Municipality/Organization: **Town of Ayer**

EPA NPDES Permit Number: **MA 04-1179**

MaDEP Transmittal Number: **W- 040750**

Annual Report Number & Reporting Period: **No. 5: May 1, 2007 – April 30, 2008**

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: Gary J Luca

Printed Name: Gary Luca

Title: Chairman, Board of Selectmen

Date: April 30 2008

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. As discussed in previous reports, the previous Town Administrator, Anita Scheipers left the Town of Ayer at the end of Year 2. 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. In Year 4, 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. The Stormwater Committee was re-established and the Town has made significant progress in Year 5. These efforts will continue and the status of the program will be evaluated once the next round of the MS4 permit is issued.

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 5	Planned Activities – Next Permit Term
PE1 Revised	Educational materials	DPW	Create educational flyers re storm water Distribute flyers to residents at two or more events	Posters were displayed in the Town Hall and Library as well as displayed at Town Meetings in Oct 07 and Spring 08. Stormwater Fact sheets and Public Information sheets on the Phase II Stormwater Bylaw and Illicit Discharge Bylaw were distributed and made available at the Town Meetings.	Continue to display posters and make pamphlets available at public places. Begin to track the amount of materials distributed at each location/event.
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 2008.
PE3 Revised	Drain Stenciling	DPW	Stencil storm drains by 5/06 25% of storm drains marked by Fall 2007	Storm drain markers were purchased and approximately 30 drains were marked in the downtown area.	Continue to complete markers in high and medium priority sub-basins. Contact local Boy Scouts to determine if some markers can be done by an Eagle Scout.
PE4 Revised	Lawn Care Workshops	SWSC/DPW	Hold 1 workshop by 5/07	The lawn care workshop "Organic Lawn Care Workshop" was held on April 26, 2008. The workshop was designed to promote natural lawn care without pesticides or chemical fertilizers by contractors and homeowners. Flyers for the workshop were made available at the Town Hall, Library, and DWP office.	No further action is planned at this time.
PE5 Revised	Educational Displays on storm water mgt	SWSC/DPW	Create 1 display for use at town functions by 5/08	Posters were displayed in the Town Hall and Library as well as displayed at Town Meetings in Oct 07 and Spring 08.	Continue to update and display posters at public places. Develop a stormwater display through the Stormwater Committee and use at Town functions.

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5	Planned Activities – Next Permit Term
PP1	Establish Committee	Brd of Selectmen	Est. committee by 11/03	The Stormwater Committee has been established, consisting of DPW Superintendent, Planning Board member, Conservation Commission Agent, Board of Selectman member, Communication Committee member, and Recycling Committee member. 3 meetings were held during Year 5.	Committee will continue to meet on stormwater issues and coordinate for the completion of BMP tasks.
Revised			July 2007		
PP2	Public Info Meetings	SWSC	2 meetings in 2004	The draft stormwater bylaws were presented at the February 7, 2008 Planning Board meeting. Two public info. meetings for the stormwater bylaw were held on 3/20/08 and 4/5/08. Meeting notices were posted at the Library, Town Hall, DPW Office and on the Town Website. Stormwater Fact sheets and Public Information sheets on the draft bylaws were distributed and made available at the public meetings. The April meeting was announced at the previous Selectman's meeting	Continue to hold Public Info Meetings related to stormwater issues.
Revised			2 meetings in 2007 & # of people attended		
PP3	Annual Roadside Cleanup	SWSC/DPW	Schedule 1 cleanup day by 4/05	An area wide Town Cleanup was held on 9/29/07. Approximately 80 residents participated.	Designate a program coordinator to continue to organize resident roadside cleanup activities.
Revised			1 cleanup by Fall 2007, # participants		
PP4	Establish neighborhood watch groups	SWSC/DPW	Create 4 groups by 4/06	Stormwater Hotline was established and advertised on the Town website. No calls received.	Advertise the hotline on the local cable network. Continue to record calls and follow-up actions to address stormwater issues.
Revised	Establish a Stormwater Hotline		Hotline established, # calls received & follow-up actions		
PP5	Reforestation	ConsCom	Establish plan to require/encourage planting of cleared areas	Calls were made to establish contacts to receive grant funding.	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, 2007 and Lunenberg on September 29, 2007. 30 residents participated in the Devens event and 6 residents participated in the Lunenberg event.	Continue to sponsor and advertise hazardous waste collections and incorporate information on illegal dumping. Continue tracking resident participation. Events are scheduled for May 3rd and Sept. 27th 2008.
Revised					
PP7	Mercury Waste Collection for Residents	Ayer Recycling Committee & DPW	Make mercury waste collection available to residents, # materials collected	Information related to the collection of mercury product at the Transfer Station was advertised on the DPW web page. A Mercury Products Collections Event was held on 4/4/08 and advertised in local Newspapers. The Town is also working with Covanta to collect all mercury products from the schools.	Continue to make mercury waste disposal available to residents and begin tracking materials collected.
Revised					

