

Municipality/Organization: Town of Ayer

EPA NPDES Permit Number: MA 04-1179

MaDEP Transmittal Number: W- 040750

**Annual Report Number
& Reporting Period:** No. 4: May 1, 2006 – April 30, 2007

P
05/04/07

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Michael J. Madigan **Title:** DPW Superintendent

Telephone #: 978-772-8240 **Email:** dpwsupt@ayer.ma.us

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: Frank Maxant

Title: Chairman, Board of Selectmen

Date: 4/30/07

Part II. Self-Assessment

The Town of Ayer, Massachusetts has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions, except for the following provisions: 1) schedules have been modified for several BMPs; and 2) BMP descriptions and measurable goals have been modified, as discussed in Section III. Additionally, some BMPs were reorganized in this annual report to be consistent with the Town's Notice of Intent (NOI).

As discussed in the Year 3 Annual Report, the previous Town Administrator, Anita Scheipers, was ill for a portion of Permit Year 2 and left the Town of Ayer in late fall. Ms. Scheipers was heading up the Town's Stormwater Management Program (SWMP) at that time; therefore, little action was taken on the planned activities during that permit period. Michael Madigan, DPW Superintendent, was assigned the responsibility of handling the Stormwater Management Program for the Town of Ayer in April 2006. Mr. Madigan began to coordinate efforts to reform the previously established Stormwater Committee and distribute the level of effort for the SWMP moving into Permit Year 5. Once the Stormwater Committee is re-established, the Town anticipates significant progress before the end of the permit term.

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	Planned Activities – Permit Year 5
PE1 Revised	Educational materials	DPW	Create educational flyers re storm water Distribute flyers to residents at two or more events	“Healthy Lawns for Healthy Families” pamphlets, regarding pesticides and fertilizers, were made available at the Town Hall, Library, and DPW office. Posters were also displayed in the Town Hall and Library. Flyers containing information on illegal dumping were distributed at the Household Hazardous Waste Collection.	Continue to display posters and make pamphlets available at public places. Flyers will be distributed at the May 2007 annual Town Meeting.
PE2 Revised	Cable TV info spots	DPW	Create 1 infomercial about storm water by 5/06 Summer 2007	Stormwater videos available with EPA were reviewed.	Dedicate a spot for broadcasting stormwater information and/or an EPA educational video on local TV by Summer 2007.
PE3 Revised	Drain Stenciling	DPW	Stencil storm drains by 5/06 25% of storm drains marked by Fall 2007	Storm drains were inventoried (~800) and ID’s were assigned based on the updated GIS drainage map. Drain stencil designs were reviewed.	Order/create stencils, prioritize drains for marking and complete stencils in high and medium priority sub-basins with the use of DPW labor. Contact local Boy Scouts to determine if some stenciling can be done by an Eagle Scout.
PE4 Revised	Lawn Care Workshops	SWSC/DPW	Hold 1 workshop by 5/07	A letter was sent to local landscaping companies discussing the Lawn Care Workshop (see BMP PE4) by the MA DEP and the Town of Westford. The lawn care workshop “Healthy Lawns and Landscapes” was held on April 12, 2007. The workshop was designed to promote healthy and safe practices for lawn care by contractors and homeowners.	No further action is planned at this time.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4	Planned Activities – Permit Year 5
PE5	Educational Displays on storm water mgt	SWSC/DPW	Create 1 display for use at town functions by 5/08	“Healthy Lawns for Healthy Families” posters were hung in conspicuous places within the Town Hall and Library.	Continue to update and display posters at public places. Develop a stormwater display through the Stormwater Committee and use at Town functions.
Revised					

