

**Municipality/Organization:** SPENCER, MASSACHUSETTS  
**EPA NPDES Permit Number:** MAR041162  
**MassDEP Transmittal Number:** W-  
**Annual Report Number & Reporting Period:** Year 8  
April 1, 2010 – March 31, 2011

## NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2011)

### Part I. General Information

Contact Person: Steven J. Tyler, P.E. Title: Superintendent

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Mailing Address: 3 Old Meadow Road, Spencer, MA 01562

#### 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: Adam D. Gaudette, AICP

Title: Town Administrator

Date: December 15, 2011

## Part II. Self-Assessment

### Spencer is improving our Public Education and Outreach

Our Hazardous Household Waste Collection day was held on September 25, 2010.

Catch Basin Stenciling in the Central Business District continues.

Illicit Discharge Detection and Elimination has been coordinated with the U&F Department.

Public service announcements and public education efforts continue.

Storm drain mapping in the Central Business District continues.

A Stormwater Bylaw Committee was formed and voters approved a Stormwater Bylaw at the May 7, 2009 Town Meeting. More detailed Stormwater Regulations have been in development by the stormwater committee since the passing of the by-law. There was a slight delay in finalizing those regulations due to key staff changes of the Conservation Agent and the Utilities and Facilities Superintendent. The Stormwater Regulations are now complete and before the Planning Board for adoption before the end of 2011.

Overall, Spencer's awareness level of Stormwater issues has risen primarily due to new staff and Bylaw Committee.

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

**1. Public Education and Outreach**

<b>BMP ID #</b>	<b>BMP Description</b>	<b>Responsible Dept./Person Name</b>	<b>Measurable Goal(s)</b>	<b>Progress on Goal(s) – Permit Year 8</b> (Reliance on non-municipal partners indicated, if any)	<b>Planned Activities – Permit Year 9</b>
Revised	Household Hazardous Waste Day	U/F Dept. Deb Graves	Annual Event	HHHW day took place Sept. 26, 2009	HHHW day scheduled for Sept. 25, 2010
Revised	Water Body Restoration	U/F Dept. Steven Tyler	On-going	Muzzy pond Cleanup Project Pond lowered for weed control & Volunteer trash cleanup day	Continue annual Muzzy pond Cleanup Activities
Revised	Catch Basin Stenciling Program	Highway Dept. Eben Butler	Complete Urbanized Area Stenciled	Urbanized area still in progress (Refresh needed on existing basins)	Started some outlying areas (Start refreshing existing basins)
Revised	Public Service Announcements	U/F Dept. Deb Graves	Develop Announcements	Develop and begin to implement program	Full implementation
Revised	Public Awareness	U/F Dept. Steven Tyler	Awards & Participation	Held our first annual National Drinking Water Week Poster Contest & Open House at Water Treatment Plant	Second annual National Drinking Water Week Poster Contest & Open House at Water Treatment Plant
Revised	Stream Name Signs	Highway Dept. Eben Butler	New signs installed	Raise awareness of our valuable water resources at high traffic areas.	Fund the project and install signs at fifteen location around Town.

**1a. Additions**

Public Awareness	ConCom Margaret Washburn	Public Access TV	Discuss Stormwater on Talk of the Town, cable access program	Discuss Stormwater on Talk of the Town, cable access program
Public Awareness	U/F Dept. Steven Tyler	Public Access TV	Continue to air “Liquid Assets” on local cable access	Continue to air “Liquid Assets” on local cable access

## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised	Cable viewers	N/A	Talk around Town	Discuss Stormwater on Talk of the Town, cable access program	Continue to discuss Stormwater issues on Talk of the Town, cable access program
Revised	Haz waste collections	U&F Dept. Steven Tyler	Collect HHHW Materials	HHHW day took place Sept. 25, 2010	HHHW day scheduled for Sept. 26, 2011
Revised	Establish Stormwater Committee	Planning Michelle Buck	Adopt Stormwater Bylaw Regulations	Adopted new Stormwater Bylaw at May 7, 2009 Town Meeting	Development of stormwater regulations including IDDE program progressing well. Anticipate local Stormwater by-law to be approved in 2011
Revised	Public attendees at draft bylaw presentations and hearings	N/A	Feedback on Draft Stormwater Bylaw Regulations	Incorporate feedback and public comments	Development of stormwater regulations including IDDE program progressing well. Anticipate local Stormwater by-law to be approved in 2011
Revised					
Revised					

