Municipality/Organization: **Town of Stoughton, Massachusetts**

EPA NPDES Permit Number: MAR041063

MassDEP Transmittal Number: **W-035130**

Annual Report Number & Reporting Period: **April 1, 2007 – March 31, 2008**

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

Part I. General Information

Contact Person: Lawrence Barrett\ Title: Superintendent of Public Works

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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: Lawrence J. Barrett

Printed Name: Lawrence Barrett

Title: Superintendent of Public Works

Date:

Part II. Self-Assessment

Due to a reduction in Engineering Department Staff during the Year 5 Permit Term, the Town of Stoughton was unable to achieve some measurable goals. However, significant effort was made to modify measurable goals to achieve compliance with the requirements of the General Permit utilizing available resources.

Significant progress has been made under Minimum Control Measure #3 – Illicit Discharge Detection and Elimination. The town has completed mapping of outfalls and receiving waters and has performed outfall screening at all locations collecting data on outfall type, presence of flow and flow characteristics.

Modifications to the measurable goals for each BMP is shown in the "Summary of Minimum Control Measures" in Part III of this Report.

Part III. Summary of Minimum Control Measures

TOWN OF STOUGHTON, MASSACHUSETTS
NPDES Stormwater General Permit

BMP ID #	Best Management Practice	Responsible Person / Department	Measurable Goal	Modified Measurable Goal	Duration	Progress on Goal(s) - Permit Year Five
1. Public Education and Outreach						
1-1	Classroom Education (Modified to Assemblies in Year 4)	Engineering Department	Make presentation to Elementary & Middle Schools	For Year 5, provide educational material to schools; coordinate with school superintendent.	Permit Term	Presentations were made to Middle Schools during Years 2 and 3. In Year 5, the Engineering Department provided schools with stormwater materials to incorporate into curriculum.
1-2	Prepare Stormwater Video (Modified to TV appearance Year 4)	Engineering. Department, High School Students	Production of video for local access cable	Stormwater Video "After the Storm" aired on local cable access television.	Year 1	Two appearances in stormwater forums held (summer 2007, one in fall 2007); "After the Storm" aired on local cable access television in spring 2008.
1-3	Stencil specified storm drains	Public Works Department	Identify individual watersheds		Years 1-3	Catch Basins stenciled (Years 2-4); Complete. Stencils checked and re-painted during Year 5.
1-4	Create Stormwater Fliers	Engineering Department	Delivery of fliers to residents	Install stormwater posters and brochures in public buildings.	Year 3	Installed stormwater posters in Town Hall; stormwater brochures made available at Town Hall and Library.
2. Public Involvement and Participation						
2-5	Create Stormwater Committee	Selectmen	Creation of Stormwater Committee/public meetings		Year 1	Created Stormwater Committee (Year 2) consisting of members of DPW, Engineering and Conservation Commission departments. Major focus to identify stormwater-related problem areas in town and develop game plan for correcting problems. Regular meetings held throughout Year 5.
2-6	Review NOI	Stormwater Committee	Stormwater goals prioritized and published		Year 1	Technical Committee Mission Statement (Year 2); Complete.
2-7	Stormwater Committee creates Technical Committee	Stormwater Committee	Technical Committee meetings		Year 2	Creation of Committee (Year 2), Town Meeting Article passed (Year 4); Complete.
2-8	Technical Committee Rules and Regulations	Technical Committee	Publication of Rules and Regulations		Years 2-3	HAZMAT and Stormwater Bylaws are published in "Code of Town of Stoughton" and are available on the town's website.
NEW	Household Hazardous Waste Day	Department of Public Works	Hold two household hazardous waste collection days per year		Permit Term	Held household hazardous waste days in April and October 2007.
NEW	Public Hearing/Meetings Posted	Town Manager/Board of Selectmen	Information on public meetings/hearings posted in accordance with MGL Section 23B		Permit Term	Public meeting information has been posted in accordance with MGL Section 23B.
NEW	Ames Pond Citizens Committee	Conservation Commission	Form committee to increase awareness and support to restore Ames Long Pond		Year 5	Committee formed to increase awareness of nutrient problems at Ames Pond. Information published on Town website.

