

**Municipality/Organization:** Maynard, MA

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**EPA NPDES Permit Number:** MA041208

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**MassDEP Transmittal Number:** W-035581

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**Annual Report Number & Reporting Period:** Year 09  
April 1, 2011 – March 31, 2012

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## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2012)

### Part I. General Information

Contact Person: Michael Sullivan Title: Town Administrator

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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: Michael Sullivan \_\_\_\_\_

Title: Town Administrator \_\_\_\_\_

Date: 4/2/12 \_\_\_\_\_

## **Part II. Self-Assessment**

From April 1, 2011 through March 31, 2012 the Town of Maynard continued to implement BMPs and meet the General Permit requirements. The Town's Stormwater Management Team (SWMT) consists of representatives from the DPW, Conservation Commission, Planning Board, Building Department, Open Space Committee, Selectmen's Office, and Board of Health. Town Staff from the DPW, Conservation Commission, and Planning Board mainly focus on stormwater management activities. Maynard's Stormwater Management Program will be reassessed during development of the next Notice of Intent and Stormwater Management Plan for efficient use Maynard's limited resources and staff time to leverage better stormwater management.

As required by Part II.D.1 of the 2003 *NPDES General Permit for Stormwater Discharges from Small MS4s*, as part of developing this annual report, the Town has evaluated compliance of its stormwater management program with the conditions of the permit. The Town has made substantial progress implementing BMPs and meeting permit requirements. One press release to describe the new General Permit requirements (BMP 1.4.1) has been delayed since Permit Year 5 because EPA has not yet issued the new General Permit.

Also, as required by Part II.D.2 of the General Permit, the Town evaluated the appropriateness of selected BMPs in efforts towards achieving the defined measurable goals and has determined that BMPs and measurable goals continue to be appropriate.

### **Notes on the Permit Year 9 Annual Report:**

1. Measurable goals by Permit Year were extrapolated from the "Time Frames" page in the original NOI and are based on revisions made in prior Annual Reports.
2. Planned activities for the next permit term have been designated if a BMP under the 2003 General Permit was not completed, is still under progress for completion, or is expected to continue. Once the General Permit for the next five years is available from EPA, the Town will prepare and submit a Notice of Intent for compliance with the new General Permit.
3. Conservation Commission continues to coordinate with MassDOT on state highway projects within the town, specifically on stormwater design impacting Maynard water ways.

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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
1.1.1 Revised	Homeowner Focus – Mail educational flyer with stormwater survey	SuAsCo Council and Stormwater Management Team (SWMT)	YR01: Flyer distribution. Compile and evaluate survey results. YR02-09: None.	BMP complete. No measurable goals planned for Permit Year 9 - BMP completed in Permit Year 1 by distributing Stormwater Matters brochure. Also, SuAsCo sent community survey in December 2003. Due to limited survey response, compilation and evaluation was infeasible.	Measurable goals for the 2003 General Permit have been met.
1.1.2 Revised	Homeowner Focus – Brochures available at Town Hall	SWMT	YR04-09: Brochures available at Town Hall.	Measurable goal met. Brochures continued to be available at the Town Hall: <ul style="list-style-type: none"> <li>• Stormwater Matters;</li> <li>• After the Storm;</li> <li>• Ecological Landscaping;</li> <li>• Don't Trash Grass!;</li> <li>• Butterfly Gardens;</li> <li>• Rain Gardens; and</li> <li>• Maynard's Wetlands &amp; You: A Guide to Living with Wetlands.</li> <li>• Improving Wildlife Habitat in Your Backyard;</li> <li>• Green Lawns Without Green Waters!;</li> <li>• When it Rains .... You Save;</li> <li>• Friends of the Assabet River National Wildlife Refuge;</li> <li>• What's going down YOUR storm drain?;</li> <li>• Native Species for Waterside Plantings &amp; Vegetative Buffers; and</li> <li>• Support Land and Water Conservation with the New Land &amp; Water License Plate.</li> </ul> <p>In addition, the Conservation Commission website continues to have stormwater-related links and SuAsCo bookmarks were periodically available at the Town library.</p>	Measurable goals for the 2003 General Permit have been met.