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4	Planned Activities – Permit Year 5
PP1	Establish Committee	Brd of Selectmen	Est. committee by 11/03	As discussed in Part II above, the Stormwater Committee has not been active during the past permit term. The DPW began coordinating between departments to reform the Stormwater Committee.	Finalize members for the Stormwater Committee and appointment members through the Board of Selectmen by July 2007. The first meeting of the Committee is anticipated in July 2007.
Revised			July 2007		
PP2	Public Info Meetings	SWSC	2 meetings in 2004 2 meetings in 2007 & # of people attended	The DPW Superintendent presented the status of the SWMP at a Board of Selectmen on April 3, 2007. The meeting was televised on the local cable network.	Once the Stormwater Committee is re-established, plan to hold two meetings to receive public input. Committee meetings are open to the public, but these meetings will be advertised through various avenues.
Revised					
PP3	Annual Roadside Cleanup	SWSC/DPW	Schedule 1 cleanup day by 4/05	No volunteer roadside cleanups were held within this permit year.	Designate a program coordinator once the Stormwater Committee is re-established and organize a roadside cleanup activity with resident participation. Evaluate desired cleanup areas and conduct at least one event.
Revised			1 cleanup by Fall 2007, # participants		
PP4	Establish neighborhood watch groups	SWSC/DPW	Create 4 groups by 4/06	Calls regarding street flooding and catch basin clogging were received by the DPW or Police Department during non-business hours.	Establish a specific Stormwater Hotline through DPW and advertise the hotline on the Town website and on the local cable network. Record calls and follow-up actions to address stormwater issues.
Revised	Establish a Stormwater Hotline		Hotline established, # calls received & record of follow-up actions		

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 4	Planned Activities – Permit Year 5
PP5	Reforestation	ConsCom	Establish plan to require/encourage planting of cleared areas	This BMP was scheduled to begin in Year 5.	Once the Stormwater Committee is re-established, evaluate options to establish a native tree replanting program in sensitive resource areas. Evaluate program needs/funding and solicit participation from the local Garden Club and residents. Conduct replanting activities as the program develops.
Revised	Native Tree Replanting Program	And Tree Warden			

2a. Additions

PP6*	Hazardous Waste Collection Program	Ayer Recycling Committee	Conduct yearly hazardous waste collection day (HWCD)	Household hazardous waste collections were co-sponsored with the North Central Regional Solid Waste Cooperative at Devens on March 5, 2006 and Lunenberg on September 27, 2006. 20 residents participated in the Devens event and 5 residents participated in the Lunenberg event. As discussed in BMP PE1, flyers for the events contained information on illegal dumping.	Continue to sponsor and advertise hazardous waste collections and incorporate information on illegal dumping. Continue tracking resident participation.
Revised					
PP7	Mercury Waste Collection for Residents	Ayer Recycling Committee & DPW	Make mercury waste collection available to residents, # materials collected	The Town added mercury products to the list of materials collected at the Transfer Station. This information was advertised on the DPW web page.	Continue to make mercury waste disposal available to residents and begin tracking materials collected.
Revised					

*This BMP was discussed in the Year 3 Annual Report and is shown here as an addition since it was not on the Town's original NOI.

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
ID1	System Mapping	DPW	Complete system map by 3/05	A comprehensive drainage system map was developed based on GPS data and existing drainage maps. This information was updated in the Town's GIS database and minor data gaps (i.e., connectivity) were identified for follow-up mapping.	Continue to update the drainage map as data gaps are addressed. Update the drainage map based on the results of BMP ID2.
Revised	Drainage System Mapping		9/06		
ID2	ID illicit discharges	DPW	Conduct inspections by 11/05	The Town investigated a suspect illicit discharge at CPF, Inc. in August 2006 and addressed the issue. A local volunteer was identified to conduct outfall inspections.	Develop an outfall inspection work plan and train staff in the screening and identification of illicit discharges. Outfall inspections will begin to screen dry weather flows for potential illicit discharges.
Revised	Screen Outfalls for Illicit Discharges	Volunteer & Consultant	Record of inspections & follow-up actions		
ID3	Prohibit illicit discharges	DPW/BoH	Establish regulatory mechanisms to prohibit by 4/06	No significant progress occurred on this task during the permit term.	Review model ordinances/bylaws and develop a regulatory mechanism to prohibit illicit discharges for presentation at the Fall 2007 Town Meeting.
Revised	Develop a Local Illicit Discharge Prohibition		Fall 2007		
ID4	Cost of illicit discharges	DPW	Plan for removal options	No significant progress occurred on this task during the permit term.	Develop methods and funding options for removal of illicit discharges.
Revised	Illicit Discharge Removal Options				
ID5	Eliminate illicit discharges	DPW	Show # of re-routed connections	As discussed in BMP ID2 above, one suspect illicit discharge was removed.	Remove illicit discharges as they are identified.
Revised			Illicit discharges removed within 1 year of discovery		

