

Municipality/Organization: Town of Stoughton, Massachusetts

EPA NPDES Permit Number: MAR041063

MassDEP Transmittal Number: W-

Annual Report Number

& Reporting Period:

April 1, 2006 – March 31, 2007

JUN - 6 2007

NPDES PII Small MS4 General Permit Annual Report (Due: May 1, 2007)

Part I. General Information

Contact Person: James E. Miller, PE, PLS

Title: Town Engineer

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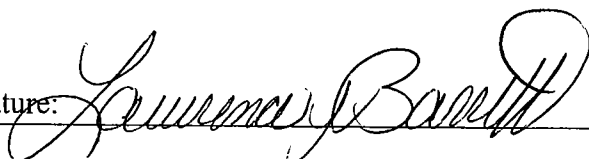
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Certification:

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: Lawrence J. Barrett

Title: Superintendent of Public Works

Date: May 15, 2007

Part II. Self-Assessment

In 2006, year 4 of the NPDES program, Stoughton made progress in Illicit Discharge Detection and Elimination, runoff control, and a townwide mapping project. A Stormwater Management By-Law was passed, and a revolving fund was established to fund maintenance and improvements to the MS4.

Due to a reduction in staff in the Engineering Department, the Public Education and Outreach Program did not achieve its measurable goals. In this report, we have modified these goals so that they are less labor intensive.

Notice of Intent Section 1 – Public Education and Outreach – BMP’s # 2, 4

The Public Education and Outreach effort included two tasks involving school students. A class at the junior high school was conducted to introduce students to stormwater pollution. It is planned to change the classroom instruction to a presentation that can be made to an assembly at each of the schools. Also, in place of producing a video, there are two local cable television shows which will be contacted to present the program in a discussion format. These changes should allow us to reach more people in a shorter time. Also, the Stoughton youth commission has indicated that they will assist with stenciling.

Notice of Intent Section 3 - Illicit Discharge Detection and Elimination - BMP’s # 9, 10:

The Illicit Discharge Detection and Elimination effort begins with mapping the existing drainage system. At this time, a full time GIS coordinator has been hired with a primary responsibility of inputting drainage mapping information. In 2007, a mapping program will begin with available funding, using a local surveying firm to perform the mapping. It is planned to do one half of the mapping during the summer of 2007, and complete it in fall and winter using money in the revolving fund.

While no testing has been performed, we know that our drainage system and streams and waterways are subjected to a great deal of sedimentation. Steps are being taken to clean drains and eliminate sediment sources. Several of these projects were completed. Street sweeping is being conducted continuously as time permits, and the Public Works Department’s use of Ice Ban chemical has significantly reduced road sand as a pollutant.

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
1 Revised	Classroom education- Modified to Assemblies	Eng. Bdept.	Make presentation to Elem & Mid. Schools		Perform in Sep-Dec., 2007, Jan-Feb. 2008
2 Revised	Prepare video Modified to TV appearance	Eng. Dept.	Hold 2 TV forums		Hold one forum in summer 2007 One forum in Sep-Dec. 2007
3. Revised	CB Stencils	PWD	Watershed ID	Ongoing	Utilize youth commission to perform stenciling
4. Revised	Create flyers and pamphlets	Eng. Dept.	Distribute in fall water bills		Utilize suggestions from NPDES Web Site, install posters in public buildings
Revised					
Revised					