1.2.1	<b>Student Focus</b> – Teach stormwater lesson to 5 <sup>th</sup> grade students	SuAsCo Council and SWMT	YR01: None. YR02: Prepare and implement lesson. YR03-09: None.	BMP complete. No measurable goals planned for Permit Year 9. BMP completed in Permit Year 2.	Measurable goals for the 2003 General Permit have been met.
	Revised				
1.3.1	<b>Business Focus</b> – Mail educational flyer with a stormwater survey	SuAsCo Council and SWMT	YR01-02: None. YR03: Flyer distribution. YR04-09: None.	BMP complete. No measurable goals planned for Permit Year 9. BMP was completed in Permit Year 3 with distribution of SuAsCo flyer and survey, but there was an insufficient response to warrant analysis of survey responses.	Measurable goals for the 2003 General Permit have been met.
1.4.1	<b>General Public Focus</b> – Hold a stormwater media campaign	SuAsCo Council and SWMT	YR01-03: None. YR04: Press releases planned for YR05. YR05: 2 press releases related to stormwater program. YR06-09: Press releases related to stormwater program.	In Permit Year 9, the following articles related to stormwater were released in the Beacon Villager. <ul style="list-style-type: none"> <li>• <i>Controlling Invasive Species in Rivers</i></li> <li>• <i>Rain Barrels Available in Maynard</i></li> <li>• <i>Household Hazardous Waste Collection Day in Maynard</i></li> <li>• <i>April Rail Trail Events</i></li> <li>• <i>Maynard can't: Water, water everywhere</i></li> </ul> The second press release planned for Permit Year 5 continues to be delayed until EPA issues the new General Permit.	Measurable goals for the 2003 General Permit have been met.  Press release and local newspaper articles related to stormwater initiatives are expected to continue.
1.4.2	<b>General Public Focus</b> – Show a stormwater video on a local cable station	SuAsCo Council and SWMT	YR01-04: None. YR05: Obtain and air stormwater video. YR06-09: None	In addition, the Maynard Public Library showed a documentary <i>Blue Gold: World Water Wars</i> on March 10, 2012.	Measurable goals for the 2003 General Permit have been met.
	Revised			BMP complete. No measurable goals planned for Permit Year 9. <i>After the Storm</i> video and <i>Reigning in the Storm-One Building at a Time</i> were obtained from EPA in previous permit years and were aired on the Town's public access cable television station.	

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
2.1.1	Homeowner Focus – circulate stormwater traveling display	SuAsCo Council and SWMT	YR01: Develop display and feature at 3 locations. YR02-04: None. YR05-09: Stormwater display.	Display titled <i>Maynard's Stormwater Management Program</i> continued to be exhibited at Town Hall.	Measurable goals for the 2003 General Permit have been met.  The Town will continue to display stormwater posters/displays.
Revised					
2.4.1	General Public Focus – Annual River Cleanup Day	SuAsCo Council and SWMT, DPW	YR03-09: Annual cleanup.	The 24 <sup>th</sup> Assabet River Cleanup was held on September 17, 2011. The Maynard DPW supported waste removal efforts during this cleanup. In 2011, the DPW estimates a truck load of mixed debris was removed from the Assabet River. In addition, the Maynard Litter League held five or more other cleanups in various locations throughout town during the year.	Measurable goals for the 2003 General Permit have been met.  The Annual Clean-up and other Town group clean-up efforts are expected to continue.
2.5.1	General Public Focus – LID Bylaw Meetings	SWMT	YR04-07: Hold meetings to create a stormwater and LID Bylaw YR08-09: None	BMP Complete. Throughout permit years 4, 5, 6, and 7, the Town held numerous stakeholder and public meetings as part of the extensive process to develop the local stormwater bylaw. Originally, the Town planned to develop a stormwater and LID bylaw, but ultimately adopted one Stormwater Management Bylaw that does not include LID provisions (see BMPs 4.1.1 and 5.1.1).	Measurable goals for the 2003 General Permit have been met.

