P

Town of Wenham

Town Hall
138 Main Street
Wenham, MA 01984

Selectmen / Town Administrator

TEL 978-468-5522 FAX 978-468-6164

August 18, 2006

AUG 24 2006

United States Environmental Protection Agency
Water Technical Unit
P.O. Box 8127
Boston, Massachusetts 02114

Re: National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)

Annual Report for Town of Wenham (Permit Year 3)

Permit Number: MAR041230

Dear Sir or Madam:

Please find the enclosed Annual Report for Permit Year 3 for the Town of Wenham, Massachusetts. This report is submitted pursuant to the requirements of EPA's "National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges from Small Municipal Separate Storm Sewer Systems" issued May 1, 2003.

Very truly yours,
J.A. Chelgren
TOWN OF WENHAM, MASSACHUSETTS

NAME Jeff A. Chelgren
TITLE Town Administrator

Enclosures

cc: Mr. Bill Tyack – Director of Public Works, Town of Wenham

Municipality/Organization: Town of Wenham, Massachusetts

EPA NPDES Permit Number: MAR041230

MaDEP Transmittal Number: W-

Annual Report Number & Reporting Period: **No. 3: March 2005-March 2006**

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Bill Tyack Title: Director of Public Works

Telephone #: (978) 468-5530 Email: btyack@wenhamma.gov

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: Jeff A. Chelgren

Printed Name: Jeffrey A. Chelgren

Title: Town Administrator

Date: Aug. 18, 2006

Part II. Self-Assessment

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

Part II.F Annual Report No. 3 was not submitted on or before May 1, 2006. Report submitted on August 18, 2006.

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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1A	Brochures/Fact Sheets	Public Works Department	Develop & distribute to all residents in water bill.	Fact Sheets mailed with water bills (1,100 accounts). Copy of fact sheet attached. Stormwater video broadcast via town cable TV.	None – item completed.
Revised					
2A	Storm Drain Stenciling	Public Works Department	Stencil storm drains at various locations around schools.	Storm Drain stenciling commenced March 2005. Approximately 100 drains stenciled.	Storm drain stenciling to continue – goal of approximately 100.
Revised					
3A	Develop web site	Public Works Department	Develop a public informational website.	None – Planned for Permit Years 4 and 5.	Assemble pertinent stormwater information and add to town website.
Revised					
4A	Implement stormwater hotline	Public Works Department	Create a hotline that residents may use for information/reporting problems.	None – Planned for Permit Years 4 and 5.	Provide appropriate town offices with phone logs to document calls. Maintain log of phone calls received and actions/responses.
Revised					
Revised					

1a. Additions

2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1B	Storm drain stenciling	Public Works Department	Public information.	Catch basin markers started in March 2005. Approximately 100 basins marked. (See attached copy of face of marker).	Catch basin marking to continue – goal of approximately 100.
Revised					
2B	Household hazardous waste collection	Public Works Department	Annual collections to promote a cleaner environment.	Household hazardous waste collection day was held in the Fall of 2005 w/ the Town of Hamilton.	None – next collection day to be scheduled in Fall of 2007 by Town of Hamilton.
Revised					
3B	Community cleanup	Public Works Department	Schedule community cleanup days to promote community awareness.	Cleanup day held on June 17, 2006 for Pleasant Pond shoreline and vicinity.	Community cleanup day planned to be held in Spring 2007.
Revised					
4B	Adopt a storm drain	Public Works Department	Have individuals/ groups cleanup storm drains to promote public awareness.	None – Planned for Permit Years 4 and 5.	Begin to identify potential interested individuals and/or groups for participation.
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 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1C	Mapping	Public Works Department	Mapping catchbasins & outfalls with GIS/GPS.	A total of 158 outfalls were field located and inventoried using GPS. A total of 187 outfalls have been mapped on GIS. Mapping is approximately 90% complete.	Continue with mapping of drainage system.
Revised					
2C	Identify problem areas	Public Works Department	Inspection of outfalls in dry/wet conditions to determine illicit connections.	Note problems with the storm drain system during catch basin cleaning. 500 catch basins checked with no illicit discharge problems identified.	Continue annual inspections during catch basin cleaning.
Revised					
3C	Develop regulations/fines	Public Works Department	Submit a town ordinance to be voted on to establish regulation/fines for illicit discharges.	None – Planned for Permit Years 4 and 5.	Proposed ordinance to establish regulation/fines to be presented at Town Meeting for action.
Revised					
4C	Elimination of illicit discharge	Public Works Department	Perform smoke testing on drainage systems to determine/eliminate illicit discharges.	None – Planned for Permit Year 5.	None - Planned for Permit Year 5.
Revised					

3a. Additions

4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1D	Ordinance/regulatory mechanism for development	Public Works Department & Planning Board	Limiting stormwater run-off.	Model bylaws downloaded from Mass Attorney General Office website. Action on draft bylaws was deferred by 2006 Town Meeting.	Draft bylaws to be presented for Town Meeting action.
Revised					
2D	Site plan review	Public Works Department, Conservation & Planning Board.	Limiting storm water run-off.	Develop procedures for board reviews of construction disturbing more than 1 acre.	Develop procedures for board reviews of construction disturbing more than 1 acre. Procedures to be incorporated as part of bylaws/ordinance under BMP #1D.
Revised					
3D	Site inspection	Public Works Department	Compliance with newly adopted ordinance.	Model regulations downloaded from Mass Attorney General Office website. Action on draft regulations was deferred by 2006 Town Meeting.	Inspection authority to be established and presented for Town Meeting action. Authority to be incorporated as part of bylaws/ordinance under BMP #1D.
Revised					
Revised					
Revised					

