



TOWN OF HALIFAX
COMMONWEALTH OF MASSACHUSETTS

HALIFAX TOWN HALL, 499 PLYMOUTH ST, HALIFAX, MA 02338

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2nd report

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Municipality/Organization: Town of Halifax, MA

EPA NPDES Permit Number: MA 040977

MassDEP Transmittal Number: W-040977

Annual Report Number

& Reporting Period: No. 2: March , 2004 - March 2005

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Ralph S. Hayward

Title: Highway Surveyor

Telephone #: 781-293-1760

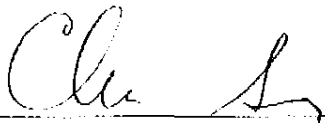
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Signature: _____



Printed Name: Charles Seelig

Title: Town Administrative

Date: April 11, 2005

Part II. Self-Assessment

In general, the Town of Halifax's stormwater management activities for the first year of the General Permit (March 2004 through March 2005) were in conformance with the Notice of Intent (Massachusetts DEP form BRP WM 08A) and schedule submitted in July 2003. The Town has developed a Stormwater Plan with program priorities for 2003-2008 including:

1. Achieving regulatory compliance, particularly EPA and DEP Phase II NPDES permit requirements;
2. Incorporating storm water protection measures into municipal activities;
3. Focusing activities on target pollution reduction (e.g. Section 303.d waters and protecting the Town's water supply);
4. Ensuring that the Program is current and innovative; and
5. Providing Program administration.

The Water Quality Stewardship element of the program will focus in the protection of the local water supply and addressing the State's Section 303.d waters located within the Town. To this end, staff will continue to develop and improve the Program activities to reduce stormwater pollution to the maximum extent practicable and eliminate prohibited non-storm water discharges, while facilitating understanding and involvement in storm water management by various Town departments. Program priorities will also focus on increased efforts to reduce target pollutants and restore local water bodies.

The Town is committed to working with local watershed associations to advance their goals and objectives. Another high priority of staff will be to keep abreast of the latest technology and approaches to achieve storm water management. Program activities will also strive to encourage environmental stewardship and continue to build on partnerships with other agencies, neighboring towns, and the community for active participation on accomplishing the Program mission.

During Permit Year Two, the Town focused on the prepared Stormwater Management Plan; in obtaining local funding; conducting aerial photography of the Town and mapping outfall pipes; reviewing current regulations; improving local food housekeeping programs; and communication the Town's Plan to local watershed associations. This required communication among the various departments in town. Continued financing of the project is critical for the proposed program success. The long-range scope of work required a meeting by our consultant (Environmental Partners Group) with the Massachusetts Department of Environmental Protection on March 16, 2004.

The DEP -approved scope of work will focus on GIS mapping and outfall screening and sampling. New aerial photography of

Halifax was conducted by James Sewall Company of Old Town, ME on April 30, 2004 and will serve as the basis for developing a new Geographic Information System (GIS) of the storm drain system, receiving waters and watersheds. Upon completion of the storm drain system map, the focus will turn to the Water Quality Stewardship element of the program and water quality testing.