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
3.1.1	<b>Stormwater System Mapping</b> – Map outfalls and maintain GIS map as updates occur	DPW	YR01-03: Field check GIS map locations of outfalls. YR04: None YR05: 100% of outfalls will be field checked. YR06-09: Drainage mapping maintained.	Outfall mapping has been completed. Map includes all outfalls and receiving waterbodies. In Permit Year 9, the Town purchased new GPS equipment to aid in maintaining GIS mapping and trained personnel were on new equipment. Town also GPS located and photo documented approximately 35-40 outfalls to the Assabet River	Measurable goals for the 2003 General Permit have been met.  The Town will continue to update the drainage mapping, as necessary and as budget allows.
Revised					
3.1.2	<b>Stormwater System Mapping</b> – Map storm sewer system and maintain GIS map as updates occur	DPW	YR01-09: Build and maintain GIS system for stormwater planning	In previous permit years, Town built a GIS system with assistance from consultant. Map includes all outfalls and receiving waterbodies, and, where known, catch basins, manholes, and connectivity (including pipe sizes). Town continued to use GIS mapping to conduct MS4 structure inspections/cleaning and IDDE work. Town has printed field sheets of the GIS map and notes errors in mapping as observed.	Measurable goals for the 2003 General Permit have been met.  The Town plans to update the drainage mapping, as necessary and as budget allows.
Revised					
3.1.3	<b>Stormwater System Mapping</b> – Map structural BMPs	DPW	YR01-09: New BMP structures will be identified and included in GIS system as budget allows.	New stormwater structural BMPs are under construction at the new Maynard High School site. Also, new private structural BMPs were installed at a new two family residence in town. The Town has obtained records for the new BMPs and will update the GIS drainage mapping when budget allows.	Measurable goals for the 2003 General Permit have been met.  The Town plans to update the drainage mapping, as necessary and as budget allows.

3.1.4	<p><b>Stormwater System Mapping</b> – Develop regulations to have developers pay Town's cost for GIS updates caused by the development</p>	Planning Board	<p>YR01: None. YR02 Draft recommended Planning Board Regulations. YR03-04: None. YR05-06: Adopt Regulations. YR07-09: Adopt bylaw with consideration for regulations.</p>	<p>Town continued to develop regulations for the <i>Stormwater Management Bylaw</i> approved at Fall 2009 Town Meeting.</p>	Town plans to continue development of regulations.
3.2.1	<p><b>Regulatory Mechanism</b> – Develop bylaw prohibiting illegal non-stormwater discharges into MS4. Include enforcement procedures in bylaw.</p>	Selectmen's Office / SWMT	<p>YR01-02: Review existing bylaws and recommend revisions YR03: None. YR04: Implement recommendations for regulatory revisions. YR05-06: Draft and adopt bylaw. Receive Attorney General approval. YR07-09: None.</p>	<p>BMP complete. In Permit Year 5, the Town of Maynard <i>Storm Drain System By-law</i> was passed at the October 29, 2007 Special town Meeting by a vote of 96 to 4. The By-law was approved by the Massachusetts Attorney General in Permit Year 6.</p> <p>Town continues to implement bylaw and enforcement procedures as necessary.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p>
Revised					
3.3.1	<p><b>IDDE Plan</b> – Organize SWMT to monitor the Town's compliance with permit requirements.</p>	Selectmen's Office	<p>YR01-05: Meetings held. YR06-09: Town Depts. separately and together monitor compliance.</p>	<p>Members of SWMT continued to separately monitor compliance with permit requirements and carry out Stormwater Management actions. The Planning Board, Conservation Commission, and DPW continue to accept complaints from the public for potential illicit discharges and illegal dumping. The DPW conducts any necessary field investigations as budget allows.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p>
Revised					

