE also has access to presentations on stormwater management, with content focused on

educating the general public, elected officials, and volunteer groups.

UXBRIDGE has 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 11 to work with teachers in their local school department or district to do outreach to elementary and middle-school aged students. The kits are being stored in Spencer and Shrewsbury for distribution to the Coalition members.

UXBRIDGE has access to an Enviroscape table focused on non-point source pollution education (http://www.enviroscapes.com/nonpoint-source.html), purchased by the Coalition in Year 10. This tool is a hands-on, visual trainer to demonstrate the importance of good housekeeping and low-impact development for pollution prevention, with the objective of maintaining water quality in our communities.

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. In Year 11, a members-only area was created within this website to share materials for communities to review.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
2.1	Storm Water Committee	Department of Public Works	Establish committee and meet quarterly.	Following the failure of the Stormawater bylaw at Town Meeting, the Committee attempted to re-assemble but external commitments from the members posed problems.	Reevaluate the current draft bylaw and schedule public meetings with various boards and committees The Committee will put forth another article either the Fall 2014 or Spring 2015 Town Meeting warrant for consideration. Possible re-organization of the Stormwater Committee will be needed.
Revised					
2.2	Stream Cleanup and Monitoring	Department of Public Works	Create a document which outlines procedures for stream cleanup and monitoring.	Two events were conducted during this permit year. These events were done in conjunction with Earth Day and a local Riverways event	Local groups will continue yearly cleanups
Revised			Yearly cleanups by local groups		
2.3	Stencil Storm Drains	Department of Public Works	Prioritize areas to be stenciled. Stencil 30 storm drains per year starting in year three.	No storm drains were stenciled in Permit Year 11..	Stormwater Committee to complete evaluation of stenciling program.
Revised					
2.4	Attitude Surveys	Department of Public Works	Two surveys completed, compiled and analyzed.	Uxbridge joined the Central Massachusetts Regional Stormwater Coalition (CMRSWC). The Coalition has developed a number of public information products for use by the member communities. Attended workshops with member communities providing instruction and direction on topics relative to the stormwater permitting process.	The Town, in association with local orgainizations (Blackstone River Association, Blackstone River Coalition), plans to hold stormwater workshop(s) on a variety of topics from the bylaw to illicit discharges. Continue with our involvement with the CMRSWC.
Revised	Stormwater Workshops	Department of Public Works	Organize and hold one Stormwater Workshop per year.		
2.5	Community Hotline	Department of Public Works	Establish hotline, track number of calls and number of problems/incidents remedied.	Hotline continues to be active (508-278-8617) and advertised on local cable TV channel. The DPW only received general drainage calls throughout the year.	Continue to track number of calls and number of problems/incidents remedied.
Revised					

In Year 11, UXBRIDGE received 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.

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
3.1	Illicit Discharge Bylaw or Regulation	Department of Public Works	Develop bylaw and present it to the Town meeting or adopt a regulation.	There was minimal activity on this subject during the permit year due to stormwater committee membership.	Reevaluate the current draft bylaw and schedule public meetings with various boards and committees The Committee will put forth another article either the Fall 2014 or Spring 2015 Town Meeting warrant for consideration. Possible re-organization of the Stormwater Committee will be needed.
Revised					
3.2	Drainage System Inspections and Mapping	Department of Public Works	Locate drainage structures with GPS unit, update the GIS databases and system map, and inspect each structure.	Attended 3 workshops through the CMRSWC which included GPS, water quality sampling and SOP for stormwater activities.	The Town will continue the process to update the drainage system mapping as funding becomes available. The Town will also continue with the work completed and in development through the CMRSWC.
Revised					
3.3	Inspect and Sample Discharges in UAs	Department of Public Works	Inspect and sample discharges in Urban Areas if flow is present.	No activities were performed during for Permit Year 11. Attended 3 workshops through the CMRSWC which included GPS, water quality sampling and SOP for stormwater activities.	The Town plans to begin implementing a program to inspect outfalls throughout the drainage system as funding becomes available. The Town will also continue with the work completed and in development through the CMRSWC.
Revised			Inspect discharges after mapping is complete and sample if flow is present.		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
3.4	Illegal Dumping Education	Department of Public Works	Track the number of educational tools distributed, illegal dumps reported, penalties, rewards to citizens, and illegal dumps cleaned up.	Illegal dumping materials have been provided to schools in BMP's 1.1 and 1.2. Six (6) calls were received through the main DPW number for an illegal dumping activities. These activities included items ranging from used tires to various household items.	Track the number of educational tools distributed, illegal dumps reported, penalties, rewards to citizens, and illegal dumps cleaned up.
Revised			Coordinate with non-municipal partner to include illegal dumping materials in the classroom education, flyers and brochures in BMP's 1.1 and 1.2. Track the number of educational tools distributed, illegal dumps reported, penalties, rewards to citizens, and illegal dumps cleaned up.		