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BMP ID #	Best Management Practice	Responsible Person / Department	Measurable Goal	Modified Measurable Goal	Duration	Progress on Goal(s) - Permit Year Five
3. Illicit Discharge Detection and Elimination						
3-9	Map existing drain facilities in Stoughton	Engineering Department	Final system map	Map outfalls and receiving waters	Years 1-3	During Year 5, all outfalls were located with coordinates captured using Geographic Positioning. The data has been incorporated into the Town-wide GIS to form a stormwater data layer.
3-10	Create software application for flow direction determination	Engineering Department	Model existing system	Begin mapping outfalls and generate stormwater datalayer for Town-wide GIS; research drainage system modeling options	Years 3-4	Hired GIS Coordinator- some data entry from existing plans completed (Year 4). Researched purchase of prepared stormwater system modeling software.
3-11	Perform closed circuit TV inspection of suspect areas	Public Works Department	All drains inspected	Inspect and correction of problem areas	Years 2-5	Drains Inspected (Years 2-3), Replaced failed drainage on Ross Avenue. Cleaned sediment from Red Wing Brook (York Street Area) (Year 4). Work performed in 2007 (Year 5): South Street culvert repair, Gay Street equalization pipe, School Street equalization pipe, replaced drains on West Street.
3-12	Create Illicit Connection By-law	Engineering Department	Stormwater By-law passed at Annual Town Meeting		Years 3-4	Illicit Discharge Detection and Elimination By-law adopted (Year 4).
3-13	Perform Testing	Engineering Department/ Board of Health	Ongoing inventory of data	Provide targeted information regarding proper hazardous waste material disposal directly to local businesses; ensure compliance with local HAZMAT regulation	Years 2-5	Provided brochures from Northeast Waste Management to local businesses, auto body shops, etc.; all related businesses are regulated by the town's HAZMAT bylaw with oversight by Board of Health.
NEW	Outfall Screening	Engineering Department	Perform inspection of known outfalls		Year 5	During GPS of outfall structures, collected data to create comprehensive database on outfalls. Data collected included structure type/material, presence of dry weather flow, flow characteristics, presence of sediment, etc. Developed listing of outfalls requiring further investigation regarding the potential for illicit discharges.
NEW	Draft Stormwater Action Plan	Stormwater Commission and Engineering Department	10 Year Plan for Stormwater Management	**Formerly Item 7-31**	Year 4	Established revolving fund, passed by-law, enforced erosion control, completed several improvement projects (Year 4)
4. Construction Site Runoff Control						
4-14	Selection of Town standard BMP's	Technical Committee/Engineering Department	Publish standards		Year 3	Published standards (Year 3), Applied to new development under site plan review By-law. Ikea, Target, Page Place (Year 4); Complete.
4-15	Selection of Stormwater Management Measures	Technical Committee and Stormwater Committee	Enforced during all construction		Year 3	Enforced during all construction by Conservation Committee (Years 2-3), Bylaw Approved at Town Meeting and several orders issued by Conservation Committee (Year 4). Permits are required for new construction. Complete.
4-16	Technical Committee Creates Stormwater Erosion Guidelines	Technical Committee	Publish guidelines		Year 2	Published standards (Years 2-3), By-law approved at Town Meeting (Year 4); Complete.
4-17	Enforcement of Guidelines	Engineering Department/Conservation Commission	Enforced during all construction		Years 4-5	Enforced during all construction by Conservation Commission (Years 2-3), Enforcement orders issued, fines imposed (Year 5); Complete.

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BMP ID #	Best Management Practice	Responsible Person / Department	Measurable Goal	Modified Measurable Goal	Duration	Progress on Goal(s) - Permit Year Five
5. Post Construction Runoff Control						
5-18	Technical Committee to educate Plan Board & ZBA	Technical Committee	Identify needed changes in existing Rules and Regulations/By laws		Year 4	Town Meeting Article pending (Year 3), By-law approved (Year 3); Complete.
5-19	Draft required changes	Stormwater Committee	Creation of new By-laws		Year 4	By-law approved (Year 3); Complete.
5-20	Ongoing Review of Stormwater Impact	Stormwater Committee	Each project to be reviewed prior to construction		Year 5	Engineering staff on Stormwater Committee participate in comprehensive development site plan review prior to project approval.
5-21	Require deed restrictions	Boards	Ensure long term maintenance by property owner		Years 4-5	All new site development in Stoughton requires post construction stormwater management with Operation & Maintenance Manuals submitted prior to project approval.
6. Municipal Good Housekeeping						
6-22	Catch Basin Cleaning	Public Works Department	Prevent Total Suspended Solids discharge		Permit Term	All catch basins in the Urbanized Area have been cleaned in the past year; some more frequently based on need.
6-23	Regular Street Sweeping	Public Works Department	Prevent Total Suspended Solids buildup in catch basins, road		Permit Term	All streets are swept twice per year (Spring and Fall). Problem areas are swept more frequently.
6-24	Erosion and sediment control for all projects in Town	Engineering Department	Prevent Total Suspended Solids migration to street surfaces		Permit Term	All construction is inspected for erosion and sediment control.
6-25	Inside storage of Hazardous Materials	Public Works Department, Fire Department, Board of Health	No hazardous material leaks/spills		Permit Term	No leaks or spills during Year 5. Fire Department licenses all business handling hazardous materials. Board of Health enforces Aquifer Protection By-law. New Public Works Garage exceeds standards; has fully updated SPCC plan which is adhered to. All hazardous materials are stored inside.
6-26	Obtain "No exposure" rating from EPA for Multi-Sector General Permit sites (MSGP)	Public Works Department, Fire Department	Obtain "no exposure" rating from EPA		Permit Term	"No exposure" rating obtained.
NEW	Pesticide-free landscaping practices	Conservation Commission	Require pesticide-free landscaping practices as special requirement in Orders of Conditions		Permit Term	Require pesticide-free landscaping practices as special requirement in Orders of Conditions.
NEW	Municipal Employee Training	Department of Public Works	Provide two training sessions to Municipal employees		Year 5	Conducted two training sessions for municipal employees. Topics included NPDES Phase II Stormwater program requirements, the Town's stormwater management plan, illicit discharge detection and elimination and good housekeeping practices. Aired video "After the Storm" for all employees at Town Hall.