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
5. Revised	Create Stormwater Committee	Selectmen	Create Committee	Complete- began regular meeting schedule	Continue meetings
6 Revised	Review NOI	SW Committee	Mission statement		Hold progress meetings & issue Report to Town Mgr. & Selectmen
7 Revised	Create Technical Committee	SW Committee		Town Meeting Article Passed	Continue Education/Enforcement
8 Revised	Tech Comm. Rules/Regs.	Tech. Comm.			Publish rules pamphlet
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
9.	Map Exist. Drainage	Eng. Dept.	Collect Data	Hired GIS Coordinator Prepared RFP, identified funding for mapping ½ of Town, performed survey of Charles Circle. area.	Map ½ of Town by Sep. 2007 Map 2'd half of Town by Feb. 2008
Revised					
10.	GIS Software Application	Eng. Dept.	Create Map & System Model	Hired GIS Coordinator-some data entry From existing plans completed	Complete Map by Feb. 2008
Revised					
11.	CCTV Inspection	Public Works Dept.	All drains inspected	Replaced failed drainage on Ross Ave. Cleaned sediment from Red Wing Brook (York St. Area)	Continue inspection and correct problems. Reduce sediment in Red Wing Brk.
Revised					
					Eliminate sediment and replace drains on West St.
12	IDDE By-Law	Eng. Dept.	By-Law Adopted	Complete	On-going identification and elimination. Notify businesses and Industry to conduct self evaluation
Revised					
13	Perform Testing	Eng. Dept.	Establish data inventory		Develop forms, receive reports from Self evaluations
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
14	Town Stand. BMP's	TC/Eng. Dept.	Publish Standards	Applied to new development under site plan review By-Law. Ikea, Target, Page Place	Continue application
Revised					
15	Stormwater Management measures	SW & Tech. Committee	Required by Site plan Review and Cons. Comm	By-Law approved at Town Meeting Several enforcement orders issued by Conserv. Comm.	Require permits for new const., Continue enforcement
Revised					
16	TC creates erosionc guidelines	TC	Published standards	By-Law Approved at Town Meeting	Hold information meetings with developers, enforce standards
Revised					
17	Enforcement of guidelines		Eng. Dept.	Enforcement orders issued, fines imposed	Continue enforcement
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
18 Revised	Educate appointed boards	Tech. Committee	Hold informational meetings with boards	By-Law approved	Meet with Planning bd., Board of Appeals, Board of Health, Selectmen
19 Revised	Draft changes	St. Wtr. Committee	Approve By-Law	Complete	
20 Revised	Review By-Law Impacts	St. Wtr. Comm.	Evaluate effectiveness		Prepare reports of current projects at end of construction, and 6 monts follow-up.
21 Revised	Require Deed Restrictions	Boards		Enforced by Board of Appeals	Continue enforcement
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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
22	Catch Basin Cleaning	Pub. Wks. Dept.	Clean all basins annually	complete	Continue cleaning, replace selected problems with oil separators and/or deep sump basins
Revised					
23	Street Sweeping	Pub. Wks. Dept.	Sweep all streets twice annually	complete	Continue twice annual standard, increase when possible
Revised					
24	Erosion Control	Eng. Dept.	Inspect all construction & enforce standards	complete	continue
Revised					
25	Haz Mat Storage	Pub. Wks., Fire Dept., Board of Health	Perform inspections, reports, practice measures in-house	Fire Dept. Licenses all business handling HazMat. Board of Health enforces Aquifer Prot. By-Law. New Public Works Garage exceeds atandards	Continue
Revised					
26	Pub. Wks. Permit	Pub. Wks., Fire	No exposure rating	met	Continue
Revised					
Revised					

6a. Additions

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 4 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 5
27 Revised	ID MS4 Outlets	Eng. Dept.	Map Locations	Began entering subdivision as-built data into GIS Data Base	Complete town wide mapping and produce map
28 Revised	ID Pollutants	Eng. Dept.	Test outfalls	Not begun	Begin testing known outfall locations, remove sediment when discovered- begin in industrial areas
29 Revised	ID Point Sources <i>Also includes old BMP 30 - mitigation</i>	Eng. Dept.	Eliminate source	Not begun	Notify owners of any source found, use enforcement measures in By-Law to eliminate source
31 Revised	Draft SW Action Plan	SW Committee	Complete 10 year plan	Established revolving fund, passed by-law, enforced erosion control, completed several improvement projects	Complete plan and submit for approval
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

The town wide mapping segment of Stoughton's permit is the most challenging to complete. The initial steps have been taken to bring this to conclusion, with partial funding and effort to retain a consultant, and hiring a GIS mapping specialist. Public education/outreach has been evaluated and modified to expedite the process. Several drainage improvement projects were begun or completed which will reduce sedimentation. A Stormwater Management By-Law was approved at the 2006 Town Meeting. The Public Works Department has expanded its street sweeping program, and is using new technology (Ice Ban) to reduce sedimentation. The Conservation Commission has been enforcing the erosion/sediment portion of the by-law. In 2007, enforcement will expand to the Planning, Zoning, and Health Boards.

