Municipality/Organization: **Town of Sharon, MA**

EPA NPDES Permit Number: **MA041061**

MaDEP Transmittal Number: **W-040625**

Annual Report Number & Reporting Period: **No. 1: March 04-March 05**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Peter O'Cain Title: Assistant Town Engineer

Telephone #: (781)784-1525, ext 16 Email: sharondpw@yahoo.com

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: Walter B. Roach

Printed Name: Walter B. Roach

Title: Chair, Board of Selectmen, Town of Sharon, MA

Date: 4/20/05

Part II. Self-Assessment

The Town of Sharon, Massachusetts has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, **except the following**:

1) BMP 1, 1.5: Tributary signage has not yet been installed. The signage should be installed in year 2.

2) BMP 2.7: Stenciling of storm drains has not begun and was supposed to have been done in the summer of 2004. Our goal is to get volunteers this year to accomplish this goal.

3) BMP 2.8: The community clean-up was not accomplished last year but we are working on a clean-up for this year. We had a very low response to our request for stormwater volunteers (1 resident). Requests for volunteers included a year of local cable advertising, mailing of 5000 brochures in water bills and two web pages on the Town website www.townofsharon.net.

4) BMP 2.10: Adopt a drain program has not proceeded due to a lack of volunteer turnout but the DPW is having our catch basin cleaning consultant identify drains with a level of sedimentation and drains with illicit connections. The drains identified as being high in sedimentation can then be cleaned on a more frequent schedule.

5) BMP 6.25: A Municipal Operation and Maintenance plan has not yet been written, due to a limit of time and manpower. The vehicle wash building that has been constructed has required many hours of work and manpower and has diverted manpower from other areas of the Stormwater Management Plan.

ITEMS ADDED:

1) A Stormwater webpage was created in two places on the townofsharon.net website. The Public Works Department and Water Department both have a page that describes things residents can do to improve water quality and minimize pollution.

2) The Town of Sharon has constructed a recycled wash water vehicle wash building. The Town spent over $100,000 on the building and associated wash system apparatus. The building should be operational by Fall 2005.

MAJOR SUCCESSES

1) The Town of Sharon has adopted an "*Illicit Discharge General By-Law*" that requires any resident with a home that is connected directly to the storm drain system to file an application and receive a permit from the Board of Selectmen. The by-law includes fines for not obtaining a permit if connected, a fine for illegal dumping and a fine for maintaining an illegal connection after detection by the Town. The Board of Selectmen have been given the power to mandate removal of an illicit

connection and clean-up of damage caused by an illicit connection (see attached by-law).

2) The Town of Sharon has adopted the "Stormwater Discharges Generated by Construction Activity By-Law" that requires a developer to file a Stormwater Pollution Prevention Plan for work that disturbs more than one acre of land. The SWWP must include: A) A plan to control wastes generated by the Construction Activity on the Construction site and B) An Erosion and Sedimentation Control Plan C) A plan to construct Storm Water Management Measures and D) A plan for Operation and Maintenance of Storm Water Mamagement Measures (see attached by-law). The by-law requires the maintenance of a bond to cover costs associated with the implementation of the SWWP and the permit provides the Town with enforcement rights regarding failure to adhere to the SWWP.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1.1	Design and distribute S/W Educational Brochures	Assistant Town Engineer: Peter O'Cain David Masciarelli	Mailing List of homes contacted.	Stormwater informational brochures now on Town website in the Water department section and the Public Works section. "What can you do to improve water quality."	Send out Brochures again.
Revised					
1.2	Recruit volunteers from mailing	Greg Meister: Conservation Agent	We have recruited only one stormwater volunteer to date. Con-Com is currently working on attracting more volunteers	Peter O'Cain was interviewed on public television regarding the stormwater management plan and volunteers were asked to call our hotline in the brochures, in the interview and on community bulletin board postings on Sharon Public Television	Continue television recruiting and await response from water bill brochures. Work with the conservation Commission and "Friends of Conservation" group to recruit stormwater volunteers.
Revised					
1.3	Create Stormwater Hotline	Greg Meister	Done	We Continue to maintain the Stormwater hotline	Continue to maintain Stormwater hotline
Revised					
1.4	Educate students	Teachers, conservation agent	Unknown	Peter O'Cain posted notices on community Television regarding "stormwater TV" programs on the Weather Channel, which included air dates. Working with schools on education plan.	Work with Peter Nichol at Sharon High School and work with School Superintendent Claire Jackson on implementing Stormwater awareness program.
Revised					
1.5	Create tributary signage	Bill Petipas: Highway Supervisor	Signs being made	Signs have yet to be posted but are currently being made and will be installed in the next few weeks.	Signs should be installed by this time.
Revised					
Revised					