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 Revised	Partnership with local Watershed Associations	Con. Comm., DPW, BOH	Regular Meeting Attendance	Taunton River Watershed Association (TRWA)	Continued updating, seek alternative funding opportunities (such as 604b and 319 grants, and SRF Funding)
2 Revised	Develop Brochures	DPW	Quarterly Mailings	Water department mailings and water quality updated.	Continued mailings.
3 Revised	WEB Site Public Service Postings	IT Dept., DPW	WEB Site Publication & Maintenance	TRWA information transfer and date publication of data, local WEB updates	TRWA information transfer and data publication of data, local WEB updates
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4	Water Quality Testing	DPW	2 Rounds of Water Quality Sampling and Targeted Wet Weather Sampling	No funding available	Seek funding and initiate dry weather and wet weather field screening of outfalls after mapping.
Revised					
5	Community Cleanup Days	DPW	Annually	Conducted in Spring 2004	Scheduled for Spring 2005
Revised					
Revised					
Revised					
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
6	Catch Basin Outfall and Receiving Water Mapping	DPW	GIS Mapping	Aerial photography taken in April 2004	Aerial photography will serve as basis for outfall and catch basin mapping pending funding from Town meeting.
Revised					
4	Water Quality Testing	DPW	Testing of Priority Water Bodies	No funding available.	Seek funding and initiate dry weather and wet weather field screenings of outfalls.
Revised					
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revision and Action	Continued to review applicable stormwater and aquifer protection regulations	Finalize consolidated regulations and investigate areas for revisions
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements.	Ongoing to comply with local bylaws, state and federal requirements.
Revised					
9	Misconnection/Illegal Dumping and Correction	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Began GIS mapping and continued local bylaw enforcement	Continue GIS Mapping and continue local bylaw enforcement
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Review of applicable stormwater and aquifer protection regulations.	Finalize consolidated regulations and investigate areas for revisions.
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements.	Ongoing to comply with local bylaws, state and federal requirements.
Revised					
10	Improved As-Built Review	DPW, Planning Board	Electronic As-Built Submittals on Town GIS System	Continue GIS Mapping	Continue GIS mapping and develop protocol for submitting As-Built electronically
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
7	Regulatory Review	DPW, Planning Board, BOH, Con. Comm.	Regulatory Revisions to Bylaws as Necessary	Review of applicable stormwater and aquifer protection regulations	Finalize consolidated regulations and investigate areas for revisions
Revised					
8	Permit Enforcement	DPW, Planning Board, BOH, Con. Comm.	Local Construction Site Oversight and Enforcement	Ongoing to comply with local bylaws, state and federal requirements.	Ongoing to comply with locale bylaws, state and federal requirements.
Revised					
Revised					
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 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
11 Revised	Improved Street Sweeping	DPW		Semi-annual	Semi-annual Collections
12 Revised	Improved Catch Basin Cleanings	DPW		Annual Collections	Annual Collection
13 Revised	Household Hazardous Waster Days	DPW		Annual Collections	Annual Collections
14 Revised	Drain Stenciling	DPW		GIS Mapping underway to locate catch basins	Continue GIS mapping and stencil drains in Aquifer Protection Area
Revised					
Revised					

6a. Additions

18	Employee Training	DPW	Seminar Attendance	Attended GIS Mapping and Goodhousepeaking Training Seminars Sponsored by Plymouth County Highway Association	Will implement seminar topics and will continue to attend applicable Plymouth County Highway Association seminars.

7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA)

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	GIS Mapping	DPW	GIS Mapping of Priority Waters and Drainage Patterns	DEP Scope of work approval, No funding available.	Aerial photography on April 30, 2004 will serve as basis for outfall and catch basin mapping.
Revised					
4	Water Quality Testing	DPW	Semi-Annual Water Quality Testing	DEP Scope of work approval, No funding available.	Seek Town Meeting approval to obtain funding. Initiate dry weather and wet weather field screening of outfalls after mapping.
Revised					
15	Stormwater Modeling	DPW	Needs Assessment for Category 5 Water Bodies	DEP scope of work approval, No funding available.	Aerial photography on April 30, 2004 will serve as basis for outfall and catch basin mapping.
Revised					
16	Misc. Structural BMPs as Needed	DPW	i.e. Construction Improvements	None to date (schedule for Permit Years Four and Five as needed)	To be determined.
Revised					
17	Misc. Non-Structural BMPs as Needed	DPW	i.e. Bylaw Enforcement, Fees and Fine	None to date (schedule for Permit Years Four and Five as needed)	To be determined.
Revised					
Revised					

7a. Additions

7b. WLA Assessment

To date, the Town has focused on available funding sources. GIS mapping of the drainage system and receiving waters has begun and water quality testing will commence in the coming year. WLA assessment will follow.

Part IV. Summary of Information Collected and Analyzed

The Town has reviewed the local, state and federal bylaws relative to stormwater and aquifer protection, and appears to be adequately regulated and in conformance with the Massachusetts Stormwater Management Policy. Minor revisions may be required for informing local project proponents of the Phase II one-acre NPDES requirement.

The Town continued to seek funding for the project to begin outfall mapping activities and to continue commence water quality testing and field screening of outfalls for both dry and wet conditions, once the outfall locations have been determined. The immediate focus will be on the outfall pipes located at the watershed areas of the Massachusetts Section 303d water bodies located in Town (Muddy Pond, Elm Street Pond, Plymouth Street Pond, Winnetuxet River and Monponsett Pond.)

The Town will continue to provide updates to the public through water bill mailings and postings on the local WEB site, and will continue to work with local watershed associations on possible funding sources and ways in which to promote volunteerism.

The Town has taken part in employee training seminars sponsored by the Plymouth County Highway Association (PCHA) and will continue to improve its good housekeeping programs.

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 vector **	(%)	

	(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	
<ul style="list-style-type: none"> Treatment units induce infiltration within 500-feet of a wellhead protection area 	# or y/n	