## 2a. Additions


### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised	Identify and map outfalls in urban area	U/F Dept. Steven Tyler	Develop storm sewer map (ongoing w/ GIS)	Mapping in progress with catch basin cleaning	Ongoing mapping of new or newly found outfalls and storm sewers
Revised	Develop Discharge Regulations	Stormwater Committee & Planning Board	Adopt regulations	Adopted new Stormwater Bylaw at May 7, 2009 Town Meeting	Development of stormwater regulations including IDDE program progressing well. Anticipate local Stormwater by-law to be approved in 2011
Revised	Screening of Urban outfalls	Highway Dept. Eben Butler	Trace system outfalls in urban area (TV)	Complete urban areas	Identify and begin screening outlying areas
Revised	Smoke Testing Sewer Mains	Sewer Dept. Mark Robidoux	Trace illegal sewer connections in urban area	Additional lines to be tested as part of programmed roadway improvements	Additional lines to be tested as part of programmed roadway improvements
Revised					
Revised					

### 3a. Additions

	Smoke Testing of Urban Outfalls	Highway Dept. Eben Butler	Trace illegal sewer connections in urban area & locate unknown outfalls	Smoked Grove Street, Elm Street, North Brookfield Road, Northwest Road, and Maple Street locations	Additional lines to be tested as part of programmed roadway improvements

**4. Construction Site Stormwater Runoff Control**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised	Develop Construction Site Stormwater Runoff Control Regulations	Stormwater Committee & Planning Board	Adopt regulations	Adopted new Stormwater Bylaw at May 7, 2009 Town Meeting	Development of regulations including IDDE program
Revised	Site Inspections	ConCom Margaret Washburn	Identifying and Tracking Violations	Violations identified and tracked until resolved	Continue Identifying and Tracking Violations
Revised					
Revised					
Revised					
Revised					
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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised	Develop Post-Construction Stormwater Management Regulations	Stormwater Committee & Planning Board	Prepare Draft	Adoption of new Stormwater Bylaw at May 7, 2009 Town Meeting & development of regulations	Development of stormwater regulations including IDDE program progressing well. Anticipate local Stormwater by-law to be approved in 2011
Revised	Site Inspections	ConCom Margaret Washburn	Identifying and Tracking Violations	Violations identified and tracked until resolved	Continue Identifying and Tracking Violations
Revised					
Revised					
Revised					
Revised					
Revised					

**5a. Additions**


## 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 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised	Catch basin and outfall cleaning	HWY Dept. Eben Butler Ray Holmes	Clean each structure twice a year (min.); maintain log of conditions, etc.	Completed annual catch basin program; updated maps and records	Ongoing Program
Revised	Street Sweeping	HWY Dept. Eben Butler Kevin Simonovitch	Main Street weekly; urban area monthly; complete town annually	Completed annual street sweeping program	Ongoing Program
Revised	Minimize salt and sand use & exposure	Highway Dept. Eben Butler	Monitor salt and sand use – cover pile off season	Developing expectations & train staff; cover pile in the off season	Maintain expectations & continue training; investigate adding a new salt shed
Revised	Close police firing range at Town well site	U/F Dept. Steven Tyler	Keep Range Closed	Keep Range Closed	Keep Range Closed
Revised					
Revised					

### 6a. Additions

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

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 8 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 9
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions


7b. WLA Assessment

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

Some storm drain systems have been TV'd to establish information prior to replacement (Grove Street, Maple Street, Highland Street, Wilson Street)

Sewer main (Elm Street) was smoke tested; illicit connections were identified and are in the process of being disconnected.

Catch basin maintenance records updated and added to were appropriate.

Outfall mapping updated. GIS/CADD conversion of storm drain info planned to be continued for 2011.