1a. Additions

1.6	Develop Stormwater web site	Peter O'Cain: Assistant Town Engineer	Add a stormwater page to town's existing web site by spring 05	Stormwater page is part of the DPW main page on www.townofsharon.net /Boards and Committees/Public Works (or water dept.)/Things you can do to improve water quality.	Maintain and edit website

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
2.6	Encourage public participation through adverts and brochures	Peter O'Cain Dave Masciarelli	Make 5000 brochures and send out in water bills	Done – brochure now on Town website	None at this time but to maintain website and include notice on Town's cable TV station.
Revised					
2.7	Stencil storm drains	Volunteers/ highway Dept.	Stencil of town's catch basins that feed impaired waterways	Planning has begun but will begin stenciling in summer of 05.	Continue program as needed.
Revised					
2.8	Organize Community clean-ups of tributaries.	Greg Meister	At least one clean-up per year.	None to date.	Continue program.
Revised					
2.9	Residents assist with by-law enforcement.	Volunteers Peter O'Cain	Residents report violations.	No reports to date.	Continue program.
Revised					
2.10	Initiate "adopt a drain" programs/stream monitoring	Volunteers	Record number of drains adopted.	No drains adopted. Stream monitoring will be performed on some streams and the lake this summer but further testing needs to be organized-possibly by lake management.	Continue program.
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3.11	Storm water management and illicit discharge by-law.	Peter O'Cain	Town adopts by-law prohibiting non-sw discharges.	**By-law was approved at October 2004 Town Meeting**	Continue to get applications approved by the Board of Selectmen. Any existing connection prior to October requires a direct connection permit approved by Selectmen.
Revised					
3.12	Develop storm sewer map with outfalls.	April Forsman Peter O'Cain	Map of MS4 outfalls.	Map completed on mylar plans. Town has purchased GPS instrument to record locations of storm drains and outfalls for GIS system.	Continue GIS portion of mapping
Revised					
3.13	Develop plan to detect and address non s/w discharge.	Greg Meister	Plan developed	We are currently planning on utilizing a DPW employee to follow the catch basin cleaning company to identify illicit connections and check mapping produced. This will start in two weeks.	Continue identification of outfalls, if needed
Revised					
3.14	Identify and document illicit outfalls.	Con Com, volunteers DPW	Keep record of suspected sites.	We will utilize information gathered from 3.13 as a basis for documentation.	Continue identification of outfalls, if needed
Revised					
3.15	Monitor accomplishment of goals of reducing illicit discharge.	Peter O'Cain	Create spreadsheet with goals and percentage completed.	We have identified 14 illicit discharge connections and provided the residents with permits for direct connection. The by-law was approved by the Attorney general in January 2005, so we will be identifying many more direct connections in the next year.	Continue to identify illicit discharges and determine whether they pose a risk to surface waters.
Revised					
Revised					

3a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3.16	Address non-storm discharges or flows, such as landscape irrigation, car washing and street wash water.	Peter O'Cain	Posted ways to reduce the impact of these activities on Town website and water bill mailings in year one.	Posted ways to reduce the impact of these activities on Town website.	Continue program