3.3.2	<p><b>IDDE Plan</b> – Identify procedures for locating areas likely to have illicit discharges and illegal dumping.</p>	<p>SWMT/DPW</p>	<p>YR01-05: Develop and implement procedures to identify sources of and remove illicit discharges. Procedures to include identification of priority areas, documentation of actions, evaluation of impacts to MS4, and inspection of outfalls during dry-weather flows.</p> <p>YR06-09: Document illicit discharges and illegal dumpings.</p>	<p>In Permit Year 5, the Town worked with a consultant to develop a written Illicit Discharge Detection and Elimination (IDDE) Plan. This plan identifies what an illicit discharge is, why illicit discharges matter, and presents a six-step IDDE plan to:</p> <ul style="list-style-type: none"> <li>• Prioritize Areas for Outfall Inspections.</li> <li>• Identify Illicit Discharges &amp; Source Connections.</li> <li>• Sampling Procedures.</li> <li>• Investigate Illicit Connection Sources.</li> <li>• Remove / Correct the Source of the Discharge.</li> <li>• Document Actions and Evaluate Impacts.</li> </ul> <p>In Permit Year 9, the DPW continued to check outfalls and catch basins in problem areas prior to 1" or more storm events. Sediment was removed from clogged outfalls. The Town also photo documented and GPS located approximately 35-40 outfalls that discharge to the Assabet River, which is a priority area in Town and has a final TMDL. No signs of illicit discharges or illegal dumping were observed during cleaning and/or inspections of catch basins and outfalls.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>The Town will continue to address known illicit discharges and illegal dumping activities as budget allows.</p>
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<p>3.4.1</p> <p>Revised</p>	<p><b>Educational Outreach</b> – Inform public employees, business, and general public of hazards of illegal discharges and improper waste disposal</p>	<p>SuAsCo Council and SWMT</p>	<p>YR01: None. YR02-09: Information materials distributed.</p>	<p>Town Staff continue to be aware of hazards of illicit discharge and illegal dumping. Town continues to educate businesses and public about illicit/illegal dumping.</p> <ul style="list-style-type: none"> <li>• Advertisement regarding Board of Health’s annual (June 4, 2011) household hazardous waste day was provided in the Beacon Villager.</li> <li>• Local notices were also provided at the Town Hall and Fire Station bulletin boards, and in the 2011-2012 Maynard Recycling Information pamphlets provided to residents/businesses.</li> <li>• Local Boy Scout Troop 130 held an Electronics Recycling and Bottle Drive on March 24, 2012.</li> <li>• Conservation Commission put up a “No Dumping” sign along the Assabet River</li> </ul>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>The Town will continue to hold the annual household hazardous waste day and provide local notices as budget allows.</p>
<p>3.5.1</p> <p>Revised</p>	<p><b>Allowable Non-stormwater Discharges</b> – Determine if any EPA-listed non-stormwater flows need to be addressed by illicit discharge program</p>	<p>SWMT</p>	<p>YR01: Decision made YR02-04: None YR05-09: If necessary, address through illicit discharge program.</p>	<p>BMP complete. No measurable goals planned for Permit Year 9. In Permit Year 2, DPW determined that allowable non-stormwater discharges are not a problem.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>This BMP will be reassessed for the next General Permit.</p>
<p>3.6.1</p> <p>Revised</p>	<p><b>Waste Disposal Programs</b> – Hazardous waste management and drop-off program</p>	<p>Board of Health</p>	<p>YR01-05: Conduct twice a year. YR05-09: Conduct Annual Hazardous Waste Day.</p>	<p>The Town held their Annual Hazardous Waste Collection Day on June 4, 2011. In addition, local Boy Scout Troop 130 held an Electronics Recycling and Bottle Drive on March 24, 2012.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>The Town plans to continue to hold the annual household hazardous waste day and provide local notices as budget allows.</p>

#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
4.1.1 Revised	<b>Regulatory Mechanism</b> – Develop and implement Town bylaws regulating erosion and sediment control for construction sites utilizing appropriate BMPs	SWMT	YR01: None YR02-03: Develop bylaws YR04: None YR05-09: Implement bylaws	In Permit Year 7, the <i>Stormwater Management Bylaw</i> was approved at the Fall 2009 Town Meeting. The Attorney General approved the Bylaw in Spring 2010. BMP complete. Town is implementing bylaw.	Measurable goals for the 2003 General Permit have been met.
4.1.2 Revised	<b>Regulatory Mechanism</b> – Add design standards and criteria as necessary to Town department regulations regarding construction site erosion control.	Planning Board/Conservation Commission/SWMT	YR01-02: Determine standards, draft regulations. YR03: None. YR04-05: Update regulations. YR06-09: Implement Bylaw.	The Town continues to implement the <i>Stormwater Management Bylaw</i> . Although regulations have not yet been developed, the Bylaw includes performance standards by referencing the Massachusetts Stormwater Management Handbook and Massachusetts Stormwater Management Standards, which include design standards and erosion controls.	Measurable goals for the 2003 General Permit have been met.
4.1.3 Revised	<b>Regulatory Mechanism</b> – Evaluate sanctions for enforcement of erosion and sediment controls	SWMT/Selectmen's Office	YR01: Develop goals. YR02: Draft YR03: None. YR04: Develop final sanctions. YR05: Develop draft. YR06-09: Develop and implement final Bylaw.	BMP complete. Town continues to implement the Stormwater Management Bylaw, approved at Fall 2009 Town Meeting and by Attorney General in Spring 2010. Bylaw includes sanctions for enforcement of erosion and sediment controls.	Measurable goals for the 2003 General Permit have been met.