3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
ID1	System Mapping	DPW	Complete system map by 3/05	The Town has updated the drainage map to near completion with the identification of all known and visible catch basins and outfalls. These features have been added to the map.	Continue to update the drainage map as structures are located (if any unidentified structures still exist).
Revised	Drainage System Mapping		9/06		
ID2	ID illicit discharges	DPW	Conduct inspections by 11/05	A standard inspection form and guidelines were developed for illicit discharge inspections. The Town inspected 41 outfalls using a local volunteer to conduct the inspections. No obvious illicit discharges were found.	Individuals responsible for outfall inspections will be trained by the DPW Superintendent to search for dry weather flows, odors and strange colors, as well as fill out a field inspection sheet for each outfall. Outfall inspections for potential illicit discharges will continue.
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	Model bylaws have been reviewed and adapted to fit the Town. The Illicit Discharge Bylaw has been submitted to the Planning Board for adoption at the 2008 Annual Town Meeting this spring.	Adoption of the Bylaw is anticipated at the Annual Town Meeting in May 2008.
Revised	Develop a Local Illicit Discharge Prohibition		Spring 2008		
ID4	Cost of illicit discharges	DPW	Plan for removal options	No illicit discharges were found. Removals would be funded through the Public Works operating budget.	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	No illicit discharges were found during this permit year.	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, Stormwater Fact sheets and Public Information sheets on the Phase II Stormwater Bylaw and Illicit Discharge Bylaw were distributed and made available at the Town Meetings.	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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
CRC1	Establish water quality benchmarks	DPW	Develop score sheet and do Rd 1 of testing	A draft bylaw was developed to meet the Phase II requirements for land disturbances > 1 acre and submitted to the Planning Board for adoption at the spring 2008 Annual Town Meeting. Draft regulations were developed to accompany the bylaw and include criteria/requirements to address water quality.	Adoption of the Bylaw is anticipated at the Annual Town Meeting in May 2008.
Revised	Select Existing Water Quality Criteria		Water quality criteria selected		
CRC2	Site Inspection Criteria	DPW	Develop site inspection criteria by 5/05	Water, Sewer, and Highway Departments conduct inspections on all of their projects. Consultants were called four times for on call inspection services. Approximately 200 inspections were completed at 3 sites. Inspections were logged.	Develop a standardized inspection form for construction site inspections and continue to inspect all sites.
Revised			Standardized inspection form		
CRC3	Staff training re site inspections	DPW	Train all applicable staff by 5/06	Two Highway Dept. employees attended construction inspection training conducted by Baystate Roads on April 29, 2008.	Continue to train staff as needed.
Revised			Training program & record of staff trained		
CRC4	Tighten regulatory controls	DPW/ConsCom	Review existing regs and propose updates as needed by 5/06	A draft bylaw was developed to meet the Phase II requirements for land disturbances > 1 acre and submitted to the Planning Board for adoption at the spring 2008 Annual Town Meeting.	Adoption of the Bylaw is anticipated at the Annual Town Meeting in May 2008.
Revised	Develop Requirements for Sites >1 acre		Spring 2008		
CRC5	Maximum compliance	DPW	Achieve overall compliance	Erosion and sediment control issues were identified and addressed by the appropriate Town department. One issue in particular is being handled by the DPW Superintendent.	Continue to address erosion and sediment control issues and record corrective actions.
Revised	Erosion & Sediment Control Compliance		Record of inspections & follow-up actions		

4a. Additions.

