

**Municipality/Organization:** Pembroke, MA

**EPA NPDES Permit Number:** MAR041054

**MassDEP Transmittal Number:** W-035403

**Annual Report Number  
& Reporting Period:** May 1, 2007 – April 30, 2008

**NPDES PII Small MS4 General Permit  
Annual Report  
(Due: May 1, 2008)**

**Part I. General Information**

**Contact Person:** Eugene B. Fulmine Jr. **Title:** DPW Director

**Telephone #:** (781) 293-5620 **Email:** gfulmine@townofpembrokemass.org

**Mailing Address:** 100 Center Street, Pembroke, MA 02359

**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:** Edwin J. Thorne

**Title:** Town Administrator

**Date:** April 30, 2008

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

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

- **BMP ID 1a: Stormwater messages were aired for two weeks in April of 2008 instead of airing a new message every two weeks throughout Permit Year 5.**
- **BMP ID 1c: The town did not include information on stormwater pollution prevention in their 2007 Consumer Confidence Report, but is in the process of including it in their 2008 Consumer Confidence Report.**

### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)
3a	Map outfalls and receiving waters	Department of Public Works	Complete mapping by end of fifth permit year	The town completed the mapping of all outfalls in urbanized areas during the fourth permit year, which was a year ahead of schedule. Therefore no goals related to this item occurred during Permit Year 5.
Revised				
3b	Develop illicit discharge detection & elimination plan	Department of Public Works	Make recommendations for proposed plan	During the fifth permit year, the town made a number of recommendations regarding items to be included in their illicit discharge detection and elimination plan. These items included methods for identifying priority areas and locating illicit discharges and their sources. It also included procedures for removal of illicit discharges. All actions will be documented.
Revised				
3c	Review existing bylaws and regulations	Department of Public Works/Stormwater Advisory Committee	Determine whether existing bylaws/regs are adequate	The town reviewed the existing bylaws and regulations for requirements relating to illicit discharge detection and elimination during the third permit year. No goals related to this item were planned for Permit Year 5.
Revised				
3d	Develop/modify general illicit discharge bylaw	Department of Public Works/Stormwater Advisory Committee	If necessary, propose recommendations for bylaw updates	A general illicit discharge bylaw that meets USEPA requirements was developed during the third permit year. After having their attorneys review the general illicit discharge bylaw that was developed, the town distributed the bylaw to local town boards and commissions for their review. Based on input from these departments, the bylaw was revised during Permit Year 5.
Revised				
3e	Present bylaw for Town meeting action	Department of Public Works/Stormwater Advisory Committee	Make presentations for Town meeting action, if necessary	The bylaw was presented for Town Meeting action during Permit Year 5 and was adopted.
Revised				

#### 3a. Additions


#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)
4a	Review existing bylaws and regulations	DPW/Planning/Zoning	Determine whether existing bylaws/regs are adequate	The town reviewed the relevant sections of the Rules and Regulations Governing the Subdivision of Land, the Zoning Bylaws, and the Water Resource Protection Bylaw during the third permit year. No goals related to this item were planned for Permit Year 5.
Revised				
4b	Develop/modify bylaws for construction site runoff	DPW/Planning/Zoning	If necessary, propose recommendations for bylaw updates	In the fourth year of the permit, the town completed the development of a bylaw for the control of construction site runoff. After having their attorneys review the bylaw that was developed, the town distributed the bylaw to local town boards and commissions for their review. Based on input from these departments, the bylaw was revised during Permit Year 5.
Revised				
4c	Present bylaw for Town meeting action	DPW/Planning/Zoning	Make presentations for Town meeting action, if necessary	The bylaw was presented for Town Meeting action during Permit Year 5 and was adopted.
Revised				
4d	Review existing site inspection practices	DPW/Planning/Zoning	Determine whether existing practices are adequate	The town reviewed their erosion/ sedimentation control and drainage submittal requirements, as well as their site inspection practices, during the fourth permit year. No goals related to this item were planned for Permit Year 5.
Revised				
4e	Develop/modify site inspection practices	DPW/Planning/Zoning	If necessary, make recommendations for updating existing practices	During the fourth permit year, the town completed review of their construction site inspection practices. The town currently uses a consultant, Merrill Associates, who works for the Planning Board to oversee private developments. The DPW and the Conservation Commission also assist with internal site reviews. Any recommended changes to these site inspection practices were incorporated into the town's Construction Site Runoff Control Bylaw during the fifth permit year.
Revised				