4.2.1 Revised	<p><b>Site Plan Review Procedures</b> – Implement pre-construction review of project storm water pollution prevention plan (SWPPP)</p>		<p>YR01: None YR02-05: Identify and train staff. YR06-09: Conduct inspections.</p> <p>YR06-09: Conduct inspections and review SWPPPs.</p>	<p>Town conducts “round table” pre-construction reviews of proposed development. At “round table” discussion, Planning, Building, Health, Fire, ConComm, and DPW raise questions and concerns. Pre-construction review and enforcement of SWPPPs via inspections was continued by Conservation Commission with assistance from Building Inspector and DPW.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p>
4.3.1 Revised	<p><b>Site Inspection/ Enforcement Procedures</b> – Conduct construction site inspections</p>		<p>YR01: None YR02-05: Identify and train staff. Review each project. YR06-09: Conduct inspections.</p>	<p>Depending on jurisdiction (Conservation, DPW, Building, Board of Health), construction site inspections continued to be conducted. Also, Qualified Site Inspectors may conduct inspections for compliance with local, state, and federal permit requirements.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>The Town will continue to conduct site inspections as budget allows.</p>
4.3.2 Revised	<p><b>Site Inspection/ Enforcement Procedures</b> – Develop a procedure for handling reports from the public of non-compliance</p>	SWMT	<p>YR01: None. YR02-09: Determined complaints to be handled on a case-by-case basis.</p>	<p>No complaints received about construction-related compliance in Permit Year 9.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>The Town will continue to address construction related complaints as budget allows.</p>

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
5.1.1  Revised	<b>Regulatory Mechanism</b> – Develop and implement bylaws regulating controls for post-construction runoff utilizing appropriate BMPs	SWMT	YR01: Draft bylaw YR02-03: Revise bylaw YR04-09: Pass and implement bylaws	The <i>Stormwater Management Bylaw</i> , approved at the Fall 2009 Town Meeting, regulates post-construction stormwater runoff. The Attorney General approved the Bylaw in Spring 2010. In Permit Year 9, the Town continued to implement the <i>Stormwater Management Bylaw</i> .	Measurable goals for the 2003 General Permit have been met.  The Town will continue to conduct peer reviews of drainage designs for appropriate BMPs.
5.2.1  Revised	<b>Review BMP Designs</b> – Pre-construction review for conformance with standards/regulations	Planning Board/ Conservation Commission	YR01-09: Review each project.	Town continued to coordinate permitting and development review process for each project for conformance with standards and regulations, including “round table” discussion where Planning, Building, Health, DPW, Conservation raise questions and concerns.	Measurable goals for the 2003 General Permit have been met.  The Town will continue to coordinate permitting and development review process for projects.
5.3.1	<b>Site Inspection/ Enforcement Procedures</b> – During construction, inspect that BMPs are properly constructed	Planning Board/ Conservation Commission/ DPW	YR01-09: Inspect each project	The DPW conducts post construction site inspections for permitted projects. In accordance with the Stormwater Management Bylaw, permitted BMPs installed under the Bylaw are inspected in accordance with their approved maintenance plan by a private entity. Also, Qualified Site Inspectors may conduct inspections for compliance with local, state, and federal permit requirements.	Measurable goals for the 2003 General Permit have been met.  The Town will continue to conduct construction inspections as budget allows.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
5.3.2 Revised	Site Inspection/ Enforcement Procedures – Post-construction provide inspection to be assured that BMP's O&M procedures have been followed	DPW	YR01: None. YR02-YR03: Identify and train staff. YR04-09: Inspection as required.	ConComm and/or DPW conduct pre- and post-construction inspections for permitted projects. The <i>Stormwater Management Bylaw</i> references the Mass Stormwater Management Handbook and Regulations for BMP O&M and enforcement. Post construction site inspections may also be conducted by Qualified Site Inspectors for compliance with local, state, and federal permit requirements.	Measurable goals for the 2003 General Permit have been met.
5.4.1 Revised	O&M Procedures for Stormwater BMPs – Develop procedures for O&M requirements for structural BMPs	SWMT	YR01: None. YR02-04: Develop procedures. YR05-09: None.	BMP complete - no further action required. Town's <i>Stormwater Management Bylaw</i> requires O&M procedures consistent with the MA Stormwater Management Handbook.	Measurable goals for the 2003 General Permit have been met.