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, 2006 through March 31, 2007)

Programmatic

	(Preferred Units)	Response
Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures **	(\$)	\$50,000 for 06-07
Total program expenditures since beginning of permit coverage	(\$)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		Revolving

Education, Involvement, and Training

Estimated number of property owners reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned **	(y/n or mi.)	
Shoreline cleaned since beginning of permit coverage	(mi.)	
Household Hazardous Waste Collection Days		

▪ days sponsored **	(#)	
▪ community participation **	(# or %)	
▪ material collected **	(tons or gal)	
School curricula implemented	(y/n)	

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

Mapping and Illicit Discharges

	(Preferred Units)	Response
Outfall mapping complete	(%)	5%
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete (complete storm sewer infrastructure)	(%)	30%
Mapping method(s)		
▪ Paper/Mylar	(%)	30%
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened **	(# or %)	5
Outfalls inspected/screened (Since beginning of permit coverage)	(# or %)	21
Illicit discharges identified **	(#)	
Illicit discharges identified (Since beginning of permit coverage)	(#)	

Illicit connections removed	(#); and (est. gpd)	Not detected
Illicit connections removed (Since beginning of permit coverage)	(#); and (est. gpd)	Not detected
% of population on sewer	(%)	64%
% of population on septic systems	(%)	36%

Construction

	(Preferred Units)	Response
Number of construction starts (>1-acre) **	(#)	0 for 2006
Estimated percentage of construction starts adequately regulated for erosion and sediment control **	(%)	100%
Site inspections completed **	(# or %)	100%
Tickets/Stop work orders issued **	(# or %)	4
Fines collected **	(# and \$)	1-\$5,500.00
Complaints/concerns received from public **	(#)	17

Post-Development Stormwater Management

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

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets) **	(times/yr)	2
Average frequency of catch basin cleaning (commercial/arterial or other critical streets) **	(times/yr)	2
Qty of structures cleaned **	(#)	App. 2,500

Qty. of storm drain cleaned **	(%, LF or mi.)	100%
Qty. of screenings/debris removed from storm sewer infrastructure **	(lbs. or tons)	See below
Disposal or use of screenings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Presently stockpiled, waiting for testing – qty will be determined when disposal takes place at Carney Bros. Landfill

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or per basin contract rate **	(\$/hr or \$ per basin)	\$78.51
• Disposal cost**	(\$)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	1-owned
• Vacuum truck(s) owned/leased	(#)	none
• Vacuum trucks specified in contracts	(y/n)	none
• % Structures cleaned with clam shells **	(%)	100%
• % Structures cleaned with vactor **	(%)	0

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	2
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	438 Ton
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	Rear 1740 Central St.
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	(\$)	
• Hourly or lane mile contract rate **	(\$/hr. or ln mi.)	\$84.20/Ln mi
• Disposal cost**	(\$)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	2- owned
• Vacuum street sweepers owned/leased	(#)	None
• Vacuum street sweepers specified in contracts	(y/n)	N/a
• % Roads swept with rotary brush sweepers **	%	100%
• % Roads swept with vacuum sweepers **	%	N/a

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

	(Preferred Units)	Response
Average Ratio of Anti-/De-Icing products used ** (also identify chemicals and ratios used in specific areas, e.g., water supply protection areas)	%NaCl %CaCl ₂ %MgCl ₂ %CMA %Kac %KCL %Sand %Ice Ban	50% 0% 0% 0% 0% 0% 25% 25%
Pre-wetting techniques utilized **	(y/n or %)	Y
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 %)	+25% (Ice Ban)
Estimated net reduction or increase in typical year sand application rate **	(±lbs/ln mi. or %)	-25%
% of salt/chemical pile(s) covered in storage shed(s)	(%)	100
Storage shed(s) in design or under construction	(y/n or #)	N
100% of salt/chemical pile(s) covered in storage shed(s) by May 2008	(y/n)	Y

Water Supply Protection

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