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
CRC6	Construction Waste Mgt	DPW/Building Dept.	# of inspections in 2006	Approximately 200 inspections were completed and construction waste was controlled as needed. Waste control requirements were incorporated into the draft bylaw for construction site erosion control under BMP CRC4.	Coordinate inspections with BMPs CRC2 and CRC5.
Revised			Record of inspections & follow-up actions		
CRC7	Establish a Procedure for the Receipt of Information Submitted by the Public	SWSC/DPW	# of issues reported, record of enforcement actions	A Stormwater Hotline was established and advertised on the Town website. On call services are provided 24/7. When the DPW Office is closed the calls are forwarded to the Police. The Police notify the appropriate people using the provided directory from the Stormwater committee. No calls were received during the permit term.	Continue to log calls and address construction site erosion issues.
Revised					

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
RC1	ID BMPs	DPW/ConsCom /Planning Board	Review existing regs and draft new as needed by 12/05	Draft Stormwater Regulations were developed to accompany the draft stormwater bylaw. Design Standards are "to be determined" as specified in the Draft Stormwater Regulations.	Evaluate appropriate design criteria for BMPs and incorporate into BMP RC2.
Revised	Incorporate BMP Design Criteria		Fall 2007		
RC2	Acceptance of new regs/bylaws as needed	DPW/ConsCom /Planning Board	Codify new by 5/06	A draft stormwater bylaw for developments > 1 acre has been submitted to the Planning Board for adoption at the spring 2008 Annual Town Meeting.	Adoption of the Bylaw is anticipated at the Annual Town Meeting in May 2008.
Revised	Develop Requirements for Sites >1 acre		Spring 2008		
RC3	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.			
Revised					
RC4	Evaluate Water Quality	DPW	Round 2 of testing	A draft stormwater bylaw for developments > 1 acre has been submitted to the Planning Board for adoption at the spring 2008 Annual Town Meeting. Draft regulations were developed to accompany the bylaw and include criteria/requirements to address water quality.	Adoption of the Bylaw is anticipated at the Annual Town Meeting in May 2008.
Revised	Select Existing Water Quality Criteria		Water quality criteria selected		

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
GH1	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. Wash Pad drains and floor drains at all industrial facilities are connected to an oil/water separator and the sanitary sewer system. The vehicle wash pad was constructed at the DPW facility in Fall 07.	Continue existing pollution prevention practices at municipal facilities.
Revised					
GH2	Develop training manual	DPW	Create manual by 12/04	An inspection curriculum was previously developed. SPCC, SWPPP, and Environment Operation Procedures manuals are in use.	Continue to use the current manuals for pollution prevention and good housekeeping activities.
Revised					
GH3	Train Employees	DPW	Train ALL staff by 5/05	As discussed in BMP CRC3, Two Highway Dept. employees attended construction inspection training conducted by BayState Roads on April 29, 2008. 2 training sessions for pollution prevention and good housekeeping were provided by a consultant on March 12, 2008 for Highway and Water Department staff. Highway staff was also trained the same day specifically for erosion and sediment control practices.	A training session for Town Department staff (e.g., Conservation, Planning) will be conducted in spring 2008. Continue DPW employee training for pollution prevention and good housekeeping.
Revised			Incorporate new training topics		
GH4	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.
Revised					
GH5	Evaluate Program	DPW	ID of facilities with controls in place by 5/07	DPW reviewed the need to update existing facility planning and training documents. Funding for updates was evaluated.	Re-evaluate municipal facilities and operations and develop/implement BMPs as needed and as appropriate.
Revised			Fall 2007		

6a. Addition

GH6	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.
Revised					

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 5 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Next Permit Term
7.1	TMDL study	Department of Defense; NRWA		No significant progress occurred on this task during the permit term. The Town focused on existing obligations listed on the NOI to meet the minimum Phase II requirements.	Meet with appropriate parties and get an update on project status. Begin evaluating the status of BMPs and pollution prevention efforts with respect to 303d waters. Review the next round of permitting under Phase II and incorporate TMDL requirements into the Town's program.
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 50 outfalls have been identified based on recent efforts to update the drainage map. 41 outfalls were screened during dry weather conditions and no obvious illicit discharges were identified.

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	(%)	95%
Estimated or actual number of outfalls	(#)	50
System-Wide mapping complete	(%)	95%
Mapping method(s)		
▪ Paper/Mylar	(%)	95%
▪ CADD	(%)	90%
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	41
Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	97%
% of population on septic systems	(%)	3%

Construction

Number of construction starts (>1-acre)	(#)	2
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