3a. Additions

ID6	Public Education for Illicit Discharges	SWSC & DPW	Distribute education materials at least annually	As discussed in BMP PE1, flyers for the household hazardous waste collection events contained information on illegal dumping.	Continue to incorporate illicit discharge information into existing public education and outreach topics. Develop/adapt educational materials to target all types of illicit discharges.
Revised					

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
CRC1 Revised	Establish water quality benchmarks Select Existing Water Quality Criteria	DPW	Develop score sheet and do Rd 1 of testing Water quality criteria selected	No significant progress occurred on this task during the permit term. The Town decided to evaluate water quality associated with illicit discharges (ref. BMP ID2) before developing additional criteria for construction sites.	Review existing guidelines and applicable water quality standards and incorporate the selected criteria into the requirements developed under BMP CRC4.
CRC2 Revised	Site Inspection Criteria	DPW	Develop site inspection criteria by 5/05 Standardized inspection form	Water, Sewer, and Highway Departments conduct inspections on all of their projects. A consultant was retained for on call inspection services. Approximately 200 inspections were completed.	Develop a standardized inspection form for construction site inspections and continue to inspect all sites.
CRC3 Revised	Staff training re site inspections	DPW	Train all applicable staff by 5/06 Training program & record of staff trained	A Consultant conducted Construction Inspection Training on June 13, 2006 for DPW staff.	Continue to train staff as needed.
CRC4 Revised	Tighten regulatory controls Develop Requirements for Sites >1 acre	DPW/ConsCom	Review existing regs and propose updates as needed by 5/06 Fall 2007	No significant progress occurred on this task during the permit term.	Review model ordinances/bylaws and develop a regulatory mechanism for land disturbances >1 acre. Present the bylaw at the Fall 2007 Town Meeting.
CRC5 Revised	Maximum compliance Erosion & Sediment Control Compliance	DPW	Achieve overall compliance Record of inspections & follow-up actions	Erosion and sediment control issues were identified and addressed by the appropriate Town department.	Continue to address erosion and sediment control issues and record corrective actions. Coordinate with BMPs CRC2, 3 & 4.

4a. Additions.

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
CRC6 Revised	Construction Waste Mgt	DPW/Building Dept.	# of inspections in 2006 Record of inspections & follow-up actions	Approximately 200 inspections were completed and construction waste was controlled as needed.	Coordinate inspections with BMPs CRC2 and CRC5. Incorporate waste control requirements into BMP CRC4.
CRC7 Revised	Establish a Procedure for the Receipt of Information Submitted by the Public	SWSC/DPW	# of issues reported, record of enforcement actions	This task is scheduled to begin in Permit Year 5.	Coordinate with BMP PP4 for the Stormwater Hotline to receive information from the public regarding construction site issues. Log calls to address construction site erosion issues and coordinate with BMP CRC5.

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
RC1 Revised	ID BMPs Incorporate BMP Design Criteria	DPW/ConsCom /Planning Board	Review existing regs and draft new as needed by 12/05 Fall 2007	No significant progress occurred on this task during the permit term.	Evaluate appropriate design criteria for BMPs and incorporate into BMP RC2.
RC2 Revised	Acceptance of new regs/bylaws as needed Develop Requirements for Sites >1 acre	DPW/ConsCom /Planning Board	Codify new by 5/06 Fall 2007	No significant progress occurred on this task during the permit term. DPW and the Town's consultant reviewed plans submitted for development activities.	Review model ordinances/bylaws and develop a regulatory mechanism for developments >1 acre. Present the bylaw at the Fall 2007 Town Meeting.
RC3 Revised	Construction Waste Mgt	This BMP was removed from this section and added to Section 4, under BMP CRC6 to be consistent with the requirements for construction site management.			
RC4 Revised	Evaluate Water Quality Select Existing Water Quality Criteria	DPW	Round 2 of testing Water quality criteria selected	No significant progress occurred on this task during the permit term. The Town decided to evaluate water quality associated with illicit discharges (ref. BMP ID2) before developing additional criteria for developed sites.	Review existing guidelines and applicable water quality standards and incorporate the selected criteria into the requirements developed under BMP RC2.