## 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 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6.1.1	<p><b>Employee Training Program</b> – Training on oil spill reporting and response, hazardous materials, and pesticide and fertilizer application</p>	<p>DPW/Fire Department</p>	<p>YR01-06: Conduct annual training. YR07-09: Implement training program initiatives.</p>	<p>A Good Housekeeping Workshop was held on June 3, 2008 and included DPW, Water, Sewer, Police, Fire, Public School representative, Conservation Commission, and Board of Health. Workshop reviewed Town's stormwater management program and good housekeeping Best Management Practices (BMPs) for municipal facilities and street drainage maintenance. Workshop included a review of spill response, hazardous materials, pesticide/fertilizer application BMPs, vehicle maintenance BMPs, proper roadway and stormwater system maintenance, and procedures for addressing illicit discharges/illegal dumping. Throughout Permit Year 9, Town employees continued to be aware of proper spill reporting/response, hazardous materials, and pesticide/fertilizer application. The Fire Dept. addresses major spills throughout Town and notifies DPW. DPW responds to assist with cleanup and close off MS4 system to prevent contamination. Minor spills are addressed with spill containment equipment and materials at DPW Garage. Pesticides and fertilizers were not used on public lawns in Year 9, and therefore training was not needed. In addition, members of the DPW attended SuAsCo trainings and Center for Watershed Protection trainings on stormwater topics.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>Town will continue to keep employees trained and implement training program initiatives, as budget allows.</p>

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6.2.1	Stormwater Sewer System Operation and Maintenance – Storm sewer system and catch basin inspection and cleaning program.	DPW	YR01-09: Annual inspection and cleaning.	<p>In Permit Years 5 and 6, forms for documenting structural BMP maintenance were drafted and finalized and Town began use of forms for documenting inspections. In Permit Year 9, the Town continued to inspect and maintain structural stormwater BMPs. The town re-built six (6) catch basins in 2011.</p> <p>The Town continued to optimize catch basin and outfall cleanings to focus on problem areas. Town inspects catch basins in problem areas before 1” of rain or more is expected. In 2011, 535 catch basins were cleaned by Sam’s Catch Basin Cleaning Company and approximately 330 cubic yards of sediment and debris were removed.</p> <p>In addition, the Town flushed approximately 50’ of drain pipe on Pine Hill Road to alleviate flooding.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p> <p>The Town will continue to maintain their drainage system and document repairs as budget allows.</p> <p>The Town will continue to clean catch basins as budget allows.</p>
Revised					
6.2.3	Stormwater Sewer System Operation and Maintenance – Structural BMP inspection and maintenance program	DPW	<p>YR01: Develop and implement record keeping.</p> <p>YR01-08: Inspect all BMPs once a year.</p> <p>YR09: <i>Inspect BMPs in accordance with long-term O&amp;M plans.</i></p>	<p>Towns structural BMPs currently consist of catch basins and are addressed under BMP 6.2.1. New structural BMPs are planned as part of construction of the high school, and will be inspected and maintained in accordance with the long-term operation and maintenance plan prepared in accordance with the Massachusetts Stormwater Standards and local Stormwater Management Bylaw.</p>	<p>Measurable goals for the 2003 General Permit have been met.</p>
Revised					