The Coalition provided training at two Year 11 workshops (September 17 and 26, 2013) 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. SOP 10 includes an Illicit Discharge Incident Tracking Sheet.

The Coalition provided training in Year 11 at a workshop on November 20, 2013 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. Without documentation of the entity responsible for this task for a variety of types of illicit discharge, communities may not satisfy the requirements of the 2003 Massachusetts Small MS4 Permit and may be unprepared for increased IDDE compliance in the new Small MS4 Permit. This deliverable clarified USEPA's minimum IDDE requirements and incorporated appropriate existing IDDE Plans and materials by reference. More importantly, the task provides a framework for people in multiple departments to understand each person's responsibilities, encourage cooperation and communication toward a single objective, and provide templates for documenting observations, actions, and compliance. The November 2013 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.

In Year 11, UXBRIDGE received access to 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. The Coalition also provided an ASUS tablet computer to each Expansion community in Year 11, including UXBRIDGE. Both of these tools can be used to directly access the online mapping and inspection system: the Leica will be most valuable for mapping outfalls, catch basins, pipe, drain manholes, BMPs, and other components of the MS4, while the tablet computers will be most

valuable for ongoing inspection of the structures. These two activities serve as the foundation of IDDE. The Leica units rotate between the 30 Coalition communities on a schedule, with formal handoff between Towns documented.

In Year 11, UXBRIDGE was provided with a portable wireless device (MiFi), purchased by the Coalition, so that both Leica and tablet computers can be used in the field. The Coalition and its members provided training on the Leica device, the tablet computers, and the online mapping and inspection system during Year 11.

In Year 10, the Coalition purchased several water quality field kits and meters, most of which are focused on identifying illicit discharges and aligned with the field screening parameters expected to be listed in the pending Massachusetts Small MS4 permit. In Year 11, the Coalition began the process of rotating these water quality kits and meters around the 30 Coalition communities, including UXBRIDGE, on a schedule that follows the use of the Leica device. 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 training on the use of these water quality kits at the workshop on November 20, 2013; this training was professionally recorded so that Towns can review it if and when they need a refresher.

The Coalition purchased additional water quality field kits in Year 11, based on materials provided by USEPA Region 1 Technical Assistance staff that summarized products recently approved by the agency for this use. The online inspection and mapping database enables any community to add screening-level or full analytical data to any inspection form, for any type of infrastructure, in the field. The online water quality monitoring forms are pre-populated with the specific water quality field kits and meters purchased and used by the Coalition.

In Year 11, the online mapping and inspection system was expanded for all 30 communities to include the ability to add pipe between structures, and gather data related to that pipe. Prior to Year 11, the system managed only point geometry, such as outfall, catch basin, drain manhole, and Best Management Practice infrastructure. All 30 Coalition communities will benefit from this new linear infrastructure feature, which is consistent with the requirements anticipated in the pending 2014 Massachusetts MS4 Permit based on what is included in the Draft 2013 New Hampshire MS4 Permit.