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4.16	Include E&S BMP's/req's in all applicable town regulations.	Planning, zoning, Con-com, Peter O'Cain	Regs modified and accepted by all applicable boards.	Section 3.3.2.21 of the Land Subdivision Rules and Regs of the Planning Board requires E&S plan. Also lot drainage section 4.5.3 refers to NPDES standards. **New By-laws for Construction Activity addresses this item.**	Continue to enforce regulations and improve if needed.
Revised					
4.17	Include construction E&S plan as part of review.	Planning, Zoning, BOH.	Approval of modified regulations.	Planning Board requires E&S plan and includes in review. Zoning By-Law section 3340. **New Construction Activity By-Law addresses this for any disturbance over 1 acre.**	Continue to enforce requirements.
Revised					
4.18	Inspect site for E&S problems	Greg Meister Conservation Agent	Record Inspections and enforcement issues	Conservation Agent inspects all developments and construction projects over 1 acre for erosion and sedimentation control. Town Engineer also checks these items as possible.	Continue to enforce requirements.
Revised					
4.19	Create sanctions to ensure compliance with E&S req's	Con-Com, Board of Selectmen, Town Engineer	List of sanctions approved by Town.	Currently have comprehensive by-law that includes sanctions. By-law being edited and reviewed by Town agenicies and should be accepted at Town Meeting in November.	Enforce sanctions as required.
Revised					
4.20	Include construction site runoff on stormwater hotline	Residents/ Volunteers	Established hotline with phone records.	Hotline established, sent out brochures to all households and advertised on TV and town website.	Continue to monitor hotline and send out brochures yearly.
Revised					
Revised					

4a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2	Planned Activities – Permit Year 3
4.21	Create procedure to receive and consider information submitted by the public and include requirements for the construction site operators to control waste such as discarded building materials.	Peter O'Cain	The Town passed the construction activity by-law that requires a public hearing be held for stormwater plans submitted on lots that will have more than an acre of disturbed area. The by-law requires a SWWP that addresses construction wastes of all kinds.	Stormwater Discharges Generated by Construction Activity By-Law approved in October 2004. Approved by Attorney general in January of 2005.	Continue to enforce Stormwater Discharges Generated by Construction Activity By-Law.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
5.21	Planning Board/Con-Com regs, BMP for runoff control +1 acre	Planning Board, Con-Com: Greg Meister	Passed new Construction Acticity General By-Law to address sites that are disturbed over 1 acre.	**Construction Activity General By-Law passed and approved at October 2004 Town Meeting. By-Law requires a public Hearing and a Pollution Prevention Plan for stormwater, construction pollution, human waste on-site and more.**	Enforce By-Law when required
Revised					
5.22	Require operation and maintenance plans for ret/det basins	Peter O'Cain Greg Meister	Include plan requirement in Planning regs and maint fee.	Regulations pending acceptance by Planning Board currently. Already implemented in approvals when needed.	Enforce new regulation requiring payment for every foot of detention basin to be built. Funds to be used for basin maintenance, as needed.
Revised					
5.23	In addition to BMP's develop community BMP's	Peter O'Cain Greg Meister	Make a list of community BMP's, if any.	None as of April 26, 2004.	Not sure what community BMP's will arise at this time.
Revised					
5.24	If community BMP's desired, add to appropriate regulations	Planning, Zoning, Con-Com Boards/ Town Engineer	Additions to appropriate regulations.	None as of April 26, 2004.	Not sure what community BMP's will arise at this time.
Revised					
Revised					
Revised					

5a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2	Planned Activities – Permit Year 3
5.25	Zoning that encourages low impact development.	Peter O'Cain	Zoning that encourages low impact development	The Town has had a Conservation Subdivision Design zoning regulation for several years. The Town Planning Board Regulations section 3.2.2.1 requires, "For all subdivisions of ten (10) or more lots, two (2) or more substantially different alternative development plans, one of which shall utilize flexible development."	Encourage CSD design and flexible development (sections 4360 & 4300).