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
6.4.1	<b>Municipal Industrial Operations</b> – Evaluate operations at the Public Works Facility, transfer station, and the WWTF	DPW Consultant	YR01-05: Develop and implement a program to reduce pollutant runoff from municipal operations. YR06-09: Continue to implement schedules and procedures.	In Permit Years 5 and 6, a municipal facility inventory, including identification of applicable good housekeeping BMPs for municipal operations, was developed. BMPs were reviewed as part of the Good Housekeeping Workshop (see BMP 6.1.1). Schedules and procedures for municipal maintenance activities and inspections of long-term structural controls were developed in implemented. In Permit Year 9, DPW continued to implement schedules and pollution prevention procedures identified in the municipal facility inventory.	Measurable goals for the 2003 General Permit have been met.  The Town will continue to implement schedules and procedures for municipal maintenance activities as budget allows.
6.4.2	<b>Municipal Industrial Operations</b> – Review maintenance/repair programs for municipal vehicles, vehicle washing controls, and vehicle fueling operations.	DPW	YR01: None. YR02-03: Develop program controls and record keeping. YR04: None. YR05-09: Implement program controls and record keeping.	In Permit Years 5 and 6, reviewed maintenance and repair programs at municipal facilities. Reviewed recommended BMPs for vehicle repair/maintenance, vehicle washing, and vehicle fueling at the Good Housekeeping Workshop (see BMP 6.1.1). Continued to review vehicle fueling sensing equipment. Implemented BMPs and recommendations related to maintenance and repair programs at municipal facilities. In Permit Year 9, DPW continued to implement BMPs and recommendations related to maintenance and repair programs at municipal facilities. DPW follows proper procedures for repairs/maintenance, washing, and fueling vehicles.	Measurable goals for the 2003 General Permit have been met.  The Town will continue to implement BMPs and recommendations related to maintenance and repair program at municipal facilities as budget allows.
6.4.4	<b>Municipal Industrial Operations</b> – Review salt storage operations	DPW	YR01-09: No longer need to develop and implement program controls and record keeping, due to revised salt operation practices.	The Town purchased an additional new deicing unit, which is designed to reduce amount of sand and deicing agent applied. In 2011, no sand was applied and approximately 200 tons of NaCl was used for winter deicing. Salt storage operation continued to be conducted under cover. The Town purchased 400 tons of NaCl this year. In Permit Year 5, salt storage and application procedures were reviewed at the Good Housekeeping Workshop (see BMP 6.1.1).	Measurable goals for the 2003 General Permit have been met. Salt operations are conducted under a covered building.
6.5.1	<b>Municipal Roads</b> – Street sweeping	DPW	YR01: None YR02-09: Annual street sweeping.	In Spring 2011, all Town roads were swept once. Approximately 1/3 of the roads were swept a second time. Downtown roads were swept approximately once per month and prior to special events.	Measurable goals for the 2003 General Permit have been met. The Town will continue to sweep Town streets as budget allows.



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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 9 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
7.1.1	Address Assabet River Nutrient TMDL Report	SWMT	YR05: Review TMDL Report and select appropriate BMPs for Town to address recommendations from report. YR06-09: Implement BMPs.	BMP completed in Permit Year 5. BMPs to address impaired waters and TMDLs were identified in a memorandum to the Director of Public Works dated March 2008. BMPs were added to the report at that time.  In addition, the Assabet River Nutrient TMDL continues to be addressed through BMPs implemented and identified under Minimum Control Measures 1 through 6.	Measurable goals for the 2003 General Permit have been met.
Revised					
7.1.2	<b>Phosphorus Specific Education</b> - Distribute brochures at Town Hall and include education about phosphorus reduction activities for homeowners and businesses as part of Public Education and Outreach Program.	SWMT	YR05-09: Record locations of brochure distribution and posters.	Display titled <i>Maynard's Stormwater Management Program</i> continued to be available at Town Hall and Library, and describes phosphorus in the Assabet River and phosphorus reduction activities. EPA and SuAsCo brochures continued to be available at Town Hall. SuAsCo Stormwater Matters posters, bookmarks, and postcards include information about proper fertilizer use and lawn care. Conservation also makes these brochures available at Public Meetings and Town events.	Measurable goals for the 2003 General Permit have been met.  Stormwater displays and brochures are continuously used.
7.1.3	<b>Press Release</b> – Develop a press release that mentions phosphorus, why it matters, and directs readers to public education materials describing what homeowners and businesses can do to reduce phosphorus loading to the Assabet River.	SWMT	YR05-06: Record date of press release. YR07-09: None.	BMP complete. No measurable goals planned for permit year 9. A press release was published on May 2, 2008 (Permit Year 6) in the Beacon Villager.	Measurable goals for the 2003 General Permit have been met.