In Year 11, the Coalition revised the Request for Proposals (RFP) for a third-party firm to perform many of the field or inspection services defined in the 15 SOP's, including outfall inspection (dry weather and/or wet weather), water quality monitoring, catch basin inspection, and other related tasks. These services are all vital to the effort to identify illicit discharges in the Coalition communities. It was originally anticipated that the work of the RFP would be funded using FY2013 CIC monies. However, in Year 11, the Coalition Steering Committee voted to postpone putting the RFP out to bid, based on the fact that the new Massachusetts MS4 Permit has not yet been issued. This RFP will be re-evaluated in Year 12.

In Year 11, the Coalition performed a review of industrial facilities located in each of the 30 FY2013 communities, 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 the two permit programs, consistent with requirements anticipated in the pending 2014 Massachusetts MS4 Permit.

Finally, the Coalition is currently planning a demonstration of Environmental Canine Services for May 2014 (in Year 12). This company uses highly-trained dogs to detect the presence of human sewage very low levels in water, and represents a quick and cost-effective screening tool for locating illicit discharges.

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
4.1	Soil and Erosion Control Bylaw or Regulation	Department of Public Works	Develop bylaw and present it to the Town meeting, or adopt a regulation.	There was minimal activity on this subject during the permit year due to stormwater committee membership.	Reevaluate the current draft bylaw and schedule public meetings with various boards and committees The Committee will put forth another article either the Fall 2014 or Spring 2015 Town Meeting warrant for consideration. Possible re-organization of the Stormwater Committee will be needed.
Revised					
4.2	Construction Inspections	Department of Public Works	DPW to inspect construction activities on a weekly basis. Report number of complaints from residents.	In Permit Year 11: The DPW started to develop a program to inspect construction sites. No construction-related complaints from residents have been reported. No complaints were received.	Continue to coordinate with the various boards and commissions on developing a program to inspect construction sites. The Town will continue to report number of complaints from residents.
Revised		DPW/Conservation Commission, Planning Board	Develop inspection form for documenting inspections.		

In Year 11, UXBRIDGE received access to SOP 6, "Erosion and Sedimentation Control", developed in Year 10, which is intended to help communities minimize discharges from land disturbing activities. The SOP addresses design, planning, construction, and inspection tools and activities that can serve as BMPs. The SOP also outlines inspection requirements for a variety constructed BMPs that need to serve a long-term purpose for protecting surface waters from discharge of sediments.

Construction activities- including erosion control, stormwater pollution prevention, and appropriate management of waste materials- are also 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.

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 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
5.1	Bylaw or Regulation for Post Construction Runoff	Department of Public Works	Develop bylaw and present it to the Town meeting or adopt a regulation.	There was minimal activity on this subject during the permit year due to stormwater committee membership.	Reevaluate the current draft bylaw and schedule public meetings with various boards and committees The Committee will put forth another article either the Fall 2014 or Spring 2015 Town Meeting warrant for consideration. Possible re-organization of the Stormwater Committee will be needed.
Revised					
5.2	BMP Inspection and Maintenance	Department of Public Works	Inspect all Town maintained structural BMPs bi-annually, document the number of problems identified and remedied, review changes in water quality of effluent.	Attended 3 workshops through the CMRSWC which included GPS, water quality sampling and SOP for stormwater activities. The SOP's created through the CMRSWC will be implemented by the Town going forward.	The Towns plans to continue to implement the inspection and maintenance program to inspect all Town maintained structural BMPs, document the number of problems identified and remedied, and review changes in water quality of effluent. The Town will also continue with the work completed and in development through the CMRSWC.
Revised					

In Year 11, UXBRIDGE received access to the Stormwater Best Management Practices (BMP) Toolbox, developed 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 Coalition provided training on the Stormwater BMP Toolbox at two Year 11 workshops (September 17 and 26, 2013).

The objective was to provide the average property owner with easy-to-understand information that encourages them to select low-impact stormwater management tools for their properties, construct them safely, and maintain them for long-term benefit. The BMPs in the Toolbox are consistent with the requirements of the current Small MS4 Permit, the Massachusetts Stormwater Handbook (February 2008), and other current guidance documents.