4a. Additions

5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1E	Develop structural / non structural BMP's	Public Works Department	Reduce pollutants.	Review of BMPs is still in progress.	Review of BMPs is still in progress.
Revised					
2E	Ordinance governing post construction	Public Works Department / Town Boards	Reduce pollutants.	Model ordinance data downloaded from Mass Attorney General Office website. Action on draft ordinance was deferred by 2006 Town Meeting.	Draft ordinance to be presented for Town Meeting action.
Revised					
3E	Ensure long-term maintenance	Public Works Department / Private	Assure long-term maintenance.	None. Existing subdivision detention basin is part of homeowner association.	Identify long-term maintenance needs and sources of funding (Private/Public). Town meeting approval needed for public funding.
Revised					
4E	Determine appropriate BMP	Public Works Department	Improve clarity/reduce sediment.	None - Planned for Permit Year 5.	None - Planned for Permit Year 5.
Revised					
Revised					
Revised					

5a. Additions

6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1F Revised	Operation / maintenance program	Public Works Department	Sweep all streets and clean all catch basins.	Roads (approximately 33 miles) swept twice during Permit Year 3. Approximately 500 catch basins were cleaned and inspected.	Continue the annual street sweeping and catch basin cleaning programs.
2F Revised	Employee training	Public Works Department	Conduct catch basin survey for integrity/dry weather flows.	Visual inspection of approximately 500 catch basins conducted. No dry weather flow issues identified.	Investigate areas for appropriate training for municipal employees. Continue inspections of catch basins and report problems/repairs as needed.
3F Revised	Determine appropriate BMP	Public Works Department	Installed deep sump catch basins w/ infiltration trenches for new cemetery and Pleasant St. sidewalk & roadwork.	Installation completed.	No activities planned. Upgrade drainage structures as necessary with roadway projects.
4F Revised	Public involvement	Public Works Department / Health Department	Household hazardous waste collection / public participation.	Household hazardous waste collection day was held in the Fall of 2005 w/ the Town of Hamilton (see BMP # 2B).	None – next collection day to be scheduled in Fall of 2007 by Town of Hamilton (see BMP # 2B).

6a. Additions

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) *<<if applicable>>*

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 3 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 4
1G	Vegetation swales	Public Works Department	Reduce pollutants.	None - Planned for Permit Years 4 and 5.	None planned. Identify opportunities for using vegetated swales to upgrade drainage facilities.
Revised					
2G	Infiltration drain fields	Public Works Department	Reduce runoff.	None.	None planned. Apply infiltration trenches whenever deemed feasible and appropriate by Public Works.
Revised					
3G	Dry wells	Public Works Department / Planning Board	Reduce runoff.	Develop By-Law for roof runoff for development/redevelopment > 1 acre.	Develop Bylaw for roof runoff for development/redevelopment > 1 acre. Procedures to be incorporated as part of bylaws/ordinance under BMP #1D and #2E.
Revised					
4G	Deep sumps / hooded catch basins	Public Works Department / Planning Board	Reduce sediment / pollutants.	Require all new subdivisions to install deep sump hooded basins.	Continue BMP in Permit Year 4 as needed.
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Not applicable – Draft Pathogen TMDLs have been prepared for the Ipswich River Watershed and North Coastal Watershed but have not yet been approved by the EPA.

Part IV. Summary of Information Collected and Analyzed

The town's drainage system is being mapped on a Geographic Information System (GIS). A total of 158 outfalls were located in the field, inventoried using Global Positioning System (GPS), and photographed during Permit Year 3. Approximately 500 catch basins were visually inspected during the cleaning program and no dry weather (illicit discharge) issues were noted.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

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

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	1,100 Water Customers
Stormwater management committee established	(y/n)	N
Stream teams established or supported	(# or y/n)	N
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	0.25 mi

Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	Unknown
▪ material collected	(tons or gal)	Unknown
School curricula implemented	(y/n)	N

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	(#)	187
System-Wide mapping complete	(%)	90
Mapping method(s)		
▪ Paper/Mylar	(%)	90
▪ CADD	(%)	
▪ GIS	(%)	90
Outfalls inspected/screened	(# or %)	40

Illicit discharges identified	(#)	0
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	<5%
% of population on septic systems	(%)	>95%

Construction

Number of construction starts (>1-acre)	(#)	1
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)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1

Total number of structures cleaned	(#)	500
Storm drain cleaned	(LF or mi.)	250 LF±
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	180 YD^3±
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	($)	$2,000±

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	2
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	2
Qty. of sand/debris collected by sweeping	(lbs. or tons)	225 YD^3±
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	($)	
Vacuum street sweepers purchased/leased	(#)	0
Vacuum street sweepers specified in contracts	(y/n)	N

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	49.5%±
	% $CaCl_2$	1%±
	% $MgCl_2$	
	% CMA	
	% Kac	
	% KCl	
	% Sand	49.5%±

Pre-wetting techniques utilized	(y/n)	Y
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 %)	Not Applicable
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	Not Applicable