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6.25	Develop municipal operation and maintenance plan.	Superintendent of public Works:Eric Hooper	Completed plan.	Working on plan at this time. **Add employee training to the plan.**	Finish plan and adopt it for use.
Revised					
6.26	Implement operation and maintenance plan w/schedule.	Highway Dept/Bill Petipas	Maintain records of maintenance compliance.	Working on plan at this time.	Finish plan and adopt it for use.
Revised					
6.27	Use E&S controls for road repairs.	Highway Dept: Bill Petipas Con-Com: Greg Meister	Record work and erosion controls taken	All roadway work is assessed by Conservation Agent and Town Engineer for erosion issues. Work is silt fenced and hay baled as needed. Any work over 1 acre has a NPDES construction permit filed.	Continue to use erosion and sedimentation controls as needed and file for construction general permits for work over 1 acre.
Revised					
6.28	Fill Drains in areas of equipment cleaning or work	Highway Dept: Bill Petipas	Drains covered or filled in.	All drains are covered or filled in.	None
Revised					
6.29	Clean catch basins on regular schedule	Highway Dept: Bill Petipas	Maintain record of cleaning	Half the catch basins in town were cleaned this year and records will be kept by private contractor (Truax).	Maintain catch basin cleaning schedule. Investigate possibly increasing number cleaned yearly.
Revised					
Revised					

6a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6.30	**Construct Vehicle wash building with recycling wash system to eliminate pollutants from entering groundwater.**	Peter O'Cain Assistant Town Engineer	Construct building and utilize for vehicle washing	Building is fully built. Recycling wash system needs electrical, plumbing and gas connections completed. Should be completed by fall 2005.	Utilize wash building, as needed
6.31	Added employee training to operation and maintenance plan requirements	Peter O'Cain	Operation and maintenance plan includes employee training component.	No progress on plan at this time.	Plan is complete and being implemented.

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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7.30	Utilize list of impaired bodies as a basis for areas to study	Town Engineer: Peter O'Cain	Determine how to reduce causes of impairment.	Trying to gather support from Conservation Commission and Lake Management Committee.	Begin gathering data on impaired bodies as basis for determination of improvement in stormwater quality.
Revised					
7.31	Set up plan utilizing outfall mapping to reduce impairment	Town Engineer: Peter O'Cain	Written plan	Trying to gather support fron Conservation Commission and Lake Management Committee.	None
Revised					
7.32	Ensure WLA met by stormwater BMP's	Superintendent of Public Works: Eric Hooper	Determine if additional BMP's needed.	No work done yet. Considering increase in catch basin cleaning and street sweeping.	Test water for WLA compliance
Revised					
7.33	Reduce pollutant discharges coming through MS4	Conservation Agent: Greg Meister/Town Engineer	Inspect water for reduction in turbidity, increase in DO	Trying to gather support from Conservation Commission and Lake Management Committee.	Use catch basin cleaning and roadway sweeping program to reduce turbidity and reduce pollutants. Use water sampling to compare water quality from year to year.
Revised					
Revised					
Revised					

7a. Additions

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7.31A	Set up plan using outfall mapping to reduce impairment	Peter O'Cain	Adjust mapping as direct connection data is collected from applications submitted related to the Illicit Discharge By-Law and through catch basing cleaning process.	Keep updating outfalls and direct connection information as direct connection permits come in.	Continue to update mapping as required.

7b. WLA Assessment

The Town is working on reducing loads to streams through strict enforcement of our Illicit Discharge and Construction Activity By-laws. The Construction activity By-Law in combination with strict enforcement of soil and erosion control plans will reduce the TSS entering the town waterways. Planning Board Regulations and the two new by-laws require strict compliance with all Mass DEP stormwater regulations and water quality regulations.

Our catch basin cleaning contractor (Truax) will be indicating catch basins that are high in sediment levels, so that they can be cleaned on a more frequent schedule.

Part IV. Summary of Information Collected and Analyzed

No information gathered at this point. Streams that have been identified as turbid or low in DO but we are currently working on solutions to these problems.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	($)	

Education, Involvement, and Training

Estimated number of residents 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.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

In Place

	Prior to Phase II	Under Review	Drafted	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

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

Construction

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 completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

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)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	

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)	

Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	

Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % $CaCl_2$ % $MgCl_2$ % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	

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 completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

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)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	

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)	