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BMP ID #	Best Management Practice	Responsible Person / Department	Measurable Goal	Modified Measurable Goal	Duration	Progress on Goal(s) - Permit Year Five
7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)						
7-27	ID All MS4 outfalls	Engineering Department	All outfalls Identified on map		Years 1-3	All stormwater outfalls have been located and incorporated into a layer on the Town-Wide GIS.
7-28	ID MS4 Pollutants	Engineering Department	All outfalls tested	Begin screening outfalls for data inventory, outfall condition, dry weather flow and flow characteristics.	Years 3-5	All outfall structures have been screened to collect data to create comprehensive database on outfalls. Data collected included structure type/material, presence of dry weather flow, flow characteristics, presence of sediment, etc. Developed listing of outfalls requiring further investigation regarding the potential for illicit discharges
7-29	Find source of pollutant loading	Engineering Department	All pollutants notated are sourced	Monitor state listing of impaired waters, adjust stormwater management plan accordingly.	Years 4-5	There are currently no established TMDLs for receiving waters within the Town of Stoughton.
7-30	Mitigate pollutant loading	Technical Committee and Stormwater Committee	Stop pollutant loading at source	Monitor state listing of impaired waters, adjust stormwater management plan accordingly.	Year 5	There are currently no established TMDLs for receiving waters within the Town of Stoughton.
7-31	*Draft Stormwater Action Plan*	*Stormwater Commission and Engineering Department*	*10 Year Plan for Stormwater Management*	***Moved to MCM #3 - Illicit Discharge Detection & Elimination***	*Year 4*	*Established revolving fund, passed by-law, enforced erosion control, completed several improvement projects (Year 4)*

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Part IV. Summary of Information Collected and Analyzed

The town has performed outfall mapping and screening of outfalls for the presence of dry weather flow, and to create a database of outfall information. The town also interacts regularly with the Neponset River and Taunton River Watershed Associations for a mutual exchange of information regarding outfall and receiving water sampling data.

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 **	($)	
Total program expenditures since beginning of permit coverage	($)	
Funding mechanism(s) (General Fund, Enterprise, Utility, etc)		

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					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					
Accompanying Regulation Status (indicate with "**X**")					
▪ Illicit Discharge Detection & Elimination					
▪ Erosion & Sediment Control					
▪ Post-Development Stormwater Management					

Mapping and Illicit Discharges

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

Construction

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

Post-Development Stormwater Management

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

Operations and Maintenance

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

Basin Cleaning Costs		
• Annual budget/expenditure (labor & equipment)**	($)	
• Hourly or per basin contract rate **	($/hr or $ per basin)	
• Disposal cost**	($)	
Cleaning Equipment		
• Clam shell truck(s) owned/leased	(#)	
• Vacuum truck(s) owned/leased	(#)	
• Vacuum trucks specified in contracts	(y/n)	
• % Structures cleaned with clam shells **	(%)	
• % Structures cleaned with vactor **	(%)	

	(Preferred Units)	Response
Average frequency of street sweeping (non-commercial/non-arterial streets) **	(times/yr)	
Average frequency of street sweeping (commercial/arterial or other critical streets) **	(times/yr)	
Qty. of sand/debris collected by sweeping **	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.) **	(location)	
Annual Sweeping Costs		
• Annual budget/expenditure (labor & equipment)**	($)	
• Hourly or lane mile contract rate **	($/hr. or ln mi.)	
• Disposal cost**	($)	
Sweeping Equipment		
• Rotary brush street sweepers owned/leased	(#)	
• Vacuum street sweepers owned/leased	(#)	
• Vacuum street sweepers specified in contracts	(y/n)	
• % Roads swept with rotary brush sweepers **	%	
• % Roads swept with vacuum sweepers **	%	

Reduction (since beginning of permit coverage) in application on public land of: ("N/A" = never used; "100%" = elimination)

▪ Fertilizers	(lbs. or %)	
▪ 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 % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized **	(y/n or %)	
Manual control spreaders used **	(y/n or %)	
Zero-velocity spreaders used **	(y/n or %)	
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)	(%)	
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	