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
GH1 Revised	Survey facilities and existing practices, etc	DPW	Do self survey	Municipal industrial facilities were reviewed for pollution prevention practices. Hazardous wastes and materials are contained and stored indoors to avoid stormwater contact. Floor drains at all industrial facilities were confirmed and are connected to an oil/water separator and the sanitary sewer system. The Town approved funding to construct a vehicle wash pad at the DPW facility.	Continue existing pollution prevention practices at municipal facilities and construct the SWSC/DPW wash pad at the DPW facility.
GH2 Revised	Develop training manual	DPW	Create manual by 12/04	An inspection curriculum was previously developed.	Develop a curriculum for pollution prevention and good housekeeping activities for all municipal operations.
GH3 Revised	Train Employees	DPW	Train ALL staff by 5/05 Incorporate new training topics	As discussed in BMP CRC3, a Consultant conducted Construction Inspection Training on June 13, 2006 for DPW staff.	Conduct employee training for pollution prevention and good housekeeping.
GH4 Revised	Implement maintenance schedule	DPW	Implement veh and facilities maintenance schedule by 5/06	Maintenance schedules were maintained.	Ensure maintenance schedules are maintained to minimize potential stormwater impacts.
GH5 Revised	Evaluate Program	DPW	ID of facilities with controls in place by 5/07 Fall 2007	This BMP was scheduled to begin in Year 5.	Re-evaluate municipal facilities and operations and develop/implement BMPs as needed and as appropriate.

6a. Addition

GH6 Revised	Municipal Facility Plans	DPW	Compliance with SWPPP & SPCC Plans	The Town maintained the SWPPP for the Wastewater Treatment Facility and SPCC Plan for the DPW Facility. The plans assist with pollution prevention at these facilities.	Ensure compliance with the facility plans at the Wastewater Treatment Plant and DPW Facility.
----------------	--------------------------	-----	------------------------------------	---	---

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
7.1	TMDL study	Department of Defense; NRWA		No significant progress occurred on this task during the permit term.	Meet with appropriate parties and get update on project status before Nov. 2007. Begin evaluating the status of BMPs and pollution prevention efforts with respect to 303d waters.
Revised	Evaluate TMDL Studies & Status of Town BMPs to Address Impaired Waters	SWSC/DPW	Review Memo and Recommended Next Steps		
Revised					

Part IV. Summary of Information Collected and Analyzed

The Town has nearly completed the town-wide drainage system map, including outfall locations. Approximately 800 structures and 100 outfalls have been identified. One suspect illicit discharge was identified and removed.

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	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		X		
▪ Erosion & Sediment Control		X		
▪ Post-Development Stormwater Management		X		

Mapping and Illicit Discharges

Outfall mapping complete	(%)	90%
Estimated or actual number of outfalls	(#)	100
System-Wide mapping complete	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	90%
▪ CADD	(%)	
▪ GIS	(%)	100%
Outfalls inspected/screened	(# or %)	0
Illicit discharges identified	(#)	1
Illicit connections removed	(#) (est. gpd)	1
% of population on sewer	(%)	97%
% of population on septic systems	(%)	3%

Construction

Number of construction starts (>1-acre)	(#)	6
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	100%
Site inspections completed	(# or %)	100%
Tickets/Stop work orders issued	(# or %)	0
Fines collected	(# and \$)	0
Complaints/concerns received from public	(#)	0

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	100%
Site inspections completed	(# or %)	100%
Estimated volume of stormwater recharged	(gpy)	TBD

Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1/yr
Total number of structures cleaned	(#)	800
Storm drain cleaned	(LF or mi.)	
Qty. of cleanings /debris removed from storm sewer infrastructure	(lbs. or tons)	Unknown
Disposal or use of cleanings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Beneficial use
Cost of cleanings disposal	(\$)	0

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1/yr
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	15/yr
Qty. of sand/debris collected by sweeping	(lbs. or tons)	Unknown
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Store, then dispose of
Cost of sweepings disposal	(\$)	0
Vacuum street sweepers purchased/leased	(#)	N/A
Vacuum street sweepers specified in contracts	(y/n)	N/A

Reduction 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

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	3 parts sand to 1 part salt
Pre-wetting techniques utilized	(y/n)	N
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	0%
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N