## **7b. WLA Assessment**

Per Part I.D.3. of the General Permit, “if the MS4 is required to implement storm water waste load allocation provisions of the TMDL, the permittee must assess whether the WLA is being met through implementation of existing storm water control measures or if additional control measures are necessary. The permittee’s assessment of whether the WLA is being met is expected to focus on the adequacy of the permittee’s storm water controls (implementation and maintenance), not on the response of the receiving water.”

Maynard’s MS4 discharges into the Assabet River, which has an approved Final TMDL for Total Phosphorus. Because the TMDL is for a pollutant likely to be found in storm water discharges from Maynard’s MS4, their Stormwater Management Program includes BMPs that address the waste load allocation (WLA). The TMDL includes a load allocation of 1.0 lbs/day for watershed non-point source (NPS) pollution, but provides no BMP recommendations or other performance requirements for stormwater discharges. In addition, there are no Performance Agreements or Memorandum of Understandings for BMP and performance standard modifications of the TMDL provided on the MassDEP website.<sup>1</sup>

Maynard’s Stormwater Management Program includes a number of existing stormwater control measures, as reported in the above Annual Report, that address pollutants of concern in water quality impaired waters and total phosphorus. The BMPs identified under Minimum Control Measures (MCMs) 1 through 6, including, but not limited to, those relating to public education, implementation and enforcement of the Storm Drain System By-law that regulates illicit discharges, Stormwater Management Bylaw, construction and post-construction inspections, employee training, and the good housekeeping measures such as street sweeping, catch basin cleaning, and the elimination of pesticide and fertilizer use help prevent phosphorus, pathogens, organics, and metals from entering the water bodies within Town that include the Assabet River. In addition, the BMPs identified in the Town’s Stormwater Management Program help reduce taste, odor, and color problems and modifications to temperature within water bodies.

## **Part IV. Summary of Information Collected and Analyzed**

N/A

## **Part V. Program Outputs & Accomplishments (OPTIONAL)**

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<sup>1</sup> MassDEP Total Maximum Daily Load website: <http://www.mass.gov/dep/water/resources/tmdls.htm>

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2011 and March 31, 2012)

**Programmatic**

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

**Education, Involvement, and Training**

	(Preferred Units) Response	
	(# or %)	
Estimated number of property owners reached by education program(s)		
Stormwater management committee established	(y/n)	Y
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	Y
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored **	(#)	1
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	Y

**Legal/Regulatory**

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

## Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	Y
Estimated or actual number of outfalls	(#)	~90
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	Y
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened **	(# or %)	100%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	
Illicit connections removed **	(#); and	
Illicit connections removed (Since beginning of permit coverage)	(est. gpd)	
% of population on sewer	(#); and	
% of population on septic systems	(est. gpd)	~99%
	(%)	~1%

## Construction

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

**Post-Development Stormwater Management**

	(Preferred Units)	Response
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)	
Low-impact development (LID) practices permitted and encouraged	(y/n)	Y

**Operations and Maintenance**

	(Preferred Units)	Response
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 **	(#)	535
Qty. of storm drain cleaned **	(%, LF or mi.)	50 lf.
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	330 cu. yd.
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Reuse/recycle/ Proper disposal by contractor

	(Preferred Units)	Response
<b>Basin Cleaning Costs</b>		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$11,000
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$90/hour
• Disposal cost**	(\$)	
<b>Cleaning Equipment</b>		
• Clam shell truck(s) owned/leased	(#)	1, leased
• Vacuum truck(s) owned/leased	(#)	0
• Vacuum trucks specified in contracts	(y/n)	0
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vector **	(%)	0%

	(Preferred Units)	Response
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)	>1
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Beneficial use/compost
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or in mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1, owned
• 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 %)	100%
▪ Herbicides	(lbs. or %)	N/A
▪ Pesticides	(lbs. or %)	100%
Integrated Pest Management (IPM) Practices Implemented		
	(y/n)	N



	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **	% NaCl	30%
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl <sub>2</sub>	
	% MgCl <sub>2</sub>	
	% CMA	
	% Kac	
	% KCl	
	% Sand	70%
Pre-wetting techniques utilized **	(y/n or %)	N
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	N
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
Storage shed(s) in design or under construction	(y/n or #)	
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

### Water Supply Protection

	(Preferred Units)	Response
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)	
<ul style="list-style-type: none"> <li>Treatment units induce infiltration within 500-feet of a wellhead protection area</li> </ul>	(# or y/n)	