#### 4a. Additions


### 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 5 (Reliance on non-municipal partners indicated, if any)
5a	Review existing bylaws and regulations	DPW/Planning/Zoning	Determine whether existing bylaws/regs are adequate	The town evaluated regulations regarding the control of post-construction stormwater runoff, including the Rules and Regulations Governing the Subdivision of Land and the Zoning Bylaws during the third permit year. No goals related to this item were planned for Permit Year 5.
Revised				
5b	Develop/modify bylaws for post-construction runoff	DPW/Planning/Zoning	If necessary, propose recommendations for bylaw updates	During the fourth permit year, the town developed a post-construction site runoff control bylaw that meets USEPA requirements and considers MA DEP Stormwater Management Policy Standard 3 (Recharge to Groundwater). After having their attorneys review the bylaw that was developed, the town distributed the bylaw to local town boards and commissions for their review. Based on input from these departments, the bylaw was revised during Permit Year 5.
Revised				
5c	Present bylaw for Town meeting action	DPW/Planning/Zoning	Make presentations for Town meeting action, if necessary	The bylaw was presented for Town Meeting action during Permit Year 5 and was adopted.
Revised				
5d	Review existing site inspection practices	DPW/Planning/Zoning	Determine whether existing practices are adequate	During the fourth permit year, the town completed review of their existing site inspection and maintenance practices. No goals related to this item were planned for Permit Year 5.
Revised				
5e	Develop/modify site inspection practices	DPW/Planning/Zoning	If necessary, make recommendations for updating existing practices	During the fourth permit year, the town completed review of their post-construction site inspection and maintenance practices. Once construction is complete, the town takes ownership of new developments, and the DPW is responsible for the maintenance and operation of stormwater controls. Any recommended changes to these site inspection practices were incorporated into the town's Post Construction Site Runoff Control Bylaw during the fifth permit year.
Revised				

#### 5a. Additions

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## 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 5 (Reliance on non-municipal partners indicated, if any)
6a	Sweep streets & clean catch basins	Department of Public Works	Sweep all town-owned streets and clean all catch basins once per year	During the fifth permit year, the Pembroke Highway Department swept all streets in town at least once. Streets adjacent to water resources were swept multiple times. The town has between 1,100 and 1,200 catch basins, all of which are cleaned on a continual basis.
Revised				
6b	Maintain filtration system at North & Indian Head Rivers	Department of Public Works	Inspect baffle tank and leaching basin, and remove sediment	During the fifth permit year, the town inspected the filtration system installed at the confluence of the North and Indian Head Rivers. At the time of inspection, it was not found to be in need of cleaning.
Revised				
6c	Train municipal employees at each facility	Department of Public Works	Target all applicable municipal facilities	During the third permit year, the town examined existing practices at municipal facilities, and trained employees at these facilities in construction methods to prevent soil erosion. In the fifth year of the permit, the town conducted continual follow-ups to ensure that employees working at these facilities are following the required stormwater management practices.
Revised				
6d	Implement items in EPA env. audit report for DPW facility	Department of Public Works	Ensure action items completed and BMPs followed	The town made changes during the first permit year to comply with this program that included prohibiting municipal vehicles from being washed outside and developing a SPCC plan. The town continued to comply with this program throughout the fifth permit year.
Revised				
6e	Retrofit catch basins around Furnace and Oldham Ponds	Department of Public Works	Install vortex separators and new piping	Those catch basins around Furnace Pond and Oldham Pond, which were retrofitted with vortex oil/water separators during the third permit year, were maintained and cleaned regularly throughout the fifth permit year.
Revised				

### 6a. Additions


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

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)</b>	
Revised					

**7a. Additions**


**7b. WLA Assessment**

▪ Fertilizers	(lbs. or %)	100%
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	
Integrated Pest Management (IPM) Practices Implemented	(y/n)	

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **  (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	38%      70%
Pre-wetting techniques utilized **	(y/n or %)	Y
Manual control spreaders used **	(y/n or %)	Y
Zero-velocity spreaders used **	(y/n or %)	Y
Estimated net reduction or increase in typical year salt/chemical application rate	(±lbs/ln mi. or %)	35%
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)	

### 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	



TOWN OF PEMBROKE  
DEPARTMENT OF PUBLIC WORKS  
100 CENTER STREET  
PEMBROKE, MASSACHUSETTS 02359  
(781) 293-5620 (781) 293-3874  
FAX (781) 293-2964

**Divisions**  
Cemetery  
Highway  
Tree  
Water

May 1, 2008

Ann Herrick, CIP  
United States Environmental Protection Agency  
1 Congress Street, Suite 1100  
Boston, Massachusetts 02114-2023

Re: National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s) Annual Report for Town of Pembroke (Permit Year 5)  
**Permit Number: MAR041054/MA DEP Transmittal Number: W035403**

Ms. Herrick:

Pursuant to the requirements of EPA's "National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems" issued May 1, 2003; the Town of Pembroke is pleased to submit the enclosed Annual Report for Permit Year 5.

If you have any questions regarding this report, please feel free to contact me.

Very truly yours,

Eugene B. Fulmine Jr.  
Director

Enclosures

cc: Edwin J. Thorne, Town Administrator  
Leah E. Stanton, P.E., Weston & Sampson