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 11 (Reliance on non-municipal partners indicated, if any)	Continuing Activities
6.1	Predictive Catch Basin Program	Department of Public Works	Develop a standardized catch basin and storm drain inspection program, collect data, refine based on trends.	The Town cleaned 527 catch basins. Continued mechanical issues with the in house catch basin cleaner combined with budget cutbacks have dramatically limited the number of basins cleaned. The Highway Division repaired approximately 32 basins during the permit year.	The Town plans to continue cleaning and repairing catch basins as budgets and equipment operation allow.
Revised					
6.2	Street Cleaning	Department of Public Works	Sweep all streets once in years 1-2, twice in years 3-5, sweep all parking lots annually, in year five sweep lots twice.	We have experienced continued mechanical issues with the in house street sweepers combined with budget cutbacks have dramatically limited the number of streets and frequency that were swept. The streets within the downtown area (10%) were swept on a number of occasions which coincided with special events. Approximately 85% of the remainder of the streets were swept at least once. Those streets not swept did not require sweeping.	As funding becomes available, continue sweeping activities within the UAs twice and the remaining streets once per year. The Town continues to have issues with departmental equipment and has requested capital funding for the purchase of a new sweeper or investigate contract services to achieve compliance. At the present time, there are no available funds to be applied for this purpose.
Revised					
6.3	Investigate Town Owned BMPs for Retrofit Opportunities	Department of Public Works	Inspect all the BMPs annually.	The DPW continued development of a program to inspect Town maintained structural BMPs.	The Towns plans to continue to develop a program to inspect all Town maintained structural BMPs, document the number of problems identified and remedied, and review changes in water quality of effluent. BMP inspections will begin during the next annual cycle.
Revised					

In Year 11, UXBRIDGE received access to the Stormwater Pollution Prevention Plan (SWPPP) template in the form of a word processing document. The Coalition provided training on the SWPPP Template at two Year 11 workshops (September 17 and 26, 2013). 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 11, UXBRIDGE received access to 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 two Year 11 workshops

(September 17 and 26, 2013). 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.

In Year 11, UXBRIDGE received access to 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 staff at two Year 11 workshops (September 17 and 26, 2013). 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 11, UXBRIDGE received access to a Sump Pump Discharge Policy developed in Year 10 that provides a framework for the member communities to respond to needs to remove sump pumps from the sanitary sewer system without causing property damage or creating a hazardous condition for the public. The Coalition provided training on the Sump Pump Discharge Policy at two Year 11 workshops (September 17 and 26, 2013). 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 11, UXBRIDGE received access to a Salt/Sand Benchmarking tool developed in Year 10 to guide member communities in calibrating deicing equipment. The Coalition provided training on the calibration approaches and spreadsheets at two Year 11 workshops (September 17 and 26, 2013). 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. The Benchmarking tool deliverable guides communities through two different equipment calibration processes and suggests a target reduction rate that is coupled to and appropriate for the benchmarked loading rate. The objective of this task is to reduce the overall loading of chlorides to surface waters in the region while maintaining safe conditions on roadways.

The Sump Pump Discharge Policy and the Private Drainage Connection SOP (SOP 15) documents both include technical criteria for a member community to evaluate when considering granting approval to residential and/or commercial users to connect such private drainage into engineered storm drain systems within the MS4. However, this approach is not effective in areas where no engineered storm drain system exists. In Year 11, the Coalition finalized an approach to connect pieces of data managed by multiple departments within a community for the benefit of all departments. Specifically, the task merges knowledge of areas where high inflow (i.e., sump pumps and drainage connections) to the sanitary sewer has been identified but where no engineered storm drain system exists. This knowledge includes drainage Capital Improvement Plan (CIP) categories and fields to prioritize the extension of the engineered drain system, within the parameters of the Sump Pump Policy and the Private Drainage Standard Operating Procedure, to reduce inflow to the sanitary sewer while protecting surface water quality. In Year 11, the Coalition provided training on the Drainage Extension Approach at the November 20, 2013 training workshop.