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

(Since beginning of permit coverage unless specified otherwise by a \*\*, which indicates response is for period covering April 1, 2009 through March 31, 2010)

**Programmatic**

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	Yes (Committee)
Annual program budget/expenditures **	(\$)	±\$20,000
Total program expenditures since beginning of permit coverage	(\$)	±\$120,000
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 %)	5,000
Stormwater management committee established	(y/n)	Yes
Stream teams established or supported	(# or y/n)	Yes
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	1 mi
Shoreline cleaned since beginning of permit coverage	(mi.)	5 mi.
Household Hazardous Waste Collection Days		
<ul style="list-style-type: none"> <li>▪ days sponsored **</li> <li>▪ community participation **</li> <li>▪ material collected **</li> </ul>	(#) (# or %) (tons or gal)	1 21 13.5 gals

School curricula implemented	(y/n)	yes
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### Legal/Regulatory

Regulatory Mechanism Status (indicate with "X")	In Place Prior to Phase II	Reviewing Existing Authorities	Drafted	Draft in Review	Adopted
<ul style="list-style-type: none"> <li>▪ Illicit Discharge Detection &amp; Elimination</li> <li>▪ Erosion &amp; Sediment Control</li> <li>▪ Post-Development Stormwater Management</li> </ul>					X X X
Accompanying Regulation Status (indicate with "X")					
<ul style="list-style-type: none"> <li>▪ Illicit Discharge Detection &amp; Elimination</li> <li>▪ Erosion &amp; Sediment Control</li> <li>▪ Post-Development Stormwater Management</li> </ul>			X		X X X

### Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	75%
Estimated or actual number of outfalls	(#)	100
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	75%
Mapping method(s)		
▪ Paper/Mylar	(%)	90%
▪ CADD	(%)	5%
▪ GIS	(%)	5%
Outfalls inspected/screened **	(# or %)	50%
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	100%
Illicit discharges identified **	(#)	2
Illicit discharges identified (Since beginning of permit coverage)	(#)	2
Illicit connections removed **	(#); and (est. gpd)	1; (gpd unknown)
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	2; (gpd unknown)

% of population on sewer	(%)	50%
% of population on septic systems	(%)	50%

### Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	3
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	81
Tickets/Stop work orders issued **	(# or %)	2
Fines collected **	(# and \$)	N/A
Complaints/concerns received from public **	(#)	3

### Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections (for proper BMP installation & operation) completed **	(# or %)	9
BMP maintenance required through covenants, escrow, deed restrictions, etc.	(y/n)	YES
Low-impact development (LID) practices permitted and encouraged	(y/n)	YES

### Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	2 times/year
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2 times/year
Qty of structures cleaned **	(#)	±1,000
Qty. of storm drain cleaned **	(%, LF or mi.)	±1,500 lf
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	10 tons
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	\$20,000
• 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)	No
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vacor **	(%)	0%

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	1 time/year
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	4 times/year
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	±2,000 tons
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Landfill
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	20,000
• Hourly or lane mile contract rate **	(\$/hr. or In mi.)	
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	1
• Vacuum street sweepers owned/leased	(#)	0
• Vacuum street sweepers specified in contracts	(y/n)	No
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	0%

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 %)	50%

▪ Pesticides	(lbs. or %)	50%
Integrated Pest Management (IPM) Practices Implemented	(y/n)	No

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used **	% NaCl	
(also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	% CaCl <sub>2</sub>	25%
	% MgCl <sub>2</sub>	
	% CMA	
	% Kac	
	% KCl	
	% Sand	75%
Pre-wetting techniques utilized **	(y/n or %)	Yes
Manual control spreaders used **	(y/n or %)	Yes 90%
Zero-velocity spreaders used **	(y/n or %)	No
Estimated net reduction or increase in typical year salt/chemical application rate **	(±lbs/ln mi. or %)	5% increase
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	5% decrease
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100%
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 2009	(y/n)	Yes

### Water Supply Protection

Storm water outfalls to public water supplies eliminated or relocated	# or y/n	0
Installed or planned treatment BMPs for public drinking water supplies and their protection areas	# or y/n	Yes
• Treatment units induce infiltration within 500-feet of a wellhead protection area	# or y/n	Yes