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

Not Applicable. TMDL's have not been developed for any of the impaired water bodies in Uxbridge.

Part IV. Summary of Information Collected and Analyzed

The Town has completed GIS based mapping for water, wastewater and stormwater systems constructed prior to 2006. This information has not been updated since that time. It is estimated that over 85% of the stormwater collection system is mapped. Existing data verification and addition of undocumented stormwater collection system components will be the focus going forward. Due to budget shortfalls, additional time will be needed to fully complete the mapping component. There is no other information or data that was collected during Permit Year 11 that is not included elsewhere in this report.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	**No**
Annual program budget/expenditures **	($)	**Not Determined**
Total program expenditures since beginning of permit coverage	($)	**Not Determined**
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 %)	**50%**
Stormwater management committee established	(y/n)	**Yes**
Stream teams established or supported	(# or y/n)	**No**
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	**Yes**
Shoreline cleaned since beginning of permit coverage	(mi.)	**Unknown**
Household Hazardous Waste Collection Days *		
▪ days sponsored **	(#)	*
▪ community participation **	(# or %)	*
▪ material collected **	(tons or gal)	*
School curricula implemented	(y/n)	*

***Performed in conjunction with surrounding Towns.**

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				**X**	
▪ Erosion & Sediment Control				**X**	
▪ Post-Development Stormwater Management				**X**	

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	**90%**
Estimated or actual number of outfalls	(#)	**200+**
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	**90%**
Mapping method(s)		
▪ Paper/Mylar	(%)	**10%**
▪ CADD	(%)	
▪ GIS	(%)	**90%**
Outfalls inspected/screened **	(# or %)	**0**
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	**0**
Illicit discharges identified **	(#)	**0**
Illicit discharges identified (Since beginning of permit coverage)	(#)	**0**
Illicit connections removed **	(#); and (est. gpd)	**None**
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	
% of population on sewer	(%)	**35%**
% of population on septic systems	(%)	**65%**

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	**<10**
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	**80%**
Site inspections completed **	(# or %)	**80%**
Tickets/Stop work orders issued **	(# or %)	**0**
Fines collected **	(# and $)	**0**
Complaints/concerns received from public **	(#)	**5**

Post-Development Stormwater Management

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

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	**1**
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	**1**
Qty of structures cleaned **	(#)	**527**
Qty. of storm drain cleaned **	(%, LF or mi.)	**Not Determined**
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	**250 CY +/-**
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	**DPW Yard**
Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	**General budget**
• Hourly or per basin contract rate **	($/hr or $ per basin)	
• Disposal cost**	($)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	**1**
• Vacuum truck(s) owned/leased	(#)	**0**
• Vacuum trucks specified in contracts	(y/n)	**0**
• % Structures cleaned with clam shells **	(%)	**100%**
• % Structures cleaned with vactor **	(%)	**0%**
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	**1**
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	**2+**
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	**1000 CY +/-**
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	**DPW Yard**
Annual Sweeping Costs		**Not Determined**

	(Preferred Units)	Response
• Annual budget/expenditure (labor & equipment)**	($)	**General Budget**
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	**Not Determined**
• Disposal cost**	($)	**Not Determined**
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	**1**
• Vacuum street sweepers owned/leased	(#)	**0**
• Vacuum street sweepers specified in contracts	(y/n)	**0**
• % Roads swept with rotary brush sweepers **	%	**100%**
• % Roads swept with vacuum sweepers **	%	**0%**

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

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	**100% ClearLane at start of season then went to 95% Sand and 5% Salt**
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. or %)	**500#/ln mi**
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	**Phasing out Sand**
% of salt/chemical pile(s) covered in storage shed(s)	(%)	**95%**
Storage shed(s) in design or under construction	(y/n or #)	**No**
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	**No**

Water Supply Protection

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